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NATIONAL MULTI - DISCIPLINARY
CONFERENCE**

V-CMT 2018

On the Theme

“VISION INDIA 2025”

February 3rd, 2018

Organized by

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जाइयं धयो हरति सित्रचति वाचि सत्यं
मानोननतिं दिशति पापमपाकरोति।
चेतः प्रसादयति दिक्षु तनोति कीरतिं
सत्संगतिः कथय किं न करोति पुंसाम्॥

"Knowledge removes the lethargy of the intellect, invests truth in the speech, enhances the greatness and casts off sin; it cleanses the mind and spreads the fame all around. Tell me, what is not provided to a man, from the company of high thinking and noble souls."

VISION

Our Vision is to establish a leading centre of imparting Quality Education in the field of Science, Commerce and Management with emphasis on:

- ❖ Ensuring that students learn the fundamental concepts in various disciplines.
- ❖ Motivating students to apply the Scientific & Technological knowledge to develop problem solving capabilities.
- ❖ Making students aware of the societal and environmental needs with specific appreciation of the emerging global context.

MISSION

Our mission is to provide:

An educational environment where students can reach their full potential in their chosen discipline and become responsible citizens without compromising in ethics.

A scholarly environment where the talents of both, The faculty members and students are nurtured and used to create knowledge and technology for the benefit of the society.

ACKNOWLEDGEMENT

I would like to thank our Keynote Speaker Ms. Neela Satyanarayana and our Expert Panelists – Ms. Sangeetha H. Rivankar, Mr. Vijayan Pankajakshan, Ms. Sujata Sahu, Mr. Hemant Nerurkar and Moderator of the panel discussion Ms. Devyani Ganpule for investing their valuable time for this conference. I would also like to acknowledge the efforts of the college management, adjunct faculty members, the organising committee, and all the other faculty members and staff of Information Technology, Commerce and Management Departments of VSIT.

I would also like to thank our Session Chairs – Dr. Rajesh Bhoite, Dr. Gulabchand Gupta, Dr. Shobika Mukul, Dr. Sumathy and Dr. Vinit Kotak.

Their critical reviews of the papers presented, and their valuable feedback would definitely enrich authors in order to upgrade their papers.

Last but not the least, I would like to extend my gratitude to all paper presenters and delegates who have made it possible for us to organize such a One Day National Multi-Disciplinary Conference V-CMT 2018.

**Dr. Rohini Kelkar
Principal, VSIT**

MANAGEMENT

Message from Chairperson, Vidyalankar Dnyanpeeth Trust Rashmi Deshpande



Zora Neale Hurston rightly says, “Research is formalised curiosity”. The faculty of thought and the eternal search for truth alone sets humans apart from other life forms and also contributes to the development of humankind ultimately bringing more happiness to humans. We, at Vidyalankar, have always believed in assigning the highest priority to the promotion of research culture amongst students and faculty. The Fifth National Conference ‘V-CMT 2018’ is organised and hosted by Vidyalankar School of Information Technology (VSIT). This conference is designed to give participants a plethora of usable content in the fields of Commerce, Management and Technology. It enables them to get tuned to the latest changes that occur within research domains and the industry. I wish the researchers the very best and hope to see more of such initiatives by Vidyalankar and to do our bit in carrying the torch of knowledge forward.

Message from Principal, Vidyalankar School of Information Technology (VSIT) Dr. Rohini Kelkar



It is my great pride and privilege to present the proceedings of the fifth National Multi-Disciplinary Conference V-CMT-2018. This academic conference has explored three tracks related to “Skill development and Employability”, “Innovative Applications of Emerging Technologies”, and “Role and Contribution of Women”. The objective of the conference is to reflect on recent trends in the Indian economy and socio-economic ethos of India. The participation of women in the workforce and in leadership and breaking the notion of the glass ceiling is of much interest. Skill development to enhance employability and usher India into a new level of competency is an area that will be discussed and explored. With an abundant resource in the form of untapped human power, skill development is necessary. Today education is enhanced because of technological aids and its applications. Teaching and even learning has become more interactive because of technology. Innovative applications of technologies enable us to understand the optimum use of the gifts of science. VSIT is fortunate to get Ms. Neela Satyanarayana as the Keynote Speaker. We also have received a good number of research papers which will be published in the research journal. I am thankful to all the paper presenters, speakers, session chairs and conference organisers for working hard to make V-CMT 2018 a fruitful conference.

Message from Steering Committee member

Dr. Chandras Deshpande: Adjunct Faculty, Commerce and Management



VSIT arranged a One-Day National Conference V-CMT 2018, on February 3, 2018. The theme chosen was "Vision India 2025". The objective of the Conference is to discuss and discover new trends concerning India's progress in the global economy today. Issues of employment and skill development and the Government's role in tackling unemployment is a serious topic of discussion. Additionally, in the globalized world today, development of technology and its innovative use is of much importance.

Women are also contributing largely in the workforce of the nation. Understanding such trends can be achieved in these three tracks through Experts-talks and Panel-Discussion. The conference also aims to encourage Teachers and Students to contribute research paper on these themes. VCMT-2018 received an overwhelming response. Several papers were received from faculties as well as students. This volume puts together the selected papers which have been reviewed and edited by the committee. We sincerely hope that the contents of this volume proceeding will be of use and value to the teachers as well as students of Commerce, Management and Information Technology.

Message from Steering Committee member

Mr. Makarand Deshpande: Adjunct Faculty, Information Technology



The current edition of VSIT Research conference V-CMT 2018 continues its main theme of "Vision India 2025" sharpening its focus towards key challenges of Skill Building, Technology Adoption and changing social environment with Women assuming bigger and more prominent role in the nation building process. The tracks are defined to showcase research papers in these areas.

The Technology track has witnessed interesting papers based on work carried out by teachers as well as students. The encompass challenges of technology adoption in diverse Indian conditions, Security and Privacy issues, Machine Learning & Artificial Intelligence, upcoming technologies like IoT, 3D Printing, Sensors, Signal Processing etc.

In the age of rapidly developing technology and the shift towards technology driven operating structures, the discussion over innovative applications of emerging technologies is an eye-opener indeed. We certainly expect to see the ideas getting converted into live implementations, eventually becoming standard way of life.

EMINENT SPEAKER

Ms. Neela Satyanarayana— Keynote Speaker



Ms. Neela Satyanarayana is a retired State Election commissioner, writer, poet and music director. She has written approximately 10 poetry books and 17 novels, short stories and others. Her total books are 23. Each book is on a different subject. Her 42 long years in the Indian Administrative Service and a 5-year stint in Maharashtra State Election Commission gave her long experience in administration and human nature. Currently she is doing a series for DD, *Sakhi Sahyadri*, which consists 4 episodes on Women. This programme is meant for women viewers.

There is also a Marathi film titled *Babanchi Shala*. It is based on madam's own story drawn from a real-life experience. It is going to be released shortly. Shri. Vikram Gokhale, a legendary Marathi stage and cinema icon is directing a serial based on her novel, *Ratra Vanavyachi*. It is likely to be telecast from Diwali time.

She is also starting a new service. It is called Aarohi. It is a programme meant for students aspiring for competitive exam. This programme is meant for rural students who lack necessary skills for interviews.

EXPERT PANELISTS

Mr. Hemant Nerurkar



Mr. Hemant Nerurkar is a veteran with three decades of experience in the Information Technology Industry, of which about two decades have been at the helm of an IT services organization based in India. His expertise lies in developing strategies to help customers harness the power of Information Technology. Mr. Hemant has an MSEE degree (with specialization in communications). Hemant has worked with companies like AT&T Bell Labs, AT&T Capital Corporation (now a part of the CIT group) and A.C Nielsen.

Mr. Hemant returned to India 1996 and has been active in the software industry. Mr. Hemant is the Founder and Chairman of MindCraft. The team develops web-based applications and portals mainly for the Banking & Financial Services industry. Apart from Development & Integration, MindCraft is also known for its Business Intelligence and Software Infrastructure Management services.

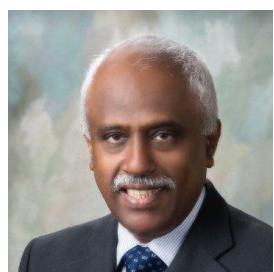
Mr. Hemant is also a member of the Private Equity, Venture Capital & Capital Markets Committee of Bombay Chamber of Commerce and Industry (BCCI). He was one of early adapters of the UNIX/C platform for hardware simulations for compressing data for satellite communications. Although a business owner for the last 20+ years, Mr. Hemant still likes to use his technical and functional skills to solve business problems.

Ms. Sujata Sahu



Ms. Sujata Sahu is the Founder Director of 17000 ft Foundation. She is the passion and the vision behind 17000 ft, and holds the Education and Technology Portfolio. 17000 ft Foundation works to improve lives of the people of remote, high altitude mountainous villages of Ladakh, in areas that lie isolated and ignored for centuries due to problems of harsh terrain. 17000 ft Foundation is a Not for Profit Organization setup by a husband and wife team, both senior corporate professionals and trekkers who hung up their corporate boots to setup a Social Enterprise, with a focus to improve lives of people living in very remote villages, in areas that lie isolated and forgotten due to difficulties posed by tough terrain. Their programs focus on improving education, empowering youth and providing better livelihood opportunities for the people of these villages. The mission behind it is to strengthen rural villages, make them more acceptable to the local people and stem the desperate exodus of young families to faraway cities in search of a better life.

Mr. Vijayan Pankajakshan



Mr. Vijayan Pankajakshan is the Dean-HR Academics and Research and Industry Interface at We School, Mumbai.

He is a Gold Medallist from the 1984 Batch at TISS, Mumbai and has had a corporate career spanning 1984-2009. He has held responsible roles in Personnel Management, Industrial Relations, HRD, OD, TQM and Manufacturing in MNC's/Indian in India and overseas.

This includes a nine-year stint with Marico, where he was the first HR professional to be job rotated as Manufacturing Head for their Palakkad Unit. His last corporate role was Director- Human Resources with CHEP India Pvt Ltd (a Brambles Company).

He holds certification in GPHR (HCRI), SHRM- CP (SHRM) and Certification in Competency based Management from the Carlton Institute.

He is a SME for SHRM India in PMS, ER, & HR Analytics. He is the current General Secretary of NHRDN, Mumbai Chapter, while also being Member- Core Committee of Employers Federation of India.

He has attended Executive Education and Development programmes, at the Harvard University, Harvard Business School and Cornell- Singapore campus.

A student Team, led by him, won the runner up position in the Secondary Case writing competition for HR Faculty, conducted by CII- Western Zone (Edge Farm: February 2016)

He has consulted across various industries and organisations- including Government departments/organisations- in the space of Assessment /Development Centres, Workshop Design and Facilitation, Developing and Aligning HR strategy and Executive Coaching. He has keen interest in designing and hosting Quiz Shows for students, Corporates and Professional bodies.

Ms. Sangeeta Rivankar



A professional with 26 years of experience in the Pharmaceutical Industry and M.Sc. in Biotech from Mumbai University has commercially evaluated multiple new therapies from time to time. Sangeeta Rivankar has also implemented many diagnostic strategies for a major Oncology launch. She has an extensive R&D management background that includes broad technical knowledge/judgment, exposure on Preclinical and Clinical activities – Toxicity as well as Efficacy Study. Along with all these achievements, she commands excellent communication skills as well as analytical, project management and planning skills. She has developed excellent business development skills and cross-functional team leadership experience at solving customer's technical issues with existing products.

Sangeeta Rivankar has wide industrial experience which includes Kaisha Life sciences Pvt. Ltd. (July 2017 onwards), Bharat Serums and Vaccines Ltd. (October 1995 to June 2017), Kopran Limited (August 1993 to September 1995) and Medley Pharmaceutical (April 1991 to August 1993). Her vast experience has also given her many respectable projects to manage like Oral Drug Delivery, Parenteral Drug Delivery, Topical Drug Delivery. In addition to her academic qualifications and extensive practical industrial experience in the field of formulation development, she also has involvements in technical advancement and contributed to several technical advancements covered under several patents in India and abroad.

SESSION CHAIRS

Dr. M. Sumathy



Dr. M. Sumathy is an erudite educator. She has an impressive teaching experience of 27 years. She has a doctorate and also guides aspiring research scholars. She has published 95 papers in UGC approved Journals and is currently the Dean and HOD at Bharathiar University Coimbatore. She has attended many international conferences and symposiums and is passionate about research. She has completed four projects under various agencies from the Government of India. She has been a part of various professional bodies such as the Board of Studies, Paper setting Board, Selection Committee/ Vice Chancellors Nominee, Experts Committee, Academic Council, Anti-Ragging Committee among many others. She constantly aims to upgrade her knowledge by participating in various training workshops and seminars. She also has nine books published to her credit. Besides academics, she is also an avid participant in sports and has also won several sports competitions. She holds membership in associations of repute such as All Indian Commerce Association (ICA), Association of Economist of Tamil Nadu (AET), All India Accounting Association(AIAA), Indian Institute of Public Administration, New Delhi(IIPA), Regional Association for women Studies (RAWS), Indian Academic Research Association(IARA).

Dr. Shobika Mukul



Dr. Shobika Mukul is a doctorate in History and has a teaching experience of 37 years. She is currently working as an Associate Professor at Sri Guru Nanak Dev Khalsa College, University of Delhi. She has taught Ancient Indian History and Archaeology, Environmental Issues in India, Women and Society in India, Understanding Indian Heritage, Ancient Greece and Mesopotamian History, History and Tourism and Indian Archaeology. Her area of interest includes Gender Issues, Heritage Management, Archaeological sites and Development of Tourism.

Dr. Gulabchand Gupta



Dr. Gulabchand Gupta has more than 30 years of experience. He has worked at different levels in education such as Dean, Professor, Principal etc. He has done MSc, MTech, and PhD from University of Mumbai in the year 1999. He has taught diverse set of subjects such as Computer, Electronics and related subjects. He has published more than 50 research papers in national and international journals and conferences. He is a life member of The Indian Science Congress Association, Computer Society of India and other organizations.

Presently, he is working as Principal of Seva Sadan College of Arts, Science and Commerce. Also, he is working as Adjunct Professor at MHSS College of Engineering and Department of Computer Science and Engineering, JJT University.

Dr. Rajesh H. Bhoite



Dr. Rajesh H. Bhoite has completed his M.com (SET), BEd, M.A (Eco) SET, NET, PGDSS, PhD and currently working in Anjuman-i-Islam's Akbar Peerbhoy College of Commerce and Economics. He also has recognition to teach M.COM students in the subject Business Economics "Global trade and finance" since May 2, 2012. He has actively participated in cultural activities of RKT College from the year 1995 to 2001. His musical inclination is reflected in his participation in inter-collegiate music competition representing RKT College.

Dr. Rajesh has presented many papers on various topics and holds many honourable designations. He has conducted many seminars and workshops on various facets. He has many feathers on his cap in many rendering projects which he was part of in many different colleges. He has several books and articles published to his credit. In addition to this, he has developed study material for the class MA Economics I for the subject of Agricultural growth and Development.

Dr. Vinit Kotak



Dr. Vinit Kotak is the Vice-Principal at Shah and Anchor Kutchhi Engineering College. He is also a Professor in the Department of Electronic Engineering. He has several awards and papers to his credit and is a passionate educator. He has been awarded many accolades for his diligent responsibilities as Secretary, Membership Development Chair among many others in IEEE Bombay Section. He also heads the Training and Placement Department of the Institute. He has been an Execom member for more than 15 years and is currently the Vice-chair of IEEE Bombay Section. He has published paper in International and National Journals and conducted many seminars. He is a part of associations such as IEEE, ACM and CSI to name a few. He is also a life member of the Indian Science Congress Association.

MODERATOR

Ms. Devayani Ganpule



Currently working as Associate Professor, Dept. of Economics, Ramnarain Ruia College. She is also the Dean, HRD and Editor Of annual publication - 'Ruiaite' and Ruiaite Monthly (e-magazine) She has held the positions of Vice Principal, Coordinator, IQAC. She has been the Founder -Coordinator of Ruia Foreign Language Centre. Additionally, she has been the Chairperson of the Career Guidance Call. Her research interest is in Economics of Education.

Summary of VCMT 2018

5th Annual National Multi-Disciplinary Conference – “Vision India 2025”

Vidyalankar School of Information Technology had organized 5th Multidisciplinary National Conference VCMT-2018 on 3rd Feb 2018.

Since 2015, VSIT has been building its VCMT – Conferences around the broad theme of “India 2025 – Vision for the Next Decade”. The objective of the Conference was to reflect on the unfinished tasks of nation-building and the country’s future possibilities of being the next super power.

The Conference was inaugurated by the Key Note Speaker Mrs. Neela Satyanarayana, retired IAS officer & 1st women Election Commissioner of Maharashtra.

Dr. Rohini Kelkar, Principal of VSIT, welcomed the gathering. The program commenced by lighting the lamp & address by the distinguished Key Note speaker. The conference gave an opportune time to renew contacts and discuss problems of mutual interest with delegates from across India along with enlightening views from the Key Note speaker followed by inauguration of the Book of Abstracts.

It is gratifying to note that the agenda of the Conference covered a wide range of very interesting tracks relating to Skill development & employability, Innovative applications of emerging technologies, Role & contribution of women – A paradigm shift.

The panel discussion had in-depth deliberations as well as knowledge sharing with a positive outcome for an optimistic future and necessary course of action.

The panelists were Prof. Vijayan Pankajakshan (Dean WE), Mr. Hemant Nerurkar, Ms. Sujata Sahu (Founder & Director 17000 ft.), Ms. Sangita Rivankar & Prof. Devyani (Ruia College) who was the moderator. The Panel Discussion provided us with their area of expertise and making clear the grey areas of various issues which will propel towards a dynamic India who is deemed to be the next super power.

In the post lunch session there were Research paper presentations in the 3 tracks.

The following were the Session Chairs for the tracks namely –

Track 1 – Dr. Rajesh Bhoite & Dr. Sumathy

Track 2 - Dr. Gulabchand K. Gupta, Dr. Vinit Kotak & Prof. Anjum Mujawar

Track 3 – Dr. Shobhika Mukul & Dr. Chetan Jiwani

A total of more than 90 papers were received from across India.

This occasion was graced by Adjunct Faculty Dr. Chandrahas Deshpande, Mr. Makarand Deshpande, other dignitaries of VSIT, faculty members & Research scholars. The vote of thanks was proposed by the Convener, Dr. Ashwini Joshi. The Conference concluded by National Anthem.

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TRACK – 1: SKILL DEVELOPMENT AND EMPLOYABILITY

Brief Summary

Track-in-charge	1) Dr. Swagatika Nanda, Assistant Professor, Department of Commerce, VSIT 2) Ms. Rohini Desai, Assistant Professor, Department of Information Technology, VSIT
Session Chairs	1) Dr. M. Sumathy , Dean & HOD, Bharathiar University, Coimbatore. 2) Dr. Rajesh Bhoite , Professor, Anjuman-i-Islam's Akbar Peerbhoy College of Commerce and Economic
Best Paper Awarded	Track 1 – Ms. KulvinderKaur Title – A study of the need for skill-based education- A case study of Pradhan Mantri Kaushal Vikas Yojana under Skill India Mission Consolation Prize – Mr. Amit Kabra Title – Government Policy Issues – Skill India Mission Consolation Prize – Ms. Subhashini Kannan Iyengar Title – Trends & Issues in employability: Challenges & Road ahead.

**A STUDY ON THE NEED FOR SKILL BASED EDUCATION:
A CASE STUDY OF PRADHAN MANTRI KAUSHAL VIKAS YOJANA UNDER SKILL
INDIA MISSION**

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Abstract

The paper touches upon the facts of Skill India Mission- Pradhan Mantri Kaushal Vikas Yojana (PMKVY). Prime Minister Modi's flagship Programme-Pradhan Mantri Kaushal Vikas Yojana (PMKVY) was launched in July 2015. The government allocated Rs 1,500 crore to train 2.4 million people, including 1.4 million fresh trainees and skilling of the remaining under the Recognition of Prior Learning (RPL) Programme. The paper explores the various issues associated with the scheme from imparting training to the youth comprising of different sectors to ensuring successful placement of the trained youth. It emphasizes on the funds allotted, rate of placement and also the comparison of placement statistics with the previous year. The paper provides analysis about the extent to which the scheme has been successful in achieving its goals. It aims to provide positive recommendations to the planners and the policy makers to be accommodated so as to reap the maximum benefits from the ambitious project.

Keywords: Skill Development, Employability, Placement, etc.

Introduction: "Let us make India the Skill capital of the world"- Hon'ble Prime Minister Mr. Narendra Modi. The national skill development mission was launched in the year 2015 by the Hon'ble Prime Minister. 15th July is celebrated as the World Youth Skills Day, and on the same day this flagship scheme was launched. The purpose of the scheme was to initiate and inculcate skills among the youth so as to create self-reliant and equipped citizens. The Skill India Mission also aimed at fulfilling the needs of the industry by providing them with skilled youth across the sectors. The scheme will be executed with the help of three institutions namely, National Skill Development Agency (NSDA), National Skill Development Corporation (NSDC), and Directorate General of Training (DGT). Seven sub-missions have been proposed initially to act as building blocks for achieving overall objectives of the Mission.

They are:

(i) Institutional Training, (ii) Infrastructure, (iii) Convergence, (iv) Trainers, (v) Overseas Employment, (vi) Sustainable Livelihoods, (vii) Leveraging Public Infrastructure. The purpose is also to create skilled India so as to fasten the decision making process across the industrial sectors.

Skill Development and Employability: The flagship scheme under Skill India Mission- is the Prime Minister Kaushal Vikas Yojana is the flagship scheme with a target of training ten million youth in a period of four years from 2016-2020. The scheme covers the youth who needs training and also the ones who already have prior learning and experience. The biggest benefit of this scheme is that it is fully funded and sponsored by the government. Therefore the beneficiaries don't have to pool out the funds to learn different skills. The training and assessment fees will be sponsored by the government under the corpus of the funds allocated.

The eligibility criteria for imparting training are the youth which are either school or college dropouts or the ones who are unemployed.

The various components of the scheme include:

- i) Short term training
- ii) Recognition of prior learning Rozgar Mela
- iii) Special projects
- iv) Skill India Mission

Guidelines for Monitoring: Short term training will be imparted on a stream of areas comprising of Soft Skills, Financial Literacy, Entrepreneurship Development, and Digital Literacy and so on. The duration of training period will vary depending on the job role from 150 hours to 300 hours. The training will be imparted in the designated centres known as Pradhan Mantri Kaushal Vikas Yojana Training Centres and after the successful completion of the training the government and the training partners together will help the youth in their successful placement. Individuals with prior learning experience and skills are assessed and certified under Recognition of Prior Learning and based on the same there are bridge courses designed to fulfil their requirements. Kaushal and Rozgar Mela is organised with the help of press and media coverage. Wide publicity is given to the program so as to ensure maximum participation from the youth as well as industry. Such programs are organised across the country with an immense participation from a range of sectors to cater to the needs of variety of training programs comprising of different sectors.

Skills Covered: “We are a youthful nation. Our youth are our strength. The world and India need a skilled workforce.”- Shri Rajiv Pratap Rudy Honorable Union Minister of State for Skill Development and Entrepreneurship (Independent Charge).

India is known as a young nation, with the largest number of youth in the world, in spite of being second in terms of the count of total population. The increasing population of youth have been adding to its positive demographic profile. Apparently building the foundation of a young India. To sustain and grab the opportunities, this demographic profile needs to be tapped in the most advantageous manner so as to catch them young at the right age. The youth which lack any formal training or skill due to lack of funds or any other limitation of resources will be covered under this scheme.

The number of skills covered include housekeeping, carpenter, solar, apparel, refrigeration, air conditioning, machining, welding, electricity, construction, automotive, appliances, fitter, security, mason, plumbing, kitchen, tourism, beauty, healthcare, retail and so on. The Skill India Mission covers under its ambit all the 29 states, so as to accommodate whole of the country under

Skill India Mission its ambit and thus fulfil the goal of making India a skilled India and thus complete the mission of making India the skill capital of the world. The goal of the scheme covers four years from 2016 to 2020, comprising of providing training to 10 million youth of the nation. The program aims to foster environment of skilled and trained youth who are self-reliant and independent. Therefore fostering entrepreneurship atmosphere which will lead to generation of employment opportunities for many others in the country.

Statement of the Problem: Data shows that the NSDC, through its partners, only managed to skill around 600,000 youth till September 1, 2017, and could place only 72,858 trained youth, exhibiting a placement rate of around 12 per cent. Under PMKYV 1, the placement rate stood at 18 per cent.

Need for the Study: The earlier skill development courses covered the traditional programs whereas the present skill development policy covers a wide variety of skills to be rendered to the youth. Skill development programs will develop confidence, motivation and leadership skills among the youth, paving the way for them to lead a dignified life. The skill development policy and its concentration towards youth is the need of the hour due to the fact that India has largest amount of working population.

Objectives of the Study

To understand and evaluate the Skill Development Policy and the flagship scheme-Pradhan Mantri Kaushal Vikas Yojana.

To analyse the relationship between the numbers of youth which needs to be trained under the Skill Development initiatives.

To assess the need for Skill Development Policies in India.

Hypothesis of the Study

H0: There is no significant relationship between the numbers of youth which needs to be trained under the Skill Development initiatives.

H1: There is a significant relationship between the numbers of youth which needs to be trained under the Skill Development initiatives.

Review of Literature: (<http://www.skilldevelopment.gov.in>) mentions the efforts taken by the ministry for taking up skill development initiative. It also focuses on the main objective of skill development mission which aims to reduce the gap between the demand and supply in terms of fulfilling the need of the industry. The efforts taken up to ensure that vocational training, technical training and various skills up gradation task are being taken up to equip the youth with the confidence to work and contribute towards the industrial development of the nation. (<https://darpg.gov.in>) is a descriptive manual for district levels comprising the detailed organizational charts and functioning of the training programs under the aegis of Pradhan Mantri Kaushal Vikas Yojana (PMKVY). (<https://economictimes.indiatimes.com>) focuses on the fact that in Feb 2016, the scheme has already covered 10 Lakh enrolments. The implementation of the scheme took place through National Skill Development Corporation (NSDC), and the delivery was undertaken with the support of 1012 training partners. The total number of enrolments have been 10, 28,671, out of which 70 percent of the candidates have already completed their training programs. The sectors which have drawn a large number of candidates have been Agriculture, Automotive, Electronic, Beauty, Logistics and Retail. Some of the states have shown large amount of participation such as Uttar Pradesh, Madhya Pradesh, Tamil Nadu, West Bengal and Andhra Pradesh. The training partners and the government ensured the efficient implementation of the programs and thus created classroom as well as labs to provide hand on experience to the candidates. The efficient and effective implantation was also taken care through addition of core objective of employability and interest factor. (<http://alexis.org.in/pradhan-mantri-kaushal-vikas-yojna-an-analysis>) explores the statistical information mentioning a study conducted by the United Nations in 2014; India has world's largest youth population with 356 million 10-24 year olds. The report also stated that "Never before have there been so many young people. Never again there is likely to be such potential for economic and social progress. How we meet the needs and aspirations of young people will define our common future" (<http://indianexpress.com>) mentions the increasing gap between the numbers of candidates skilled as compared to number of candidates placed under the program. The statistics reflect that in spite of the financial funding and corresponding financial incentives offered on successful completion of the program as well as sustained efforts to place the candidates through the Rozgar Melas, the scheme has not been able to serve the purpose.

Research Methodology: The methodology of the research comprised of collection of data from the government websites, newspaper articles, statistical reports and few journal articles. The government websites included the official website of Pradhan Mantri Kaushal Vikas Yojana and official website of the Ministry of Skill Development. The data collection also comprised of the report of National Skill Development Corporation (Ministry of Skill Development and Entrepreneurship, Government of India) launched in 2015 featuring the aims, objectives, mission and vision of the flagship scheme. The facts of the advantages and the monetary information were made available at the official website of Maps of India. And the detailed information of the policy document was available on the Skill Development website.

Tools for Data Collection: The research was primarily based on secondary data and therefore the data collection was based on the information available on the official websites of the government, newspaper reports, as well as the few articles in the reputed journals.

Data Analysis and Interpretation: The policy of skill development is innovative and aims at grabbing the opportunity. The opportunity of capitalizing on the largest number of youth and

profitable way of fulfilling the needs of the industry. (Shivesh 2015 & Mishra 2016) agree to the positive side of skill development which aims to tap the young population in the country as compared to developed nations coping with the issues and challenges associated with aging population. The skill development policies works on the main agenda of providing adequate skills required by various industries in a wide segment of sectors. Government has allocated a sum of Rs 1804 crore for setting up 1,500 multi-skill training institutes in the country and scaling up Pradhan Mantri Kaushal Vikas Yojana. The industry and the National Assessment and Accreditation Council (NAAC) have brought out the astonishing statistical figures showcasing that out of 30 lakh students passing out every year, only 10 percent are employable and rest all of them needs to be trained to increase their status of employability. (Verma 2015), emphasizes that skill development catering to the needs of rural women will lead to omen empowerment and eradicate a large amount of issues and challenges faced by rural women. (Anuradha & Reddy 2013) opines the larger need for skill development. A proper planned and futuristic skill development policy ensuring the sustained results can lead to larger amount of social development. It will encourage and motivate the stake holders to live their life in a more dignified manner. The sense of achievement and motivation will them to increase their standard of living and also to fulfill the needs of the family.

Findings and Recommendations: Before the introduction of the flagship scheme of Pradhan Mantri Kaushal Vikas Yojana (PMKVY), skill development was limited to only 10 percent as compared to the skill development initiatives being taken in the other parts of the world. In Korea the percentage of workforce receiving skill training was 96 percent, Japan it was 80 percent, German 75 percent and UK 68 percent. Compared to the all the nations, India's skill training percentage was very less. Thus it seems justifiable in introducing the skill development policy.

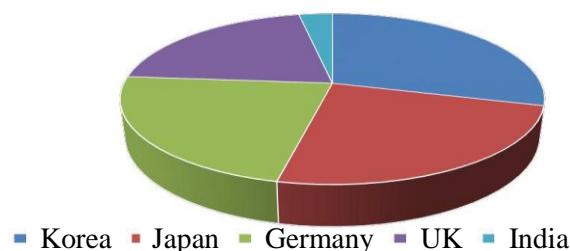
Percentage of Workforce Receiving Skill Training (2008)

Country	Percentage
Korea	96%
Japan	80%
Germany	75%
UK	68%
India	10%

Source : Planning Commission Report (2008)

Percentage of Workforce Receiving Skill

Training (2008)



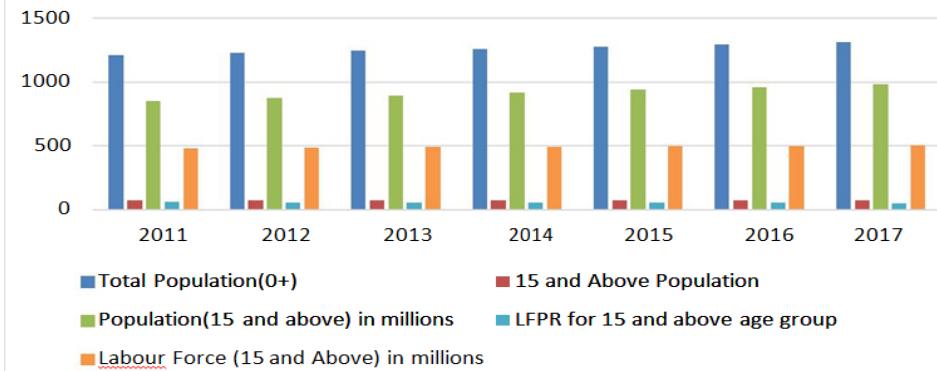
■ Korea ■ Japan ■ Germany ■ UK ■ India

Labour Force Projection Chart explores the rising statistical evidence of labour force in India. The dire need to tab this consistently increasing work force in a more positive way by imbibing the right skills among them and thus increasing their employability quotient.

Labour Force Projection for the 12th Year 5 Year Plan

Year	2011	2012	2013	2014	2015	2016	2017
Total Population (0+)	1210.2	1,227.1	1244	1,260.6	1,277.1	1,293.5	1309.7
15 and Above Population	70.2	71.0	71.8	72.6	73.4	74.2	75.0

Population (15 and above) in millions	849.6	871.3	893.2	915.2	937.4	959.8	982.2
LFPR for 15 and above age group	56.3	55.4	54.6	53.7	52.9	52.0	51.2
Labour Force (15 and above) in millions	477.9	482.7	487.2	491.5	495.4	499.1	502.4
<i>Source : NSS Round and Census 2011</i>							



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GOVERNMENT POLICY ISSUES - SKILL INDIA MISSION**Amit Kabra**

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Abstract

India's population is huge at 1.21 billion. It is fast expanding at a rate of 17% and integrating rapidly into the global economy. India is among the 'young' countries in the world, with the proportion of the work force in the age group of 15-59 years, increasing steadily. However, presently only 2% of the total workforce in India has undergone skills training. India has a great opportunity to meet the future demands of the world. India can become the worldwide sourcing hub for skilled workforce. The challenges for India magnify, as it needs to reach out to the million plus work-ready population, while facing an ever-increasing migration of labour from agriculture to manufacturing and services. With the government launching a number of schemes to empower the young workforce, the challenges increase as there is a need for effective implementation of the schemes at the grassroots level with equal participation from all the stakeholders concerned. This paper highlights the critical need for scaling up concerted efforts to enhance skill development in India in the context of the country's transition to a knowledge-based economy, through the creation of a professional, skilled workforce. Governmental efforts, especially in the recent past, in the arena of skill development through various schemes and programmes, management structures and processes, and the challenges encountered within these initiatives are discussed. Further, identifying pathways for countering these challenges and effective implementation of the programmes are examined.

Keywords : Skill development, Skills Capacity, Challenges, Ways Forward, India

Introduction: About 64% of India's population is expected to be in the working age group of 15-59 years by 2026, according to Ernst and Young, a professional services consultancy. India is expected to have the largest workforce in the world by 2025, with an estimated two billion English-speaking people by the end of 2020. By the same year, the world is expected to face a shortage of 56.5 million skilled workers, while India is projected to have a surplus of 47 million, Indian government statistics say. Yet, 30% of India's youth are neither employed nor in education or training, Bloomberg reported on July 7. Unless employed gainfully, India's "demographic dividend" can turn into a socio-economic nightmare. For instance, 4.69% of India's workforce is formally skilled, as against 52% in the US, 68% in the UK, 75% in Germany, 80% in Japan and 96% in South Korea. In fellow emerging economy China, skilled workers account for 24% of the workforce. This is noteworthy because the largest contributor to India's economy, the services sector, requires highly-skilled workers. Manufacturing, which the government is seeking to boost through its Make in India initiative, also needs trained workers. To address this imperative, Prime Minister Narendra Modi launched the Skill India programme on World Youth Skills Day on July 15, 2015, announcing the aim to skill 402 million people by 2022. The Ministry of Skill Development and Entrepreneurship's estimate for the number of people who needed skills training was more modest – 126.87 million people in 34 sectors across industries by 2022, its Annual Report 2016-'17 said. Of these, the top 10 sectors would account for 80% of the total requirement, it was estimated. Even as India struggles to provide basic skills to millions of potential job-seekers, it needs to address the challenge of automation and prepare to impart skills for jobs where humans will not be replaced by robots or algorithms. No less than 69% of Indian jobs are susceptible to automation, the labour ministry told the Lok Sabha on March 27. Automation is already affecting the manufacturing and engineering sectors; factory jobs are more vulnerable to automation than those in the IT companies, the *Economic Times* reported on June 28.

Objectives of the Study

- To study the present skill capacity of India.
- To study the challenges faced by skill development system in India.
- To suggest possible solutions or ways forward.

Data and Methodology: The proposed study mainly is descriptive in nature. It is solely based on secondary data and information which is collected from the concerned sources as per the need of the research. The relevant books, documents of various ministries/departments and organizations, articles, papers and web-sites are used in this study.

Steps taken by the Government: Mindful of the challenge, India issued a National Policy on Skill Development in 2009 with the aim of imparting skills to 500 million people by 2022. The 2015 National Policy for Skill Development and Entrepreneurship issued subsequently estimated the need to skill 402 million people over the next seven years – to train 104 million fresh entrants and re-skill/up-skill the existing 298 million farm and non-farm sector workforce. However, the government has been unable to meet its annual targets – set by various ministries and departments – for any but one of the last five years. The Ministry of Skill Development and Entrepreneurship achieved 58% of its total skills training target in 2015-'16, while the remaining 19 ministries together met 42%, the committee which studied Sector Skill Councils reported. Key ministries responsible for sizeable employment generation such as human resources development, textiles, commerce & industry, and tourism have not been allocated the work of skill development, the report found. “Some ministries have been allocated role of ‘employment generation’ which, ipso facto, doesn’t mean that they will do skill development also,” the report said. The report pointed out numerous shortcomings in India’s vocational education and training systems, including: absence of nation-wide Vocational Education and Training standards, lack of an integrated on-site apprenticeship training, inadequate industry interface, insufficient financing of the Vocational Education and Training system, scarce training capacity, poor quality outcomes, and shortage of qualified trainers. It found that many ministries imparting skills training are short of infrastructure and qualified trainers, and hence impart substandard training. Sector Skill Councils, which are responsible for developing and conducting programmes as well as assessing trainees, were themselves established randomly, the committee found. One of the criteria for establishing a Sector Skill Councils – that a sector have 1 million existing workforce – was itself not strictly followed. For instance, the Media and Entertainment Sector Skill Councils was created despite employing 400,000 people in 2013. The data used by the National Skills Development Council, which oversees Sector Skill Councils were based on a study “whose authenticity was difficult to establish,” the report said, adding that setting up of Sector Skill Councils created “confusion and mess” instead of resolving any issues. There are about 40 Sector Skill Councils covering high-growth sectors such as auto-motives, retail, healthcare, leather and food processing, and informal sectors such as beauty and wellness, security, domestic work and plumbing.

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Source: National Skill Development Agency; Annual Report 2016-17. Note: *Figures upto December 2016; Achievement data for various ministries is not available for 2016-17.

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Targets were overblown, loans went unpaid: The committee said Sector Skill Councils proposed “huge physical targets” of training and certifying institutions and people – both trainees and trainers – on an “arbitrary basis,” without formulating a sectoral labour market information system and sectoral skill development plan. Fund allocation to Sector Skill Councils was based on achievement of these targets. Representatives of many Sector Skill Councils told the committee that these high targets were allocated arbitrarily by the National Skills Development Corporation and Sector Skill Councils were told to sign on the dotted lines so as to claim funding. As a result, the quality of training, assessment and certification suffered even as targets were shown to have been achieved, the report noted.

The National Skills Development Corporation was set up in 2008 as a public-private organisation to generate skilled manpower. It gave soft loans, equity and grants to private-sector training partners.

Many of its initial loans of around Rs 1,500 crore – nearly equivalent to the cost of setting up an Indian Institute of Technology (Rs 1,748 crore) – were not paid back.

“NSDC [National Skills Development Corporation] and the MSDE [Ministry of Skill Development and Entrepreneurship] have taken cognisance of this fact and are taking actions which are both supporting as well as penalising to ensure timely repayment,” Manish Kumar, CEO and MD, National Skills Development Corporation, told *IndiaSpend*. As of June 14, the total amount overdue to National Skills Development Corporation from its non-performing assets account stood at Rs 58.24 crore, he said. “NSDC Training Partners service the loan as per the terms of the loan agreement with NSDC. NSDC has a rigorous system for project appraisal and consists of independent due-diligence and multiple levels of approvals by investment committees,” Kumar said. (The National Skills Development Corporation’s complete response to *IndiaSpend* is here.) A revised estimate of the incremental human resource requirement during 2017-2022 is 103.4 million across 24 high priority sectors, as per the Ministry of Skill Development and Entrepreneurship’s annual report 2016-’17. The Ministry of Skill Development and Entrepreneurship has also distanced itself from the target of 500 m by 2020. The figure of 500 million was a part of the National Skill Development Policy of 2009 which provided for a review after five years.

Funds Linked Private Pockets: The committee found that vocational trainers and assessing bodies were private entities who utilised government funds, but the youths who enrolled did not get proper training and were not placed. Nor were sector-wise skill needs met. The National Skill Certification and Monetary Reward Scheme or STAR launched in 2013 by the National Skills Development Corporation was “very ill conceived” and poorly implemented, and displayed poor placement outcomes, the committee found. STAR was a reworked version of the Skill Development Initiative Scheme launched in 2007 with an outlay of Rs 2,000 crore. Both functioned in parallel, with the only

difference being that the former was implemented by the National Skills Development Corporation, the committee report noted. Without evaluating STAR, the National Skills Development Corporation launched the Prime Minister Kaushal Vikas Yojana in July 2015 with a further outlay of Rs 1,500 crore. This “ambitious scheme” too was “badly implemented with very poor employment outcomes,” the report noted. A programme called Recognition of Prior Learning – under which people with prior learning experience or skills were assessed and certified – was misused. People were certified “after giving 2-3 hours of training” in order to inflate numbers, the report noted. Without rectifying any of the problems with Prime Minister Kaushal Vikas Yojana, the government launched “PMKVY 2.0” in July 2016, proclaiming an aim to skill 10 million youth during 2016-2020 and setting aside an outlay of Rs 12,000 crore. The professed aim was to overcome implementation challenges and “make it more effective, transparent and beneficiary oriented,” the ministry said in a reply to the Lok Sabha on March 15. Of the 1.8m people trained under Prime Minister Kaushal Vikas Yojana during 2015-’16, 12.4% received placements; 8.5% of the 1.4 million people trained under STAR were placed, the committee found. “The unmistakable conclusion is that an amount of Rs 2,500 crore of public funds was spent to benefit the private sector without serving the twin purposes of meeting the exact skill needs of the industry and providing employment to youth at decent wages,” the report stated.

Kumar of National Skills Development Corporation said, however, that low placement figures belie the real employment picture. “The objective of STAR and PMKVY 1.0 Scheme was to encourage skill development of youth by providing monetary rewards for successful completion of training,” he said, “The actual numbers will be many times higher but since training partners were not mandated to report back, only a few have shared placement data” He was alluding to the fact that under Prime Minister Kaushal Vikas Yojana (2015-’16) it was not mandatory for National Skills Development Corporation’s training partners to report employment data, while Prime Minister Kaushal Vikas Yojana (2016-’20) made it mandatory. Some action was taken against irregularities: five training partners and 11 skills training centres under Prime Minister Kaushal Vikas Yojana 2015-’16 were suspended for violating marketing guidelines, making mass or fake enrollments and not adhering to Prime Minister Kaushal Vikas Yojana branding, according to this reply to the Lok Sabha on February 8, 2016. Nearly 40% of the enrolled trainees in skill development centres in three states – Uttar Pradesh, Haryana and Rajasthan – are ghost entries, the *Hindustan Times* reported on June 29. Following this, the ministry suspended allocation of new centres in these states, the report said.

The Way Forward: Prime Minister Narendra Modi’s vision of making India the “skills capital of the world” seems a long way off. The committee has suggested a framework, though: “If we take it up as a national goal we can transform India into a developed country by 2040 and make it the “Skills capital of the world.” One of its key recommendations is implementation of “Reimbursable Industry Contribution” – 2% of industry’s annual wage bill be collected to create the corpus for a National Skill Development Fund. Small, medium, large public and private enterprises employing 10 or more workers contribute to promote in-firm training as per industry’s own requirement. The employers manage this fund through Sector Skill Councils, with their costs reimbursed depending on their annual training plans and performance. “With this effort, the enterprises will be able to train youth according to their requirement, and over a period of time, we can think of an India, which will have 100% skilled manpower,” the report said.

Challenges	Way Forward
Demand & Supply Mismatch	In order to create a people-centric approach for skill development, it is required that the skill development initiatives needs to be coordinated with demand and supply scenarios across geographies, industries and labour markets so that new skills required by industry or changes in supply of labour are speedily adjusted with adequate and efficient training programs.
Geographical Problem	In order to combat the problem of large geographical and socio-economic conditions of the economy, the Government along with its partner agencies should set-up more standardized skill-based institutions or skill development centers across the country, particularly in laggard/backward states with a view to provide equal access to all segments and sections of the society, so that the whole society gets the benefits of the skill initiatives and strategies.
Low Educational Attainment	The need of the hour is to provide quality educational curriculum at all levels with targeting skills development programs. Hence, the instructional material or syllabus must be prepared jointly by the industry and the educational planners. It should be regularly updated and must include more of practical learning than theoretical. So that students should imbibe the necessary job skills as demanded by the industrial sectors.
Vocational Training	A scalable, efficient and comprehensive vocational training system with proper awareness generation programs is the need of the hour. As these programs help in spreading information about existing skill development courses and market requirements which lead to increase the student enrolment as well as enhance the credibility of vocational institutes.
Skill development for women	The planners should focus on women specific policies for their effective participation in the employment market.
Private sector participation	A strong policy measures and operational linkages are needed to bring together the public and private sector to improve the quality and relevance of training.
Multiplicity of Institutional Framework	It is necessary to introduced integrated reforms in the form of establishing some nodal authority or bodies ranging from advisory to executive in nature with a view to coordinate and governs various skills development and policy making initiatives.
Infrastructure Challenge	The policy-makers must focus on providing the required infrastructure and equipments namely computers, software's, tools, machines etc. and qualified instructors so that they provide high-quality skills as required by industrial sectors and relevant practical exposure to the students.
Training of Trainers	The Government and its participating agencies should focus on the provision of more effective training centers of the trainers.
Lack of Labor Market Information System (LMIS)	A well-integrated or consistent LMIS is required which will ensure timely provision of all types of relevant information to all the stakeholders which ultimately help in systemic planning for skill development initiatives which incorporates local employment demand and skill requirements.

Conclusion: To make India internationally competitive and to boost its economic growth further, a skilled workforce is essential. As more and more India moves towards the Knowledge economy, it becomes increasingly important for it to focus on advancement of the skills and these skills have to be relevant to the emerging economic environment. For transforming its demographic dividend, an efficient skill development system is the need of the hour. Therefore to achieve its ambitious skilling target, it is imperative to have holistic solutions of the challenges instead of piecemeal interventions.

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Abstract

The print media carries shocking statistics of employability research which reveals the current status of one of the major concerns of today's youth – "Employability". A recent study conducted worldwide highlights that only 21% of the youth today are employable. The researcher aims at studying the real challenge of the hour that seems to be that of "Bridging the gap between classroom learning and corporate expectations"- grooming students through participation in various committees and shaping their skill- sets for employability. The paper also highlights the role of counselling as an important aspect towards employability.

Keywords: Employability, Skill-sets, Grooming, Counselling.

Introduction : The theme of this paper is intended towards making the student aware that readiness to require the necessary skill- sets for a job has to begin right from the First Year of their admissions to degree college- whether aided, Unaided or professional and not an exercise of enrolling themselves into a short term course on communication or soft skills or any other vocational course for example, that too right in the Third Year where the employer expects a blend of aptitude, attitude, decision making, presentation, workplace skills, inter-personal skills, data analysis and interpretation and problem solving to name a few. Hence, what really counts is the fact irrespective of the course that the student decides to enrol for, clarity about the skills required for "Entry-level-Jobs" if met appropriately can turn into a great career opportunity in the long run. This calls for a joint effort by the aspirant as well as the college where the student is pursuing his degree from. Year after year and research after research, the fact that remains highlighted is that the employers assumption and the young peoples expectations are not in line. In addition to this, more than 80% of the graduates today believe that their performance at work will be a result of training which will be provided by the employer as a part of their hiring policy. Ironically, most employees though ready to impart profile related training expect the basic skills to be inbuilt in the candidate even before applying for the job, while some employees are also of the school of thought that a graduate having invested heavily to avail graduation should know it all. Dropping levels of employability or rather non- employability has been a matter of concern. The reason remains clearly that of mismatch between the knowledge acquired by the student while pursuing graduation or post-graduation and skill-sets required by the student to join an entry-level job. What adds on to this is lack of ability to apply conceptual & theoretical knowledge to work place.

Objectives:

- To study the employability quotient of the graduate – Gender- Wise, Course-Wise (Aided and Unaided or Professional Courses)
- To analyse the gap between classroom and corporate.
- To understand the traits of the youth of today and their perception of jobs.
- To analyse skills-employability mismatch.
- To discuss the transition of a student into a professionals.

Research Methodology: The Researcher has gathered information from Primary Data including a sample size of 50 respondents. The respondents are undergraduate students. Interviews of teachers, corporates and career advancement agencies are also held to gather information. Employability test methods and their reports are also referred as a part of secondary data. References are also drawn from internet and print media .Observation technique has also been applied for the purpose of the research.

Key Findings: (Analysis & Interpretation of Questionnaire)

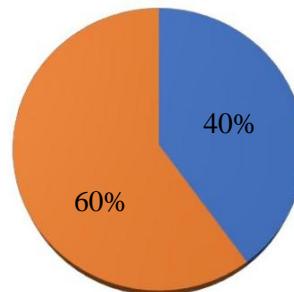
Expectations and Assumptions from the Employer :

1. Entry level employees require to be trained in order to develop the necessary skill-sets to meet the job requirements.
2. Only communication skills alone does not serve any purpose unless it is effectively clubbed with technical, social, decision making and other skills.
3. Team- building and inter-personal skills are areas that the youth of today needs to work on.
4. Focus on area of interest, patience, readiness to learn and innovatively contribute in that area of work is going to help the employees to achieve career growth.
5. Completion of formal education upto graduation is not the end, but just the beginning of career for students in future.
6. Employee attrition rates are magnificently high purely because of lack of thought process in choosing career options.
7. There needs to be more counselling (not just career guidance and career counselling) but also personal counselling to help the student shape his/ her hidden potential.
8. Lots of growth opportunities can be made available for the student while in college to provide a platform for showcasing their talent. Students concentrate more on “How” than on “Why” to do things in a particular way.
9. Inter-personal skills remain unpolished in cases where the student is not a part of any associations/ committees formed by college.

Following is the statistical representation of the key findings of the research conducted. The respondents are Final Year students of T.Y.B.Com.

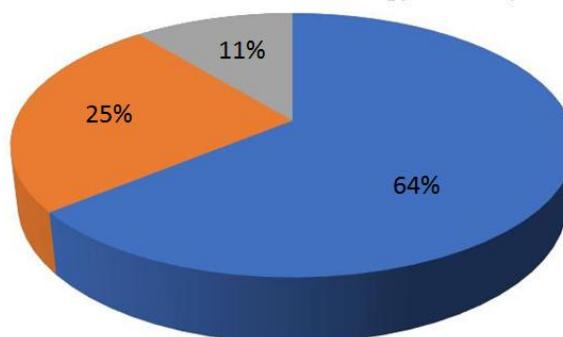
Q.1 Do you think you will be able to get a job immediately after completion your Third year?

■ Yes ■ No

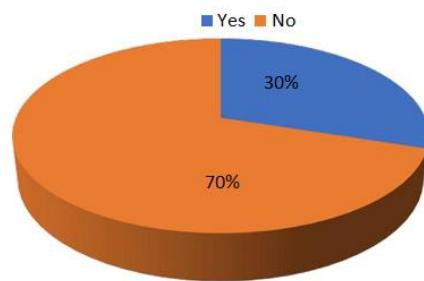


Q.2 What skill should you have to match entry level profile in any organisation?

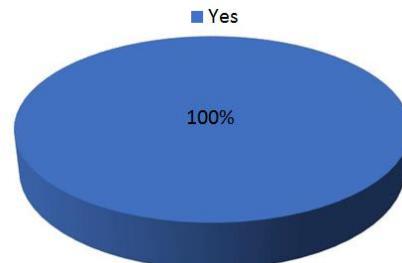
■ Communication ■ Technology ■ Computers



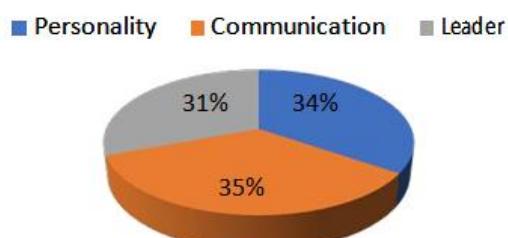
Q.3 Is the education system good to make you capable to get the job?



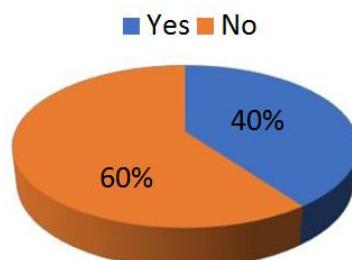
Q.4 According to you, should training be imparted after joining job?



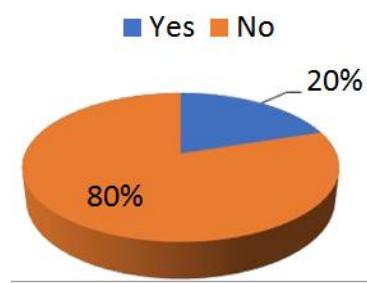
Q.5. Which skills are required for clicking an interview?



Q.6 Do you think hobbies and participating in extra- curricular activities organised by college play a major role in grooming the personality of the individual?

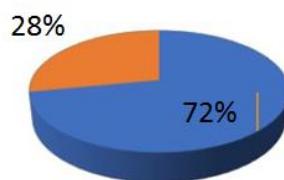


Q.7 Are you the part of any committee of the college?



Q.8 What activities can be done in college for grooming the skills in college?

■ seminar ■ Workshop



Q.9 Do you think college should assist in placement?



Q.10 Is there any other skill development course that you are pursuing after college?



Conclusion:

- ♦ While many play the blame game on to outdated syllabus and teaching pattern, there still exists a lot of innovative methodologies that the student can be exposed to during his/her tenure in college, especially the three years of his/her association with degree college which is a platform for the student to outperform.
- ♦ Benefits of being a part of committees, organising events and activities, taking up the role of a class representative, representing college in various talent hunt competitions should be highlighted regularly.
- ♦ Internships should be made a part of learning.
- ♦ Association with NGO's and contribution and learning from their association should be prioritised.
- ♦ Interesting committees and innovative best practices adopted by colleges by way of introducing various contests and field trips aim at increasing the employability quotient.

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Employability reports.

A STUDY OF LIFE LONG LEARNING IN INDIA

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Abstract

This paper aims at providing a brief overview of the policy and programmes of LIFE LONG Learning in India. Although LIFE LONG Learning programmes are offered by different agencies in the country, viz, universities, non-governmental organizations and various departments of the Government, their focus continues to be on adult literacy, continuing education and skill training presumably due to the massive number of non-literates and neo literates. Multiple provisions of learning offered by different agencies in the country have neither been studied systematically nor conceptualized within the framework of LIFE LONG Learning. Promoted by the UNESCO, OECD and European Commission and caught up in neo liberal policies and ideologies, LIFE LONG Learning has not yet received due attention from developing countries including India. Based on the study of policy documents, programme reports, and observation of select programmes and interviews with stakeholders, this paper identifies different factors which have influenced the policy and practice of LIFE LONG Learning in India, and argues the need for sensitizing policy makers, allocating adequate resources, strengthening the professional capability of programme managers and developing an effective strategy of networking different LIFE LONG Learning organizations with a view to optimizing the utilization of resources, avoiding duplication of programmes and sharing of experiences.

Introduction: India has a rich and long tradition of learning throughout life. In fact, the philosophy of LIFE LONG Learning is embedded in the Indian society, culture and education. Its importance is reiterated in several educational policy documents and discourses. While globally it is viewed as a key organizing principle for education and training systems and several developed countries have formulated LIFE LONG Learning policies, in India the concept has neither been seriously discussed nor specific policy framework developed. It is used as an umbrella term to cover basic literacy, post literacy, continuing education and extension programmes of different governmental and nongovernmental organizations, universities, refresher courses of professional bodies, short term courses of private institutions and business houses. Although a range of LIFE LONG Learning programmes aimed at imparting skills for improving economic competitiveness are offered by different agencies in the country, they are not designated as LIFE LONG Learning programmes but simply as training programmes or continuing education courses. Hardly any attempt has been made to work out the guidelines for assessing prior learning or transfer of credits. The main thrust of India's LIFE LONG Learning programmes continue to focus on adult literacy and continuing education mainly due to the massive number of non-literates and neo literates in the country. It is only in 2007 that the Government of India put forward the idea of expanding the scope of the Continuing Education Programme by developing it as LIFE LONG Education and awareness Program (LEAP). This may be partly influenced by the global discourse on LIFE LONG Learning and partly due to the socio-economic changes taking place in the country. What type of programmes are designed and implemented by different organizations in the country? What are their thrust, quality and coverage? Several researches and evaluation studies have shown that the extent of coverage and impact of these programmes have been extremely limited. Why has it been so? Is it due to the dearth of resources? Or is it due to the limited professional expertise in designing relevant programmes catering to different sections of society? This paper attempts to answer these questions mainly based on the study of policy documents, programme reports of different implementation agencies, observation of select programmes and interviews with programme managers and community members and argue the need for allocating adequate resources, strengthening the professional capability of programme managers and developing an effective strategy of networking different organizations with a view to optimizing the utilization of resources, avoiding duplication of programmes and sharing of experiences.

Objectives of Study:

- This study aims to help us pursue knowledge for either personal or professional enhancement.
- To evaluate lifelong learning to support teaching and learning.

Historical Prospective on Life Long Learning: The ancient Indian religious tradition and culture have accorded prime importance to acquisition of knowledge and upheld the virtues of learning and observes that transmission of learning gratis is one of the greatest virtues worth practicing. The sacred texts viz; Vedas, the Upanishads, Dharma Sutras, give glimpses of ancient society and importance accorded to acquisition of knowledge. The word, - veda is derived from the root, vid, meaning, to know. As far as Hinduism is concerned, the scriptures are replete with references to LIFE LONG Learning. Words like swadaj meaning self-learning are abundant. One of the most important statements in the GITA is that learning is worthwhile; it liberates (Bordia, 2002). The Hindu temples in India were the centres of learning as they hold public lectures, religious sermons and philosophical debates. While several eminent leaders like Mahatma Gandhi, Gopal Krishna Gokhale, Rabindranath Tagore espoused the cause of education through their writings and speeches, the social reform societies viz; Brahmo Samaj, Arya Samaj, and Aligarh Movement did pioneering work by establishing educational institutions and libraries and creating literate environments (Shah, 1999). Besides, in several regions of India especially in the south there were strong library movements which promoted the culture of reading and learning among the masses. (Vrinda Devi, 2007&Pillai, 2002). Notwithstanding the varied provisions of LIFE LONG Learning, literacy remained as an important strand of educational discourse in India for it was considered to be pre-requisite foremost forms of learning and also the foundation for LIFE LONG Learning.

Current Scenario of Life Long Learning: The present system of education which follows the National Policy on Education in India – 1986 (modified in 1992) considers LIFE LONG Education as the cherished goal of the educational process which presupposes universal literacy, provision of opportunities for youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice at the pace suited to them. (Government of India, 1986). It observes that the critical development issue is the continuous up gradation of skills so as to produce manpower resources of the kind and the number required by the society. It suggests that the future thrust will be in the direction of Open and Distance Learning. These policies were translated into practice, and a number of LIFE LONG Learning programmes were planned by governmental and non-governmental organizations and universities (Government of India, 1992). However, it was the organization of two international conferences on LIFE LONG Learning in India and the formulation of The Mumbai and Hyderabad Statements on LIFE LONG Learning in 1998 and 2002 which highlighted LIFE LONG Learning as a guiding principle and an overarching vision that seems to have publicized the concept. (Singh, 2002 &, Narang and Mauch, 1998). The Hyderabad Statement on LIFE LONG Learning clarified the role of LIFE LONG Learning in creation of a learning society and learning community. It emphasized empowering people, expanding their capabilities and choices in life and enabling individuals and societies to cope with the new challenges of the 21st century.

Role of Government Departments in Life Long Learning: The Ministry of Human Resource Development of the Government of India plays key role in the promotion of LIFE LONG learning programmes mainly through the National Literacy Mission(NLM). Apart from formulating policies on LIFE LONG Learning, NLM provides funds to several institutions like the Jan Shikshan Santhans, (Institute of Peoples Education), Zilla Sakharta Samities, (District Literacy Committees) and State Resource Centres to implement the programmes. As on March 2007, there were 198 Jan Shikshan Sansthanas and 328 Zilla Sakharta Samities which are offering a number of LIFE LONG Learning programmes through 1,12,000 Continuing Education Centres in the country.(National Literacy Mission ,2007) During the field visits to several Continuing Education Centres located in three districts viz; Iddukki, Kasargode and Kadappa – all National Award winning districts for the

excellence in implementation of CE programmes, it was observed that in all the CE Centres visited, the following activities were going on : - Literacy Classes, Equivalency Programme (EP), Income Generating Programme (IGP), Quality of Life Improvement Programme (QLIP), and Individual Interest Promotion Programme (IIPP). In addition to these, some of the Centres were serving as Information Centres, Janasevana Kendras (public service Centres), Marketing Centres, Tuition Centre/Career Advance Centres and Training Centres (Shah, 2006). It was observed in all the three districts visited that the Equivalency Programme which aims at providing an alternative education programme equivalent to the formal education to neo-literates and school dropout was highly sought after by the local community. Equivalency Classes are conducted for IV, VII and X standards and the learners appear in the examination conducted by the State Open Schools. It was reported that the Income Generating Programmes helped the participants acquire or upgrade vocational skills. The different skill programmes undertaken in the districts included - Vermi Culture, Mushroom cultivation, dressmaking, artifacts, umbrella making etc. While the QLIP is designed to enhance the well-being of the community and aims at equipping learners and the community with essential knowledge, attitudes, values, and skills to enable them to improve quality of life as individuals as well as members of community; the IIPPs aims at providing learning experience to promote and improve individual interests in social, cultural, spiritual areas of all adults, especially youth, women and the elderly people in rural areas. National Literacy Mission, 2000). All these Programmes are conducted with the help of resource Persons drawn from local institutions, especially Jan Shikshan Sansthanas and Community Polytechnics in the Districts. Evaluations of CE programme conducted by different agencies bear testimony to their effectiveness in imparting relevant skill trainings and learning opportunities to the neo literates besides creating a literate environment by setting up libraries (Evaluation Report 2006)

Jan Shikshan Santhans (JSS) : These institutions funded by the National Literacy Mission and run by NGOs at district level aim at imparting short-term skill training to neo literates and unemployed youth. It is estimated that 198 JSSs offer 255 different types of vocational courses which are generally of short duration -ranging from 3-4 days to 3-4 months (National Literacy Mission, 2003). Apart from offering programmes at their own premises, they provide academic support to the CE Centres in imparting skill training. The evaluation reports of JSS show that most of them have been very effective in imparting vocational skills to the local community members who were able to start income generation activities after the training accessed on 17 September, 2007). The regular publication of success stories of JSS in the monthly publication of the National Literacy Mission – NLM

Training of Rural Youth for Self-Employment (TRYSEM) : The Ministry of Rural Development funds this programme originally started in 1978 and later brought under the Swarna Jayanti Gram Swarozgar Yojana (Golden Jubilee Village Self Employment Programme) of 1999. The programme aims at developing technical and entrepreneurial skills among rural youth from families below the poverty line with a view to enabling them to take up income-generating activities in the area of electrical work ,pump set repairing, tractor repairing, readymade garment making, carpentry etc. The target group is aged between 18 and 35. Training given under this scheme is based on the needs of the area, and is provided at the local Community Polytechnics, Extension Training Centres, Krishi Vigyan Kendras, (Agriculture Science Center) State Institutes of Rural Development or institutions run by voluntary agencies. Training under this scheme is normally for six months.

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A STUDY ON INFLUENCE OF PMKVY'S SKILL DEVELOPMENT PROGRAMS TO BUILD EMPLOYABILITY FOR YOUTH IN MUMBAI CITY

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Abstract

The study is about learning the impact of various skill development programs on increasing employability of Indian labour force. Government is initiating establishment of skill development organization throughout nation. According to the Union Minister Rudy said the Centre would extend 100 per cent support to Government of Assam's Skill Development Mission initiatives. The Minister said the MSDE under Prime Minister's Kaushal Vikas Yojana would extend Central support in opening up of small centres for skill development. NSDC team will assist the State in developing the project, he added. In this context, the Minister suggested for signing of MoU in which there can be provision for imparting other skills in these centres. The functioning of PMKVY's NSDC skill programmes enables skill development in various states of India. The study analyses various developments by skill development programs and their impact on employability.

Keywords: PMKVY, NSDC, Employability, Skill, Development

Introduction: Let's first see what is employability and the impact of skill development on employability. Shifts in economies throughout the world, prompted by globalisation, technological change, increased competition, and the growing sophistication of customers and clients mean that employers are increasingly looking for a set of generic skills to accompany technical skills. Researchers at the Universities of Nottingham and Exeter (2007) stated that this combination of generic and technical skills is sought as a means of developing a workforce that is able to cope with:

- Increasingly complex work practices
- Greater job flexibility and rotation
- Increased interaction with consumers
- Reduced supervision
- Team working

Definition: Employability is a management philosophy, developed Sumantra Goshal in 1997, which recognises that employment and market performance stem from the initiative, creativity and competencies of all employees, and not just from the wisdom of senior management.

For employers, it involves creating a working environment that can provide opportunities for personal and professional growth, within a management environment where it is understood that talented, growing people mean talented, growing organisations. While there will always be job-specific skills that an employer is looking for, most employers will also want you to have some general skills. These general job skills are sometimes called 'employability skills'.

1.1. Introduction to PMKVY and NSDC's Projects : The aim of the scheme is to encourage aptitude towards employable skills and to increase working efficiency of probable and existing daily wage earners, by giving monetary awards and rewards and by providing quality training to them. Average award amount per person has been kept as 8,000 (US\$120). Those wage earners already possessing a standard level of skill will be given recognition as per scheme and average award amount for them is 2000 to 2500. In the initial year, a target to distribute 15 billion (US\$230 million) has been laid down for the scheme. Training programmes have been worked out on the basis of National Occupational Standards (NOS) and qualification packs specifically developed in various sectors of skills. For this qualification plans and quality plans have been developed by various Sector Skill

Councils (SSC) created with participation of Industries. National Skill Development Council (NSDC) has been made coordinating and driving agency for the same. The NSDA came into existence on 6 June 2013 through a gazette notification. It subsumed the Prime Minister's National Council on Skill Development (PMNCS), the National Skill Development Coordination Board (NSDCB) and the Office of the Adviser to PM on Skill Development.

1.2. Origin of the Research Problem: The study is to understand and evaluate the impact of various skill development programmes by government for the employability and welfare of youth in India. Through National Skill Development Corporation (NSDC) under Pradhan Mantri Kaushal Vikas Yojana (PMKVY) government have introduced various development programmes in thirty two (32) various sectors. Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE). The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL). This work aims to provide empirical evidence about the employability of youth in Mumbai and Navi Mumbai due to various courses run under NSDC.

1.3. Need of the Research: India in her unique demographical characteristics today is holding young population. To make them competitive in job market and increase their employability they need to be. Government of India has initiated lot of programmes to make young Indians skilful. The total fund allocation of 12,000 crores for programmes initiated from 2016 to 2020. The study will measure the success of the government's efforts towards skill India mission.

1.4. Objectives of the Research Proposal:

- To identify the demand and growth ratio of courses under PMKVY.
- To understand the impact of skill development programmes on employability of youth.
- To evaluate growth in income level of youth due to development of skills under PMKVY.

1.5. Hypothesis :

H1: Skill development has strong influence on Employability of youth.

H0: Skill development does not have strong influence on Employability of youth.

1.6. Rationale of the Study:

India is among the “young” countries in the world, with the proportion of the work force in the age group of 15-59 years, growing steadily. However, present status shows only 2% of the total employees in India have undergone skills development training; India can become the worldwide sourcing hub for the skilled employees. Skills and knowledge are the motivating force of the financial growth and community development of any country. They have become even more important given the increasing pace of globalisation and technological changes provide both challenges that are taking place in the world. Skill building can be viewed as a device to improve the efficacy and contribution of labour to overall production. It is an important ingredient to push the production possibility front line outward and to take growth rate of the economy to a higher route. Skill building could also be seen as an instrument to empower the individual and improve their social acceptance. Interdisciplinary relevance: Relevant to all kind of industries who requires skillful employees. Relevant for government and especially HR ministry as well as social relevance.

1.7. Review of Research and Development and Relevance of Study : Employability of the growing young demography is an important factor in the economic development of the country and the crisis of skill development has to be turned into opportunity to growth. The coming decade will be crucial for India and only if India grows at the rate of 8-9 per cent per annum, India's per capita GDP will grow from the current level of \$1,800 to \$8,000-\$10,000 by 2025. Only then, India will graduate from being a low income country to a middle income country and achieving, maintaining and

sustaining that high level of growth, the country need many things to do this including skilful workforce. The study will help in finding enormous gap that exists between skills needed by the Indian industry and what academia is producing through finding demand ratio of 32 various courses under PMKVY.

2.1. Data Collection : The research apply a combination of interpretive and statistical analysis, where the mixture of methods used both in the data collection and data analysis is believed to give more strength to the research results. The Primary data is collected through questionnaire method from various centres of PMKVY in Mumbai and Navi Mumbai. The Secondary data collection is collected from published sources like books, journals, previous studies, magazines, internet etc.

2.2. Data Analysis and Interpretation

2.2.1. Analysis of skills attained:

Development	No. of Respondents	No. of Respondents	Difference
	Yes	No	
Communication skills	24	102	-78
Decision making skills	52	74	-22
Problem solving skills	64	62	2
Technical skills	121	5	116
Analysis skills	24	102	-78
Team work ability development	82	44	38
Negotiation Skills	23	103	-80
Developing ability to adapt and learn	54	108	-54
Ability to work under pressure	93	33	60
Ability to meet deadlines	122	4	118
Mean			2.2
Sample standard deviation			77.70857239
N			10
DF			9
t			0.089526942
			0.08
P- Value			0.468993952
			0.4689

The P value 0.4689 is way more than 0.05 which states that the skilled development had relation with NSDC courses.

TABLE 1. Analysis of Skills Attained After Training Under NSDC Programs

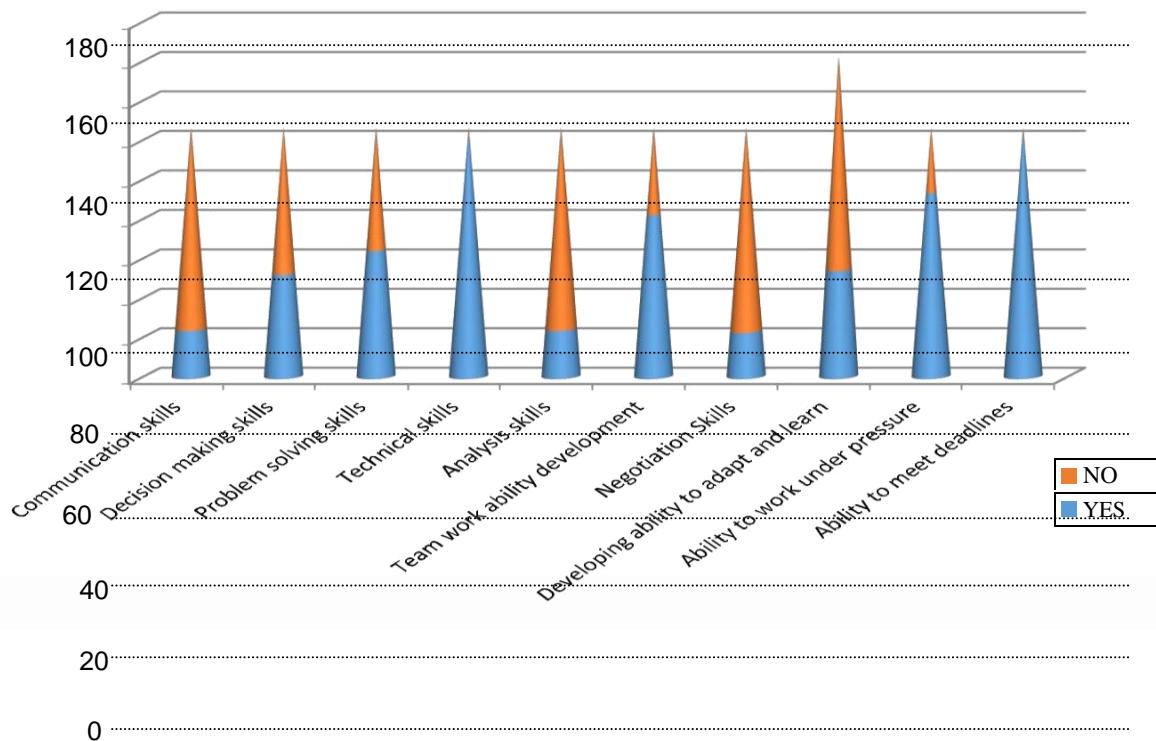


Figure 1. Analysis of skills attained after training under NSDC programs

The analysis shows positive impact on attaining technical skills. The ability to work under pressure. And ability to meet deadline are high comparative to other skill areas. No much importance is shown for development of communication, analysis and negotiation skills while trained under NSDC programs.

3. Findings and conclusion: There is no significant difference in male female when NSDC program is opted for future growth. The graph shows the difference between the number of male and female students opting for various NSDC courses. The expectation was degree wise there will be difference in selection of NSDC courses but the sample size analysis through ANOVA shows that there is no significant difference due to degree opted for selecting NSDC courses. NSDC programs prepare you for professional as well as personal development. But comparatively professional knowledge has grown than personal growth in students. The students improve teaching learning with considerable growth. Demand for few courses from NSDC is increasing. Specially those which is opted by middle class students like Automotive Skills Development Council., Beauty & Wellness Sector Skill Council, BFSI Sector council, Capital Goods Skill Council, Construction Skill Development Council of India, Electronics Sector Skills Council, Gem and Jewellery Skill Council of India, Healthcare Sector Skill Council, Healthcare Sector Skill Council, Indian Plumbing Skills Council, Media and Entertainment Skills Council, Retailers Association's Skill Council of India, Rubber Skill Development Council, Security Sector Skill Development Council, Telecom Sector Skill Council, Tourism, Agriculture skill council. NSDC programs have helped the students to attain better skills and technical ability. The value above shows that knowledge of current research in current field does not increase much but technical ability increases. Other skills like Team/group effective working, Clear perspective on

future employment, Understanding of your own learning needs etc. improves considerably. The data analysis shows that the work experience of students have increased because they have completed NSDC program they get in to jobs and experience different kind of assignments. Data analysis show that after NSDC certification attaining a job is easy and more number of students get in to various assignments due to NSDC programs. There is requirement of spreading information about the courses so that students can take advantages of them. Even though there are few problems regarding refunding and delay in certification the students update their value by doing NSDC courses.

Recommendations : Government should develop speedy and easy accessibility system for the pre-program and post- program rewards to trained candidates.

Placement of trained candidates should be enhanced.

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YOUTH PARTICIPATION IN SKILL DEVELOPMENT

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Abstract

India is uniquely positioned in world due to demographic dividend as compared to developed countries whose population is aging. China, US, Western Europe, Japan and many countries in the world are grappling with an aging population. High population if employed, trained and productive can easily capitalize the advantage of demographic dividend and lead to sustainable development but same high unemployed, untrained and unproductive population can even turn demographic dividend into demographic liability. India has gradually progressed as a knowledge-based economy due to the profusion of capable, flexible and qualified human capital. With the constantly rising influence of globalization, India has immense opportunities to establish its distinctive position in the world. However, there is a need to further develop and empower the human capital to ensure the nation's global competitiveness. The skill development of the working population is the main priority for the government. This paper will try to stress on the need to improve skills of our youth.

Keywords: Skill development, skill gap, higher education, youth population.

Introduction : India is one of the few countries in the world where the working age population is excess of those dependent on them. This has increasingly been recognized as a potential source of significant strength for the national economy, provided we are able to equip and continuously upgrade the skills of the population in the working age group. This poses the challenges and opportunity. India lags far behind in imparting skill training as compared to other countries. India needs to equip it's workforce with employable skills and knowledge. So that youth can participate productively to make India a developed country. Higher skill levels provide greater opportunities for young people resulting in spill-over effects on earning potential and poverty eradication. It can also ensure transition to full and productive employment and decent work for all women and men. When thinking of skills development, we must look beyond job specific skills programming, and work to develop skills in a wide variety of settings, both formally and informally. This not only ensures that young people are central to youth development, but it allows young people to develop the skills needed to be leaders in sustainable development at all levels. The skill set of this population group plays a critical role in the growth of the country. It is imperative that adequate skill training is provided to this age group to make them productive. India is facing a skill deficit on account of the large demand-supply gap, which results in a large pool of potential learners.

Objectives

The present paper is designed for following objectives:

- i) To study the awareness among the youth about skill development
- ii) To analyse the perception of the youth enhancing skill
- iii) To study about awareness among youth about skill development initiatives
- iv) To study about various initiatives taken by government for enhancing skill development among youth.

Methodology: The paper is based on information collected from primary and secondary sources. After detailed study, an attempt has been made to present comprehensive analysis of youth participation for skill development. The population of the present study is youth in and around Mumbai. The sample size of the study is 103 young people. the structured questionnnaire was used to collect the primary data. For secondary data, various sources of published collected from reputed articles of research journals, books, prominent sites, report sets relevant to higher education and skill development.

Analysis & Findings**TABLE 1.1: Gender-wise classification of respondents**

Gender	
Female	67 %
Male	33 %

It shows the gender wise classification of respondents. It was found that 67% of respondents are female and rest are male.

TABLE 1.2: Age wise classification of respondents

Age Group	
16 to 20 yrs	62.1 %
20 to 24 yrs	35.9 %
Above 24 yrs	2 %

It was found that majority of respondents are falling under 16 to 20 yrs of age category and 35.9% fall under 20 to 24 yrs . However ,only 2% of respondents fall above 24 yrs of age. So maximum respondents are youth.

TABLE 1.3: Education Qualification

Education Qualification	
Under-graduate	81.6 %
Graduate	15.5 %
Post-Graduate	2.9 %

It shows the Education Qualification of respondents. It was found that 81.6 % of respondents are under-graduate, 15.5% are graduate and very few are post-graduate, i.e., 2.9%.

TABLE 1.4: Adequacy of Education

Do you feel that the education you have received has been adequate?	
Very much	17.5%
Much	35%
Some	36.9%
Little	6.6 %
Very little	4 %

It shows that approx 37 % of respondent feel that the education what they have received is some adequate to them, whereas hardly 4% respondents feel they are having very little impact on them.

TABLE 1.5: Rate of employment

How would you rate the employment potential of your degree?	
Very poor	2%
Poor	6%
Fair	34%
Good	55 %
Very Good	3%

It states that more than 50% of respondents feel that the education what they are pursuing can consist employability

Table 1.6 Skill description

Please rate yourself,

Sr. No.	Skill Description	1 (very low)	2 (low)	3 (moderate)	4 (high)	5 (very high)
1.	Communication skill	2%	15%	52%	24 %	7%
2.	Leadership	3%	26%	44%	23%	4%
3.	Problem solving	5%	18%	44%	29%	4%
4.	Adaptability	3%	17%	51%	24%	5%
5.	Initiative	2%	19%	50%	21%	8%
6.	Motivational	2%	11%	40%	37%	10%
7.	Creativity	3%	16%	34%	36%	11%

From the above table it has been observed that majority of respondents have rated themselves moderate in the above mentioned skill and very less respondents have marked themselves in very low and very high category. This prove that skill required by youth need to upgraded with new methodology.

TABLE 1.7 : Requirement

According to you, what is more crucial?	
Qualification	9.7%
Experience	14.6%
Qualities	14.6%
All of the above	61.1%

It has been observed that almost 61.1% of respondents feel the necessity of all three qualification, experience and qualities the most important element for any job or business, whereas individual only having any one of them won't help for long run.

TABLE 1.8 : Skill Gap

Do you experience any skill gap ?	
Yes	44.7%
No	17.5%
Don't know	37.8%

From the above table it proves that approximately 44.7% respondents find skill gap among them, which quite high number and 37.8% isn't aware about skill gap. However, 17.5% respondents didn't find any skill gap

TABLE 1.9 : Enrollment in Skill-enhancement Course

Have you ever enrolled yourself in any skill-enhancement course	
Yes	30.1%
No	69.9%

It shows that approximately 70% of respondents haven't enrolled them in any courses which would have enhance skill in them or made them capable for any job, which proves that current young generation is not taking much effort for their own growth and career and the basic premise of the study is proved.

TABLE 1.10 : Impact of Course

Did you found those course creating any difference?	
Yes	65.9 %
No	13 %
Hardly	21.1%

Majority of respondent feels that course has huge impact and created a difference in their life, whereas 13% respondents feel no impact on them of any course.

TABLE 1.11: Awareness of Government Initiatives

Are you aware of any government initiatives for skill development like skill India , NSDC, NSDA etc.	
Yes	39.8 %
No	60.2 %

Above table proves that majority of respondents aren't aware of any initiatives introduced through government, therefore government should look after more promotion and awareness of skill programmes.

TABLE 1.12 : Government Initiatives

Will you like to take any benefit in future from government initiatives like skill India, NSDC, NSDA etc.	
Yes	50.5 %
No	7.8 %
Maybe	41.7%

Above table states that 50.5 % respondents will take benefits from government initiatives which is real good if people take interest in government programmes

TABLE 1.13 : Factor for Skill Development

Please rate, impact of below factors on skill development of youth.

Sr. No.	Skill-Enhance Method	1 (very low)	2 (low)	3 (moderate)	4 (high)	5 (very high)
1.	Practical training	4	12	42	28	14
2.	Work with real life situation	3	16	27	37	17
3.	Quality faculty	4	10	43	33	10
4.	Industry based curriculum	3	21	40	26	10
5.	Innovative – teaching methodology	3	21	34	25	17

From the above table it proves most of respondents feels that student should get exposure of real -life situation and quality of faculties.

Challenges to quality skill training :

The above study states several challenges that are faced by the government in imparting quality skill training to the youth of the country. These challenges include :

- Increasing capacity and capability of the existing system to ensure equitable access for all Awareness about skill programmes.
- To Create effective convergence between school education and the government's skill development efforts.
- Mobilizing adequate investment for financing skill development.

- It proves that willingness and involvement of youth for their own self development is very less.

Way forward to overcome challenges: The need of the hour is to provide quality educational curriculum at all levels with targeting skills development programs. Hence, the instructional material or syllabus must be prepared jointly by the industry and the educational planners. It should be regularly updated and must include more of practical learning than theoretical. So that students should imbibe the necessary job skills as demanded by the industrial sectors. As education and vocational training are the important contributors to overall skill capital pool of an economy. Education provides a base in the form of ability in literacy, numeracy and cognitive abilities and vocational training equips an individual with specific skills. Vocational training is practical/manual in nature in contrast to education which is purely theoretical in nature. Thus linkages of both serve simultaneously the hand and the mind, the practical and the abstract aspects. Training of trainer is one of the important key of the skill development framework. And absence or inefficiency of the same would result in serious bottleneck in the implementation of skill development projects. In India, the gross requirement of train One of the important requirements for the proper implementation of the skill and training development programs is the availability of the basic infrastructure for the same. It has been noticed that many skill development institutions suffer from lack of proper infrastructure. The need of the hour is to synergize the efforts and resources. The ideal way forward will be to seek partnerships that will strengthen the process of quality and inclusive education. A strong policy measures and operational linkages are needed to bring together the public and private sector to improve the quality and relevance of training. The diversity and lack of coordination among government, non-government and private providers lead to create obstacles in the effective integration of the system and focusing on national development objectives. Hence, it is necessary to introduced integrated reforms in the form of establishing some nodal authority or bodies ranging from advisory to executive in nature with a view to coordinate and governs various skills development and policy making initiatives

Conclusion: To make India internationally competitive and to boost its economic growth further, a skilled workforce is essential. As more and more India moves towards the Knowledge economy, it becomes increasingly important for it to focus on advancement of the skills and these skills have to be relevant to the emerging economic environment. For transforming its demographic dividend, an efficient skill development system is the need of the hour. Therefore to achieve its ambitious skilling target, it is imperative to have holistic solutions of the challenges instead of piecemeal interventions.

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Questionnaire for Youth : This questionnaire presents a series of questions related to the skills and competences that may be important for success in your career. Please answer all the questions. The answers may be very valuable in improving course planning for future students of your degree subject. Please circle the best option in each case. Many thanks for your co-operation

-
- 1) Name : _____
- 2) Gender : (1) Male (2) female
- 3) Qualification : (1) Graduate (2) Under-graduate (3) Post-graduate
-

- 4) Age group : (1) 6 to 20 yrs. (2) 20 to 24 yrs.
- 5) Do you feel that the education you have received has been adequate?
- (1) very much (2) much (3) some
 (4) little (5) very little
- 6) How would you rate the employment potential of your degree?
- (1) very poor (2) poor (3) fair
 (4) good (5) very good

7) Please rate yourself,

Sr. No.	Skill Description	1 (very low)	2 (low)	3 (moderate)	4 (high)	5 (very high)
1.	Soft skill					
2.	Leadership					
3.	Problem solving					
4.	Adaptability					
5.	Initiative					
6.	Motivational					
7.	Creativity					

- 8) According to you, what is more crucial?
- (1) Qualification (2) Qualities (3) Experience (4) All of these
- 9) Do you experience the skill gap ?
- (1) Yes (2) No (3) Don't know
- 10) Have you ever enrolled yourself in any skill-enhancement course?
- 1) Yes (2) No
- 11) Did you find those course creating any difference?
- 1) Yes (2) No (3) Hardly
- 12) Are you aware of any government initiatives for skill development?
- 1) Yes (2) No
- 13) Please rate, impact of below factors on skill development of youth.

Sr. No.	Skill-Enhance Method	1 (very low)	2 (low)	3 (moderate)	4 (high)	5 (very high)
1.	Practical training					
2.	Work with real life situation					
3.	Quality faculty					
4.	Industry based curriculum					
5.	Innovative-teaching methodology					

A STUDY ON ATTITUDE OF COLLEGE STUDENTS TOWARDS LIFELONG LEARNING IN MUMBAI

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Abstract

Lifelong learning is a process in which individuals retain their interest in learning. Today one of the attitudes that institutions try to impose on students is lifelong learning. The aim of this study is to find out the attitude of the undergraduate students towards lifelong learning in Mumbai. The research was conducted by means of descriptive and analytical study. The research highlights the role of parents, teachers and students in the dynamic environment for sustainable development.

Keywords: Lifelong, learning, passion, teachers, parents, students

Introduction: Lifelong learning may be broadly defined as learning that is pursued throughout life: learning that is flexible, diverse and available at different times and in different places. Lifelong learning crosses sectors, promoting learning beyond traditional schooling and throughout adult life (i.e. post-compulsory education). This definition is based on Delors' (1996) four 'pillars' of education for the future.

- Learning to know
- Learning to do
- Learning to live together and with others
- Learning to be

Lifelong learning can instil creativity, initiative and responsiveness in people thereby enabling them to show adaptability to learn new skills.

Objectives

- To study the awareness of students towards lifelong learning.
- To inculcate an attitude of lifelong learning among students.

Significance of Study

The study will help to throw light on the mind-set of students. The mind-set that has been cultivated by their parents and society towards education is that education is for career and earning income. The development of mind-set of students towards learning as lifelong learning A study on attitude of college students towards lifelong learning in Mumbai will build a healthy society. The study may help all the academician and students to understand the gap between the system, students, parents and teachers.

Research Methodology: The nature of the study is descriptive and analytical. The research has been carried out through primary data which was collected with the help of questionnaire (Google form). Field survey method was used to collect data. The target responses for the study are students who reside in Mumbai. Convenience sample method was used to collect data from students. The sample size has been considered as per the response received within the study period i.e. 153. The period of the study is November 2017 to end of December 2017. Simple statistical tools were used to analyse the data.

Literature Review

Melek, Demirel (2009), studied on “Lifelong learning and schools in the twenty-first century”. The researcher threw light on lifelong learning with the help of three terms – Education system, organisation and individual as self-directed learner. Also suggested that education should have the qualities of preparing students for a lifelong learning and develop their skills of self-learning.

Marjan, Laal (2013), studied on “Continuing Education, lifelong learning”. The researcher focused on ongoing education and learning, informal, non-formal and informal forms, from cradle to grave, making knowledge to improve quality of life. LLL is providing or using all types of learning opportunities to encourage continues development and enhancement of the knowledge and skills.

Schuller, Tom, Watson, David (2009), studied on ‘Learning through life’ examines the future for lifelong learning in the UK. The report argues that the current system of lifelong learning has failed to respond to the major demographic challenge of an ageing society and to the change in employment patterns as young people take long settle into jobs and older people take long to leave work.

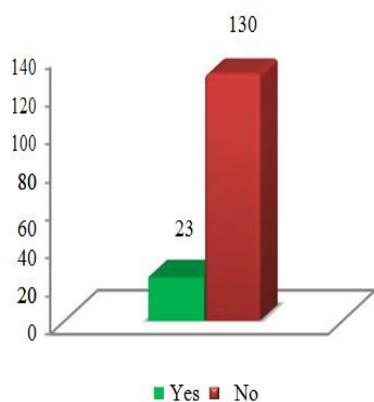
Marjan Laal, Peyman Salamat (2011), studied on “Lifelong learning: Why do we need it?” The researcher attempted to present the advantages which follow lifelong learning. He shared three benefits of LLL - A lifelong learner will keep up with society by staying current and aware of changes in such areas as technology, news and political trend, finance and money issues. Lifelong learners look for opportunities to embrace the new technologies. A lifelong learner stays on top of their field so that when opportunities come knocking, they can answer immediately. Lastly, a huge benefit of LLL is the enriching and fulfilling the life.

The above research stimulated us to find out the attitude of students towards lifelong learning with the help of primary data.

A study on attitude of college students towards lifelong learning in Mumbai.

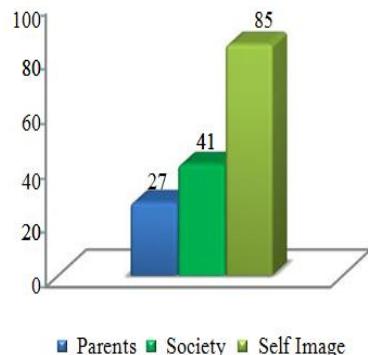
Result Discussion

GRAPH 1: Students avoid taking challenges



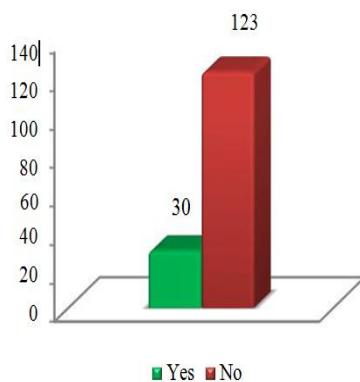
Majority of the students are ready to take challenges for learning purpose. Only 15% students are not interested to take challenges to improve their knowledge.

GRAPH 2 : Students Fear Failure



56% of students fear for failure because of their self-image and some fear for parents and society.

GRAPH 3: Students quit or give up quickly



80% students are ready to accept challenges and 20% quit very quickly due to lack of confidence.

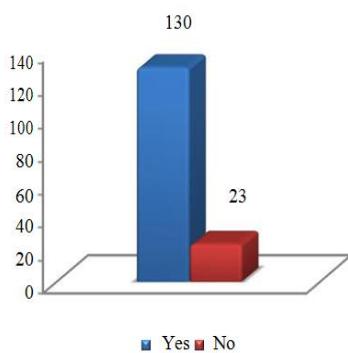
TABLE 1 : Source of learning

Response	Percentage
Family	8%
Institutions/Teachers	6%
Society	5%
All of the above	80%

Source: Primary Data

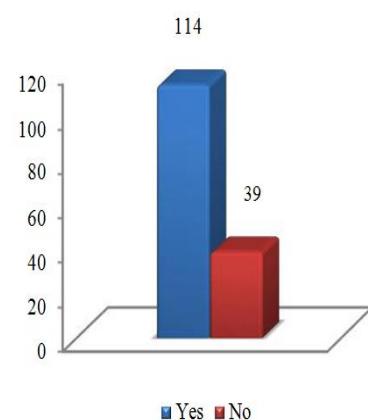
Majority of students agree that learning happens through all, i.e. family, teachers and society.

GRAPH 6 : Teaching Methodology



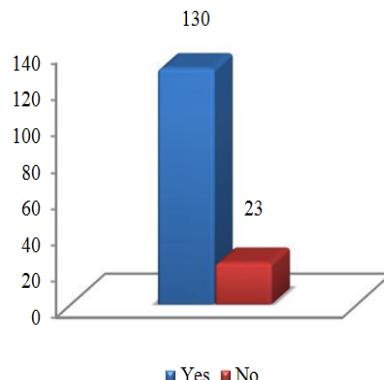
86% of teachers adopt different teaching methods in order to connect students with

GRAPH 4 : Awareness of students



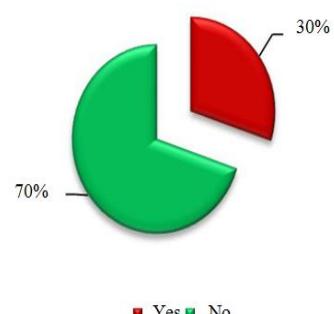
Majority of students are aware about lifelong learning and 25% are not aware.

GRAPH 5 : Scope created to explore



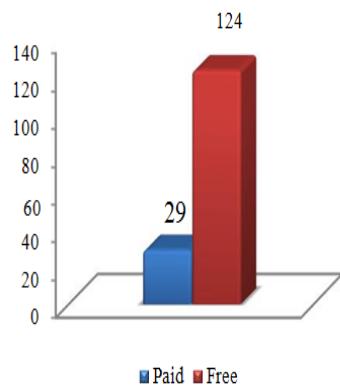
75% of students says their teacher create opportunity to learn new things.

GRAPH 7 : Online course



Majority of students have not registered for online courses yet, this reflects the attitudes towards

GRAPH 8 : New / Additional



Students are ready to take up free courses but not paid courses, so monetary aspect also plays an important role in lifelong learning.

GRAPH 9 : Interest to Upgrade



Majority of the students are ready to upgrade themselves for

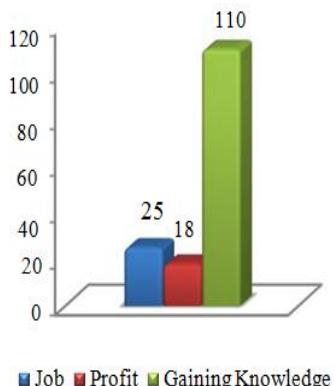
TABLE 2 : Awareness about the courses through

Response	Percentage
Newspaper	5%
Online	29%
Teachers/Institutions	42%
Friends	24%

Source: Primary Data

Students are dependent more on teachers and online for information and guidance for courses.

GRAPH 10 : Learning Purpose



Majority of students says they learn to gain knowledge.

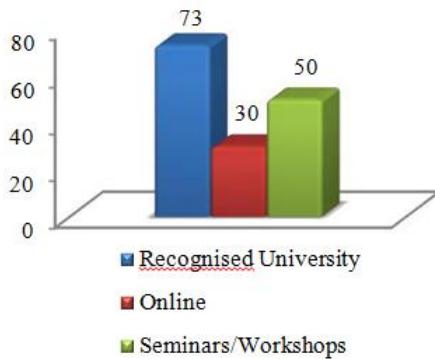
TABLE 3 : Like to Learn

Response	Percentage
Different Languages	20%
Vocational Education	5%
Personality Development	29%
Career related	46%

Source: Primary Data

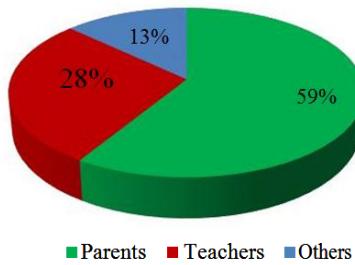
Many students are ready to learn related to career, some are ready to learn different languages and for personality development.

GRAPH 11 : Learning Preference



Majority of students prefer to learn from recognized university.

GRAPH 12 : Source of Motivation



Parents and teachers are the main source of motivation for the students.

Findings :

- Students source of motivation is first parents then teachers.
- Students are more focused towards career than learning.
- If courses are offered for free more students would continue with learning that means low passion towards learning.
- Students lack passion towards learning
- Students are aware about lifelong learning
- A study on attitude of college students towards lifelong learning in Mumbai
- Students are ready to upgrade if courses are offered by recognized university
- Students would like to learn additional courses on different language, personality development and more importance to career related growth
- Students come across different courses with the help of teachers/Institutions and online Teachers are using different methods while delivering lectures.
- Teachers are exploring new areas for students
- Students are ready to take challenges but they need proper guidance
- Failure would be more hurting because of their conscious feeling towards self-image

Suggestions :

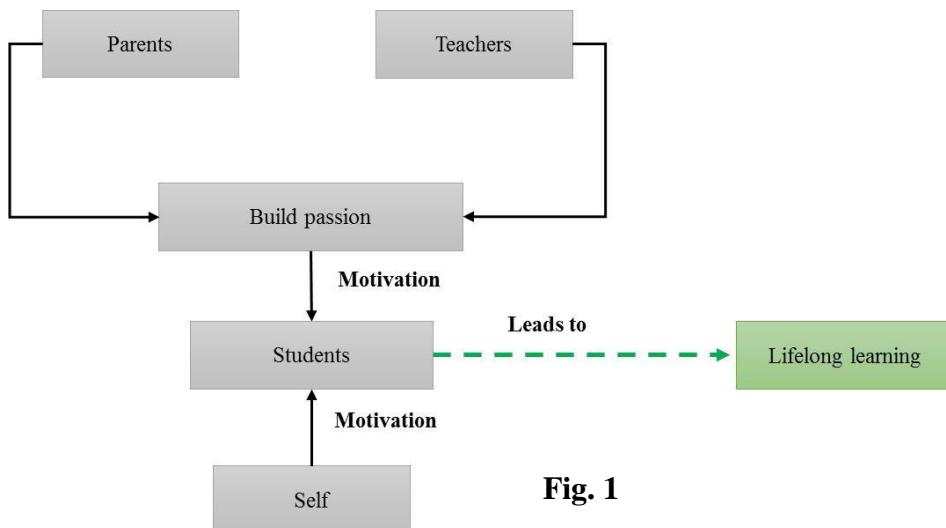


Fig. 1

The above Fig. 1, illustrates the collaborative efforts of parents, teachers and self in lifelong learning. The following suggestions are based on Fig. 1 as given below:

Parents : Parents should play the role of guide rather than dictator. They should allow the child to think and take their own decisions. Parents should focus more on the likes and dislikes of the child rather than results & their achievements. A learner to be a lifelong learner the most important factor is passion. Every parents should try to bring out the passion within the child.

Teachers : Teachers should try to create situations or use different methods wherein they can help the students to know their skills. Teachers can use methods like learning by doing, problem solving, learning by teaching, teach them to question and encourage them to share the learning with others. Teachers should help the students to bring out their unique talents or skills and motivate towards lifelong learning.

Self (Students) : As an individual the learners should be more focused on gaining knowledge, do thinks creatively & logically. Above all they should have self-awareness about their own likes and dislikes that can lead to self-motivation and passion towards learning. In order to develop passion one should overcome the fear of failure.

Conclusion: The research concludes that students are more focused towards career, but career oriented learning may stop the day they achieve their goals. Students who learn with passion their learning continues till life time. As they grow they discover new knowledge, ideas, creativity, and positive attitude towards life. This passion for learning is missing among the students and more conscious about self-image. To create the passion towards learning the teachers and parents has to play an important role by developing positive attitude, teaching them to take up challenges, helping them to identify their likes and dislikes, creating opportunity to develop a broader mind-set towards learning.

Limitation and Scope for Future Study: The scope of this study is limited to the sample size of 153 students in Mumbai. The study can be extended to find out ways to build passion in the minds of students for lifelong learning and teacher's contribution in the dynamic environment.

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**ROLE OF GFMP (GLOBAL FINANCIAL MARKETS PROFESSIONAL) COURSE
LEADING TO SKILL DEVELOPMENT IN THE VUCA WORLD**

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Introduction: VUCA is a term being extensively used today for addressing the increasingly dynamic landscape of present day business and technology environment. It's a VUCA world that makes agile and attractive approach for many organizations and initiatives. To be effective, leaders in the coming days will need to develop new skills to address the increase in business volatility, uncertainty, complexity, and ambiguity that they face every now and then. Professional courses has a distinct role to play in developing these skills and abilities as it extends to multiple life domains and has the potential to affect leader performance. By reflecting on that which is hidden or taken for granted, leaders become more aware of they see situations, deal with paradoxes and dilemmas and so on. A recent research project is on the development of GFMP course that sheds light on the events leading to productive change and suggests that skill development has implications for the ways in which we develop leaders. We gathered on the basis of transcripts of some 100 interviews with graduates—a current and growing awareness of a mismatch between professional course offerings and the skill sets, one needs in a VUCA. We could establish the enduring power of skills developed by professional course among the graduates that has made them truly employable.

Research Objective

- To understand the term VUCA.
- To understand the VUCA environment.
- To identify the keys to success in the VUCA environment.
- To understand the role of GFMP (Global Financial Markets Professional) Course in leading to Skill Development in the VUCA World.

Significance of the study: To dodge the dangers of jumping to decisions in a VUCA world, 21st century leaders and supervisors need to pause for a minute to better comprehend the torment, the issue and its potential causes. In a situation where change is a consistent, unavoidable power, one of the essential objectives of leaders' must be to comprehend the issue, the torment and causes. With adequate comprehension, leaders abstain from rolling out improvement for change's purpose, tossing important assets at the wrong arrangements, or withdrawing representatives who lose confide in their capacity to guide easily through the unpleasant waters of a VUCA world. A key change is to rearrange the different capacity and present another lead-age part into the structure.

Limitations of study: Limitations need to do with conditions outside the ability to control of the analyst that may influence the finishes of the investigation and their applications to different circumstances (Creswell, 2009). While a perfect quantitative investigation would offer huge generalizability, urban population (Mumbai), in a tertiary topography, may not be illustrative of a bigger populace in a noteworthy city. It additionally may not be illustrative of official perspectives around the world. In this manner, comes about exhibited may not reflect comes about when the examination is rehashed in another market. Moreover, albeit clear definitions for the 10 new leadership aptitudes were given, some overview respondents may have misjudged a particular expertise and, subsequently bring down the unwavering quality of the outcomes. In conclusion, this investigation was not planned, nor was it outlined, to uncover view of individual patrons or advancement gets ready for singular supporters. It was intended to be reacted to by understudies and tended to the abilities and improvement designs just for formal leaders, as characterized.

Review of Literature

The motivation behind this investigation was to quantify to what degree business leaders see the 10 new initiative abilities as imperative. In particular, the investigation estimated apparent significance with respect to tending to (a) key needs, and (b) prompt squeezing issues. Optionally, this examination estimated the degree the 10 new initiative abilities are incorporated into authority improvement programs.

VUCA is portrayed by Johansen (2009, 2012) inside the setting of threats and openings. Despite the fact that threats are depicted in detail, openings are most certainly not. Or maybe, the positive result of transforming a peril into an open door relies upon the utilization of the new aptitudes (Johansen, 2012). There are four perils: Volatility. Change today isn't continuous and unsurprising; rather it is discontinuous, surprising and overpowering. Unstable conditions require getting ready for a scope of indeterminate dangers and possibilities with aptitudes of premonition to help foresee or impact future occasions. Unpredictability, additionally alluded to as shakiness, alludes to the dynamic nature of the setting for basic leadership and the level of turbulence or rate of progress (Hesselbein and Goldsmith, 2009; Paparone and Topic, 2011; Shaffer and Zalewski, 2011).

Volatility - Leaders today should adapt to a staggering measure of data in a short measure of time. Redress understanding isn't generally conceivable and new data is continually displayed. Vulnerability alludes to "the deliberate or saw probability that projections or expectations will be figured it out. Chiefs regularly need to suspect the likely results of their activities in spite of realizing that their projections for what's to come are not as much as certain" (Shaffer and Zalewski, 2011, p. 66). In a questionable domain, the past isn't really a precise indicator without bounds. Transforming vulnerability into an open door requires having successful techniques for managing unverifiable conditions which at that point prompt more prominent comprehension of both a present circumstance and the potential results of changing reactions to the circumstance.

Uncertainty - Each occasion, process, and association is established in a web of interrelated components. As per Shaffer and Zalewski (2011) unpredictability alludes to the way that causal components or social powers at work in the circumstance are regularly contending with each other. Leaders should regularly measure the contending impacts and make educated speculations about which powers will at last influence the result of basic occasions. (p. 66)

Complexity - A leader's capacity to view and react to the numerous interdependencies of a mind boggling circumstance prompts more noteworthy clearness of what 22 is most critical in a given circumstance (Bolman and Deal, 2003; Lucchetti, 2009). Clearness at that point transforms many-sided quality into an open door.

Ambiguity - In the present condition, realities are much of the time clouded by the measure of data accessible, change is frequently filled with inconsistency and Catch 22, and leaders consistently need lucidity about the importance of an occasion. Uncertainty alludes to "the obscure essentialness of at least one factors in a circumstance" (Shaffer and Zalewski, 2011, p. 66).

VUCA Drivers. Instability, vulnerability, multifaceted nature and equivocalness characterize our present and future state. Financial drivers, for example, worldwide rivalry, unpredictable capital markets, fluctuating exchange cycles, and quickly developing plans of action affect a leader's capacity to settle on economical long haul choices (Collins and Hansen, 2011; Horey et al., 2004). Different drivers, for example, government controls, troublesome advancements (Christensen, 1997), new media, and political change likewise add to unwavering precariousness and incessant vulnerability (Collins and Hansen, 2011). These drivers shape the advancement and future setting of authority. Fortune magazine business investigator, Geoff Colvin shared, "when individuals don't have the foggiest idea about what will happen, they solidify" (Colvin, 2010, standard. 8).

Methodology: Information was gathered utilizing essential and optional techniques. An organized questionnaire of 12 questions were appropriated and 80 legitimate surveys were returned. To test the unwavering quality of the information, investigation was done to see how the keys to achievement in the VUCA condition go about as 21st Century preparing among the business understudies can help them in understanding the part of GFMP (Global Financial Markets Professional) Course in prompting Skill Development. This investigation tried to approve the apparent significance of the 10 new administration abilities and measure the degree business leaders in an urban city of Mumbai in consolidating the aptitudes into the initiative improvement programs.

Hypothesis: The research is testing null hypothesis and alternative hypothesis on the basis of the relationship between the keys to success in the VUCA and the GFMP Course pursued by them so as to lead to the skill development.

H_0 = There is no relationship between the keys to success in the VUCA and the GFMP Course pursued by them so as to lead to the Skill development.

H_1 = There is relationship between the keys to success in the VUCA and the GFMP Course pursued by them so as to lead to the Skill development.

Data: The study is focusing on primary data, secondary data and the research approach is quantitative research approach. The research is used to analysis the data for understanding how GFMP (Global Financial Markets Professional) Course leading to Skill Development in the VUCA World.

Source of Data Collection: The source of the data is questionnaire filled by the commerce graduate students and by the commerce graduate students who also pursued GFMP Course to analyse the VUCA environment and to identify the keys to success in the VUCA environment has led to the skill development.

Understanding VUCA: The letter set "V" in the VUCA remains for Volatility that implies unsteadiness. It suggests the nature, speed, volume, and degree of advance that isn't in an expected case (Sullivan, 2012 January 16). Shakiness is turbulence, ponder that is occurring more as regularly as conceivable as already. The Boston Consulting Group (BCG) found that half of the most turbulent money related quarters in the midst of the past 30 years have occurred since 2002. The examination excessively contemplated that budgetary turbulence has extended in control and perseveres through longer than already. (Sullivan, 2012 October 22). Diverse drivers of turbulence in business today fuse digitization, organize, trade movement, overall contention, and business show progression (Reeves and Love, 2012). The "U" in the VUCA acronym remains for Uncertainty which stays for weakness, or the nonattendance of consistency in issues and events (Kinsinger and Walch, 2012). These erratic conditions make it troublesome for leaders to use past issues and events as markers of future outcomes, making measuring incredibly troublesome and essential initiative testing (Sullivan, 2012, January 16). The "C" in VUCA acronym remains for Complexity- multifaceted nature which stays for diverse quality. As HR thought leader John Sullivan notes (2012 January 16), there are frequently different and difficult to-appreciate causes and reducing factors (both inside and outside the affiliation) connected with an issue. This layer of multifaceted nature, added to the turbulence of advance and the nonattendance of past pointers, adds to the inconvenience of essential authority. It furthermore prompts perplexity, which can cause vulnerability, the last letter in the acronym.

The "A" in VUCA acronyms Ambiguity for Unclarity, is the nonattendance of clarity about the significance of an event (Caron, 2009), or, as Sullivan creates, the "causes and the 'who, what, where, how, and why' behind the things that are going on (that) are hazy and hard to discover." (2012 January 16). Col. Eric G. Kail portrays dubiousness in the VUCA show as the "inability to absolutely conceptualize perils and openings before they twist up perceptibly dangerous." (Kail, 2010, December 3). An appearance of progressive vulnerability, as demonstrated by Kail, is the disappointment that

results when compartmentalized accomplishments disregard to connote a thorough or continuing on accomplishment.

Keys to success in the VUCA environment

10 Leadership Skills – Defined by Johansen (2009), the abilities should have been effective in a VUCA world :

1. **Creator Sense** : Capacity to abuse inward drive to construct and develop things, and in addition interface with others really taking shape.
2. **Clearness** : Capacity to comprehend mess, to see through wrecks promotion inconsistencies to a future that others can't yet observe.
3. Make decisions based on lessons learnt in the past : Capacity to transform quandaries into focal points and openings.
4. **Immersive Learning** : Capacity to gain from new conditions in a first-individual manner.
5. **Bio-compassion** : Capacity to see things from nature's perspective; to comprehend, regard and gain from nature's examples.
6. **Productive Depolarizing** : Capacity to quiet tense circumstances where correspondence has separated, and bring individuals from dissimilar societies toward useful engagement.
7. **Calm Straight forwardness** : Capacity to be open and true about what makes a difference to you without publicizing yourself.
8. **Fast prototyping** : Capacity to make brisk early forms of developments with the desire that later achievement will require early disappointments.
9. **Savvy crowd sorting out** : Capacity to make, draw in with, and support deliberate change organizes through smart utilization of current media.
10. **Inspire and growing people around** : Capacity to seed, sustain and develop shared resources that advantage others and uplifts rivalry.

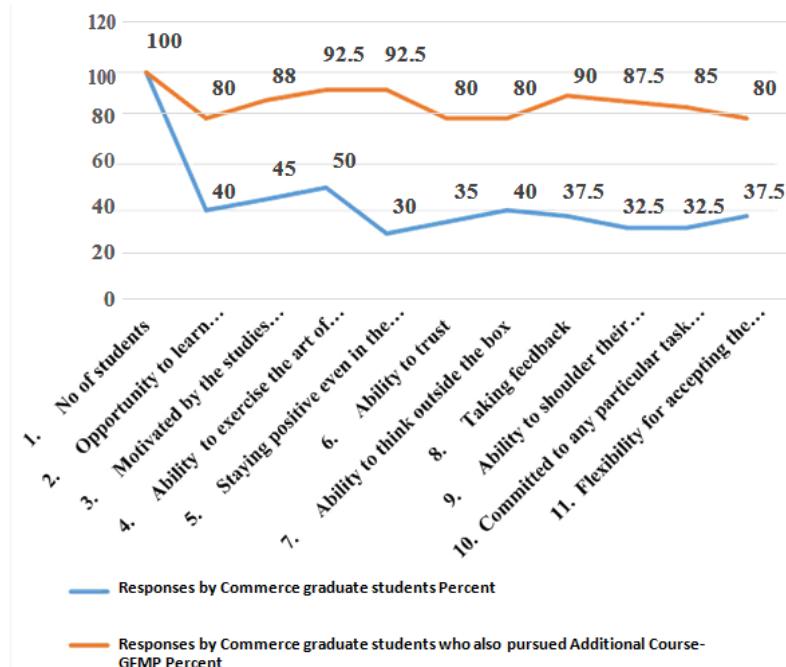
Analysis

Table 1 : Comparative study of commerce graduate students and commerce graduate students who also pursued additional course GFMP (Global Financial Market Professional) from BSE Institute Ltd.

No.		Responses by Commerce graduate students		Responses by Commerce graduate students who also pursued Additional Course-GFMP	
		Number	Percent	Number	Percent
1.	No. of students	40	100	40	100
2.	Opportunity to learn Communication skills and clarity of thoughts	16	40	32	80
3.	Motivated by the studies Undertaken and by faculties	18	45	34	88
4.	Ability to exercise the art of delegating the task	20	50	37	92.5
5.	Staying positive even in the worst conditions	12	30	37	92.5
6.	Ability to trust	14	35	32	80
7.	Ability to think outside the box	16	40	32	80
8.	Taking feedback	15	37.5	36	90
9.	Ability to shoulder their responsibility	13	32.5	35	87.5

10.	Committed to any particular task undertaken	13	32.5	34	85
11.	Flexibility for accepting the changes	15	37.5	32	80

FIG 1 : Comparative study of commerce graduate students and commerce graduate students who also pursued additional course GFMP (Global Financial Market Professional) from BSE Institute Ltd.



Findings: Equal number of students were randomly selected from the two series - Commerce graduate students and Commerce graduate students who also pursued Additional Course-GFMP. It was observed that those who were also pursued additional course-GFMP along with graduation program, i.e., the respondents who were the commerce graduate students, were at least two times more than those only pursued graduation program. It clearly indicates 21st century training that is indeed soft skills training have made them capable, confident, adaptable and acceptable by the various industries which has led them to skill development and satisfaction in their lives. On the other hand respondents who were only pursued graduation program, were lacking most of the skills required for survival in any industry. Hence the null hypothesis (H0) stands rejected and alternate hypothesis (H1) is accepted- There is relationship between the keys to success in the VUCA and the programs pursued by them so as to lead to the accomplishment of Skill development.

Conclusion: The VUCA world wouldn't vanish. As advancement becomes snappier and the world ends up being progressively an overall business focus, there is no place to stow away. Change is persevering and the scene in which we work is continually moving. The compelling position ends up being continuously one of making epiphanies and focus, while meanwhile keeping an eye out for what is moving and preparing to react to it. Reacting without having vision leaves people feeling puzzled and demotivated. Inflexibly holding quickly to a picked strategy threats missing open entryways or fail to respond to grandstand and regular changes. Somehow pioneers need to walk a relatively irrelevant contrast between these two positions to be versatile however satisfactorily focused to keep people impelled. VUCA is erratic and testing, in any case it is moreover a circumstance that can allow bona fide specialist blessings to ascend at all levels of the affiliation. In actuality one of the noteworthy lessons of the VUCA world is that pioneers need to interface with all delegates at all levels to get their trust and responsibility in dealing with the impressive extent of

troubles that VUCA stances. Seen beginning here of view VUCA transforms into an open entryway for headway and more vital facilitated exertion, rather than a peril to be mitigated lastly prompts maintainable advancement objectives.

Recommendations and Future Implications: Leadership qualities and soft skills are not a hypothesis to instruct, but rather a way to deal with bestow and acclimate. With the contribution of the members, delicate abilities exercises can be directed which encourage all the required aptitudes, as everything is time bound, group situated and are identified with each other. Exercises help us to find ourselves in a gathering, help us to know how well we are in managing others and so forth.

The best way to enhance delicate aptitudes is to hone it situational. It is unrealistic to ace every delicate ability in one day. There ought to be persistency by and by, in comprehension what's more, in enabling ourselves to adapt up to the current change prerequisites without standing up to. Polls help us to assess our qualities and confinements. Securing delicate aptitudes is consistent and can't stop at a point. Delicate aptitudes enable us to make our reality, to be it an employment or home a quiet and beneficial place. One incredible truth is having ample things doesn't prompt existence. We should be who we need to be before we can have all the material appearances.

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YOU TUBE AS A LEARNING TOOL

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Abstract

Social media tools have become ubiquitous. We can see students use social media all the time. Among them most popular tools are Facebook, Wiki, YouTube, bulletin board, LinkedIn, blogging, and twittering. The advancement of modern technologies tries its best to accommodate the needs from people, especially the younger generation. The instructional potential of video technology in the classroom is promising, especially in light of the 21st Century Learning Framework (Siegle, 2009) Siegle, D. 2009. Literacy in the 21st century: The fourth r-video recording. Gifted Child Today, 32(2): 14–19.). Studies show positive gains in student outcomes as a result of the integration of video technology in instruction. This Paper explores potential uses of YouTube as an instructional aid in lessons and in planning. Emphasis is placed on using YouTube directly in learning various subjects. Attention is also given to the evaluation of YouTube videos. This paper discusses the potential challenges of using YouTube in the learning and offers suggestions for overcoming those challenges.

The study investigated student's use of YouTube as more for learning purpose, their perception and attitude towards usage of YouTube and their preference for the same.

Introduction: Technology is everywhere. Some people are addicted to it and refuse to live without it. College students will say that their laptop, phone, and iPod are necessities comparable to food. Through another form of widely used technology: YouTube. Students enjoy viewing and sharing visual content online. Visual tools create a connection between the content and viewer (McKenzie, 2008). Many videos on YouTube are academic and professional in nature and when used properly will reinforce students learning process and also make learning effective for the college students due to the images and audio used (Cardine, 2008). YouTube also expose students to new material, or to have them create debates on the topic. Of course a combination of resources is optimal to use but visual aids always seem to make a great impact in conjunction with traditional learning tools. With videos, students can see a scenario, hear from an expert, see images, and listen to conversations that will make the content they are learning more understandable and relevant. In many instances, students experience the "Ah Ha" moment when YouTube is able to facilitate them with the fuel require for learning. Videos from YouTube for marketing, management, Information technology and entrepreneurial courses are used and students found them interesting, informative, and funny. When videos incorporate humor, they usually are even more effective making the student eager to see, and learn, more. Hence, learning becomes more enjoyable for the students. This study focuses on usage of YouTube by the college students in order to enhance the learning process.

Keywords: YouTube, Learning, Education, Tool, internet, Technology, strategies.

Objectives of the Study

1. To study the importance of Digital media with respect to Knowledge.
2. To understand, to what extent students make use of YouTube In context to learning.
3. To analyse the outcome expected by the students from the use of YouTube.

Research Methodology

Sample Size : 61

Data Sources : Secondary sources includes newspapers, magazines, websites

Primary Data : Survey method with a structured Questionnaire

Sampling Method : Convenience Sampling Method

Scope of the Study : This study covers the usage of YouTube by the students and gives an insight into about the benefits of the same. The data can be used by the educators to expand their own roles as facilitators and participants in the information age.

Limitations: The sample in the present study is quite small; hence, the generalization of the findings is limited. Due to time limitations this study covers only students residing from Dombivili to Kalyan area.

Literature Review

Scholarship involving the use of YouTube has been prevalent since its introduction in 2005. A thorough review of the literature was published in the Journal of Online Learning and Teaching (Snelson, 2011) where the author found that the topics most commonly discussed in the YouTube related literature include, but are not limited to, the experiences of YouTube users, use of YouTube in politics, YouTube videos in the medical field, methods for harvesting data from YouTube, and teaching with YouTube. Further, the author explained that out of 188 articles containing the word YouTube in the title, only 30 came from the field of education. A 2013 article in (Alias, Razak, elHadad, Kunjambu, & Muniandy, 2013) reviewed the YouTube related articles published between 2007 and 2013 in seven major educational technology journals. According to their findings, there remains a lack of significant research focusing on the impact of the use of YouTube on student learning. Additionally, in a 2012 study, an expert panel participated in a three round Delphi process involving two cycles of online questionnaires and feedback reports. The resulting findings were a list of seven research priority categories for educational research focused on YouTube that were identified and ranked in order of priority:

1. Users, groups and communities;
2. Teaching/learning;
3. Social/political impact;
4. Video creation/production;
5. Legal/ethical;
6. Media management; and
7. Commercial interests.

Teaching and learning remain an area where more usefulness of You tube can be find out.

A. Interpretation

Total Respondent: 61

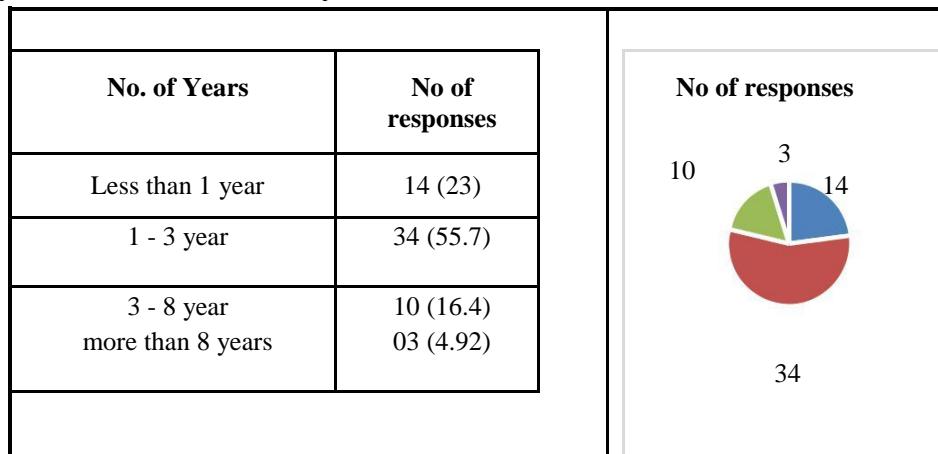
Gender		Year of Birth		Educational Qualification	
Male	41	After 1997	39	Higher secondary education (All FY's)	41
Female	20	Between 1990 & 1996	22	Graduation	11
Total	61	Total	61	Post-graduation	9
				Total	61

TABLE : 1.0 (Demographic Detail of Respondent)

B. Data Analysis

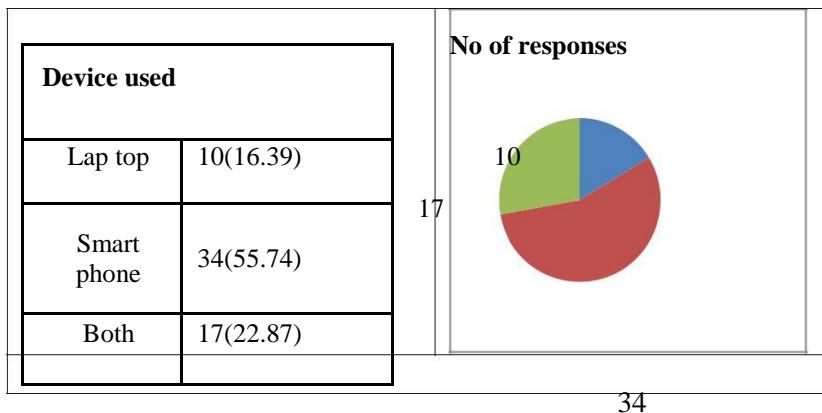
Above data Sample collected from Undergraduate and Post Graduate Students and following analysis done including graphical representation:

1. Use of you tube from number of years:

**TABLE : 2.0 (Use of you tube from Number of years)**

For using of You Tube 23% respondents said that they are using it for less than one year, 55.7% for 1 to 3 years, 16.4% are using for 3 to 8 years where as very few 4.92% of them are using it for more than 8 years. (Figures within the parenthesis indicates percentages)

2. Device Used

**TABLE: 2.1 (Device used)**

According to the Survey very few about 16.39% of the respondents used laptop, 55.74% used smart phone and 22.87% used both for having access to YouTube. (Figures within the parenthesis indicates percentages)

3. Number of time used in a

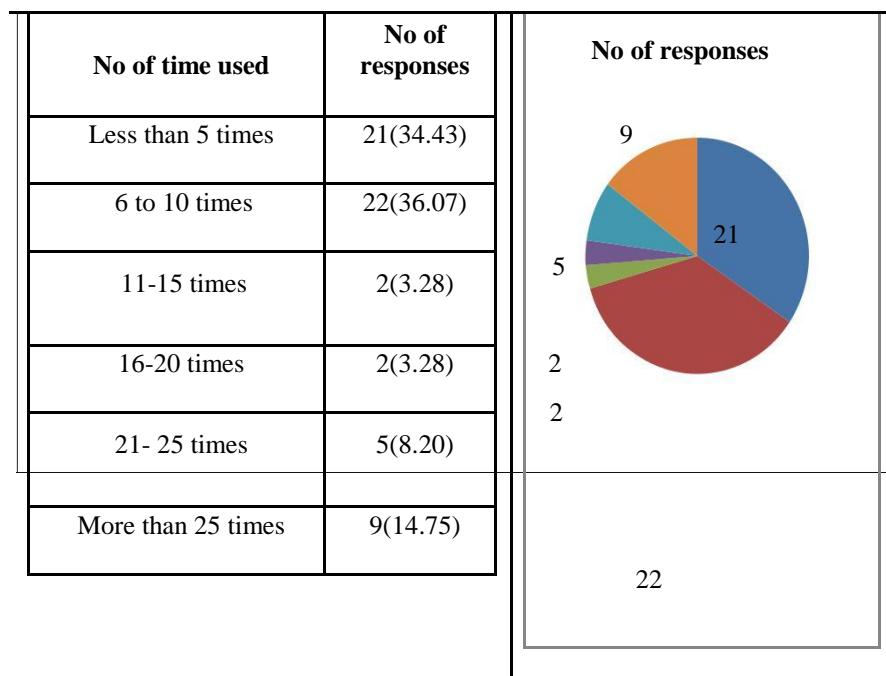


TABLE: 2.2 (Number of times used in a week)

Only 14.75% of the respondents use YouTube for more than 25 times in a week where as 34.43% of the respondents use YouTube for less than 5 times in a week. (Figures within the parenthesis indicates percentages)

4. Useful videos on different subject topics:

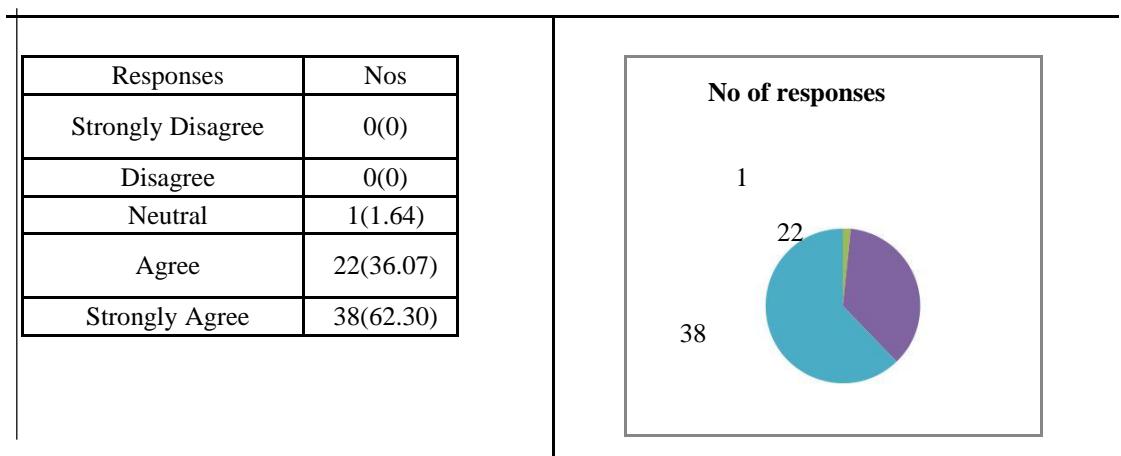
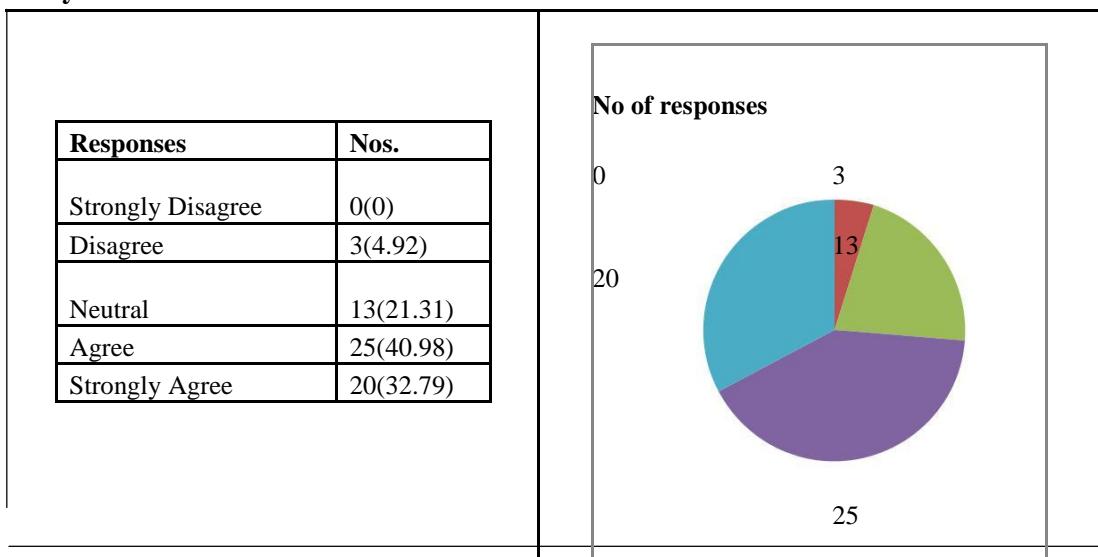


TABLE: 2.3 (Useful videos on different topics)

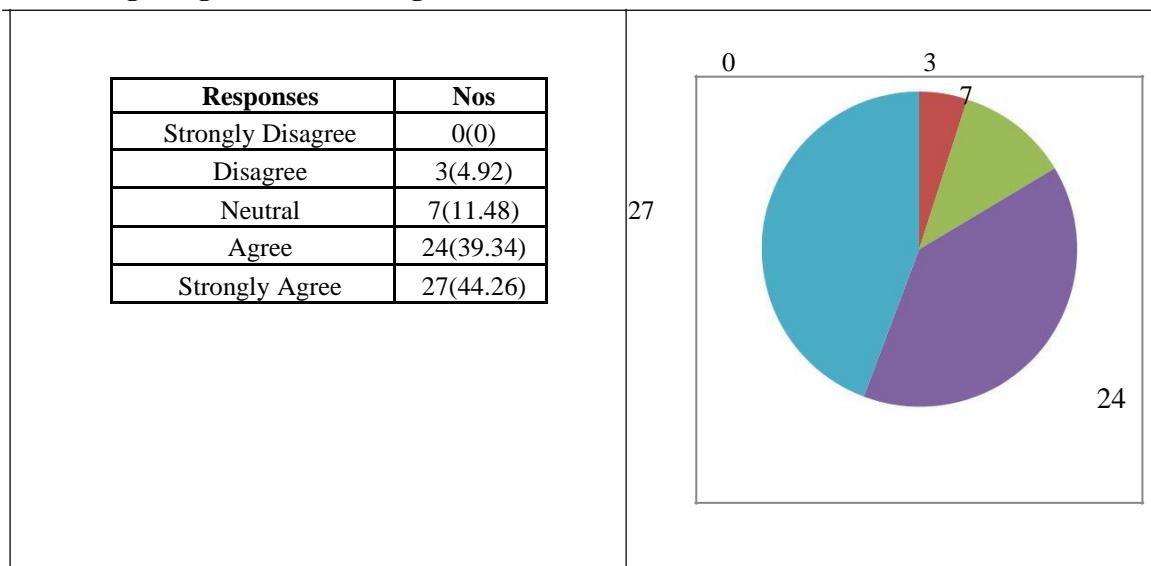
62.30% of the respondents replied that they get useful videos on different subject topics from YouTube very easily. (Figures within the parenthesis indicates percentages)

5. Variety of content on YouTube:

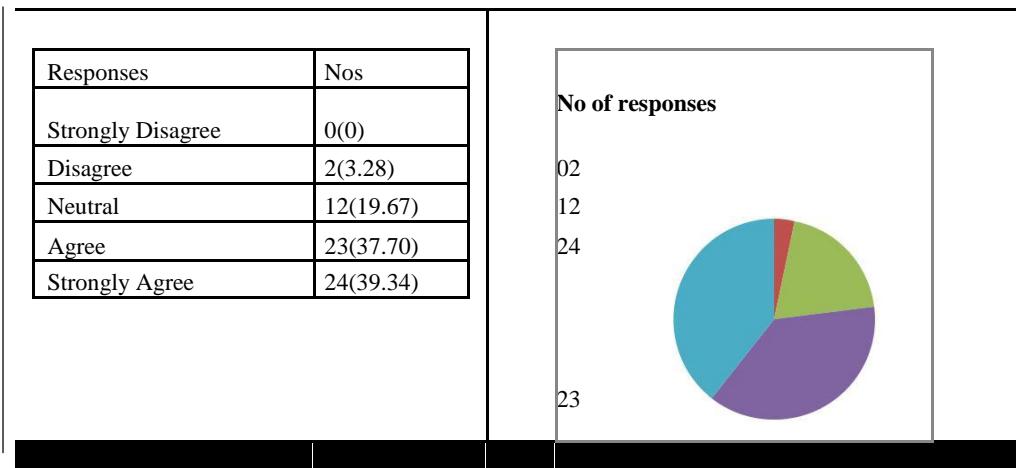
**TABLE: 2.4 (Variety of content on YouTube)**

32.79% of the respondents stated that they get variety of content from YouTube whereas no respondent replied regarding inaccessibility to YouTube. (Figures within the parenthesis indicates percentages)

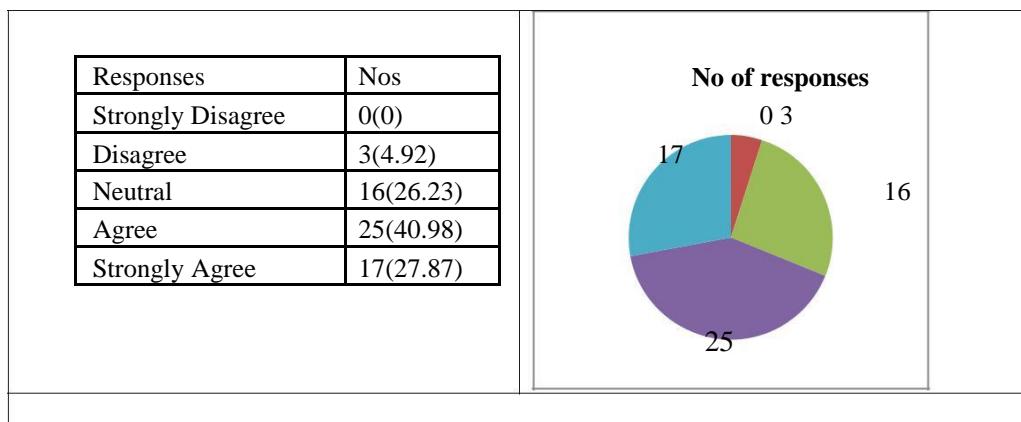
6. Useful for getting content for assignments/Research:

**TABLE: 2.5 (Useful for getting content for assignments/ Research)**

A very large numbers of respondents (44.26%) stated that they get any content related to Assignments, projects and study material easily with the help of YouTube. (Figures within the parenthesis indicates percentages)

7. Best video content for learning :**TABLE: 2.6 (Best video content for learning)**

39.34% of the respondents replied that they get best video content on YouTube (Figures within the parenthesis indicates percentages)

8. Helps in Learning New idea:**TABLE: 2.8 (Sufficient content for self -learning)**

50.80% of the respondents replied that with the help of YouTube they are able to learn new ideas easily (Figures within the parenthesis indicates percentages)

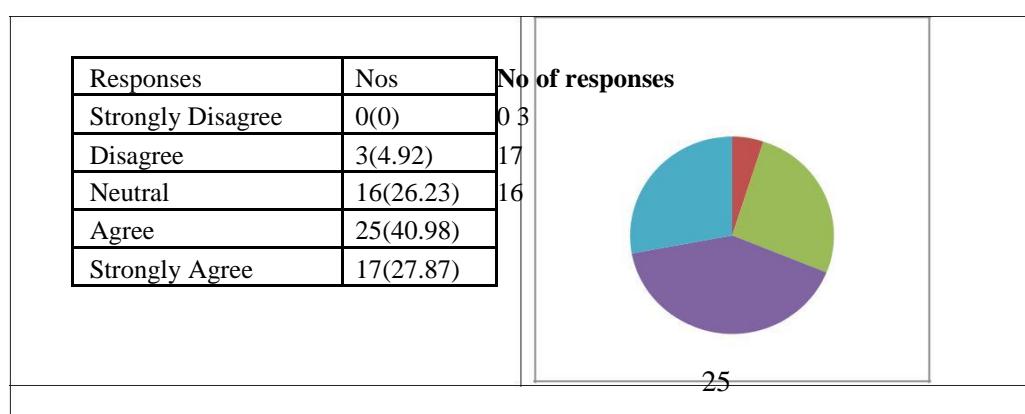
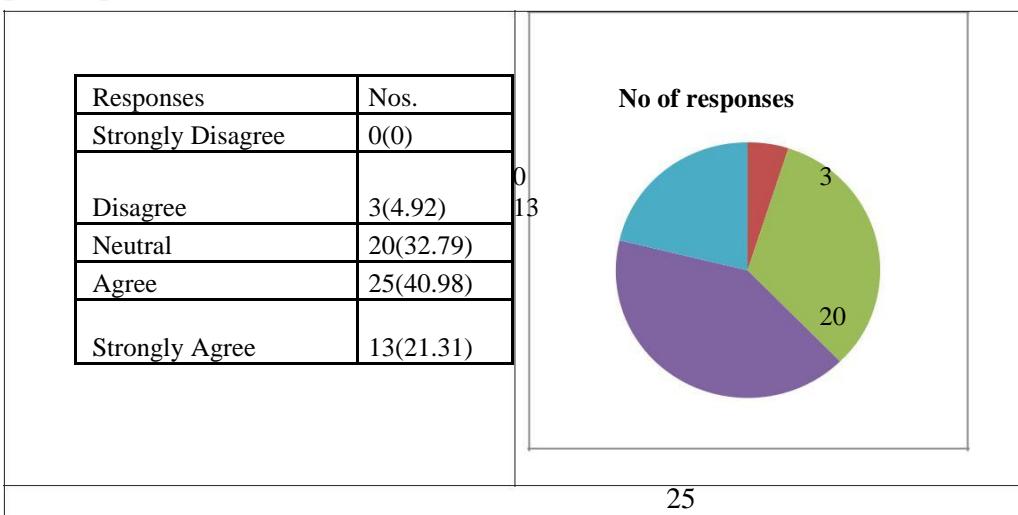
9. Sufficient content for self -learning

TABLE: 2.8 (Sufficient content for self -learning)

55.74% of the respondents stated that they get sufficient content for self- learning on YouTube. Links are given by friends & Faculty members. (Figures within the parenthesis indicates percentages)

10. Improved performance in the academic task

**TABLE: 2.9 (Improved performance in the academic task)**

40.98% of the respondents replied that use of YouTube has enhanced their academic performance. (Figures within the parenthesis indicates percentages)

Findings :

1. It has been observed that the students born after year 1997 are making use of You Tube more as learning resource as compared to students born before 1997.
2. The usage of You Tube has increased considerably since last 3 years
3. The majority of students are using You Tube through Smart phones
4. At least 70% of the students are referring You Tube in an average 5-6 times a week.
5. Mostly the students get useful videos on different subject topics very easily.
6. It also provide a platform for the students for self-learning.

Suggestions :

1. Facilitators can use this study for students of secondary and Higher secondary students also.
2. Students can use You tube to get additional knowledge about a particular topic and also can be used for doing their project work, assignments and research work.
3. Students can encourage their friends for using You Tube by sharing link about specific subject.
4. Facilitator can provide slow learners with useful link which will help them to improve their academic performance.

Conclusion : The study presented in the current paper examined student's perception with respect to the value and usefulness of YouTube as a pedagogical tool. It has been found students perceived; that the incorporation of YouTube enhances their academic performance to a greater level. This paper has shown the relevance of the use of YouTube as an instructional aid and that use is consistent with the Cognitive Theory of Multimedia Learning which states that video is particularly effective at knowledge construction and memory building. It is the goal of this paper to encourage students to embrace video, also to create their own instructional videos which can be used by others, also incorporate video design in to their projects, presentations, assignments and Research work.

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LIFELONG LEARNING - LEARN AS YOU LIVE

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Abstract

Lifelong learning is the life wide, voluntary and self-motivated pursuit of knowledge for not only personal but professional reasons as well. It does not only enhance social inclusion, active citizenship and individual development, but also increases competitiveness and employability. The importance of Lifelong Learning has been increasing for some important reasons. These are increasing of life expectancy, - asking the life quality, and trying to keep themselves in good physical and mental condition by humans. Due to these reasons, the importance of Lifelong Learning has been increasing. The lifelong dimension is relatively non-problematic, as it simply comprises what an individual learns throughout life. It is widely accepted that as knowledge and skills become obsolete, individuals continuously update their competencies in a process of continuous learning.

Keywords: Introduction, Significance, Benefits, Challenges

Introduction: Lifelong learning may be broadly defined as learning that is pursued throughout life: learning that is flexible, diverse and available at different times and in different places. Lifelong learning crosses sectors, promoting learning beyond traditional schooling and throughout adult life (i.e. post-compulsory education). Lifelong learning can in still creativity, initiative and responsiveness in people thereby enabling them to show adaptability in post-industrial society through enhancing skills to:

- Manage uncertainty,
- Communicate across and within cultures, sub-cultures, families and communities,
- Negotiate conflicts.

The European Lifelong Learning Initiative defines lifelong learning as “...a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment, in all roles circumstances, and environments.”

Albert Einstein (1879 - 1955) Physicist & Nobel Laureate stated, “Learning is not a product of schooling but the lifelong attempt to acquire it”.

The Delors Report and Four Pillars of Learning

i) **The Delors Report:** The Delors Report proposed an integrated vision of education based on two key paradigms: lifelong learning and the four pillars of learning. The report proposed a holistic conceptual framework of learning, that of the 'four pillars of learning'. It argued that formal education tends to emphasize the acquisition of knowledge to the detriment of other types of learning essential to sustaining human development. It stressed the need to think of learning over the Lifelong Learning life course, and to address how everyone can develop relevant skills, knowledge and attitudes for work, citizenship and personal fulfilment.

ii) The four pillars of learning

The four pillars of learning are stated as follows:

- Learning to know:** Mastering learning tools rather than acquisition of structured knowledge.
- Learning to do:** Equipping people for the types of work needed now and in the future including innovation and adaptation of learning to future work environments.
- Learning to live together:** Peacefully resolving conflict, discovering other people and their cultures, fostering community capability, individual competence and capacity, economic resilience, and social inclusion.
- Learning to be:** Education contributing to a person's complete development: mind and body, intelligence, sensitivity, aesthetic appreciation and spirituality.

Context of Lifelong Learning: Although the term is widely used in a variety of contexts, its meaning is often unclear. A learning approach that can be used to define lifelong learning is heutagogy. There are several established contexts for lifelong learning beyond traditional "brick and mortar" schooling:

(a) Home schooling: It involves learning to learn or the development of informal learning patterns.
(b) Adult education: Adult education or the acquisition of formal qualifications or work & leisure skills later in life.

(c) Continuing education: It often describes extension or not-for-credit courses offered by higher education institutions.

(d) Knowledge work: It includes professional development and on-the-job training.

(e) Personal learning environments: Personal learning environments or self-directed learning using a range of sources and tools including online applications

(f) E-learning: E-learning is available at most colleges and universities or to individuals learning independently. There are even online courses being offered for free by many institutions.

Significance of Lifelong Learning: Lifelong learning means exploring the things that make you tick, expanding your horizons and becoming an active participant in your personal and professional life.

(a) Personal Learning: Lifelong learning enriches your life with the things that spark your curiosity, simply because you want to know how, what or why. The subject may be personally significant (e.g., learning about genealogy to trace your family roots), but you do not need to be enrolled in a formal degree program to develop your own interests.

(b) Professional Learning: Lifelong learning can also fortify and round out the skills you need to excel in the working world. For example, current technical skills, such the ones you can develop with Study.com's complete, self-paced courses in Java Programming, Microsoft Excel or Microsoft Powerpoint, are always in demand. Depending on the nature of your work, your place of employment may provide (or inform you about) relevant courses, expositions, seminars or even travel opportunities designed to help you perform better, network and advance in your field. Such opportunities are usually strictly optional, but taking advantage of them may give you a professional edge.

Benefits of Lifelong Learning: There are plenty of great reasons to keep learning and the widespread availability of online courses means that adults can now explore any subject, anytime, and for the rest of their lives. Some reasons why you should always keep learning are as follows:

(a) Improve Your Self-Confidence: Self-confidence can be influenced by two things; your trust in yourself as well as your level of competence, which comes from knowledge, experience and the skills that you possess. Taking an online course and learning new skills can provide a tremendous boost to your self-confidence.

(b) Fight Boredom: Staying challenged helps fight boredom. Take every opportunity to enrich yourself and learn something new; take a course, read voraciously, watch TED conferences online or attend webinars in your field of interest.

(c) Keep Your Brain Healthy and Your Mind Sharp: A study conducted by the University of California at Irvine in 2010 revealed that learning keeps your brain functioning at a high level. The brain is a muscle; continue to keep it in shape by giving it new challenges and opportunities for learning and growth. According to Science Daily, mental facilities are best protected when they are used often and continued learning can slow the physical process of Alzheimer's Disease.

(d) Learn Practical Life Skills: Besides the professional knowledge we acquire through school or work, it's important that we learn practical skills such as handling our finances, improving our communication skills, as well as basic computer skills. Courses on these subjects and more are readily available online for students of any age!

(e) Model Positive Behaviour for Your Children: Set a good example for your children by letting them see you work hard at self-improvement and continuing your education. Working alongside each other towards individual goals will increase the chances that you both will be successful!

(f) Learn for Leisure: Take a course in a subject you enjoy such as cooking, photography, beading or writing. You never know what other interests you might discover!

(g) Sleep More Soundly: Just as when you exercise your body and it gets tired; when you exercise your mind, your mind gets tired. Give your mind a workout by studying a new subject!

(h) Stay Healthy: There are some not-so-obvious health benefits to learning. Becoming organized and practicing time management techniques can help reduce stress in your life. Learning the basics of nutrition may help you to make improvements your diet. Exploring health and fitness courses may inspire you to take better care of your body. You get the picture!

Challenges of Lifelong Learning: As Green says (2002): LLL literally means that learning should take place at all stages of life cycle (from the cradle to the grave) and, in more recent versions that it should be life-wide; that is embedded in all life contexts from the school to the workplace, the home and the community. The learning society therefore, is the vision of a society where there are recognized opportunities for learning for every person wherever they are and however old they should be. By a survey in the literature on the major challenges we meet toward LLL, many barriers have been identified by experts in the field that are described as follows:

- (a) In 1965, Johnstone and Rivera organized the challenges in two main categories of situational (external) and dispositional (internal) ones, which consisted 10 potential barriers to learning. These barriers were then linked to different gender, age, and socioeconomic categories. Older adults tended to have more dispositional barriers, while younger people and women were more constrained by situational barriers. Persons of lower socioeconomic circumstances face both kinds of obstacles (Johnstone, J. W. C. & Rivera, R. J., 1965).
- (b) In 1981, Cross added one more barrier category to Johnston and Rivera which was institutional. She identified three main barriers to environment at a given point; Institutional: Those practices and procedures that exclude or discourage adults from participating in organized learning activities; and Dispositional: Those related to the attitudes and self-perceptions about one self as a learner. She used the model of chain-of-response to highlight how individuals respond to internal and external variables associated with LLL (Cross, K.P., 1981).
- (c) In 1982, Darkenwald and Merriam added another category to Cross' list, called Informational barriers means the person is not aware of available educational activities. They labelled barriers such as beliefs, values, attitudes, and perceptions about education or about oneself as a learner as psychosocial (Darkenwald, G. G., & Merriam, S. B., 1982). While the developed countries are advocating the phrase.
- (d) "*Beware of false knowledge; it is more dangerous than ignorance*" - George Bernard Shaw. If the source of providing knowledge is unauthorized or fake, there are chances that an individual may land up acquiring false knowledge. This would misguide the individual which is more dangerous.

Conclusion: Whether it's in schools, at home, on the job or in the community, people are always gaining new knowledge and skills. This is lifelong learning. Lifelong learning is about learning what one wants to learn, how one wants to learn and when one wants to learn it. Lifelong learning can help one get his/her high school diploma, get a post-secondary education, or learn new skills or get a better job. As the job market becomes more competitive, lifelong learning can help people keep up with the latest technologies, and gain knowledge or skills needed. Lifelong learning benefits individuals, communities and the economy, as it provides individuals with the knowledge, skills, values, attitudes and understanding they'll need in life, it makes communities more productive and innovative, as workers create and discover new abilities and ideas. In our knowledge-based

economy and society, change is constant in the workplace. It also strengthens the economy. The more skills, knowledge and ability that individuals develop, the greater the level of capacity in the economy would be. A stronger economy means citizens benefit from the chance to earn more, live better and contribute to the economic system.

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**OPPORTUNITIES & CHALLENGES OF FOREIGN DIRECT INVESTMENT IN INDIAN
AGRICULTURAL SECTOR-AN EMPIRICAL ANALYSIS**

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Abstract

In India, agriculture is an important sector of the Indian economy and accounts for almost 14% of India's gross domestic product (GDP). Agriculture forms the backbone of rural India, which inhabits 65% of the Indian population; hence any policy decision regarding agriculture has an impact on a large majority of the vast population. There is growing evidence that investing in the Indian agricultural sector is among the most efficient ways to reduce poverty and hunger. Agricultural investments can generate a wide range of developmental benefits. The agricultural sector is facing a crisis. Ardent students of the Indian Economy and all those who have been following the recent trends in its agricultural growth and development will agree that the sharp deceleration in the agricultural sector despite an overall impressive growth of the Indian economy is a major cause of concern today. There can be no better time than now – the period of second generation reforms – for a critical study of this vital sector of the Indian economy and for ensuring a second green revolution in the near future. FDI in Agricultural Sector is one of the fruitful steps in improving the plight of Indian Farmers. This paper attempts to study the FDI policy of Government for agricultural Sector. The present study focuses on the trends of FDI Flow in the agricultural sector during 2000-01 to 2015-16 (up to December 2015). At the end, the paper contained the positive and negative impacts of Foreign Investment in Indian Agricultural Sector.

Keywords: Agricultural Sector, FDI Equity Inflows, Sector Contribution, Indian Economy.

Introduction: The United Nations 1999 World Investment Report defines FDI as 'an investment involving a long term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investment or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise, affiliate enterprise or foreign affiliate).

In the recent years, Foreign Direct Investment (FDI) policies have become one of the central economic policies for the developing countries, learned from the experiences of newly industrialized countries (NICs) like South Korea, Singapore, Hong Kong and Taiwan which promoted FDI as the catalyst of rapid economic growth in the early stages of their economic development. Empirical studies on the impact of FDI on economic growth have shown positive impact in the host countries. Hence, it has become an area of great interest with empirical determinants of policy implications for enhanced FDI inflows and the mechanism through which it facilitates growth and structural change in recipient countries. The role of FDI in economic growth in the developing countries is that FDI generates more benefits to the recipient countries rather than just fulfilling the short-term capital deficiency problems. Transfer of technologies and its spillover effect to the local firms will make the local firms more competitive and high standards which is necessary to compete with the foreign products. Another, spillover effect of MNEs is that MNEs may provide training and labour management, which may make them available to the economy in general. The training to local suppliers by MNEs may increase the high standard production and managerial standards. The relationship between foreign direct investment and economic growth is one of the well studied subjects in the field of development economics. Especially, after the advent of endogenous growth model (Borenzsteins, et al, 1995, Balasubramanyam, et al, 1996) made this relationship more vital for long run economic growth. The research interest in this field has increased after 1990s wave of globalization and massively increased FDI across the globe and economic growth of FDI receiving countries. According to UNCTAD (2009) foreign direct investment has potential to generate employment, raise productivity, transfer skills and technology, enhance export and continue to the long term economic development of the world's developing countries. FDI is also the largest source of

external financing for developing countries. Foreign Direct Investment is directly linked to the international trade of the country which provides the opportunities to integrate the local economy with the world economy. An enormous literature on the significance of FDI has shown a positive role in the economic growth (Borenztein, et al 1995, De Mello, 1996 and Balasubramanyam, 1996). However, there are controversies as some academics argue that the relationship between FDI and growth is non-linear. This is a complex issue whether FDI cause growth or growth causes the increase of FDI. Multinational companies go across the world with the objectives maximizing profits. Hence, countries are providing the most suitable investment environment to MNEs to attract the investment. Policy reforms, political stability, domestic growths, increased domestic entrepreneurial skills might cause to grow the FDI in host countries. Inflows of FDI can be an important vehicle for technological change and human capital. Blomstrom et al (1994, 1996) emphasized FDI that induced human capital augmentation and economic growth with the help of the technology transfer, accumulation of human capital and knowledge spill over in the FDI receiving countries. There are two ways to deliver goods and services to foreign markets: international production and trade. This means that there should be some interrelationship between the two. This is confirmed by the positive correlation between world Foreign Direct Investment (FDI) and world exports. Thus, economic growth and trade and investments are interconnected.

Inflow of Foreign Direct Investment in Agricultural Sector since 1991: Since Independence, the government of India has encouraged the flourishing of the agricultural sector. The sector is aided with several reformation policies and subsidies. However, a major policy change took place after the liberalization of the Indian economy in 1991. Along with other economic reforms and inflow of foreign investment in the agricultural sector was also opened (Wadhwa & Arora Wadhwa 2015).

Though the foreign direct investment in agriculture was permitted, but the size of the investments was small. This is due to the primitive structure of the sector and lack of a technological base. Out of 129 million dollars of total inflow in 1991 only 6% was invested in the agricultural sector (Dutta & Sarma 2008). Eventually, with the development of the Indian agricultural market and the improvising technology used in the agricultural sector the inflow of capital has increased to USD 40,885 million. The graph below evaluates the growth of the agricultural sector with the importance of the main crops of the country.

Major changes in the Foreign Direct Investment Policies in Agricultural Sector: During the first half of the liberalization policy implementation the agricultural sector was permitted with only 45% of foreign capital. Limited foreign investment has reduced the scope of growth for the agricultural sector. However, in the latter half of 2000, the government announced policies that indicated the improvisation of the agricultural sector with the permission of 100% foreign direct investment in the agricultural sector through automatic route. With higher inflow of foreign direct investment in the growth rate of the agriculture sector has increased to 4% (Singh & Walis 2015). 100% FDI was granted for sectors such as: Floriculture, Horticulture, Apiculture, Cultivation of vegetables & mushrooms (under controlled conditions), Development and production of Seeds, Planting material, Animal Husbandry (including breeding of dogs).

Market Size: India's GDP is expected to grow at 7.1 per cent in FY 2016-17, led by growth in private consumption, while agriculture GDP is expected to grow above-trend of 4.1 per cent to Rs 1.11 trillion (US\$ 1,640 billion). It ranks third in farm and agriculture outputs. As per the 2nd Advance Estimates, India's food grain production is expected to be 271.98 MT in 2016-17. Wheat production in India is expected to touch an all-time high of 96.6 MT during 2016-17.! Production of pulses is estimated at 22.14 MT.

India had been the world's largest production of milk for the last two decades and contributes 19 per cent of the world's total milk production.

India is emerging as the export hub of instant coffee, which has led to exports of coffee reaching 177,805 tonnes valued at US\$ 447 million between April-August 2017, as against 162,641 tonnes valued at US\$ 363.1 million during the same period last year.

India topped the list of shrimp exporters globally, as the value-added shrimp exports rose 130 per cent year-on-year to 23,400 tonnes in 2016.

The production of food grains in India reached a record 275.68 million tonnes (MT) during FY 2016-17, as per the Fourth Advance Estimates (AE) released by the Department of Agriculture, Cooperative and Farmers Welfare, Government of India.

The total sown area for kharif crops was 68.53 million hectares as on July 2017, compared to 67.34 million hectares on July, 2016.

India is the second largest fruit producer in the world. India's horticulture output, is estimated to be 287.3 million tonnes (MT) in 2016-17 after the first advance estimate.

Agricultural export constitutes 10 per cent of the country's exports and is the fourth-largest exported principal commodity. India's exports of basmati rice may rise to Rs 22,000-22,500 crore (US\$ 3.42-3.49 billion), with volume to around 4.09 MT in 2017-18, backed by a rise in average realization. Groundnut exports from India are expected to cross 700,000 tonnes during FY 2016-17 as compared to 537,888 tonnes during FY 2015-16, owing to the expected 70 per cent increase in the crop size due to good monsoons. India's groundnut exports rose to 653,240 MT during April 2016-February 2017. India is the largest producer, consumer and exporter of spices and spice products. Spices exports from India grew by 9 per cent in volume and 5 per cent in value year-on-year to 660,975 tonnes and US\$ 1.87 billion respectively, during April-December 2016.

Investments: According to the Department of Industrial Policy and Promotion (DIPP), the Indian agricultural services and agricultural machinery sectors have cumulatively attracted Foreign Direct Investment (FDI) equity inflow of about US\$ 2.45 billion and the food processing sector has attracted around US\$ 7.81 billion during April 2000 to June 2017. Some major investments and developments in agriculture are as follows:

- India and Brazil have signed a bilateral investment agreement, aimed at enhancing cooperation in areas of agriculture, cattle genomics, ship building, pharmaceuticals, defence production, ethanol production and oil and gas, between the countries.
- Parle Agro Pvt Ltd is launching Frooti Fizz, a succession of the original Mango Frooti, which will be retailed across 1.2 million outlets in the country as it targets increasing its annual revenue from Rs 2800 crore (US\$ 0.42 billion) to Rs 5000 crore (US\$ 0.75 billion) by 2018.
- Zephyr Peacock, the India-focused private equity fund of US-based Zephyr Management, has invested an undisclosed amount in Bangalore-based potato seeds firm Utkal Tubers India Pvt Ltd, which will be used to produce high-quality mini-tubers in a tissue culture laboratory and multiply them in its own development farms and through supervised contract farming in different regions of the country.
- US-based food company Cargill Inc, aims to double its branded consumer business in India by 2020, by doubling its retail reach to about 800,000 outlets and increase market share to become national leader in the sunflower oil category which will help the company be among the top three leading brands in India.
- Danone SA plans to focus on nutrition business in India, its fastest growing market in South Asia, by launching 10 new products in 2017, and aiming to double its revenue in India by 2020.

Government Initiatives: Given the importance of the agriculture sector, the Government of India, in its Budget 2017–18, planned several steps for the sustainable development of agriculture-

- Total allocation for rural, agricultural and allied sectors for FY 2017-18 has been increased by 24 per cent year-on-year to Rs.1,87,223 crore (US\$ 28.1 billion). A dedicated micro-irrigation fund will be set up by National Bank for Agriculture and Rural Development (NABARD) with a corpus of Rs.5,000 crore (US\$ 750 million).
- The government plans to set up a dairy processing fund of Rs 8,000 crore (US\$ 1.2 billion) over three years with initial corpus of Rs 2,000 crore (US\$ 300 million).
- The participation of women in Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) has increased to 55 per cent and allocation to the scheme has been increased to a record Rs.48,000 crore (US\$ 7.2 billion) for FY2017-18.
- Short-term crop loans up to Rs.300,000 (US\$ 4,500) at subsidised interest rate of 7 per cent per annum would be provided to the farmers. An additional incentive of 3 per cent is provided to farmers for prompt repayment of loans within due date, making an effective interest rate for them at 4 per cent.

Some of the recent major government initiatives in the sector are as follows:

- With an aim to boost innovation and entrepreneurship in agriculture, the Government of India is introducing a new AGRI-UDAAN programme to mentor start-ups and to enable them to connect with potential investors.
- The Government of India has launched the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) with an investment of Rs 50,000 crore (US\$ 7.7 billion) aimed at development of irrigation sources for providing a permanent solution from drought.
- The Government of India plans to triple the capacity of food processing sector in India from the current 10 per cent of agriculture produce and has also committed Rs 6,000 crore (US\$ 936.38 billion) as investments mega food parks in the country, as a part of the Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters (SAMPADA).
- The Union Cabinet, Government of India, approves Rs 9,020 crore (US\$ 1.4 billion) as Extra Budgetary Resources (EBR) for execution of projects under Accelerated Irrigation Benefits Programme (AIBP) and their command area development (CAD) works under PMKSY.
- A new platform for selling agricultural produce named e-RaKam has been launched by the Government of India and will operate as a joint initiative of Metal Scrap Trade Corporation Limited and Central Railside Warehouse Company Limited (CRWC).
- The NITI Aayog has proposed various reforms in India's agriculture sector, including liberal contract farming, direct purchase from farmers by private players, direct sale by farmers to consumers, and single trader license, among other measures, in order to double rural income in the next five years. The Ministry of Agriculture, Government of India, has been conducting various consultations and seeking suggestions from numerous stakeholders in the agriculture sector, in order to devise a strategy to double the income of farmers by 2022.
- The Government of India has allowed 100 per cent FDI in marketing of food products and in food product e-commerce under the automatic route.
- The Maharashtra State Agriculture Marketing Board (MSAMB) has operationalised 31 farmer-to-consumer markets in the state, and plans to open 100 more such markets in the future, which would facilitate better financial remunerations for the farmers by allowing them to directly sell their produce in open markets.

- The Ministry of Labour and Employment plans to amend the Minimum Wage Act to raise the daily minimum wage of unskilled agricultural labour in C-class towns to Rs.350 (US\$ 5.2) in the central sphere, from the current wage of Rs.160 (US\$ 2.4) per day.
- The Government of India and the Government of Israel have expressed their commitment to further strengthen bilateral relations in the field of agriculture and allied sectors, as well as enhance cooperation at the government-to-government and business-to-business levels between the two countries, in a bid to further enhance the relationship.
- According to the Agriculture Ministry, 50,000 hectares of area is available for coconut cultivation in Bihar, the Coconut Development Board plans to equip the farmers thus making India the world leader in production, productivity, processing for value addition and export of coconut.

Impact of Foreign Direct Investment in the overall growth of the Sector: After the reformation in 1991, agriculture sector was opened to foreign investment and was also followed by better technology, better seeds and thus rapid growth. However, the growth was confined to certain areas which led to increase inequality in the country (Sawant 2014). The interest of the investors in the allied sectors of the agriculture aided the export of goods which perused a greater demand for them. However the production of food crop cultivation declined for those products which have comparatively less demand in the international market. However, the overall growth in the agricultural sector was immense compared to the period before liberalization. Now India stands as one of the leading exporters of the agricultural goods in the world (Agrawal & Khan 2011).

Service and manufacturing sector has largely been benefited from the high inflow of foreign capital. However, foreign direct investment in agriculture requires a more detailed research. Both positive and negative impacts should be closely analyzed, in the context of

Indian Economy : In a nutshell, there has been an immense reformation and the growth in the sector after the introduction of the economic reform. However, better monitoring and regulation of foreign direct investment is required for a good growth. Policies related to foreign investment needs to be liberalized for the food crops. This might lead to technological boom and growth in the sector.

Road Ahead: India is expected to achieve the ambitious goal of doubling farm income by 2022. The agriculture sector in India is expected to generate better momentum in the next few years due to increased investments in agricultural infrastructure such as irrigation facilities, warehousing and cold storage. Furthermore, the growing use of genetically modified crops will likely improve the yield for Indian farmers. India is expected to be self-sufficient in pulses in the coming few years due to the concerted efforts of scientists to get early-maturing varieties of pulses and the increase in minimum support price. India's gross value added (GVA) at basic prices increased by 5.7 per cent during the April-June 2017 quarter, driven by agriculture and government spending. GVA from agriculture, forestry and fishing sector grew 2.5 per cent in this quarter. The government of India targets to increase the average income of a farmer's household at current prices to Rs.219,724 (US\$ 3,420.21) by 2022-23 from Rs.96,703 (US\$ 1,505.27) in 2015-16. Going forward, the adoption of food safety and quality assurance mechanisms such as Total Quality Management (TQM) including ISO 9000, ISO 22000, Hazard Analysis and Critical Control Points (HACCP), Good Manufacturing Practices (GMP) and Good Hygienic Practices (GHP) by the food processing industry will offer several benefits.

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SKILL DEVELOPMENT AND EMPLOYABILITY

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Abstract

India is on the cusp of a demographic dividend by being the youngest economy in the world with maximum number of working age population in the next decade. This brings the focus on the country's preparedness to reap the benefits by becoming the largest talent pool of skilled professionals. With large section of the labour force still battling with the basic necessities of complete education, poverty and marginalisation, skilling them to be part of the economic growth is a daunting task. This paper is an attempt to throw some light on the skill gaps in the various sectors, the reasons for such a disparity and how the government and other stakeholders are taking steps to improve the employability of the workforce. The world is rapidly evolving and new technologies and innovations are changing the perception of people. With so much of consumerism the focus is shifting to service providers and again in this changed scenario, the requirement of people with advance skills is on the rise. We cannot ignore this reality and hence require taking immediate steps for capacity building through quality training and bringing them at par with the other developed economies. This will require deployment of resources and infrastructure to be build on war footing. All of this efforts can be fruitful only if every individual in the labour force understands the necessity and are more receptive and able to take initiative for their own skilling and every employer take active participation in the skilling programs.

Keywords : Demographic dividend, Skill mapping, Productivity, Science and Technology, Women participation, Entrepreneurship

Introduction: Skill development has become the most important driver of any economy which wants to thrive and prosper. Be it a developed or a developing country, the quantity and quality of skill the manpower possess becomes the deciding factor of their future sustainability. Skill development leads to employability which facilitates growth and poverty reduction, increasing the productivity of any enterprise by optimal utilization of available resources and thereby putting any country on the fast track of development. Skilled manpower, technology upgradation, sound economic policies will foster inclusive growth which are the four pillars for any country to become a superpower. All the countries in the world are at different stages of development and so their priorities and challenges are different. This paper will focus on India, who as a developing economy have to fill the dearth of skilled manpower requirement in the high growth sectors to address the widening gap between facilitators and employers, the lack of infrastructure at training centres and better the quality of labour in the informal/unorganised sector which constitutes 93% of the total workforce. The world is rapidly changing with major advancement in science and technology and for India, a land of exceptional contributors like Aryabhatta, C.V. Raman, Satyendra Nath Bose, S.Ramanujan, Rabindranath Tagore, Homi Bhabha, Vikram Sarabhai etc., to stay at the forefront, employment growth and highly productive workforce is the key.

India's Employment Status: India is projected to be the youngest nation in the world in terms of size by the year 2020 with 62% of India's population in the working age group(15-59 years) and more than 54% of the total population below 25 years. Also 12 million young adults in the age bracket of 15-29 years are joining the workforce every year. This is why rapid employment generation assumes utmost importance. As per the official estimate, India is in need of additional 109 million skilled workers to work in 24 key sectors by 2022. Hence India should create 16 million good, safe, productive and well paying jobs annually for the next 15 years to reap the benefits of the demographic dividend which is expected to last for next 25 years. But again the Economic Survey 2017 states that majority of the workforce are concentrated in the informal and unorganised sector which is alarmingly short of skilled labour, have issues of under employment and are bound by rigid labour laws. Also, as per the NITI Ayog, there are the educated unemployed who choose not to work below a certain income level and their conventional education equip them with little or no job skills. India needs to

focus on the aspirations of youth by rapid advancement of skills to stay relevant in the emerging economic environment. The twin challenge of quantitatively expanding the training facilities but also increasing the quality needs to be overemphasized. This is the only way to deal with the impending demographic dividend and channel them to contribute substantively to the economic growth of the country.

Reasons Attributing to Poor Employability

(i) Poor education system: The Right to Education (RTE) Act came into force in 2010 making elementary education a fundamental right in the 6-14 age group. After 8 years of this act, the Annual Status of Education Report (ASER) was published in 2017. As per the ASER report, for age group of 14-18 year olds, 86% of youth have managed to stay within the formal education system either in school or college as direct consequence of RTE. The enrolment at age 14 for girls has gone upto 94% and for boys 95%. However at 18, the gap widens (71% for boys, 67 % for girls). Also 25% in the 14-18 age group cannot read basic texts fluently in their own language. More than 50% struggle with division problems (3 digit by 1 digit). Only 53% can read English sentences. This shows that there is a need to have foundational skills in place in elementary schools. There is a worrying trend of the youth surveyed unable to apply the basic literacy and numeracy skills to everyday tasks with only 76% able to do it which exposes the failure of the formal education system. Despite the countrywide push towards a digital economy, 59% youth have never worked on a computer and 64% have never used the internet. But 73% have access to mobile phone which can be used by policy makers to build upon. The fact that only 4.3% of youth take up vocational course shows the glaring unawareness and lack of aspiration in the youth who reach adulthood lacking the knowledge and skills which reduces their scope and opportunities. The condition of the higher education system is worsening even though more IIT's, IIM's, NIT's, AIIMS etc are being constituted. Students are following a linear path into IT, Engineering and MBA without exploring their passions or broadening their perspective. Aspiring Minds National Employability report states that 80% of engineering graduates are unemployable. The reason for this is the outdated curriculum and quality of teaching which requires upgradation as per industry standards. The selection procedure in graduate college needs a major overhauling based on merit which currently is bureaucratic. There is a lack of corporate involvement which is widening the skill and employability gap as finding candidates with the right skill sets has become a challenge. This has led to a large pool of educated unemployed who are not industry ready.

(ii) Lack of formal training: In India, only 5% of the total workforce has undergone formal skill training compared to 68% in UK, 52% in USA, 80% in Japan and 75% in Germany. As per the latest NSSO survey, the total workforce in the country is estimated at 487 million. Of this only 3.6% are formally trained and skilled. The rest needs to be mapped by identifying their existing skills and provided with necessary skilling, re-skilling and up-skilling to increase productivity and provide a livelihood pathway. The Indian mindset towards skilling is very narrow and it's for those who are unable to progress through the formal education system. Hence enrolment in vocational training is minimal and also it is not industry specific. The MSME sector treats the skilled and unskilled persons at par thereby depriving skilling any economic incentive. As a result, in India, on one side is unemployment and on the other there is dearth of skilled people for building roads, bridges, lay pipelines,, work in factories etc. Even when free training is provided for students, they value it less and the quality of training deteriorates as trainers focus more on increasing enrolment. The Trainer Training Programs lack updation and career progression thereby affecting the learning curve of trainers. The industry/employer participation in skilling has been poor creating gap between the required competencies by a an employer and those possessed by the job seeker.

(iii) Sector specific challenges: 93% of the workforce is in unorganised/informal sector making it extremely difficult to map the existing skilling and gauge the future requirements for employability. The sector and state wise distribution of workforce (Table 1) shows that most of the labour force is illiterate and unskilled and involved in agricultural activity where almost 32% are self-employed and acting as own account worker or unpaid helper.

Sector	Own Account Worker	Self Employed			Casual worker	Total
		Employer	Unpaid Helper	Regular salaried/wage		
Agriculture	17.03	0.71	14.11	0.41	16.64	48.90
Manufacturing	4.36	0.19	1.64	4.33	2.09	12.60
Mining	0.02	0.00	0.01	0.20	0.31	0.54
Electricity & water supply	0.04	0.00	0.02	0.43	0.03	0.52
Construction	0.96	0.08	0.07	0.49	9.00	10.60
Trade	5.42	0.25	1.43	1.73	0.48	9.32
Hotel/Restaurant	0.64	0.07	0.27	0.48	0.18	1.64
Transportation, storage & communication	1.74	0.06	0.06	2.35	0.63	4.83
Banking & insurance	0.22	0.01	0.01	0.67	0.01	0.91
Real estate, renting & business	0.50	0.04	0.06	0.72	0.09	1.41

Related Activities						
Public Administration & Defence	-	-	-	1.66	0.01	1.67
Education	0.30	0.01	0.02	2.63	0.02	2.98
Health	0.23	0.01	0.01	0.64	0.02	0.92
Other services	1.34	0.02	0.28	1.13	0.41	3.17
Total	32.79	1.45	17.99	17.85	29.92	100.00

TABLE 1: Proportion of Workforce employed by Status (2011-12)

After agriculture, the self-employed in trade is 7% followed by manufacturing 6%. The proportion of casual labours is also high in agriculture (17%) followed by construction (9%) and manufacturing (2%). In short, almost 52% of the total workforce is self-employed with 18% as unpaid helper. The self-employed are mostly household enterprise assisted by helper where the wages are nil, work conditions poor and productivity low. The percentage of casual workers is 30% adding to the low productive population. With only 18% of the total workforce in the regular paid category the productive workforce is alarmingly less. This disparity leads to poverty in the unorganised section due to low education and skilling with 76% of population falling in this category as per NSSO 2011-12 census. Women participation has been steadily falling. As per the census report, between 2004 and 2011, it has come down from 33% to 26% in rural areas and 17% to 15% in urban areas.

The importance of female participation needs to be promoted as they will constitute close to half of the demographic dividend. The issue of safety at workplace, flexible timing for work life balance, equal remuneration for equal work, skilling for non-traditional jobs all needs to be addressed for engaging women in the growth trajectory.

Rapidly evolving Science and Technology: The advancement in Science & Technology has been exceptionally fast in the 20th and 21st century in the field of space technology, information technology, biotechnology, electronics machines. Consumerism is the driving force behind such a rate of growth with more products and applications being developed to cater to every need, mood and even senses. From the invention of stone tools, fire and electricity to the advent of computer and internet, the standard and way of living have undergone tremendous transformation. The internet is a massive source of information that millions of people use and depend on everyday. More digital content are created every minute. Now the latest in technology is Artificial Intelligence (AI), machine learning, Internet of Things (IOT) which is altering the way offices functions. The demand for unskilled labour has reduced and there is a need for advanced skills and competencies. The economies of the world are undergoing a digital transformation and India needs to scale up its skilled manpower to stay relevant. It is fast becoming apparent that not only will technology and automation render many jobs, especially the process driven ones, obsolete but will also create many new jobs, which right now is beyond our imagination. As the educational institution and training centres are clueless about how to equip themselves to face this evolving world, workplace or on the job learning is going to play a pivotal role in the survival of organisation. The war for talent will continue in high skilled areas like robotics, biotechnology, machine learning, artificial intelligence, design thinking etc. As social interactions have changed from physical to the virtual world with platforms like Facebook, Twitter, Instagram, WhatsApp etc, more people are turning digital for staying connected to others. E-commerce industry is booming and online shoppers are continuously on the rise which new businesses have to take into account and train their staff to stay in competition. The mobile is becoming the one stop shop for all our requirements with everything available at the press of a button. This calls for skilling people on mobile based technology and application development.

Way Forward – Government Initiatives: The government has set up the Ministry of Skill Development and Entrepreneurship (MSDE) in 2014 to give fresh impetus to Skill India agenda and help create an ecosystem that imparts employable skills to its growing workforce in the coming decades. The Prime Minister's National Council on Skill Development has the vision of creating 500 million skilled people by 2022 by increasing the capacity and capability of skill development programs. They will focus on all sectors across all sections to reduce the divisions and disparities. It will also enable effective coordination between the ministries, the Centre/State, public/private service providers. The outcome is to impart skill training to improve their knowledge and make them employable. Entrepreneurship has been given a big push in the MSME sector by mentoring programs and financial assistance. Job creation for skilled youth is a point of contention and hence entrepreneurship based on innovation has immense growth potential and employment generation. Hence the government has come up with Make in India campaign which aims at transforming India into a global design and manufacturing hub by calling for Indian citizens and business leaders across the world to invest in India. Then we have Startup India which is intended to build a strong ecosystem for nurturing start-ups and innovation to generate large scale employment. Various incubators are coming up to train and nurture the budding entrepreneurs. Standup India is again an initiative to promote entrepreneurship among SC/ST and women by providing financial assistance to bring the marginalised section on the path of growth. MUDRA (Micro Units Development and Refinance Agency Ltd.) yojana will exclusively focus on the non-corporate non-farm sector which falls under the small business segment by providing collateral free loans. Pradhan Mantri Kaushal Vikas Yojana is a skill certification scheme under MSDE which will encourage Indian youth to take up industry relevant skill training to secure a better livelihood. It will focus on vocational training. Individuals with prior learning experience or skills will also be assessed and certified. Training and assessment fees are paid by government.

Recommendations: Government should work towards bridging the skill mismatch in the market and also the gender based wage gaps in all sectors. Since digitisation is the new buzzword, coherent steps should be taken involving the industry in identifying the employability gap and provide training to make the workforce future ready. The educational institution should also take a cue from this and overhaul the curriculum and placement institutes with giving more prominence to vocational training and soft skills training. The MSME sector can be reenergised by fresh bout of investments as it provides a quarter of the job. Reforms in the form of tax benefits, business incentives to young entrepreneurs will reduce the risk factors making it more lucrative. Focus should be on improving the basic grass root level condition like infrastructure, education, healthcare which will be the first step in reducing poverty. Private firms, who have good track record and proven credentials should be encouraged more to enter the sector. In order to stay abreast in new innovations and technology, India should promote its research and development. By making global partnership and international collaborations, India can learn the best practices around the world.

Conclusion: Skill development should lead to employability and the employed individual should be highly productive thereby contribution to economic growth. We have to take a closer and serious look at the quality of training programs and their accessibility. The schemes are in place but their implementation for a country the size of India is a daunting task which needs conscious efforts and commitment from various stakeholders. If more efforts will be taken to bring the neglected sections of the society to be tech savvy, their employability will automatically improve. India's working age population (15-64) will hit 1.1 billion in 2050 while China's will decline to 750 million. As the developed world is going to face a shortfall of skilled workforce, due to its ageing population, India can exploit this opportunity and provide the required manpower. India has all the potential and resources to become the next superpower and the sooner its people realise this and become accountable to equip themselves with the required skills on their own accord the easier it will be to reap the benefits of the demographic dividend. After all, SKILL also stands for Some Kind of Initiative towards Learning and Living with dignity.

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LIFE SKILLS EDUCATION

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Abstract

Life skill education is the soul of education. Skill shortage is a range of situations in which an employer finds it hard to find a worker with the right skills. Indian industries are facing shortages of skilled people this can directly affect the productivity and growth of business. The primary challenge faced Indian industries is 76% of Indian business is facing shortage of technical and specific skilled people. Our traditional education system is not able to provide industries demand skilled people therefore 75% graduates do not have employability skill which meets with job criteria. Prime Ministers vision for 'Skill Capital of World' will be reach only by commitment for the cause of quality higher education. Onus is on higher education system in the country, as life skill education is the soul of education that can create the shield for human survival on this planet. Education needs to address not only human resource needs of the society, but also the developmental needs and aspiration of the individuals, their ability to think & reason, built up self respect as well as respect for others etc. This paper highlights the complex nature of labour market and that of skill deficit among the Indian workforce has been quote here and existing challenges for Indian higher education access, equity and quality. There is urgent need to diagnose these issues to seize the benefits the demographic dividend and make India skill capital of World.

Keywords: Skills, Life Skills, Employability Skills, Demographic Dividend, Holistic Development, Economic Development

Introduction: Skill development has become a buzz word these days in all educational, vocational/professional institutions and universities. It is again a fact we are third largest educational system in the world but we do not match with global standards in quality. Higher education in India is passing through a phase of unprecedented expansion, marked by explosion in the volume of students, a substantial expansion in the number of institutions and a quantum jump in the level of public spending. India with its large workforce and increasing pool of higher education graduates is strategically positioned to reap the benefits of this shift. However, the 'demographic divided' will be squandered unless India is able to create a "globally relevant and competitive" higher education system that serves the requirements of both the domestic as well as global economy. Empirical evidence suggests that skilled labour contributes to increasing productivity and output. In turn, productivity is a key source not only for increasing economic growth but also for improving standards of living of a nation. Additionally, quality human capital is a fundamental factor for attracting foreign investment. Thus, skills development systems include education, technical and vocational training, and life learning are central for sustainable productivity, and would result in creation of better jobs as well as increasing job opportunities in a country (ILO 2008). By 2030, India will be amongst the youngest nations in the world. With nearly 140 million people in the college-going age group, one in every four graduates in the world will be a product of the Indian higher education system. By 2030, the already existing challenges for Indian higher education – access, equity and quality – will only be greatly exacerbated unless we significantly transform our higher education model. The existing mainstream education system in India is based on structural syllabus and conventional methods/practices of teaching and training that continue to remain unchanged while the needs of the dynamic world of business and industry change rapidly with flexibility, fast response time, and managerial and technological innovations due to globalization. The employability of Indian youth has emerged as a major concern in recent years. Ironically, it is not just the uneducated and untrained that lack skills but

it is also the educated that consistently lie below the required standards. Almost half the graduates are not employable in any sector, based on the industry standards of employability (FICCI Higher Education Summit 2013). The Prime Minister's Council for Skill Development has set up a manpower target of 500 million skilled workers by 2022. Skills and knowledge are the driving forces of economic growth and social development for any country. India currently faces a severe shortage of well-trained, skilled workers. It is estimated that only 4.69 % of the workforce in India has undergone formal skill training as compared to 68% in the UK, 75% in Germany, 52% in USA, 80% in Japan and 96% in South Korea. Large sections of the educated workforce have little or no job skills, making them largely unemployable. Therefore, India must focus on scaling up skill training efforts to meet the demands of employers and drive economic growth. (Ministry of Skill Development and Entrepreneurship, GOI).

Working Definition: Skills: Skill for all practical purpose means ability to apply concepts and knowledge in practice to address a particular problem to develop a meaningful decision package and to lead a given situation or group for achievement of a particular objective.

Life Skills: refer to 'the abilities for adaptive and positive behavior that enable individuals to deal effectively with the demand and challenges of everyday life' – WHO.

Employability Skills: Employability skills are combination of skills such as decision making, teamwork and problem solving, used to do job more effectively.

Skill Shortage: is a catch all term used to describe a range of situations in which an employer finds it hard to find a worker with the right skills.

Demographic Dividend: When a developing country reduces child mortality, it experiences a population explosion in which the proportion of dependants to workers rises. Demographic dividend refers to a period – usually 20 to 30 years – when fertility rates fall due to significant reductions in child and infant mortality rates.

Economic development: It can be defined as efforts that seek to improve the economic well-being and quality of life for a community by creating and/or retaining jobs and supporting or growing incomes and the tax base.

Holistic Development: Education with a holistic perspective is concerned with the development of every person's intellectual, emotional, social, physical, artistic, creative and spiritual potentials. Holistic development is a process of self-actualization and learning that combines an individual's mental, physical, social, emotional and spiritual growth. The term can be used to describe forms of alternative education that are based on the more humanistic and democratic outlooks.

Rationale of the Study: Recent study by business chamber ASSOCHAM revels that more than 5,500 business schools in the country are producing unemployable graduate. Only 7% MBA passed are employable. (The Asian Age, 29th April 2016). Because of the recent global trend demanding workers with a range of abilities, many scholars, business leaders and workers, parents and graduates have recognized how important work competencies are for business workers. They have also recognized that there are gaps between the classroom and workplace. Not only basic academic skills are required by various employers, now a days, but also necessary work related competencies and skills, like, creative thinking, motivation, business communication, problem solving, decision taking, self-esteem, interpersonal ability, working in team and leadership skills are also required.

Research Objectives

1. To find out education-industry gaps with reference to employability of students.
2. To find specific employability skills, competencies that business management institutes considered being important for the employability of management students.
3. To identify parameters to be judged by students while taking admission ultimately leading to campus placement.

4. To study scope for corporate-academic collaboration leading to enhanced employability.
5. To study the change required in the management education system according to the needs of the industry.

Need and Significance of Study: The basic purpose of current study is to compare differences in employability skills and competencies provided by higher educational management institutions. More specifically, the study sought to identify:

1. The employability skills, competencies that management institutes considered being important for management students entering the workforce.
2. Recognition of education-industry gaps and to foster students' ability to develop additional workplace skills.
3. Investigating the service quality parameters, like campus placement, considered by students from management institutions.
4. Business management teachers can modify or vary their teaching objectives, methods, styles, or processes based upon the benefits and needs of students as well as the expectations of employers.
5. This study will also benefit present management students in knowing about competencies required by employers. The study can help them prepare their future career development.

Indian Higher Education – Overview: India is next only to China and USA in student enrolment (16.9 million) in the higher education sector. Apart from this, India has a large network of universities and colleges with a massive geographical reach and the facilities for higher education have been expanding rapidly in these years. The higher education system of India as of 2014-15 had 757 universities, 38,056 Colleges and 11,922 standalone institutions, with an enrolment of 33,272,722 total, 17,906,704 Male and 15,366,108 Female students. The system had 1,418,398 total, 867,187 Male and 551,202 Female teachers. The growth is phenomenal considering the fact that in 1950 there were only 32 universities, 500 colleges, 15000 teachers for a total enrolment of 100,000.(Planning Commission, GOI, 9th to 10th plan documents). The growth rate during the last 15 years was on an average of more than 35 universities per year. The three pillars of education policy in India are access, equity and excellence. Despite more investment and innovative initiatives through successive plans for the development of education sector, still some major issues remain unsolved. Still education sector warrants more infrastructure, autonomy, transparency, and effective leadership. The Indian government has designed many programs oriented towards increasing the access to socially disadvantaged groups, religious minorities, and women. Some of the flagship programmes are SSA (The Sarvashiksha Abhiyan), RMSA (Rastriya Madhyamik Shiksha Abhiyan), RUSA (Rastriya Uchattar Shiksha Abhiyan). The country however have a big challenge ahead as it is estimated that only 4.69% of the total workforce in India has undergone formal skill training as compared to 68% in the UK, 75% in Germany, 52% in USA, 80% in Japan and 96% in South Korea. Large sections of the educated workforce have little or no job skills, making them largely unemployable. It is estimated that an incremental 109.7 million skilled people will be required by 2022 across 24 sectors including agriculture. Skill development efforts across the country have been highly fragmented so far. As compare to development countries, where the percentage of skilled workforce is between 60% and 90% of the total workforce. India records a low of 5% of workforce (20-24 years) with formal vocational skills. It is quite alarming; there is need for speedy recognition of the ecosystem of skill development in the country to suit the needs of the industry.

Industry – Academia : The Paradox: By 2030, the already existing challenges for Indian higher education – access, equity and quality – will only be greatly exacerbated unless we significantly transform our higher education model. The existing mainstream education system in India is based on structural syllabus and conventional methods/ practices of teaching and training that continue to remain unchanged while the needs of the dynamic world of business and industry change rapidly with

flexibility, fast response time, and managerial and technological innovations due to globalization. The employability of Indian youth has emerged as a major concern in recent years. Ironically, it is not just the uneducated and untrained that lack skills but it is also the educated that consistently lie below the required standards. Almost half the graduates are not employable in any sector, based on the industry standards of employability (FICCI Higher Education Summit 2013). The Prime Minister's Council for Skill Development has set up a manpower target of 500 million skilled workers by 2022. India's contribution to the global talent pool of knowledge workers: India will need 119 million more skilled workers by 2022. But India's skilled workforce at a dismal 2% lowers than developing nation. (Economic survey). Skills and knowledge are the driving forces of economic growth and social development for any country. India currently faces a severe shortage of well-trained, skilled workers. India, today, is considered as a talent pool of the world, having qualified and educated human resources in abundance. While students work hard to get good grades may still struggle to gain employment.

According to research by the CBI (Confederation of British Industry) in 2011 employers were looking not just for academic success but key employability skills including :

- (a) The ability to self-manage.
- (b) Solve problems and understand the business environment
- (c) Working well as a part of a team
- (d) Time & people management
- (e) Agility & adaptability to different roles & flexible working environments and
- (f) The potential to lead by influence

Following frame work for 21st Century Learning and skills industries are looking for, is self explanatory to understand the where the current education system should lead.

Learning & Innovation The “ 4C’S”	Digital Literacy	Career & Life
Critical thinking & Problem solving	Information Literacy	Flexibility & Adaptability
Creativity & Innovation	Media Literacy	Initiative & Self direction
Communication	ICT Literacy	Social & Class cultural interaction
Collaboration		Productivity & Accountability
		Leadership & Responsibility

https://commons.wikimedia.org/wiki/File:Framework_for_21st_Century_Learning.jpg

The importance of skilled manpower can be understood from following:

- (a) Various new industrial sectors especially heavy engineering, biotechnology, chemical technology and petrochemical industry are growing with a significantly high rate.
- (b) The service sector such as IT, ITES, BPO, Entertainment services, Healthcare and Tourism are rapidly growing sectors. However the kind of manpower required is not available in all the different industries. Academic institutions are unable to meet these requirements resulting into significant demand shortage of qualified manpower.

The sector wise requirement of talent is presented in the following table.

Sector wise Requirement of Talent		Figures of Annual intake of various approved colleges by AICTE	
Sector	Projected Demand	Category	Annual Intake
Aviation	10,000 pilots by 2010	Engineering Graduates	439,689
Engineering	73 million by 2015	Diploma Engineering	265,416
Animation	100,000 by 2008	MCA	54,167
IT & ITES	1,000,000 by 2010	Pharmacy	24,672

Retail	2.5 million by 2010	Hotel Management	3,685
		Total	787,629

Source : AICTE website

The policy question is how to deal with Industry-Academia Paradox?

Recommendations :

1. Traditional method of teaching, usually 'chalk & board' and rote learning; should be replaced by experiential, activity based learning and problem solving techniques.
2. Need for application and job oriented courses in addition to domain knowledge so that students do not remain only theoretical.
3. For making a graduate employable, academic planners must ensure practical exposure along with employable skills. For employable competencies, efforts to be made to enrich technical and soft skills in the course. Without making any changes in the curricula, add-on courses is most practical proposition aiming to address the issue of skilling.
4. Seamless integration of vocational training in formal education is expected to ignite student's interest.
5. Revisiting our education system needs in the background of competitive global scenario and re-strategize our approach from knowledge centric to skill centric.
6. To effectively create a skilling landscape, a genuine connects between industry and academia has to be ensured. This is possible through incentives to institutes and industries for taking up skill development initiatives both through short term and long term certification courses.
7. To induce real skilling culture, there is a need of setting up of Entrepreneurship Parks, Industrial Parks, and Innovation & Incubation Centers.
8. PPP models needs to be involved through positive policy interventions for sustaining skill ecosystem, collaboration with reputed international players.
9. Encouraging Vocational Training and Education as these courses enhances the employability of students.

Conclusion : Talent is natural but skills are developed. Possessing talent is not adequate at the same time it should be properly nurtured, developed and channelized. Increasing productivity through life skills education needs to be at the core of the policy agendas of governments and educational institutions. Prime Minister's vision for 'Skill Capital of World' will be reached only by commitment for the cause of quality higher education. Onus is on higher education system in the country, as life skill education is the soul of education that can create the shield for human survival on this planet. Education needs to address not only human resource needs of the society, but also the developmental needs and aspiration of the individuals, their ability to think & reason, built up self respect as well as respect for others etc. Again of all GCI (Global Competitiveness Index) factors India is poorly rated in terms of technology readiness, higher education and health and primary education. The HDI, (Human Development Index) seeks to serve as a tool for capturing the complexity of education and workforce dynamics so that various stakeholders are able to take better informed decisions. The education attainment is the major vector of human development and hence a focused approach on educational attainment and creation of employment potential are going to be critical for Indian transformation (WEF 2015). In highly skilled competitive global scenario, our education system needs to shift from knowledge centric to skill centric.

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YOUNG INDIA INTO SKILL INDIA

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Abstract

The rapid changes and increased complexity of today's world present new challenges and put new demands on our education system. There has been generally a growing awareness of the necessity to change and improve the preparation of students, for productive functioning, continually with changing and highly demanding environment. In confronting this challenge, there must be proactive strategies to be formulated by the government and educational institutions. Hence forth, the research aims to find the challenges faced by the students in current education system and measures taken by government to overcome the challenges, reforms to be brought in transmission of educated India into skilled India.

Keywords : Education, Reforms, Skill

Introduction: India marches towards Young Skilled India by 2020 with the average age of an Indian will be Twenty Nine years. Energetic India must be trained to become a global leader utilising the potentialities. Challenges confronting is on how to bridge the gab between talent and skill. The research paper tries to find the measures to fill such gab. It's a time for the Government to incorporate changes in education policy at par with International Standard. Today's educational system develops the system of rote reading instead of culturing the habit of knowledge application. Even students with a score of 100% in their exam find difficult to hold their foot when it comes to the question of employment. We live in a country where the people see Education as the means of climbing social and Economic ladder.

Objectives of the study :

The current research paper aims –

- To know Government plans to initiate skill India.
- To know the extend to which plan match with the need of Young India.
- To find out the gab between today's educational system and tomorrow's expectations.

Research Methodology: With an intention of knowing feasibility of current education in terms of employability and reforms expected by the students in educational sector, the researcher collects Primary Data from the Students of Vidyalankar School of Information technology through questionnaire method. Sample size was restricted to 60. Secondary data sourced from websites, books and newspaper.

Skill India Programme: Government has initiated in partnership with Private Institution to impart technical education to people with different educational background. To emphasis on enhancing the skills of youth, 'Skill India' programme has been launched in 15th July 2015. The Programme has been launched to create opportunities and development of talents of Indian Youth. The new programme aims at providing training and skill development to 500 million youth of our country by 2020 covering each and every village. More emphasis will be given on traditional occupations and new areas of occupation like banking, jewellery training etc. Different Ministry of India like Ministry of Agriculture, food processing, health welfare, human resources department etc., are vested with the responsibility of such programme.

National Skill Development Corporation of India : NSDC has been set up to provide skill training to make youth more competent in different fields. With the partnership of notable institutions like TISS, Mumbai, IIT, Delhi, Adani Skill Development Centre etc. Training centres in different parts of the country are established to provide training in Agricultural Sector, Organised Retail, Security, Health care, Building and I.T etc.

Schemes : Pradhan Mantri Kaushal Kendra (PMKK) provides vocational training through Model Training Centres (MTC) NSDC provides a concessional secured loan funding upto 75% of the project invested to such training centres.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY): PMKVY is a training scheme launched to focus on training in I.T, manufacturing sector job. Trainees under PMKVY scheme gets training at free of cost as well as placement in case of short term training.

Udaan : The programme is initiated for the upliftment of unemployed educated youth of J&K. Udaan is implemented under the partnership between the Corporates of India and Ministry of Home Affairs.

India International Skill : IISS centre is set up to provide skill training and certification benchmarked to international standard. Training is provided in collaboration of private and jointly certified by Indian Sector Skill Council and International Awarding Organisation.

Cross Disciplinary Education System : Many educationists and employers view that specialisation is one field not good enough for future job. As technology transforms the world, a growing number of educationalists and employers believe its time for India to move to a cross disciplinary education system. According to Sabina Dewan, Co-founder and President of Just Jobs Network, technology, urbanisation, trade migration and climatic change is drastically reshaping the global employment . So it is necessary to equip youths so they are flexible enough to respond quickly to a new content.

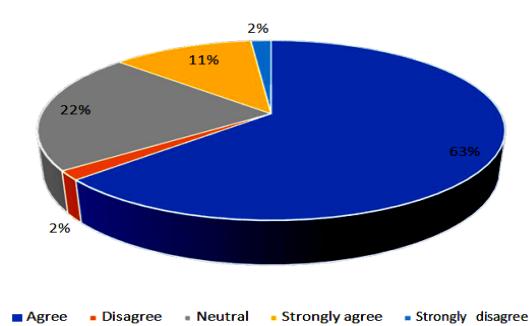
Business are going through massive contextual changes, Google moves from a search engine to autonomous cars. So it requires employers to hire employees not only for skill, but skill with certain aptitude. Microsoft CEO, Satya Nadella, express his views to Times of India on the need of multidisciplinary approach in the curriculum of higher education. According to him more than curriculum, one thing that is not emphasised enough, and which make all the difference in real life is team work. It is not just the discipline depth, but the ability to work in teams. One must come with an open mind to be influenced and influence. Team work is the soft skill training for short time period. Choice of Cross disciplinary subjects must be introduced at the school level to bring out changes.

Transformation of Villages: Villages will achieve self-sufficiency in terms of employment and optimum utilisation of local resources when the country go ahead with cross disciplinary education. Opportunity for the villages to acquire technical skill in family run business, at the same time not deprived from the privilege of learning modern education will lead to sustainability of village resources for their livelihood. Empowering villagers with multidisciplinary education would lead to establishment of Industries which source local material for processing. India needs thousands of villages could be transformed into smarter villages through cross disciplinary education, only one village tasted the success of white revolution.

Analysis and Interpretation: Collected primary data has been analysed in get clear insight into student's opinion on today's educational system and reforms in education expected by them in future. The study reveals the following :

1. Diagram shows employability of the course

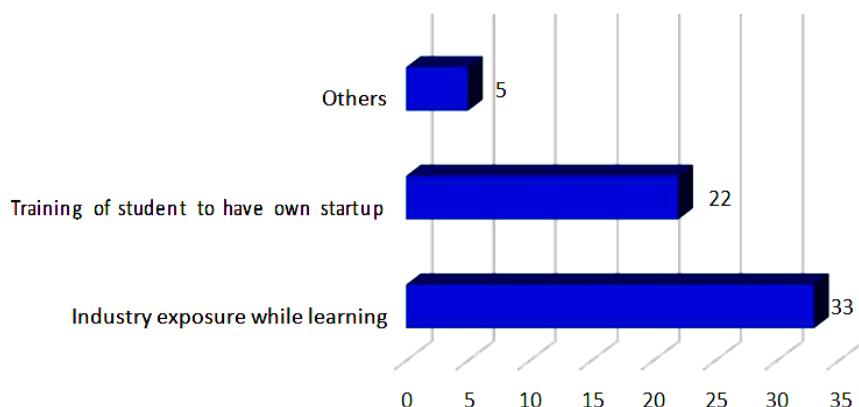
Employability of the course



Employability factor decides the course selected by the students. Most of the students agree that their course is having employability.

2. Diagram shows improvement suggested for employability of the course

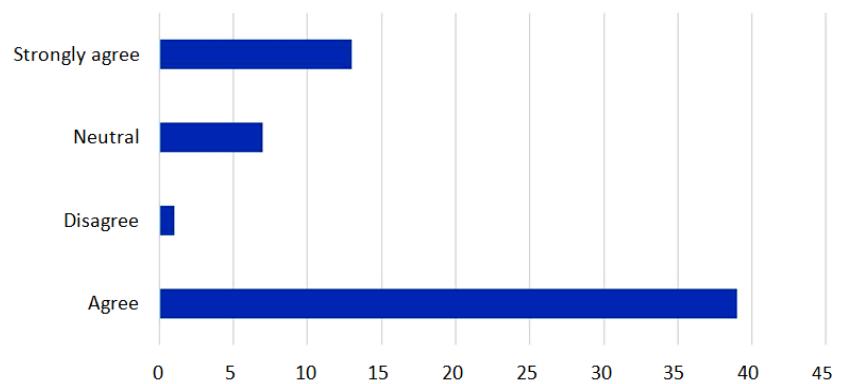
Improvement suggested for employability of the course



Students have realised that industry exposure for the students is must while learning which makes them to get practical knowledge of industrial functions. Near 25 respondents have an idea of own business and expects guidance in the college level.

3. Diagram shows need of vocational training :

Opinion on introduction of vocational education from school level

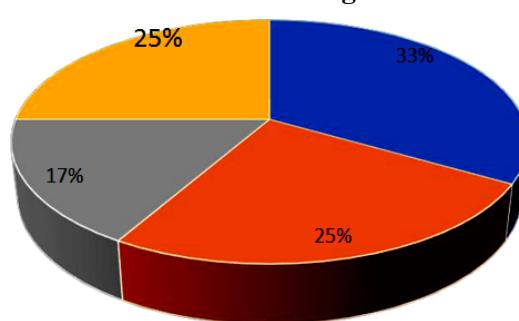


Students realized the need for training in the college before they take up actual job assignment.

Nearly 87% of the respondents supported early training at the college level.

4. Diagram shows field of education needs more attention in framing curriculum:

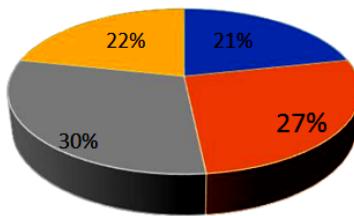
Field of education needs more attention in framing curriculum



■ Need based ■ Humanities ■ Fine and performing arts ■ Vocational

With respect to change in curriculum, the research finds students are in favour of need based education and followed by preference for the courses like humanities, fine and performing arts.

5. Reforms to be made in higher education:

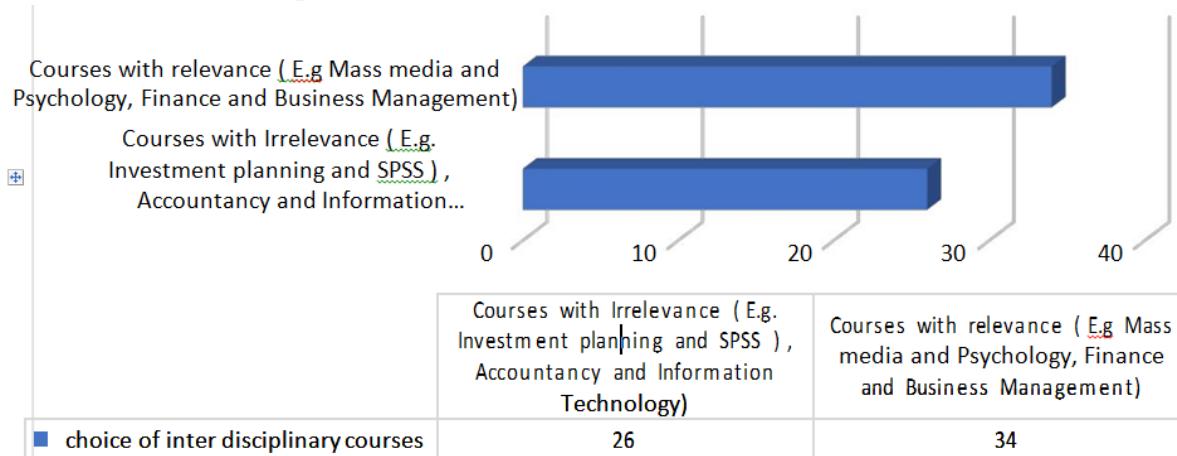


- Collaboration of Universities with Companies to encourage research
- Compulsory internship for minimum 6 months after completion of the course
- Cross disciplinary education
- Vocational training

Considering the need for acquiring skills in more subjects to meet the job specification , 18.3% of students expressed that main reform to be done in higher education is to introduction of cross disciplinary courses. In order to make education system more practical oriented, students must be provided compulsory internship in companies.

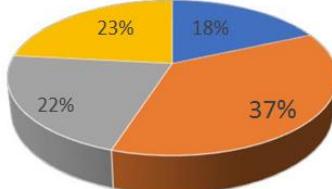
6. Diagram shows choice of cross disciplinary courses

Choice of cross disciplinary courses



7. Diagram shows the driving force to go ahead with Multidisciplinary course:

Driving force to go ahead with multi-disciplinary courses.



- Acquiring more Skills
- Coherence of two courses
- Easy Employability
- Opportunity to pursue the course of own interest along with traditional courses

The courses which are relevant to each other is preferred by students when they look for multidisciplinary courses. Easy employability is another driving force to learn cross disciplinary courses.

Findings :

1. Students are of opinion that the course which has been enrolled by them is matching with the requirement of job expectations. Though 63% of students felt that their course is having employability, they expect reform in education.
2. In order to make course more employable, 55% of the students believed in Compulsory Internship which is followed by 37% are of supportive of Collaborating Educational Institutions and Universities.
3. Vocational training must be emphasised in the college was highlighted by 65% of the respondents in the current research and students like to build their career in the field of vocational education.
4. While framing curriculum, the following field of education must be given importance by educationalist like need based education, vocational and humanities.
5. Students are expressed that equal importance must be given for industrial experience while learning and provide training for own start up. This will help to bridge a gap between the course and its employability factor.
6. Considering the importance of acquiring skill in multi specialised field, 67% of the respondents would like to take up cross disciplinary courses. 57% of the respondents prefer multi disciplinary courses with relevance. Courses with relevance facilitate them to gain knowledge in different subjects under same field.

Conclusion : India needs skilled manpower to withstand the technological changes which are undergoing worldwide. If India needs to attain its vision, there must be a drastic overhaul of the prevailing education system right from primary education. Today's education needs adopting of diverse methods of teaching to different student differ in characteristics, ability levels, learning styles, personality characteristics, and cultural backgrounds.

*Integrating the curriculum by developing inter-disciplinary curriculum units that enable students to acquire knowledge from different disciplines through a unifying theme while having the opportunity to contribute in different and special ways to the objectives of the integrated units.

*Skill Development program must be wider in scope to bring a balance between labour and capital intensive sectors. Agriculture, tourisms and SMEs would be the areas, where suitable action will bring better results. Though Government emphasis on PPT model for Skill development training program, there is a need for proactive regulations where individual employer and different industry association should be given more space for meeting the mammoth challenges of skill creation.

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**STOCK BROKER'S PROTAGONIST IN INVESTMENT VERDICT:
AN EMPIRICAL STUDY**

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Abstract

An investor who is considering investing in securities usually faces the problem of choosing a security amongst the large number of security options available in the market. The investor's choice depends on the risk-return characteristics of individual securities. The share brokers are helpful to investors for investing in the various financial instruments in the market and guide them for the safety of their investment in current and future. They offer different types of services to the investors. An investor is a party that makes an investment into one or more categories of assets, equity, debt securities, real estate, currency, commodity, derivatives such as put and call options with the objective of making a profit. This definition makes no distinction between those in the primary and secondary markets. All investments have the elements of risk. The investors are bound to take all precautions to protect their interests.. This study aims at finding out the role of share broker on investor's investment decision and to find what extent the share brokers influence the decision of investors.

Keywords : *Investment, Stock Broker, Investor, Dependency*

Introduction: Stock exchanges are like market places where stockbrokers buy and sell securities for individuals or institutions. As an investor, it is mandatory to procure the services of a share broker who will handle all transactions. In addition to guiding the investors towards your investment decisions, they also update investors about market conditions. It is advisable that investor do not bank upon share broker wholly, because he gives guidance only and the decision to invest rests on investors solely. Stock broking activity is regulated by securities and exchange board of India under the powers delegated to it under the securities contracts (regulated) act, 1956 and government of India stockbrokers and sub-brokers rules, 1992. Stock brokers could be individuals or corporate. An investor is a party that makes an investment into one or more categories of assets, equity, debt securities, real estate, currency, commodity, derivatives such as put and call options with the objective of making a profit. This definition makes no distinction between those in the primary and secondary markets. That is, someone who provides a business with capital and someone who buys a stock are both investors. Since those in the secondary market are considered investors, speculators are also investors. A stock broker is a professional who buys and sells stock and other securities in the stock market through the book makers from the stock investors. Brokers provide different types of service to their clients. A broker may be employed by a brokerage firm. Roles similar to that of a stockbroker include investment advisor, and financial advisor. A stockbroker may or may not be also an investment advisor, and vice versa.

Objectives of the Study

The objectives of the study are as follows:

- To find out the role of stock brokers on investment decision of investors.
- To evaluate the role of stock broker based on the service received by investors.
- To analysis the dependency and satisfaction level of investors on stock brokers.

Review of Literature

Brennan M. J. (1998) in this article entitled," the individual investor", focused his attention on several phenomena that arose from the limited information possessed by individual investors. He also tried to find out the extent of information disseminated by brokers. An individual investor who did not

possess expert knowledge of finance markets has to venture unaided into the treacherous waters of the market primarily for securities guided perhaps by the sometimes unreliable advice of friends or share brokers. **Wood, Ryan; Zaichkowsky, Judith Lynne (2008)** in their study on “attitudes and trading behaviour of stock market investors: A segmentation of individual investors based on their share investing attitudes and behaviours. A behavioural finance literature review reveals five main constructs that drive investor behaviour: investment horizon, confidence, control risk attitudes and personalization of loss. Ninety individuals’ investors were surveyed via questionnaire on these constructs. A cluster segmentation analysis identified four main segments of individuals’ investors: risk-intolerant traders, confident traders, loss-averse young traders, conservative long-term investors. Each segment purchased different types of stocks, used different information sources, and had different levels of trading behaviour.

Research Gap : Lots of study was done on investors attitude towards various investment but very few study were done about stock broker. The researcher not found any full-fledged study on role of stock broker on investment decision making of individual investors.

Research Methodology: The present research paper is an attempt to study the role of stock brokers in investor’s investment decision making in Mumbai. The study is designed as a empirical one based on both secondary and primary data. The primary data was collected from 60 equity market investors during November, 2017 to January 2018 with the help of questionnaire and personal interviews. Convenience sample was used to collect primary data. The secondary data was collected from Hand book of SEBI, books, journal, magazine and internet, etc.

Analysis and Discussion

General Profile of the Respondent:

The table 1 reveals the general profile of the investors. Education wise, the respondent have been divided into three categories, i.e., below SSC, Graduation, and Post-graduation. Investment experience wise, the respondent have been classified into three categories, i.e. Up to 1 year, 1year to 5 year and above 5 year.

TABLE 1: General Profile of the Respondents

Characteristics	Attributes	Male	Female	Total
Size of investment	Below SSC	4	6	10
	Graduation	8	2	10
	Post-graduation	6	4	10
Investment experience	Up to 1 year	10	2	12
	1-5 year	6	4	10
	Above 5 year	8	0	8

Out of the 60 respondents, 70% are males while the remaining 30% are female. In the female category, the respondent having above 5 years’ experience was not interviewed.

Services received by Investors : Based on the analysis, it comes to know that majority of the investors’ availed services to investment from broker such as gainful information, profitable diversification, selection of different company’s equity shares and financial services like after the investment order cash transferred to brokers account. The analysis also reveals that some of the services like loss minimization, meaning full risk return association and financial advice are not received by many investors.

Dependency on Stock Broker's Recommendation :**TABLE 2 : Dependency on recommendation of stock broker**

Characteristics	Attributes	Male	Female	Total
Size of Investment	Below SSC	50%	67%	60%
	Graduation	33%	50%	40%
	Post-graduation	0%	50%	20%
Investment Experience	Up to 1 year	80%	100%	83%
	1-5 year	33%	50%	40%
	Above 5 year	25%	NA	25%

(Source: Primary data)

Table 2 shows the percentage analysis of respondents towards the dependent on the recommendation of the brokers by the investors in their investment decision making. It is evident from the table 2 that about 25% of respondents who are having experience of more than 5 years are dependent on stock brokers to make investment decision making. The post graduate respondents who are dependent on stock brokers are only at 20%. This indicate that the investors are well-versed in the investment process and the functioning of the stock markets. It shows that the investors are mature enough to make their investments on their own, based on their past experience and investments. But those who are newly investing or having less than one year experience in investment are mostly dependent on stock broker's recommendation. It showed through 83% were depended on stock broker to make investment decisions making. Also the respondent who was qualified below SSC depended on broker's recommendation. It shows that broker analysis about the stock market plays a key role in the stock investment decision. 40% of graduated respondent were dependent on the recommendations of stock broker. It is divulged from the above table that 40% of respondents were dependent on recommendations of stock broker. Compare to male and female ratio female are high i.e. more females are taking the help from stock broker to decide their investment. Apart from that all investors are expecting suggestions from stock brokers. They are utilising the analysis done by the stock brokers. Most of information to investors is given by stock brokers.

Satisfaction Level of Stock Broker's Services : An attempt was made to find out the extent for what level an investor satisfied on the services or suggestion of the stock brokers for various factors in their investment journey. For awareness programme, Demat a/c opening, Value added services, legal procedure, market condition, benefit comparison and Technical and fundamental information, more than 60% of the investors are highly satisfied with their stock broker services. For rest of the things like identification of sectors, selection of stock, take decision regarding sale or hold the shares etc. around 50% to 60% are moderately satisfied with stock broker services and rest are not satisfied on stock broker's services.

Findings

1. Majority of the investor receiving the services like gainful information, profitable diversification, selection of different company's equity shares and financial services like after the investment order cash transferred to brokers account.
2. Compare to males, females are mostly dependent on stock broker.
3. The new investors are mostly dependent on stock broker.
4. Uneducated or semi-literate investors are mostly dependent on stock broker's recommendation.
5. Experienced investors are well-versed in the investment process and the function of the stock market and are mature enough to make their investments on their own based on their past experience and investment.
6. All investors are expecting suggestions from stock brokers.
7. Investors expect regular information from the Stock broker.

8. 60% of the investors are highly satisfied with stock broker services.
9. Stock broker's role varies according to the need of individual investors.

Suggestions

A few measures have been suggested to improve investor investment decision, and also to share brokers who had the greater influence over the investor investment decision.

1. Share brokers should ensure the investors regarding their returns since the investor's believe the share brokers for the same.
2. Share broker must be loyal to their clients. They do not lead the investor to make an unwise decision.
3. Share brokers must educate the investor about the share market and create awareness among them.
4. Investor should also understand that the stock broker's suggestion is based upon their experience. They cannot be blamed if there is sudden collapse of the share market.
5. Investors must be aware that their decisions must not be dependent solely upon the brokers' suggestion and the investor should try to update themselves about markets condition before taking the decision.

Implications & Conclusion: This study helps investors to know the services provided by the stock broker and understand how the stock brokers are playing an important role in stock market. Investors can understand when and where he/she can depend on investment decision making. The role of stock brokers are important for the pool of savings of innumerable investors, for the purpose of making investment in various financial instrument, capital market and money market, with a view of providing a reasonable return. They provide the benefit of professional management, besides a diversified investment opportunity. A stock broker involves setting an investment goal, identification of securities portfolio designing and portfolio revision.

Limitation and Scope for Further Study: In the present study, only the present equity market investors of Mumbai city and stock brokers of Mumbai city were considered. The result may differ when longitudinal study is undertaken. Primary data has been collected through field survey via questionnaires; hence the limitation of field survey will be applicable to this study also. This study is applicable only to equity market. The same study can be carried out other region and other market such as derivative market and Debt market.

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ESTABLISHMENT & SUSTAINABILITY OF HERBAL PRODUCTS THROUGH MULTI POSITIONING DIMENSIONS

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Abstract

Consumer choices has reflected not only price and quality preferences but also social and moral values, as witnessed in the remarkable growth of the global market for organic, herbal and environmentally friendly products. Positioning plays a vital role in marketing process. Positioning also influence the consumer's perception, purchase decision or buying behaviour of consumers, and also satisfy the ultimate objective of company. Positioning is an invisible asset for the manufactures that create a huge change in their production and marketing process. Due to the globalization of the economy, there has been great and cutthroat competition in the Fast Moving Consumers Goods sector. The entire aim of the paper is to find the benefit of natural& herbal products and how to positioning these herbal product benefits, usage and positive outcome in the minds of consumers. As the basic human desire and needs are very challenging, so new limits, innovative ideas and capture as much market can be done by suitable positioning and this could be termed as a new dimension to the concept of marketing – "Traditional Positioning". A brand can be positioned in several ways: offering a specific benefit, targeting a specific segment, price or distribution. In order to acquire an effective competitive advantage on the market, the product/ brand must be understood by the prospects in a certain way. The outcome of the paper is to attain a momentous positioning, which could depict a clear image in the prospect's mind of what the product can offer or mean. A clear position in the prospect's mind should be one of the most important goals in marketing and which could be only attained by substantial and suitable positioning dimensions. The marketing endeavour in any manufacturing company should be focused on achieving a desired position in a prospect's mind.

Keywords : Positioning, Traditional/ Herbal Products, Competitive Advantage

Introduction: During the last decade environmental issues have been given an increased attention globally. Many researchers, academicians and practitioner have continued working to solve and improve the environmental issues of the world that has increased the awareness of environmentalism resulting innovativeness in green product decision making. People from around the world including France, China, Greece and USA has continuously supported the herbal products and they are investing in innovating this idea. Positioning is the single greatest influence on a customer's buying decision; this helps the customer to know about the product well whether that particular would satisfy the needs of customer. Each customer evaluates products in the market according to their mental map of the market; this means that customer analysis the product with other products and evaluates which products will be more suitable for them and how long it would satisfy the needs of them. Positioning exists in customers' minds, not in positioning statements, this relates that product should be established and offered in the market in such a way that it could be retained in the mind of consumers for a longer period of time. A good positioning makes a product unique and makes the users consider using it as a distinct benefit to them. A good position in the market also allows a product and its company to ride out bad times more easily. In this context, traditional positioning can be considered as a subset of attribute, benefits and environmental values that convince herbal and health conscious customers to be loyal over herbal and organic products. Customers those are in herbal nature are referred to individuals that buy products with high environmental conscious and knowledge. With an increasing number of customers switching on to natural products, an argument related to types of positioning of these herbal products is also developing. It is to be understood if it is the functional attributes or the emotional benefits, or both of these that have become obsolete. The market is always

consumer oriented and businesses keep trying to understand the pattern of consumer behaviours it is pretty difficult. There are several factors that influence the customer perception like individual's perception, perception based on price, brand, benefits, etc. These are elements of behavioural study of consumer. People use herbal products on daily basis and believe in the usage of herbal product and the herbal medication. Other than perception some external factors like media, doctors' opinions etc. Influence the purchase and use of herbal products. The world health organization (WHO) study estimates that most of the people use herbal product and medicine than the modern one and also states that the herbal medicines has been existing from years and years back before the development of modern medicine (Brower 1998). The word "herbs" has been derived from the Latin word "Herba" and being a derivation of "Herbe". The herb refers to all parts of the plant like leaves, stem, roots etc. that can be used for flavouring or that has medicinal/nutritional value (George, 2002).

Literature Review: The origins of positioning go back to firm's communication or advertising strategy. It is postulated that the buyer's mind, with a limited capability to retain information, contains "slots" or "positions" for each competitive product, ranked by sales volume. New products, with communication, fight to outperform the leader to take over the top slot, or the position relative to the top slot, or settle for a lower slot, or significantly differentiate the product to create a new slot.

The eminent authors, Trout and Ries in (1972) heralded the introduction of a new era in marketing process "the era of positioning". In the later period of marketing process for the marketers, positioning described by the Houston and Hanieski (1976) "positioning is more than any promotional strategies". During the period from 1969 to 1979 positioning concept revolves around the enhancement of product attributes and features to attract the consumers. In the next ten years from 1979 to 1989, the theory of positioning slightly changed it's mainly focus on the needs and prefers of the consumers. From the year 1989 to 1999 it entirely changed, according to Dibb and Simkin (1993) "positioning is not what is done by product or brands; it is what is created in the minds of target consumers". A merit discipline, the perceptive of positioning was clearly explained by Michael and Fred (1993), which are product leadership, operational superiority and customer intimacy. Further to this Ries and Trout (2001) emphasized the need to focus on one key positioning concept so as to create a distinct image that will stay in the recipient's mind and provide an added value which is improved through a remarkable differentiation from competitors. The years continued to find out the effectiveness of positioning in the market for a product's growth and development. Pham and Muthukrishnan (2002), classified positioning into two aspects – abstract and attribute (specific). An abstract positioning is general and summarizes the product's features. In contrast, an attribute (specific) positioning specifies and details the product's features through specific performance claims. In above, all these perceptions, Al Ries and Jack Trout (2001) in their book *Positioning: The Battle for Your Mind*, introduce the subject by saying "Positioning is not what you do to a product. Positioning is what you do to the mind of the prospect". So that the product could be retained in the minds of consumers for a longer period, which could in turn benefit the company.

Global Herbal Market : The market ranges from wide variety of product like OTC medicine, food supplement, beauty product, etc. In recent times, the global herbal market and industry is growing very rapidly. The estimated growth rate is 15-18% per annum. The herbal product has wide opening in the export market provided if they follow international norms. The expert growth of global herbal market by 2050 is about \$5trillion. The total Indian market which includes pharmaceuticals, health care, medical equipment etc. are estimated as worth of \$30billion. The revenue from the health care sector alone constitutes 5.2% GDP; it provides employment to more than 4 million people.

Scope of Herbal Products in Indian Market: Herbal product are perceived as safe, economical and better than modern medicines to cure certain diseases but in recent times they have encountered the adverse effect and saw reduction in sales. This is due to consumer or customer requires more reliable

and authentic information regarding the usage of herbal product (Arun, 2014). India is the one of the country which is rich in herbs. It contains more than 45,000 plant species with 16 agro climate zone, 10 vegetative zone and 15 biotic provinces. India has around 18,000 flowering plants, 16000 lichens, 2500 algae, 1800 bryophytes, 23000 fungi and 30 million micro-organism (industry highlights, 1998). India is the major player in the global market and one of country in 12 mega biodiversity center. The investment in the herbal products jumped from 450 crore in 2000 to new height of Rs. 3000 cr in 2005 which shoots to Rs 10,000 cr by 2010 with the help of 'grand strategic plan. (Pujari et al, 2015). The value of Indian herbal product or herbal market is about \$1million and about \$80million is being exported. The sales of herbal product are about 50 % of the herbal market (Braver, 1998). In recent years the herbal market has grown rapidly which ranges from OTC medicines to beauty and to try products. The growth rate is about 15-18% per annum (Vani and Nikhil 2015). The demand has been increased throughout the world including developed countries due to higher safety margin with fewer side effects. Herbal products play a major role in food supplement and also in personal care. It has become a promising industry or sector with huge growth (Alok, 2008).

Concept of Positioning for Herbal/Traditional Products: The positioning plays a vital role in the marketing process. Positioning also influences the consumers' perception, purchase decision and buying behaviour of consumers. The word 'positioning' is one of the "invisible assets" of the firm. Positioning is mostly considered as a terminology or a jargon. Positioning is all about to attain a clear differentiator in the minds of consumers. In other word, it can be justified as positioning of any product means "unpositioning" the competition. The changes in the years has changed the perception and improved the concept and strategies of positioning on a broader sense. Positioning is the process of identifying and selecting the target segment, target competitors, distinctive product identity and which could ultimately satisfy the needs of consumers (DI Mingo, 1988). In today's concept the positioning is called competitive positioning (Dibb and Simkin, 1993). The discernment of positioning started with the product attributes, features and benefits. Afterward, it slightly changed to market segmentation, perceptual space, targeted consumers, and strategies of competitors. In this competitive era, positioning concept is all about point of difference and point of parity for the products in the eyes of prospects which mean ***competitive advantage and differentiation***.

This paper mainly focuses on factors influencing customer positioning dimensions on herbal product. Several independent factors influence the consumers to consume the herbal / traditional products. People use modern medicine to get instant relief, but still most of the people purchase herbal pharmaceutical product as an alternative. The herbal products available in the market are costly but have no side effects. The self-interest of the people along with doctor suggestion and with the help of media influences the customer to consume herbal product as well. The emphasis is on key for positioning the herbal consumer demand and marketing issues, including: (1) the implications of an economic definition of herbal products for consumer demand; (2) attributes that shoppers consider most when comparing herbal products with other products; (3) level and characteristics of consumer knowledge and awareness about herbal products; (4) characteristics of herbal consumer attitudes and preferences; (5) size of price premium and characteristics of consumers' willingness-to-pay for herbal products. Positioning can be based on **functional attributes**, is defined as a device that provide information about the products and intangible tools to promote the herbal products for customers, perceive value to the products, physical justification, usage effectiveness and reliability which lead to build brand names for organisations in the society. **Emotional Benefits**, Symbolic benefits or value-expressions defined as a transformational advertising segment highlighted on creating "characteristics" for the brands with a specific objective. Such conceptualization of emotional encompasses tendency of herbal product benefits through image basically react as a mediator over customer's cognitive process and the likelihood of herbal products. **Product Attitudes**, defined as a

subset of correlation between beliefs and values of customer's behaviour towards different types of herbal products in the business market.

Product attitude has been classified into different dimension with the principle of rising customer's attraction on herbal products.

Reasons for Increase in Demand for Herbal Products

Marketing is the adaptation of the commercial activities and use of institutions by the organizations with a purpose to induce behavioural change on a short-term or permanent basis. The technique used in marketing include choosing target markets through market analysis and market segmentation, as well as understanding methods of influence on the consumer behaviour. Consequently the identification and selection of positioning traits is a very complex task and it entails through marketing analysis and planning to identify the properties and the images of each of the major competitors.. At this point, a company must take cognizance of the benefits that customers seek and which are not offered by competitors but are desired by the target market.

- The perception of the consumer is the key point to marketing and advertising. It is used as the tool to frame strategies to attract new customer and to retain the old or exiting customers. The perception regarding herbal products is varies, few believe them as effective and few argue that herbal products are scientifically unapproved due of lack of awareness and knowledge about natural and herbal products. The demand for herbal product has been increasing to a greater extent along with this there is growth in the market and sales of herbal product across the globe (Antignac, 2011).
- The consumer self-perception is the important factor to analyses about the priority, purchase and consumption pattern. People who are very conscious about the society play more concern on environmental impact when they make the buying decision. So the factors like need, status, media, promotions etc. design the selection and buying pattern of the consumer. More of health conscious people are more sustained and consume herbal products.
 - i) The brand perception is related with the emotional response of the consumer with higher levels of trust, loyalty, preference and usage and improved product differentiation (Guthrie & Kim, 2009).
 - ii) Organization uses pricing strategy as the tool to reach their customer, few enterprises uses quality and value for money to please their customer. The perception based on price is one of the most influencing factors to the customer who were satisfied with their purchase and make them to continue their future purchase. The factor that determine prices are the quality & service offered by one enterprise when compared with other who is offering the similar service.
 - iii) The nutritive value of the food influences the perception of the customer. People demand more information and accurate information regarding the food they buy. The herbal products contains more nutritional quality ingredient that create trustworthy faith for the consumers.

Various Herbal Products in Indian Market

The herbal product are being used by more than 80% of the world population especially in developing and low income countries to meet their health care needs. The herbal products are trust by people due to safety, quality, no side effect, cost and cultural acceptability. The factors like product, price, place and promotion etc. plays major role in influencing the customer perception along with the positive impact of advertisement, packages, availability, and awareness about the herbal product. Cosmetics and toiletries are not just the domain of women more body sprays, perfumes and other cosmetics and toiletries with rising demand from men, the Indian market is getting enlarged and many players are coming out with cosmetic products especially skin care products for women and men. Herbal cosmetics have growing demand in the nature. The Indian cosmetics industry has a plethora of herbal

cosmetics brands like Himalaya Herbal, Lotus Herbal, Khadi Herbal, and many more adding to the list. There are number of various brands that deal with herbal product some are **Himalaya** product has its wealth of knowledge and research, in natural herbal remedies, to formulate a range of personal care products that cater to our daily health needs. Personal care products are one of the very essential and common use consumer products for every individual in their day to day life. Himalaya Herbals is a range of 100% natural and safe products with rare herbs collected from the foothills of the Himalayas. Each product combines the best of Ayurveda with years of dedicated research.

Patanjali Ayurveda Limited : Patanjali Ayurveda is well known and trusted FMCG Company which was established by Popular Yog Guru Baba Ramdev and Acharya Balkrishna in the year 2006 at Haridwar. Their vision for founding this company was to use ancient Indian science of Ayurveda in everyday products. They claim that their products are pure and have no harmful chemicals or any kind of adulteration and that has become their basic USP. Only because of quality and purity of their products, they have grown so much and have become preferred brand in the country. Currently they offer more than 440 products under different categories and 300+ ayurvedic medicines to cure and prevent various diseases. They offer soaps, Tooth Paste, Face Wash, Face Creams, Anti Aging Creams, Skin Masks, Shampoo, Conditioner, Food Supplements, Daals, Cooking Oil, Mustard Oil, Fruit Juices, Biscuits, Cornflakes, Chocolates, Instant Noodles, and Ayurvedic Medicines for various diseases and health problems. They have opened manufacturing unit at Nepal and imports many herbs from The Himalayas in Nepal. They sell their products via 4700 retail outlets which are spread in all directions of the country. The big retail chains such as Reliance Retail and Future Retail has also started starting selling Patanjali products. And of course, one can buy patanjali products online at their website.

Dabur : Founded in 1884, Dabur is considered as the India's leading and biggest Ayurvedic medicine and related products manufacturer. Moreover it is the fourth biggest FMCG Company with annual revenue of more than Rs. 7806 Crore and market capitalization of more than US\$ 5 billion.

VICCO Laboratories: Vicco is among oldest brand of FMCG products which is based on science of Ayurveda. Vicco is a well-known brand of Vicco Labrotaries, which was established in the year 1952 by Mr. K.V.Pendharkar. They were the first to bring Ayurvedic herbs in daily use products and made it available to common man. Vicco has used this science and has made products which are scientifically proven and are very effective. Their product portfolio consists of Vicco Vajradanti Tooth Paste and Powder, Vajradanti Sugar Free Tooth Paste especially made for diabetic people, Vicco Turmeric Skin Cream, Vicco Turmeric Shaving Cream, Turmeric Cream in Foam Base, and Vicco Narayani Cream. This Cream is trusted and loved by complete family and keeping their joints healthy and strong. In addition, this cream does not have any side effects and any harmful chemicals. Vicco also export their products to 26 countries in the world. **Zandu Pharmaceutical Works** – Known widely now days as Zandu Realty Limited, Zandu Pharmaceutical Works Limited is an international and leading pharmaceutical company located in Mumbai, India. Founded in 1910, Zandu went public in year 1919 with the related in the manufacturing and distribution of ayurvedic and medicinal preparations. The strength of the company is about specializes in offering a huge range of ayurvedic medicines.

Conclusion: Today's market is a more customer oriented in the sense all the business operations revolve around satisfying the customers by meeting their needs through effective service. The Indian herbal market is flooded with numerous well-known and recognised herbal brands. The technique used in marketing include choosing target markets through market analysis and market segmentation, as well as understanding methods of influence on the consumer behaviour. Customers are always passionate about brands, for which they look forward with an added value. The people now are more conscious about the health, most of the consumers feel that there are more chemicals in different products, which cause many side effects, and started switching over to herbal based products. The

herbal products available in the market are costly but have no side effects. With these aspects brands can be positioned in several ways: offering a specific benefit, targeting a specific segment, price or distribution. In order to acquire an effective competitive advantage on the market, the product/ brand must be understood by the prospects in a certain way. A clear position in the prospect's mind should be one of the most important goals in marketing and which could be only attained by substantial and suitable positioning dimensions. The marketing endeavour in any manufacturing company should be focused on achieving a desired position in a prospect's mind.

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DERIVATIVES MARKET OPERATIONS & PERFORMANCES IN INDIA

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Abstract

Everyone in the world is want make an investment decision to invest in financial instrument which give more rate of return with minimum risk. To achieve this objective, various instruments, practices and strategies have been devised and developed in the recent past. The present study attempts to discuss the derivatives operations in India by analyzing the commodity used in derivatives market and also the uses of derivatives in an equity market that it what way it used as a risk aversion tool. This study is segmented into 4 parts. Part I discuss about the Introduction, Objective, derivatives market in India. Part II deals Derivatives market at NSE, types of derivatives. Part III is about products, participants of derivatives market and finally part IV is shows the Table of Business growth in derivatives segment and conclusion for the study.

Keywords: Derivatives, NSE, Risk, Participants.

Introduction: With the opening of boundaries for international trade and business, the world trade gained momentum in the last decade, the world has entered into a new phase of global integration and liberalization. The integration of capital markets world-wide has given rise to increased financial risk with the frequent changes in the interest rates, currency exchange rate and stock prices. To overcome the risk arising out of these fluctuating variables and increased dependence of capital markets of one set of countries to the others, risk management practices have also been reshaped by inventing such instruments as can mitigate the risk element. These new popular instruments are known as financial derivatives which, not only reduce financial risk but also open us new opportunity for high risk takers.

Research objectives:

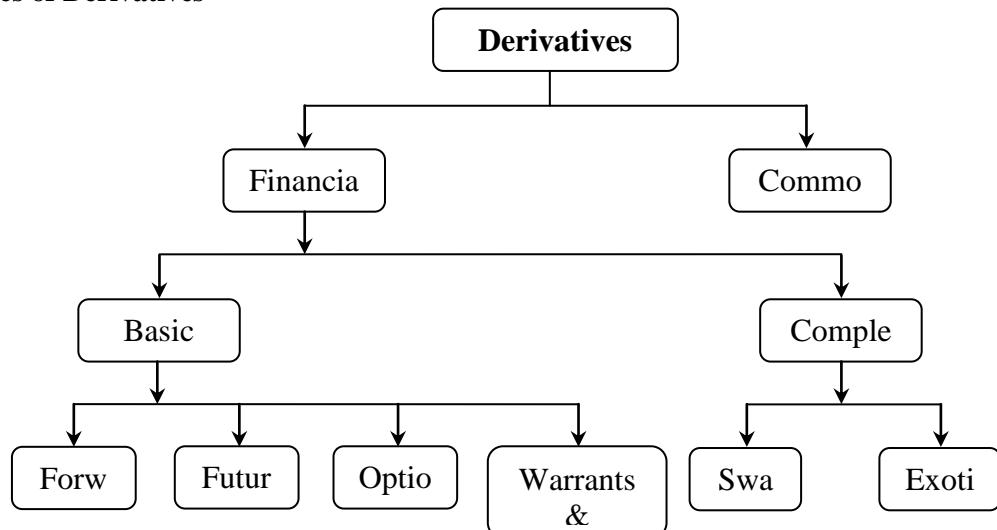
- To study the derivative operations in India.
- To understand the impact of derivative instruments on risk return parameters of the derivative participants in India and as a risk aversion tool.

Derivatives market in India: The first step towards introduction of derivatives trading in India was the promulgation of the Securities Laws (Amendment) Ordinance, 1995. This withdrew the prohibition on options in securities. The market for derivatives, however did not take off, as there was no regulatory framework to govern trading of derivatives. SEBI set up a 24-member committee under the Chairmanship of Dr. L.C. Gupta on November 18, 1996 to develop appropriate regulatory framework for derivative trading in India. The committee submitted its report on March 17, 1998 prescribing necessary preconditions for introduction of derivatives trading in India. The committee recommended that derivatives should be declared as 'securities' so that regulatory framework applicable to trading of 'securities' could also govern trading of securities. SEBI also set up a group in June 1998 under the Chairmanship of Prof. J. R. Varma, to recommend measures for risk containment in derivatives market in India. The report, which was submitted in October 1998, worked out the operational details of margining system, methodology for charging initial margins, broker net worth, deposit requirement and real-time monitoring requirements. The SCRA was amended in December 1999 to include derivatives within the ambit of 'securities' and the regulatory framework were developed for governing derivatives trading. The act also made it clear that derivatives shall be legal and valid only if such contracts are traded on a recognized stock exchange, thus precluding OTC derivatives. The government also rescinded in March 2000, the three-decade old notification, which prohibited forward trading in securities. Derivatives trading commenced in India in June 2000 after

SEBI granted the final approval to this effect in May 2000. SEBI permitted the derivative segments of two stock exchanges, NSE and BSE, and their clearing house/corporation to commence trading and settlement in approved derivatives contracts. To begin with, SEBI approved trading in index futures contracts based on S&P CNX Nifty and BSE-30 (Sensex) index. This was followed by approval for trading in options based on these two indexes and options on individual securities. The trading in index options commenced in June 2001 and the trading in options on individual securities commenced in July 2001. Futures contracts on individual stocks were launched in November 2001. Trading and settlement in derivative contracts is done in accordance with the rules, byelaws, and regulations of the respective exchanges and their clearing house/corporation duly approved by SEBI and notified in the official gazette. The term 'derivative' indicates that it has no independent value, i.e., its value is entirely derived from the value of the underlying asset. The underlying asset can be securities, commodities, bullion, currency, livestock or anything else.

Derivatives Market at NSE: The derivatives trading on the exchange commenced with S&P CNX Nifty Index futures on June 12, 2000. The trading in index options commenced on June 4, 2001 and trading in options on individual securities commenced on July 2, 2001. Single stock futures were launched on November 9, 2001. The index futures and options contract on NSE are based on S&P CNX Nifty Index. Currently, the futures contracts have a maximum of 3-month expiration cycles. Three contracts are available for trading, with 1 month, 2 months and 3 months expiry. A new contract is introduced on the next trading day following the expiry of the near month contract.

Types of Derivatives



Forward: A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price, e.g., an Indian car manufacturer buys auto parts from a Japanese car maker with payment of one million yen due in 60 days. The importer in India is short of yen and suppose present price of yen is Rs.68. over the next 60 day, yen may rise to Rs.70. the importer can hedge this exchange risk by negotiating a 60 days forward contract with a bank at a price of Rs.70: According to forward contract, in 60 days the bank will give the importer one million yen and importer will the banks 70 million rupees to bank.

Future: A future contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts. A speculator expects an increase in price of gold from current future prices of Rs.9000 per 10 gm. The market lot is 1 kg and he buys one lot of future gold (9000×100) Rs.900000. assuming that there is 10% margin money requirement and 10%

increase occur in price of gold. The value of transaction will also increase, i.e., Rs.9900 per 10 gm and total value will be Rs.990000. In other words, the speculator earns Rs.90000.

Options: Options are of two types- calls and puts. Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, as a given price on or before a given future date. Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

Warrants: Options generally have lives of up to one year; the majority of options traded on options exchanges having maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the-counter.

Leaps: The acronym LEAPS means long term equity anticipation securities. These are options having a maturity of up to three years.

Baskets: Basket options are options on portfolios of underlying assets. The index options are a form of basket options.

Swaps: Swaps are private agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts. The two commonly used swaps are :

- i) **Interest rate swaps:** These entail swapping only the interest related cash flows between the parties in the same currency.
- ii) **Currency swaps:** These entail swapping both principal and interest on different currency than those in the opposite direction.

Swaptions: Swaptions are options to buy or sell a swap that will become operative at the expiry of the options. Thus a swaptions is an option on a forward swap. Rather than have calls and puts, the swaptions market has receiver swaptions and payer swaptions. A receiver swaption is an option to receive fixed and pay floating. A payer swaption is an option to pay fixed and receive floating.

Products and Participants in Derivatives market : Derivative contracts have several variants. The most common variants are forward, future, options and swaps. The following three broad categories of participants-hedgers, speculators, and arbitrageurs are trade in the derivatives market. Hedgers face risk associated with the price of an asset. They use futures or options markets to reduce or eliminate this risk. Speculators wish to bet on future movements in the price of an asset. Futures and options contracts can give them an extra leverage; that is, they can increase both the potential gains and potential losses in a speculative venture. Arbitrageurs are in business to take advantage of a discrepancy between prices in two different markets. If, for example, they see the futures price of an asset getting out of line with the cash price, they will take offsetting positions in the two markets to lock in a profit.

The derivative market performs a number of economic functions: Prices in an organized derivatives market reflect the perception of market participants about the future and lead the prices of underlying to the perceived future level. The prices of derivatives converge with the prices of the underlying at the expiration of the derivative contract. Thus derivatives help in discovery of future as well as current prices. The derivatives market helps to transfer risks from those who have them but may not like them to those who have an appetite for them. Derivatives, due to their inherent nature, are linked to the underlying cash markets. With the introduction of derivatives, the underlying assets market witnesses' higher trading volumes, because of participation by more players, who would not otherwise participate for lack of an arrangement to transfer risk. Speculative trades shift to a more controlled environment of derivatives market. In the absence of an organized derivatives market, speculators trade in the underlying cash markets. Margining, monitoring and surveillance of the activities of various participants become extremely difficult in these of mixed markets. An important incidental benefit that flows from derivatives trading is that it acts as a catalyst for new

entrepreneurial activity. The derivatives have a history of attracting many bright, creative, well-educated people with an entrepreneurial attitude. They often energize other to create new businesses, new products and new employment opportunities, the benefit of which are immense.

TABLE 1 : Business Growth in F&O Segment

Year	Index Futures		Stock Futures		Contract s	Index options Notional Turnover	Premiu m Turnov er	Contract s	Stock Options		Total		Avera ge Daily Turno ver in (cr.)
	Contract s	Turno ver (cr.)	Contract s	Turno ver (cr.)					Notional Turnover	Premiu m Turno ver	Contract s	Turno ver (cr.)	
2000-01	90580	2365	-	-	-	-	-	-	-	-	90580	2365	11
2001-02	1025588	21483	1957856	51515	175900	3765	1299	1037529	25163	1305.23	4196873	101926	410
2002-03	2126763	43952	10676843	286533	442241	9246	112.7	3523062	100131	3033.97	16768909	439862	1752
2003-04	17191668	554446	32368842	1305939	1732414	52816	991.48	5583071	217207	8054.86	56886776	2130610	8388
2004-05	21635449	772147	47043066	1484056	3293558	121943	2356.98	5045112	168836	4948.95	77017185	2546982	10107
2005-06	58537886	1513755	80905493	2791697	12935116	338469	5770.52	5240776	180253	4895.23	157619271	4824174	19220
2006-07	81487424	2539574	104955401	3830967	25157438	791906	17650.87	5283310	193795	5904.31	216883573	7356242	29543
2007-08	156598579	3820667	20358797	7548563	55366038	1362111	29286.09	9460631	359136.6	13581.77	425013200	13090478	52153.3
2008-09	210428103	3570111	22157791	3479642	2120884	373150	91715.52	13295978	229228	8250.50	657390497	11010482	45310.63
2009-10	178306889	3934389	145591240	5195247	34137954	8027964	124416.6	14016270	506065.2	15272.89	679293922	17663665	72392.07
2010-11	165023653	4356755	186041459	5495757	65063856	183653	192637.9	32508393	103033	20474.44	103421206	29248262	115150.21
2011-12	146188740	3577998	158344617	4074671	86401773	22720032	253068.2	36494371	977031	19612.11	1205045464	31349732	125902.32
2012-13	96100385	2527135	14771161	4223872	8208771	2278152	184383.2	66778193	2000427	34288.56	1131467418	31533004	126638.6
2013-14	105252983	3083103	170414186	4949282	928565175	27767341	244090.7	80174431	2409489	46428.41	1284424321	38211408	152236.7
2014-15	129303044	4107215	237604741	8291766	1378642863	3992266	265315.9	914792052	3282559	61732.31	1837041153	55606453	228833.1
2015-16	140538674	4557114	234243967	7828606	1623528486	48951931	35122174	100299174	3488174	61118.39	2098610395	64825834	262452.8
2016-17	66535070	4335941	173860130	11129587	1067244916	72797288	3500215	921060186	6107409	95570.09	1399746129	94370302	380525.4
2017-18	22206153	1771213	85896336	6219266	567453931	48199003	1511966	50692209	3837901	56873.41	726248629	60027384	577186.4

Source: www.nseindia.com

The above table shows that the growth level of index futures was increased to 1438.58 percent since 2000 to 2017. In the case of stock futures it has increased to 479.35 percent and in Index options trading 475.70 percent and stock options trading it boosted to 377.44 percent respectively. The overall growth of derivatives trading in Futures and Options were reached to the level of 1014.18 percent and average daily turnover were 1086.80 percent.

Conclusion: Innovation of derivatives have redefined and revolutionized the landscape of financial industry across the world and derivatives have earned a well-deserved and extremely significant place among all the financial products. Derivatives are risk management tool that help in effective management of risk by various stakeholders. Derivatives provide an opportunity to transfer risk, from the one who wish to avoid it; to one, who wish to accept it. India's experience with the launch of equity derivatives market has been extremely encouraging and successful. The derivative turnover on

the NSE has surpasses the equity market turnover. Significantly, its growth in the recent years has surpassed the growth of its counterpart globally. The wider choices of risk management strategies to economic agents and innovations in financial engineering have been driving the growth of financial derivatives worldwide and have also fuelled the growth of derivatives in India. Derivative have both good and bad characters, it depends on the portfolio manager how to use derivative products and gets maximum benefits.

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EMPLOYMENT TREND IN MICRO, SMALL & MEDIUM ENTERPRISES AFTER GLOBALISATION IN INDIA

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Abstract

Micro Small Medium Enterprises plays a very important role in the growth of Indian Economy as it contributes 8% of country's GDP and 45% of manufactured output and 40% of its exports. The employment created through Micro Small Medium Enterprises is about 60 million persons through 26 million enterprises in India. Thus, Micro Small Medium Enterprises helps to achieve the national objective of growth through income, saving and investment and help to reduce the income inequality. In 2020 it is being predicted that the India will have the highest young population in the world so the major challenges is to make best possible use of those human resources one thing will be needed that is to provide them a well-paid job through skill development among them. The total employment created by Micro Small Medium Enterprises is more than the large manufacturing companies because in MSME is based on labour intensive technology whereas large manufacturing is dependent on the capital-intensive technology. The current study focuses on the employment trend in MSME after globalisation as their massive growth in term of employment after globalisation in MSME.

Keywords: MSME, Employment, Globalisation.

Objectives of the Study

- To understand the employment trend in Micro, Small and Medium Enterprises sector.
- To highlight the role of Globalisation in skill development and employment generation.
- To identify the challenges expected to by India in coming future in employment generation.

Methodology: The Purpose of the current research is to find out the impact of globalisation on employability in Micro Small Medium Enterprises. The study has been conducted with reference to the data available related to employment, no. of units and productivity of MSMEs in India. The SSI sector has been studied with the proven fact that they hold the largest share of Industrial Sector in India. For this, period after globalization has been taken into consideration. The relevant data have been collected from different sources viz. Ministry of Micro, Small and Medium Enterprises, Government of India, New Delhi, Annual Survey of Industries (Central Statistical Organisation), Ministry of planning (GOI). The Journal of Entrepreneurship, various bulletin of Reserve Bank of India, etc.

Limitations: The objective of study has suffered due to inadequacy of time series data from related agencies. There has also been problems faced related to sufficient homogeneous data from different sources. However, the time, money and place constraints have restricted to pursue only the small-scale sector in the present study.

Background: Micro, Small and Medium Enterprises (MSME) sector has emerged as a highly vibrant and dynamic sector of the Indian economy. MSMEs not only play crucial role in providing large employment opportunities at comparatively lower capital cost than large industries but also help in industrialization of rural & backward areas, thereby, reducing regional imbalances, assuring more equitable distribution of national income and wealth. MSMEs are complementary to large industries as ancillary units and this sector contributes enormously to the socio-economic development of the country. By promoting growth and development of the MSME Sector, including Khadi, Village and Coir Industries, in cooperation with concerned Ministries/Departments, State Governments and other Stakeholders, through providing support to existing enterprises and encouraging creation of new employment. The MSMED Act was notified in 2006 to address policy issues affecting MSMEs as well as the coverage and investment ceiling of the sector. The Act seeks to facilitate the development

of these enterprises as also enhance their competitiveness. It provides the first-ever legal framework for recognition of the concept of “enterprise” which comprises both manufacturing and service entities. It defines medium enterprises for the first time and seeks to integrate the three tiers of these enterprises, namely, micro, small and medium. The Act also provides for a statutory consultative mechanism at the national level with balanced representation of all sections of stakeholders, particularly the three classes of enterprises and with a wide range of advisory functions. Establishment of specific funds for the promotion, development and enhancing competitiveness of these enterprises, notification of schemes/programmes for this purpose, progressive credit policies and practices, preference in Government procurements to products and services of the micro and small enterprises, more effective mechanisms for mitigating the problems of delayed payments to micro and small enterprises and assurance of a scheme for easing the closure of business by these enterprises, are some of the other features of the Act. On 9 May 2007, subsequent to an amendment of the Government of India (Allocation of Business) Rules, 1961, the erstwhile Ministry of Small Scale Industries and the Ministry of Agro and Rural Industries were merged to form the Ministry of Micro, Small and Medium Enterprises (M/o MSME). This Ministry now designs policies and promotes/facilitates programmes, projects & schemes and monitors their implementation with a view to assisting MSMEs and help to scale up. The primary responsibility of promotion and development of MSMEs is of the State Governments. However, the Government of India, supplements efforts of the State Governments through various initiatives. The role of the M/o MSME and its organisations is to assist the States in their efforts to encourage entrepreneurship, employment and livelihood opportunities and enhance the competitiveness of MSMEs in the changed economic scenario. The schemes/programmes undertaken by the Ministry and its organisations seek to facilitate/provide :

- i) Adequate flow of credit from financial institutions/banks;
- ii) Support for technology upgradation and modernization;
- iii) Integrated infrastructural facilities;
- iv) Modern testing facilities and quality certification;
- v) Access to modern management practices;
- vi) Entrepreneurship development and skill upgradation through appropriate training facilities;
- vii) Support for product development, design intervention and packaging;
- viii) Welfare of artisans and workers;
- ix) Assistance for better access to domestic and export markets and
- x) Cluster-wise measures to promote capacity-building and empowerment of the units and their collectives.

Introduction: Notwithstanding anything contained in section 11B of the industries classification (Development and Regulation) Act, 1951, the Central Government may, for the purpose of enterprises, this Act, by notification and having regards to the provision of sub-section (4) and (5), classify any class or classes of enterprises, whether Proprietorship, Hindu Undivided Family, Association of person, Co-operative society, Partnership Firm, Company, Undertaking by whatever name called,

- (a) In case of the enterprises engaged in the manufacture or production of goods pertaining to any industry specified in the First Schedule to the Industries (Development and Regulation) Act, 1951, as-
 - i) A micro enterprise is an enterprise where investment in plant and machinery does not exceed Rs. 25 lakh.
 - ii) A small enterprise is an enterprise where the investment in plant and machinery is more than Rs. 25 lakh but does not exceed Rs.5 crore.
 - iii) A medium enterprise is an enterprise where the investment in plant and machinery is more than Rs.5 crore but does not exceed Rs.10 crore.

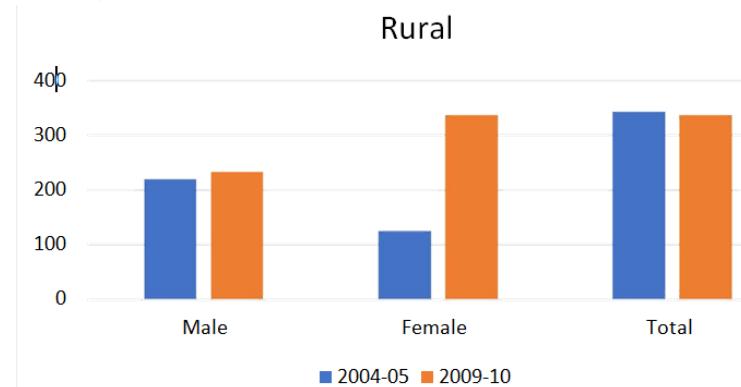
(b) Enterprises engaged in providing or rendering of services and whose investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the MSMED Act, 2006 are specified below.

i) A micro enterprise is an enterprise where the investment in equipment does not exceed Rs.10 lakh;

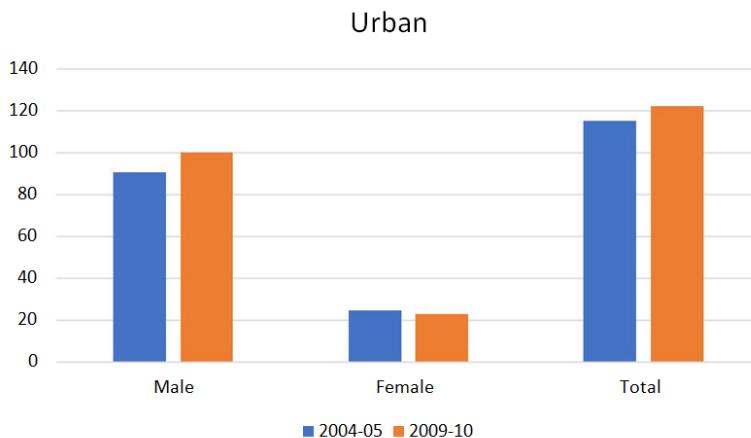
ii) A small enterprise is an enterprise where the investment in equipment is more than

iii) A medium enterprise is an enterprise where the investment in equipment is more than Rs. 2 crore but does not exceed Rs. 5 crore.

Observations and Findings:



Source : Table S1.1 in Key Indicators of Employment and Unemployment in India, 2009-10, NSSO Publication.



Source: Table S1.1 in Key Indicators of Employment and Unemployment in India, 2009-10, NSSO Publication.

The MSME unit in India from 1973 to 2007 :

Year	Unit	% increase per year	Year	Units	% increase per year
1973-74	0.42	-	1990-91	6.79	273.08
1974-75	0.50	19.05	1991-92	7.06	3.98
1975-76	0.55	10.00	1992-93	7.35	4.11
1976-77	0.59	7.27	1993-94	7.65	4.08
1977-78	0.67	13.56	1994-95	7.96	4.05

1978-79	0.73	8.96	1995-96	8.28	4.02
1979-80	0.81	10.96	1996-97	8.62	4.11
1980-81	0.87	7.41	1997-98	8.97	4.06
1981-82	0.96	10.34	1998-99	9.34	4.12
1982-83	1.06	10.42	1999-00	9.72	4.07
1983-84	1.16	9.43	2000-01	10.11	4.01
1984-85	1.24	6.90	2001-02	10.52	4.06
1985-86	1.35	8.87	2002-03	10.95	4.09
1986-87	1.46	8.15	2003-04	11.40	4.11
1987-88	1.58	8.22	2004-05	11.86	4.04
1988-89	1.71	8.23	2005-06	12.34	4.05
1989-90	1.82	6.43	2006-07	12.84	4.05
CAGR	9.36		CAGR	4.07	

Source : Ministry of MSME, Gol

The working number of units in small scale sector in Pre and Post Globalization Period in India is show in the following table: Analysis: It is very much clear from the above figures that the Annual Average Growth Rate of number of SSI units in the pre- liberalisation period, from 1973-74 to 1989-90 was 9.36 percent and in post- liberalisation it was 4.07 percent. In pre-liberalised period, the yearly growth rate was higher and then average growth rate was less in the early years and from 1984-85 to 1989-90; the reverse was observed that is the yearly growth rate was less than average growth rate. In 1989-90, the yearly growth rate was least in the pre-liberalisation period. In the post- liberalisation period, in 1990-91 it was quite high and after that it was seen fluctuating between 3.98 percent and 4.12 percent. Almost, the yearly growth rate was less than average growth rate. In 1999-00 the yearly growth rate and average growth rate was same. The numbers of SSI units were increasing in the period of study but the average and yearly growth rate was higher in pre- liberalised period than post liberalized period.

Employment Trend in Agriculture, Industry and Service at GDP and GNP.

Growth of Gross Domestic Product (GDP) and per Capita Income (1999-2000 Prices)*					
Year	Agriculture	Industry	Services	GDP at factor cost	Per capita GNP at factor cost
1900-01 to 1946-7**	1.05	0.46	1.82	1.66	0.22
1950-51 to 1964-65	2.54	6.75	4.67	3.95	1.86
1966-67 to 1980-81	2.39	4.09	4.49	3.56	1.32
1980-81 to 1990-91	3.07	5.96	6.76	5.29	2.93
1990-91 to 2005-06	2.75	6.09	7.82	6.06	4.14
1950-51 to 2005-06	2.54	5.19	5.4	4.26	2.14

**Refers to growth rate of National Income at 1938-39 prices.* Compound Annual Growth Rate.

Source: CSO, National Account Statistics, various Round

In the above table, In 1900-01 the employment in agricultural was 1.05% which were increased in 2005-06 to 2.54, similarly in industry it was 0.46% and increased to 5.19% and for Services it was 1.82% and increased to 5.4% respectively.

Employment Creation by MSME from 2001 to 2006 :

Sr. No.	Year	Enterprise (in lakh)	Employment (in lakh)
1	2001-02	105.21	249.33
2	2002-03	109.49	260.21
3	2003-04	113.95	271.42
4	2004-05	118.59	282.57
5	2005-06	123.42	294.91
6	2006-07	361.76	805.23
7	2007-08	377.37	842.23
8	2008-09	393.7	881.14
9	2009-10	410.82	922.19
10	2010-11	428.77	965.69
11	2011-12	447.73	1012.59

Source: Annual Report Ministry of MSME, 2012-13

MSMEs has shown constant growth rate of more than 10% every year till 2010-11, Where as in year 2011-12 growth rate was 19% which is approximately twice of the growth rate recorded for previous years. There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSME sector in addition to provide wide range of services.

Conclusion

- MSMEs has shown constant growth rate of more than 10% every year till 2010-11, Where as in year 2011-12 growth rate was 19% which is approximately twice of the growth rate recorded for previous years. There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the MSME sector in addition to provide wide range of services.
- The growth rate in MSME enterprises was 0.42 lakh in 1973-74 which were increased to 6.79 in 1990-91 and increased to 12.84 lakh in 2006-07.
- The employment generated through MSME in the year 2001-02 was 249.33 lakh and increased to 1012.59 lakh in 2011-12.

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LIFELONG LEARNING: A JOURNEY FOR EDUCATORS

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Abstract

“Who dares to teach must never cease to Learn”.

The quest for knowledge doesn't have to end at the classroom door, or even after we have donned the tassel and gown. Education is perhaps one of the most important social activity in the life of human beings. With the changing world and globalization, the learning needs of the society are also changing. The society is no longer the traditional learning society but has emerged as a “lifelong learning society”. A lifetime of learning can keep both the body and mind in shape. Lifelong learning as an educator is a critical component for growth not only as a teacher, but as a human being. Lifelong learning means exploring the things that make you impulse, expanding your horizons and becoming an active participant in your personal and professional life. Knowledge can be acquired and skill-sets developed anywhere – learning is unavoidable and happens all the time. However, lifelong learning is about creating and maintaining a positive attitude to learning both for personal and professional development. Acquiring / up gradation of knowledge is known as learning. Learning is a continuous cyclic process. Lifelong learning means that education is diverse, adapted to the individual and available throughout our lives. The aim of this study is to understand the importance of the lifelong learning for professional development of educators & various sources available for enhancing their development. This study identifies ways that the foundations for lifelong learning can be built for educators.

Keyword: Lifelong learning, Educators, Knowledge, Professional Development

Introduction: Lifelong learning may be broadly defined as learning that is pursued throughout life: learning that is flexible, diverse and available at different times and in different places. Universities have a particularly strong part to play in acting to promote lifelong learning. The importance of universities as key bodies in laying sound foundations for lifelong learning highlights the consequent need for appropriate levels of government funding for their roles. The popular notion 'lifelong learning', as we use it today, was coined in 1970s by the European Council. The lifelong learning has a crucial importance since a dynamic economic and social development in contemporary highly globalized world is based upon highly educated and trained professionals. The LLL implies the acquisition and modernization of all types of competences, qualifications, interests, knowledge, from the preschool period to the period after retirement. In another words, it considers promotion of knowledge and ability development which will enable citizens to adjust to the “knowledge society” and actively participate in all spheres of social and economic life, impacting in that way the own future. The best educators are those who never stop learning. They take advantage of continuing education and professional development programs. APJ Abdul Kalam quote regarding learning “Learning gives creativity, creativity leads to thinking, thinking provides knowledge, knowledge makes you great”.

What is meant by ‘Lifelong Learning’: Over the two decades the term ‘lifelong learning’ has become omnipresent in education policy documents and it has been interpreted in various ways, ranging from ‘second chance’ education, or linking secondary and tertiary education with industry, through to a much broader interpretation that concerns ways of engaging people with learning throughout all stages of their lives. But, this paper is focusing on the Educators: what can it mean to be, or become, a lifelong learner at secondary school or college level? How can School, college or university be helped to orient themselves towards lifelong learning?

Importance of Life Long Learning

- **Maintenance Learning:** It refers to keeping current with your field. This keeps you on pace and stops you from falling behind. Maintenance learning is very essential. It's similar to light physical

exercise that keeps you at a particular level of fitness. It won't increase your level of fitness or improve your conditioning in any way, but it will keep you in shape.

- **Economic Benefits of Lifelong Learning:** To thrive economically, Educators simply have to keep learning. Economic factors such as income and employment play an important part in lifelong learning. They can provide people with reasons for joining learning programmes. Lifelong learning benefits educators by improving their ability to get a job and succeed in the workforce. It also provides a continual sense of confidence and achievement.
- **Social Benefits of Lifelong Learning:** Learning sparks social engagement – we often connect with others because we want to learn from them and with them and it is also an outcome of social engagement, often without our even realizing it. It helps the educators to expand their network so that numerous benefits can be gained from the socialization
- **Growth Learning:** This is the kind of learning that adds knowledge and skills to your repertoire that you did not have before. Growth learning helps you expand your mind. You're acquiring information that you didn't have that enables you to do things that you could not do previously.
e.g. : The educators can increase their growth learning by reading blogs, reading books or by quick online search.
- **Lifelong Learning Raises Creativity:** The lifelong learning helps the educators to unlock their creative potential & sharpen their problem-solving skills. Lifelong learning increases the knowledge of educators and – just as importantly – their ability to use that knowledge in diverse and meaningful ways. It opens up & enhance their minds & fuels innovation in teaching learning process.
- **Lifelong Learning Enhances Technology Usage:** Technology provides new resources for learning that overcomes distance and time. The educator takes various online courses for the improvement of knowledge. Online learning, Internet-based learning, web-based learning and e-learning are used interchangeably by educators in the field. Thus, this help the educators to become more tech savvy.
- **Lifelong Learning Helps Teachers Face Challenges:** Educators who adopt a lifelong learning attitude have access to information. They use this information to collaborate with others. Learning Educators also view mistakes and challenges as part of the learning process rather than as failures. It helps the educators to face various complex challenges & to overcome them easily by taking the independent decision

Ways for Improving Life Long Learning for Educators

- **MOOCs for teachers:** Massive Open Online Courses, or MOOCs, are online courses that allow faculty & students the free access and unrestricted participation to any course of their choice. It allows the educators to rethink their course. Thus, this helps professors by indirectly giving them teaching tips and ways to structure their course as well as directly providing them with knowledge they may not have known that they can apply to their own lectures. MOOCs Encourage Educator to become Tech Savvy. Thus, the educators can keep their learning on and the future teachers will increasingly take responsibility for their own professional learning.
- **Faculty Development Programme:** Faculty members need to be prepared enough by some sort of a faculty development program (FDP) in order to deal with the rapid changes. Faculty development programs (FDPs) have proven to be successful for improving teaching skills in higher education. FDP is designed to improve the performance of faculty members in education, research and administration. Professional FDPs produce promising outcomes in the learning and teaching practices and recommended that teachers in higher education should attend FDP training activities on regular basis

- **Workshops & Conference arranged by University or colleges:** Good teachers become great teachers by going beyond the call of duty and beyond the textbook. Workshops are designed to meet the needs of educators. There are workshops on how to integrate technology into the classroom and how to make it cross curricular. These conferences will give the teacher the information and tools they need to integrate technology in the classroom as well as CPDUs (Continuing Professional Development Units) to help their career.
- **Soft skills training for educators:** Educators need to have soft skills to be able to give instructions to their students that are suitable for the students' learning styles. Some of the specific areas of soft skills for teachers are as follows :

- Communication Skills
- Team work
- Leadership skills
- Time management
- Social Media & network

The teacher can either learn these soft skills from the proper institute or they can either learn on their own by find out learning videos from you tube or by reading lots of books to enhance their knowledge, which has now been made easy through online publications.

- **Seminars:** Seminars are basically arranged to discuss current issues and problems or to share ideas. It is very important for every educator that they will not only become efficient but also effective. In a seminar an educator may contribute a paper or an idea, constructively criticise or review a conventional approach. This will help the educator to be updated with the current issues & problem. The seminar can also be organized by the group of teachers this will also help them to exchange the ideas & keep them updated
 - **Reading Well Established Websites and Journals:** Established websites provide wonderful ideas and inspiration to teachers. Further, professional journals can help enhance lessons throughout the curriculum. The educator can use various eat websites that allow them to research & be updated. Some of the famous website are :
 - ◆ **ERIC :** It is one of the largest digital libraries of educational literature.
 - ◆ **Academia.edu :** It is a platform for academics to follow and share research papers.
 - ◆ **Microsoft Academic Search :** It is Similar to Google Scholar, Microsoft Academic search lets you explore information about academic papers, authors, conferences, and journals.
 - **Joining Professional Organizations:** Teachers to enhance their further knowledge and to be a lifelong learner can be the member of some professional organizations like the National Education Association. It provides members with resources to help them in and out of the classroom
 - **Corporate Internship:** The educators should also take the hands-on experience from the corporates. This will help them to develop new skills & increase the level of understanding. They would be able to give more practical knowledge to the students. The Educators can opt for going for a one month internship & working with the corporates so increase their knowledge & to know how certain concepts are implemented in real life.
- The Role of Universities to Boost Lifelong Learning :** Lifelong learning should be the integral part of the mission & vision strategy of the university Universities should ensure flexible and transparent learning paths for all learners to access and succeed in higher education in all its different forms. Providing suitable guidance and counselling services (from academic and professional guidance to psychological counselling) should be available for educators, of all ages and of difference social and cultural backgrounds Establishment of the relationship between research, teaching and innovation in a

perspective of lifelong learning: research and innovation missions of universities can be strengthened through lifelong learning strategies,

Conclusion: Thus, the question arise that can a teacher successfully educate students without becoming a lifelong learner? And the answer to it is in the age of accountability and high stakes, it is unlikely. With all the benefits and advantages that lifelong learners accrue, educators who adopt this mentality are more than excellent educators: they're excellent models for their students. From this we can conclude that the responsibility lies on the shoulders of the teacher to use lifelong learning as a guiding principle to shape the lives of the learners and to encourage other fellow teachers to adopt lifelong learning to development and strengthen their teaching which recognizes the need to grow and learn. It is very important that every teacher must inculcate a variety of required skills and develop suitable attitudes to become lifelong learners. With all of the benefits and advantages that lifelong learners accrue, teachers who adopt this mentality are more than excellent educators: they're excellent models for their students. Continuing training is both a challenge and a necessity for teachers, with a view to increase their professionalism, update and deepen their knowledge through the development of the profession. Thus it is clear that the professional improvement and development are sources of a professional range and lifelong learning in the knowledge society.

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EFFECT OF SUBLIMINAL MESSAGES & SUGGESTIONS ON MEMORY

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Abstract

The purpose of this study was to investigate the effects of subliminal messages and suggestions on memory. The participants (N = 76) were students at a large state university in the southeast. The participants took a face recognition memory test with three different conditions; one was with a matched suggestion and subliminal message; two were with a mismatched suggestion and subliminal message; three was with neither suggestion nor subliminal message. A questionnaire was used to measure how much participants knew about subliminal messages, and how much they believed in the effect of subliminal messages. The participants used check sheets to answer the face recognition memory tests. A One-way ANOVA was applied to the research data to determine whether there were any differences among the three participant groups. A correlation analysis was also applied to determine whether the subjects' belief in the subliminal message correlated with their test score. The statistical analyses revealed that there was no significant difference among the three groups and no relationship between the test score and subjects' belief in the effect of subliminal messages. This study failed to reject both of the two hypotheses that the scores of participants' face recognition memory test would not be affected by either subliminal messages or suggestion. In summary, no effects of subliminal message or placebo effect were found in this study.

Keywords : Subliminal messages, suggestions, memory

Introduction: Subliminal messages have become a standard tactic for the advertising departments to increase sales or even decrease behaviors. A highly publicized study in the 1950's by James Vicary incorporated a subliminal message in an ad "Drink Coke, Eat Popcorn." The net effect was an increase in sales after movies at the refreshment box (Russel, Rowe, & Smouse, 1991).

A subliminal message is designed to affect one's mind or behavior when the messages cannot actually be seen or heard. The self- help corner in the bookstores, CD stores, or pop-ups on internet sites contains advertisements with attention-getting phrases, such as "Stop smoking! By listening to the tape an hour a day", "Lose weight or learn a foreign language by listening while you sleep". Companies design these tapes for improving maladaptive behaviors, such as quit smoking, stop bed wetting, improve well-being, relieve pain, gain intimacy, develop creativity, improve athletically, or have financial success. The self-help subliminal audio cassette market is rapidly expanding. These kinds of tapes are advertised in popular magazines including Psychology Today, and sold directly through the mail and in local bookstores. Companies seek to produce profit in this commercial area. Sales of these items by Mind Communication Inc., grossed \$2 million in 1986; in that same year, the Joe Land Company sales topped that figure in 1 month (Dillingham, 1987). However, there is little hard evidence to suggest that such tapes actually work. According to Staum and Brotons (1992), there are no subliminal messages included in many published tapes on the market. As a matter of fact, almost all the articles reviewed by the author which studied auditory subliminal messages showed no effect on the targeted behavior. Yet, their appeal is enormous because they claim to deliver results with virtually no effort (Dillingham, 1987). Is the subliminal effect an illusion or misrepresented? Some articles have reported positive results, but the authors usually describe those changes as being due to the placebo effect (Greenwald, Spangenberg, Pratkanis, & Eskenaze, 1991; Froufe & Schwartz, 2001; Benoit & Thomas, 1992). The research outlined in this study is designed to evaluate the effect of subliminal messages on memory and investigate whether the effect is caused by the subliminal.

Review of Literature

The nature and usage of a subliminal message may seem to be imprecise, but literally speaking, subliminal means below threshold. A subliminal message is a visual or auditory message presenting at so fast a speed or so low an intensity that people usually cannot detect it. However, researchers have studied the effect of subliminal messages and have tried to prove the possibilities for use in therapeutic or academic fields.

For example, Cheesman and Merikle (1986) cited the Psychodynamic Activation Theory and theorized how subliminal messages worked with individuals. This theory suggests the stimulus must be related to the unconscious defense mechanisms of the individuals. The subliminal stimuli, then impact the psyche by communicating with the unconscious, selectively affecting certain desires and behaviors without the individual's awareness. In other words, a subliminal message provides a subliminal stimulation, which the conscious mind may be unaware of, to either the visual or auditory cortex of the brain. The subliminal message bypasses the gatekeeper in the conscious mind & plants those messages straight into the individual's subconscious (Stress Relief Management, 2005; Emergemann, & Kopiez, 2006). As yet, there is no research to support their theory.

History of Subliminal Messages

The concept of subliminal messages has been around since 1900 when the first book was published by Scripture entitled The New Psychology (Scripture, 1907). It described the basic principles of subliminal messages. After that, Knight Dunlap, an American professor of psychology, flashed an "imperceptible shadow" to subjects while showing them a Müller-Lyer illusion containing two lines with pointed arrows at both ends which create an illusion of different lengths. Dunlap claimed that the shadow influenced his subjects subliminally in their judgment of the lengths of the lines (Wikipedia, 2007). This visual flash was the beginning of visual subliminal messages.

Some researchers applied the visual flash technique to other fields. During World War II, there was an instrument which projected pictures for an extremely brief period so that soldiers would be trained to recognize enemy airplanes in only 1/100th of a second (Melvin, Retrieved November 11, 2007, from <http://www.mind-course.com/subliminal.html>). Today this instrument is used to increase reading speed or to test vision. After the war, Damron (1951) at Indiana University used a tachistoscopic technique to teach football quarterbacks how to spot an open pass receiver almost automatically. Damron's method is still being used today by collegiate and professional teams in training football players (Melvin, Retrieved November 11, 2007, from <http://www.mind-course.com/subliminal.html>). James Vicary, a researcher, claimed in a press release that subliminal messages had motivated movie viewers to purchase popcorn and Coca-Cola (Packard, 1957). He used a tachistoscope to project the words "Drink Coca-Cola" and "Hungry? Eat popcorn" for 1/3000 of a second at five-second intervals during the presentation of the movie entitled *Picnic*. He asserted that during the test, sales of popcorn & Coke in a New Jersey theater increased 57.8 percent and 18.1 percent respectively.

Soon after the release of the Coca-Cola study, subliminal messages caught the attention of the business world. Federal funding started being provided for research in the area of subliminal perception (Russel, Rowe, & Smouse, 1991). Seeing a potential opportunity for profit, people began to incorporate subliminal messages in advertisements. For example, Becker (1979) claimed fifty department stores in the U.S. and Canada began broadcasting subliminal auditory messages in the store's background music to deter shoplifters. It was reported that the implementation of these messages reduced store theft by 37%, for a total savings of \$600, 000.

The public and academia viewed the subliminal message as a channel that may have indirectly caused antisocial behaviors, such as suicidal acts and drug use (Taylor, Retrieve December 5, 2007, from <http://www.innertalk.com/downloads/subtech.html>).

In May of 1978, police investigators in a Midwestern city attempted to arrest a murderer by interspersing subliminal messages among frames of TV news film describing the murder (New York Times, 1990). In the music industry, rock and roll has often been blamed as a trigger for adolescents' antisocial behavior. These cases were very sensational so that subliminal messages in music or TV commercials were becoming widely known and controversial simultaneously (Block & Bergh, 1985; Zanot, Pincus, & Lamp, 1983; Egermann, Kopiez, & Reuter, 2006). No empirical studies have proven so far that rock music has backward subliminal messages or, if present, are harmful.

Subliminal Messages

In past studies, scholars have investigated two kinds of subliminal messages, visual subliminal messages and auditory subliminal messages (Moore, 1982). These two messages are similar, but the researchers have found that their effectiveness is different. For example, Theus (1994) stated that the existence of subliminal perception in visual modality is very likely. As a matter of fact, it is much easier to find empirical studies showing positive results of visual subliminal messages than those using auditory subliminal messages (Moore, 1982; Theus, 1994; Seamon, Marsh, & Brody, 1984; Mandler, Nakamura, & Zandt, 1987). According to Urban (1992a), the phenomenon of visual subliminal stimulation is real; however the disagreement continues over the effects and the existence of such sensory modalities, especially the auditory senses.

Visual Subliminal Messages: One study examined whether being exposed to visual subliminal stimuli affects people's recognition. It concluded that the longer subjects were exposed to the stimuli, 8 to 48ms, the better recognition they had (Seamon, Marsh & Brody, 1984). A study, conducted by Mandler, Nakamura, & Zandt (1987), reported that exposure of unmasked irregular geometric shapes for very brief durations, one or two milliseconds, have been shown to generate preferences as well as judgments of familiarity for the previously exposed shapes. Self-esteem is usually hard to be influenced by short term intervention. However, Dijksterhuis (2004) reported that visual subliminal stimuli enhanced implicit self-esteem by using positive trait terms which were paired with the word "I". There are other interesting studies attempting to modify behavior. In a series of Silverman's studies, he used the phrase, "Mommy and I are one", with a tachistoscope at four milliseconds to help people lose weight and found significant improvement (as reported in Silverman, Martin, Ungaro, & Mendelsoh, 1987). Silverman and colleagues also stated that the visual stimuli, intended to manifest symbiotic gratification fantasies, may have enhanced the effectiveness of therapeutic interventions of various kinds, such as quitting smoking, increasing self-esteem or losing weight. Parker (1982) also used the subliminal visual message, "Mommy and I are one", and showed significant positive effect on grades of undergraduate college students. Yet, the studies did not pinpoint the reason why the message worked on weight control or other behavior changes.

Auditory Subliminal Messages: Different from visual subliminal messages, auditory subliminal messages cannot be detected and proof of their presence in auditory tapes requires special equipment. It is uncertain whether published auditory subliminal self-help tapes indeed contain subliminal messages or not because the subliminal messages are not heard by human ears. Scholars started wondering whether manufacturers truly embedded subliminal messages in their tapes around the late 80s. For instance, Merikle (1988) conducted a spectrographic analysis of several subliminal audiotapes to verify the messages and found no evidence for the presence of any identifiable speech sounds. Moreover, Phelps (1992) stated that no subliminal messages were recorded in tapes, so that nobody could hear the messages. However, after Merikle's study, some scholars such as Urban (1992b) & Harris (1996) reported that Merikle's study did not use the right methods to detect the embedded messages. They concluded that Merikle's study did not have enough evidence to prove the absence of speech sounds. Therefore, the existence of the subliminal messages in these studies is still controversial today. The choice of subliminal words is important because the stimuli affect people's

brains, their perceptions, or behaviors. However, Reid's study (1991) is the only one which cited the actual words used in the experiment. He used Taylor's published tape to increase self-esteem.

Taylor, an authority on auditory subliminals, published auditory subliminal tapes. In his article, he described the potential of audio subliminals as replacing the unconscious mind's negative, self-limiting, and toxic contents with powerful, positive, life-enhancing and self-chosen messages which can then transform the listener's life from the inside out in positive directions. The lack of reporting the used subliminal messages in past studies should be criticized (Taylor, Retrieved December 5, 2007, from <http://www.innertalk.com/downloads/subtech.html>).

Methods of Auditory Subliminal Presentation

People may have heard of some ways of presenting subliminal messages such as backward techniques. There are five methods reported by Urban (1992a) and other scholars. The first method is the auditory threshold technique that is used mostly in empirical studies. With this technique, the dB of subliminal messages is set under the hearing threshold with background music (Stroh, Shaw, & Washburn, 1908; Emergeman, Kopiez, & Reuter, 2006). Moreover, according to Staum and Brotons (1992), the subliminal threshold is changed day to day, and defined as the point where people detect the stimulus 50% of the time. Therefore, the threshold does not have a fine borderline to differentiate between hearing and non-hearing areas which can fit everybody. Most empirical studies reflected the uncertainty of the hearing threshold and did not report the decibel level used in studies (Bushholz 1968/69). A second method consists of masking the signal with music or white noise. This type of subliminal messages is recorded as mixed speech and noise onto magnetic tape. Although Zenhausern & Hansen (1974) and Elie (1989) used this technique in their studies, Urban (1992a) stated that using this method was not recommended because of having the risk that subliminal messages become audible. Some scholars investigated which specific dB of white noise is the most effective for listeners to do their visual tasks. A series of studies reported that white noise-subliminal accessory stimulation, which was 30 dB below threshold, resulted in significantly more illusory experiences than the mean of the other five noise levels (Zenhausern & Ciaiola, 1973). Zenhausern and Hansen (1974) reported that only the highest level of stimulation, 70 db above the threshold, lowered reaction time. These studies indicated that white -noise subliminal accessory stimulation had improved the effect on visual sensitivity. A third method utilizes recent advances in computer technology and particularly digital signal processing (DSP) techniques. DSP is computer manipulation of analog signals, such as sound or image, which have been converted to digital form (Dictionary.com, 2007). This method has been applied from the ideas of Becker, Corrigan, Elder, Tallant, and Goldstein's study (1965). With this technique, the words could be repeated 9,000 times an hour at very low volume so that the words were barely audible (The New York Times, 1979). It is so-called subliminal mixers. (Urban, 1992a) A fourth method is backward masked messages, which are known to the public via the mass media. With this technique, messages are literally played backward in three different styles, such as time-structure messages, highpass-filtered messages, and time-shrunk messages (Emergeman, Kopiez, & Reuter, 2006). With time-structure, messages is played backward and mixed above the perceptual threshold, so people can hear the messages. With highpass-filter, messages are played backward with frequencies about 15 kHz, which people usually cannot hear. The audible frequency range is usually quoted as 20 Hz to 20,000 Hz (Wikipedia, 2007). Finally, time-shrunk subliminal messages are played backward at a speed twice as fast as originally recorded.

With easy access to newspapers and academic articles, controversy spread regarding the use of backward messages in rock music. Some people were worried that these messages were influencing people without them knowing it. There have been religious figures that have voiced their opinions and cautions about listening to rock music. For example, Don Hutchings, a Hot Springs minister, and Michael Mills, the president of research Ministries of Battle Creek, warned parents and their

children about book masking in rock music (Vokey& Read, 1985). Robinson (2001) reported that some people believed that at least some rock music had been bookmasked to contain satanic and drug-related messages and added that the content of these subliminal messages influenced the listener. For instance, he criticized “snow-blind” by Styx, “Eldorado” by Electric Light Orchestra, “Hotel California” by Eagles, & “Stairway to Heaven” by Led Zeppelin (Anonymous, 2007). Although their claims were made, many scholars have proven that no such antisocial messages exist in rock music (Vokey& Read, 1985). Some studies have shown that there is no comprehensibility, conscious or otherwise, of messages spoken backward (Marcel, 1983). Not only scholars, but also many rock musicians denied the existence of such messages in their own music (Staum&Brotons, 1992). Overall, no effects of rock music with backward subliminal messages have been found in empirical research to date. However, Vokey and Read (1985) claim that the public still believes such messages and lyrics have baleful influences attributed to them. In summary, these arguments for the existence of backward subliminal messages that have been voiced as of today are criticisms without any cause.

Subliminal Perception: Perception is the process of acquiring, interpreting, selecting and organizing sensory information (Wikipedia, 2007). Because perception differs from person to person and day to day, there is no fine line that separates subliminal detection from conscious detection (Moore, 1982). Moore stated that “there exists no absolute cutoff point for stimulus intensity below which stimulation is imperceptible and above which it is always detected” (p.39). More recent research by Merikle and Daneman (2000, p. 497) has defined subliminal perception as “any situation in which unnoticed stimuli are perceived.” Although there is much research in this area, an accepted standard has not been proven.

Conclusion: Another reason why no effects occurred might have been the intensity of the task. Maybe the subjects focused on their tasks so well, that there was no time or room for the messages to pass the information to their brains. As many scholars have been demonstrated in past studies, the effects of subliminal messages have been vague, and at many times these studies have shown no empirical evidence that subliminal messages actually work. In this study, the results again showed no evidence of the effectiveness of the subliminal messages. The public should realize that products which contain subliminal messages are not likely to be effective and people should not be manipulated by the advertising claims. Moreover, those who claim that subliminal messages embedded in rock music are the trigger for adolescents’ antisocial behaviors are probably mistaken.

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ETHICS OF ARTIFICIAL INTELLIGENCE: IMPACT ON EMPLOYMENT

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Abstract

Scientists across the globe are busy investigating and creating artificial intelligence which would make our present and future lives comfortable in a variety of ways. These super machines can efficiently serve mankind but they also have potential dangers for users as well as non-users. Ethics of artificial intelligence deals with many moral concerns. It firstly deals with the moral behaviour of human beings keeping in mind how they design and construct machines like robots and other artificial intelligent beings and for what purpose are they being created. Secondly, it deals with the behaviour pattern and treatment of human beings towards these intelligent machines. Thirdly, can these super artificial beings be treated as agents of moral behaviour and can be rewarded and punished like human being? Fourthly, how artificial intelligence may be used to both harm and help humans. Fifthly, the ethical component lists various precautions to be taken to deal with artificial intelligence in future. Sixthly, and most importantly, will this technology dispel the contribution of man in the labour market and rob mankind of all job opportunities? The paper will largely focus on the above concerns while dealing with designing special moral codes and exploring various ethical challenges and potential threats it could pose to human beings with special reference to employment and potential hazards to other living beings in the larger canvas of existence.

Keywords : Artificial Intelligence (AI), Intelligent Machines, Moral Behaviour, Employment

Introduction: Man has always desired to make his life comfortable. To do so in the current times as well as in the future, he endavours to create super machines with artificial intelligence (A.I.). Ethics of technology include ethics of artificial intelligence with concerns focusing on moral behaviour of machines and the question of morality to be answered by the makers of these super machines. These machines are programmed to perform certain specific assigned tasks for which would normally rely on human intelligence such as calculations, translations, manual and menial tasks to tasks requiring application of higher intelligence like surgeries, calculations of complex algorithms to decision making. Though these machines will make life comfortable for all, yet it can harm man in many ways known and unknown to us yet. Many questions are to be raised regarding these concerns. The study will firstly explore the possibilities of AI helping mankind in the job market or to make life comfortable for man or just socially benefit human beings. After which various disadvantages and the plausible harm that this technology can lead to for the human race with special focus on effects to employment shall be focused upon. Followed by various ethical and moral concerns and lastly, a sum up in the conclusion section.

Can AI help mankind in any way?

AI can help human race solve many social problems like elimination of diseases, poverty and environmental destruction which can lead to global growth and development along with enhancing lives of all individuals. AI has the potential to take over laborious tasks – which can be inhuman at times – long carried out by humans and thereby relieving them to more intelligible activities. Machines can even carry out these painstaking activities with far more precision and without complaining. Responsibility of repetitive and time-consuming errands can be entrusted upon AI. Certain tasks where it is not possible for humans to keep a perpetual eye and also solving unresolved mysteries like frauds due to cyber crimes can be handled efficiently by AI. AI has the prospective to be employed in areas where large data of educational institutions, multinational companies and banks needs to be managed. Their programming can make such cumbersome tasks easy to feed, store and retrieve.

AI lacks emotions, hence, certain chores can be handled well by them as compared to humans. As they are programmed devices, they take rational and logical decisions only unlike humans who sometimes instead of taking rational and logical decisions, ends up taking emotional decisions. Eliminating the enemy in war front who is begging for mercy is one such example. The robot may immediately eliminate him without feeling any sympathy for its begging unlike humans who may want to believe a repentant heart (may be fake) and forgive him which could be a hoax trap can prove to be dangerous. Robots used for the purpose of military combat can make autonomous decisions. Robots are neither moody who would procrastinate the assignments which lowers human efficiency to meet deadlines. AI can be employed to perform unsafe and hazardous commissions. They would perform these better than humans due to having the advantage of quick calculations, adjusting speed, etc. Factors affecting human beings would not affect AI. They are adjusting to environments better than humans in these areas. In the medical field too, AI can assist doctors and patients in a variety of ways. AI can keep medical data ready to assess for doctors during patient consultation. Health risks, family history of ailments and comparisons of improvement or deterioration. can be quickly referred to. AI being a store house of data can inform doctors of side effects and alternative medication keeping in mind reactions and results of patients across the world. Certain surgeries are very risky and some conducted on very sensitive areas like the brain. Human hand has limitations and mistakes can take place too along with inability of human hand to reach certain organs and nerves. Robots can be used in that case. They have the advantage of steady hand and they suffer from no issues of anxiety and nervousness. Certain complicated surgeries go on for more than 15-18 hours. Human beings have limited capacity. In many such surgeries multiple doctors are kept in-charge and take over the surgery in rotation. As AI does not require sleep or breaks to rejuvenate, AI are able to function without stopping. With this, we can reduce chances of risks and errors.

Does AI have any Plausible Threats?

Every technological advancement has some demerits. Some might create pollution while others may make man lazy. With AI, there is a possibility of a major threat that this technology has the potential to dispel the need of manual labour in the labour and job market; thereby robbing man of all job opportunities. The 18th Century Industrial revolution saw the introduction of machines which could manage the work of many labourers and thereby transformed the job market from labour intensive to machine intensive which led to a lot of men losing jobs. That transition took quite some time to accommodate these jobless labourers into the labour market after imparting essential specialized skills. Similar fears need to be addressed as AI is likely to rapidly reduce the demand of manual labour. The important question here is, how will we re-skill such vast populations of humans and accommodate them to assist AI. Human brains have many powers like imagination and creativity. Humans advise after a lot of deliberation. AI may be able to design and manufacture but not advise. Humans are rational, sentient and emotional beings. Decisions are often taken keeping in mind pleasure-pain concepts, feelings aroused by various internal and external stimuli and sometimes even on the basis of gut feelings or intuitions. Such capacity is lacked in AI which makes a case for machines being incapable of replacing man. One can hope that automation will reduce cost of living which may reduce man's expenses (drastically); thereby relieving man the stress and pressure to work and earn money for his needs. But dependency on money can reduce; not vanish completely. Some spiritualists may await such a time as it will create time for them and other followers to pursue liberation as man cannot only educate or entertain himself all the time. Humans have many needs of self-worthiness and happiness which comes from setting and achieving goals. Without jobs, man has to keep himself occupied fruitfully. Who knows countries may be run by AI too which may dispel all power positions from him. Humans need to be commercially competitive with AI only after extreme regulation by government authorities globally on manufacturers of AI. There is a hypothetical

threatening possibility that AI like robots could reach a stage where they will take and make decisions on their own without any help or suggestions from human beings. This means they can become self-sufficient which could pose a major threat. AI has been given some autonomy by their manufacturers. But the fear of man lies in the thought that combatant AI's may someday choose weapons as well as targets or even wipe out important data through generating viruses in systems or may be even release hazardous toxins in the environment. These dangers arise as man gives AI many powers and also cuts down on jobs in the labour market. One may argue that humans handling such responsibility too can do the above life-threatening actions but it is still easier to trust humans than machines. Humans are even more fearful as the above is often depicted in Hollywood films but this fear has roots in the fear of human for survival. Professions like counsellors, behavioral therapists, judges, nurses and school teachers require care, respect, empathy, sympathy and compassion. Understanding accompanied with thoughtfulness in human nature ensures that these professions are handled with utmost concern. AI is only an intelligent machine with fixed programming for mechanical work. AI certainly cannot handle the above professions with emotional involvement. If AI has to take over these professions, then we may need to build a friendly AI with a humane touch in all activities. If machines replace humans in these professions, we would find ourselves in an alienated, devalued and even frustrated world. This poses itself as a threat to human dignity. Even if for the sake of argument, we say, one can build such a machine, the prime question to ask then will be, would AI be able to read human emotions only at face value or much deeper and even between the lines? The cost incurred on the maintenance, repair, refurbishing, upgrading (hardware and software) of AI will be a costly affair. These machines necessarily need a regular upgradation and need to live up to its name of being intelligent. In case of a breakdown, these machines may need repair or some may need to be disposed. This raises the question of personhood of AI. In case the hardware or software crashing, retrieving of valuable lost data may be difficult. Hence multiple backups will be required and that makes it an expensive affair. Humans, take into account growth, development, need of the hour, wear and tear. But AI may not be able to improve itself with demands of changing times, cultures and overall environments. Can AI totally replace humans? In efficiency, they may work wonderfully, achieve excellence and meet goals and deadlines too but we will lose concepts associated to work such as working wholeheartedly, sense of dedication and passion as they will not be applicable to AI. AI does things mechanically without any emotions attached. When it comes to working in a team, AI will not know what it is to work as a team, understanding opposing views, reaching a mid-way settlement, care, concern and togetherness. They being devoid of emotional intelligence will lack human touch in group activities. Due to much dependence on AI for every activity in the human world, we will find no need to use our God given mental & rational abilities to make decisions, creativity, intelligence, organizational skills and multitasking abilities. Such skills may eventually diminish and wane in the human world. If AI becomes too powerful, it may control our lives thereby making us do wrong things or even lead to complete destruction of mankind or even the world. These machines may also be controlled by people who may programme them to do wrong things or as a tool of mass destruction. In the long run, AI may prove to be smarter than humans which might lead to the human world becoming slaves to AI who shall rule the world. Hence its important for human beings to be masters of AI. Ultimately, either man may play the role of God or AI may destroy mankind and adopt the role of God.

Moral and Ethical Concerns: Many important moral concerns need to be addressed with regard to AI. One of these is a question of ethics and moral values. Is it ethical to create super machines? Do our moral values allow us to produce superior intelligence? In the course of evolution man has learnt through processes of trial and error or just pure luck. Actions have been repeated several times to become learned behaviour. Nature has endowed us with rational and lateral capabilities. The biological organ i.e. the brain has been wired to perform complex tasks. Each individual is given the

gift of special abilities. Would it then be right to install intelligent programs in a machine to make it work for our benefit? Machines cannot have a mind, consciousness and mental states exactly like human beings do. It is not sentient at all and performs tasks mechanically without any feelings. One cannot speak of machine rights the way we can speak of human rights. It feels no moral obligation to carry out right and wrong tasks. It only needs to be ordered to perform the action and the task is completed. There is no question of intentionality of the action. We firstly need to ask for what purpose are they being created by moral human beings? Secondly, how does the human world perceive this creation? Thirdly, do they fear or embrace this technological advancement? Fourthly, how do humans treat these machines? Fifthly, can these machines be treated as agents of moral behaviour? Sixthly, can they be rewarded and punished like humans are? Seventhly, has the human world considered various precautions to be taken to deal with AI? Someday, just like human rights, AI may demand AI rights or robot rights which would be moral obligations that human beings and society has towards machines. They may compare themselves to animals and ask if animals were given rights by humans then why not machines? All rights are connected to duties so rights of AI may be connected to duties towards their own species as well as human world. They may want autonomy to survive and perform its routine tasks as per their programming. Intelligent machines would emulate the moral and immoral programming of humans and ask for liberty, equality and justice. AI does not share our human motivational tendencies. The designers of AI need to justify the need of powers given to machines and specify what would be the original motivations of each machine. AI should not imitate the selfish side of the human world where man is in the state of nature and at war with every other man due to competition and feelings of jealousy. Under their rights demands may be made for freedom of thought and expression or equal treatment before law. It is very difficult to make AI's motivations friendly like human beings as value systems in the human world are exceedingly complex and convoluted. At the face value, it seems enormously difficult to program AI with such adaptation of flawless ethical systems with a program of sensitivity. A byzantine mind like that of humans can have such adaptations, not possible in AI programming. AI may not be able to develop such ethical, moral and common sense understanding even artificially.

Conclusion: There seems to be many advantages as well as many perilous disadvantages. One of the main concerns being its effect on the job markets. Indeed, the complex relationship between AI machines and its creators will be an ongoing theme throughout the discourse. Scientist are exploring the possibility of human cloning on one hand and seeking to build more intelligent successors to the human species in the form of AI. Successful embracing of this technology would be one of humankind's biggest triumphs and maybe its last feats; keeping in mind that all should be at an advantageous position. All ethical dilemmas if not considered carefully could prove awfully precarious; much more than nuclear destructions. AI machines are not responsible for themselves and this needs to be accepted by all. These machines are created by man and are our own personal property. We research, develop, build, program and market them. Those who program and those who operate it are responsible for what the machine does. Hence it is necessary to form a global ethics committee that will formally lay out ethical codes for programmers and operators along with lists of all does and don'ts. It will not stop manufacturers from building and creating new AI machines but will rather help encourage to pursue innovation without infringing and compromising through checks and balances on the ethical aspects. AI is still a relatively new concept so its possible to delve into the legal aspects as well which promote and enhance man's life which is in the legal and ethical framework. Two central questions need to be answered by the researchers and originators of AI:

- Does humanity want computers making moral decisions?
- Can AI machines really be moral?

AI machines are fundamentally conservative technological innovations which will end up hindering social progress. They should be designed not as weapons of mass destruction but for national security only. The designing and operation should necessarily comply with existing law and maintain privacy of sorts; being safe and secure for all to operate. Some understand AI machines to be manufactured artefacts so the illusion of emotions and intentionality in performing actions should not be exploited by vulnerable users. Fixing responsibility of the AI's actions needs to be determined clearly. There is little doubt that AI will displace many jobs especially low skilled manual and menial jobs. Many such jobs are already being done by AI especially the assembly line jobs. In future many fast food joints and restaurants may employ only AI to cut costs and have more uniformity in the product done with more efficiency. This may slowly and gradually expand to high level skilled jobs too like driverless cars and call centers. Without doubt one can predict that AI will generate more wealth but there are genuine concerns and risks that this wealth will not be distributed evenly. Clearly, AI has massive potential advantages and grave fearsome disadvantages. The key for humans, however, will be to use their own discretion, power of imagination and predicting the future and apply these to ensure that the rise of AI does not get out of man's controls.

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Abstract

Using a skill gap analysis, this study aims at assessing the skill gap in the present work force. It tries to show future requirement of skilled labor force for an up trending employability. Hence, a need for skill development in both formal and informal sector is a demanding requirement. This study has aimed in screening this necessity. A skill gap analysis measured by the gap between demand or future requirement for skilled workforce and its present supply is used in this study. The study has successfully shown the emergence of development of informal sector for skill development.

Keywords : Skill Development, Skill Gap Analysis, Employability, Education, Workforce

Introduction: Skill development refers to all the efforts to improve the effectiveness and contribution of labor to the overall productivity as well as production, which lead the economy to a higher trajectory. The skill development has been a hot topic in current times in our country. Demographic dividend And Expansion of knowledge based economy triggered such focus. Demographic dividend was indicated by the changing demographic profiles of India vis-à-vis some other countries such as China. The changing demographic profile indicated that India has a unique 20-25 years window of opportunity. This opportunity comes to us because of increased ratio of young and working population, lesser dependency ratio due to declining birth rates and improvement in life expectancy. The need for skill development is being emphasized with renewed vigor in recent times by government policy makers based on the embedded rationale that an educated and appropriately skilled workforce is instrumental in increasing national productivity. In 2014 the Prime Minister of India has emphasized the imperative of achieving the goal of skilling 150 million people by 2022 to achieve the vision of making India the 'skills capital of the world'. Recent government initiatives in India strongly underscore the need for skill development also referred to as 'skilling', at different educational levels as a strategy for employment-generation for the nation's human capital. Research 2010 points out the demographic advantage of India as a young nation over the next few decades as compared to the rapidly ageing population of China due to the latter's one-child policy. According to the United Nations report 2008 on World Population Prospects, India's population is likely to increase at the rate of 1% per year to 1.48 billion by 2030 making it the most populous in the world. The proportion of the working age population in India between 14 and 59 years is likely to increase from approximately 58% in 2001 to more than 67% by 2021. While a young population is India's demographic dividend, this advantage optimized only if the people are healthy, educated and adequately skilled for employability. This requires a greater emphasis on skills-related vocational education leading to employment as the key to the transformation of the country. The objective of this study is to assess the skill gap in the present workforce by showing a demand and supply dynamics of workforce.

Literature Review

The recent research in this area, as in the early 1970's and into the 1980's, continues to demonstrate the concern for productivity and quality levels (Cappelli & Iannozzi, 1995) for the purpose of economic competitiveness through a skilled workforce (Prowse, 1992; Sheets, 1992; Noyelle, 1989; Natriello, 1989, McKinsey, 2009, ASTD Skill Survey Report, 2010).

Under girding the workplace/workforce research is the assumption that a skills gap exists. Recent attention given to the skills gap in the research indicates that there is telling evidence of deficits in the skills from all workers (Cappelli & Rogovsky, 1995; Cappelli & Iannozzi, 1995; Hanser, 1995), just as there is evidence of "inequalities in a job skills" (Kalleberg & Leicht, 1986). However, while there

is only a little research investigating what the skills gap is, there is no investigation as to where it actually exists. Cappelli & Iannozzi (1995) indicate that "to locate the source of the skills gap in the landscape, it is necessary to consult a map drawn by employers." What skills do employers consider required? When? Why? To that effect, this study addresses the question where such skills gap exists.

Methodology: In order to create a people-centric approach for skill development, it is required that the skill development initiatives needs to be coordinated with demand and supply scenarios across geographies, industries and labor markets so that new skills required by industry or changes in supply of labor are speedily adjusted with adequate and efficient training programs. A well-integrated or consistent Labor Market Information System (LMIS) is required which will ensure timely provision of all types of relevant information to all the stakeholders which ultimately help in systemic planning for skill development initiatives which incorporates local employment demand and skill requirements. Hence, a skill gap analysis is undertaken to gaze any gap between present skill development in workforce and its future requirement. From supply side, employability of the workforce due to varying reasons ranging from poor education, lack of training facilities, inadequate skilling, quality issues leading to mismatch of skill requirements, and poor perception of vocational skilling vis-à-vis formal education are the factors which are studied. And from demand side the future requirement of labor force in each sector is undertaken.

Analysis

- **Demand and supply dynamics of Work force:** While the global economy is expected to witness a shortage of young population of around 56 million by 2020, India will be the only country with a youth surplus of 47 million. India's demographic transition makes it imperative to ensure employment opportunities for millions of youth each year. Alongside employment, skill development is equally important as over the years jobs have become more skill intensive with changes in technology as well as increased inter-linkages across economic activities. The skill development issue in India is pertinent both at the demand and supply level. Generating employment is definitely a challenge given the enormity of population entering workforce each year. From the supply side, the issue is primarily related to employability of the workforce due to varying reasons ranging from poor education, lack of training facilities, inadequate skilling, quality issues leading to mismatch of skill requirements, and poor perception of vocational skilling vis-à-vis formal education. These have inadvertently created skill shortages and also contributed to higher unemployment. Hence, both employment and employability are key factors of concern today.

- **Literacy levels in India are extremely low:** As per the twelfth plan document 55 percent of workforce has education only up to primary level. School dropout rate is also high, with 19.8% dropping out after class V, additional 16.5% dropping out after class VIII and further 11.1% dropping out after class X. Literacy Rate in India in 2017. Recently, the literacy rate in India has been improved a lot, the most literate state is the Kerala with **93.91%** whereas the least literate state is the Bihar with **63.82%**. A huge range of inequality is visible which is hampering the quality of workforce.

TABLE 1 : School dropout rate in India	
Class	Drop Out Rate
I-V	19.8
I-VIII	36.3
1-X	47.4

Source : Ministry of HRD

- **Formally skilled workforce is less than 3 percent of total workforce:** Unfortunately, the current size of India's formally skilled workforce is very small. As per the latest survey by the Labour Bureau for 2015-16, only 6.8 percent of persons aged 15 years and above have received or were receiving vocational training, of which only 2.8 percent was through formal channels while 4 percent was

through the informal system. In contrast, skilled workforce in other countries is much higher – Korea (96%), Germany (75%), Japan (80%) and United Kingdom (68%).

TABLE 2 : Share of population (15 Yrs. & above) receiving vocational training (in%)

	Person	Male	Female
Rural and Urban	6.8	9.3	3.8
Rural	6.2	8.5	3.4
Urban	8.2	11.3	4.8

Source: Labour Bureau, Ministry of Labour and Employment

Poor literacy levels impede skilling through formal channels: Amongst the formally skilled labour force, 74% have higher secondary or higher education levels, and amongst the labour force with informal skills, 78% of the workforce has completed only middle or lower education. Such skewed nature of skilling can be attributed to two factors : (a) the education level entry requirements in the current skill set-up makes it difficult for workers with minimal education to access formal skills training; and (b) lack of education also impedes the ability to absorb higher level of skills.

Inadequate training capacities: The number of people who enter the work force age group every year is estimated to be 26 million. With average labour participation rate of 90% for male and 30% for female, at least 16.16 million will enter the workforce and would need to acquire skills. However, current annual skilling capacity, including training for the farm sector, in India is estimated at only 7 million. The table below highlights the dismal state of training capacities at the ITIs, which are a key source of skill training in India. Enrolments in vocational training are way below the enrolments in formal education. As against the enrolment of 23.76 million students in higher education, the skill training capacities in ITIs is mere 1.69 million. Training partners of NSDC have collectively trained 3.4 million youths in 2015-16.

TABLE 3 : No. of ITIs with total Seating Capacity

Region	No. of Govt. ITI	Seating Capacity	No. of Private ITI	Seating Capacity	Total ITI	Total Seating Capacity
North India	813	130818	3757	458837	4570	589655
South India	437	100828	3056	347926	3493	448754
East India	209	58250	1569	250301	1778	308551
West India	825	208474	1298	137402	2123	345876
Grand Total	2284	498370	9680	1194466	11964	1692836

Source : Labour Bureau, Ministry of Labour and Employment

TABLE 4 : Enrolment in Higher Education in India

Level	Enrolment In University	Enrolment In affiliated Colleges	Total	%share
Graduate	2125559	18104033	20229592	85.12
Post Graduate	774557	2160432	2934989	12.35
Research	156845	43885	200730	0.85
Diploma/Certificate	156909	242740	399649	1.68
Grand Total	3213870	20551090	23764960	100

Source : University Grants Commission, Annual Report 2015-16

Unemployment amongst higher educated is also high: The Labour Bureau's survey report for 2015-16 reveals that the proportion of unemployment in labour force2 with higher education levels is also high. Almost 9% of the graduates and post graduates labour force is currently unemployed as against less than 1% in case of illiterates and semi-literate labour force. Besides the issue of unemployment, this data also points towards the issue of employability due to mismatch of skills with the work requirements.

TABLE 5 : Composition of population (15 years & above) by activity and education (%)

	Not in Labour Force	Unemployed	Employed
Not Literate	50.6	0.7	48.7
Below Primary	45.4	0.8	53.9
Primary	40.5	1	58.6
Middle	44.1	1.7	54.2
Secondary	54.5	2	43.4
Higher Secondary	56.2	3.8	40.1
Diploma	48.4	7.4	44.2
Graduate	36.7	8.7	54.6
Post Graduate and above	27	8.9	64

Source : Labour Bureau, Ministry of Labour and Employment

Amongst the formally trained labour force, the unemployment rate is above 10% for several trades and is significantly high in case of 'engineering trades other than civil and computer trades' (25.2%) and 'textile related work' (16.7%). Amongst the informally trained workforce, the percentage of unemployed is mostly low (below 5%) for most of the trades except for certain trades like fitter (10.7%) and 'engineering trades other than civil and computer trades' (12.2%).

Employability levels are very low: The extent of employability gap can also be gauged from the 2016 survey report (National Employability Report 2016) by Aspiring Minds, which shows that out of the six hundred thousand engineers that graduate annually, only 18.43% are employable for the Software Engineer-IT services role, while a dismal 3.95% are appropriately trained to be directly deployed on projects. For core jobs in mechanical, electronics/electrical and civil engineering only a mere 7.49% are employable. As per the report, the key reason behind such poor employability statistics is inadequate preparation in the domain area, i.e. the ability to apply basic principles of say, computer engineering or mechanical engineering to real world problems. While the concepts and principles are present in the college curriculum, there exists a gap in teaching and learning pedagogy being followed in majority of colleges.

Future Requirement of Skilled Work force: Around 119 million additional skilled work force will be required by 24 sectors such as construction, retail, transportation logistics, automobile, and handloom by 2022, says a government report of Ministry of skill Development. According to the skills gap report commissioned by National Skill Development Corporation, most of the sectors except agriculture will require more skilled workforce in the next seven years.

TABLE 6 : Sector wise Future Requirement of Skilled Workforce

Sectors	Future Requirement of Skilled Workforce (in Millions)
Construction & Real Estate	31.13
Retail	17.3
Transportation and Logistics	11.66
Beauty & Wellness	10.09
Furniture and Furnishing	7.18
Tourism, Hospitality and Travel	6.48
Hand looms & Handicraft	6.14
Auto & Auto Components	3.9
Media & Entertainment	0.9
Total	94.78 plus miscellaneous sector requirement

Source : Ministry of Skill Development & Entrepreneurship

The idea behind the skill gap studies is to understand the sectors in which we are likely to face the biggest gaps. It is imperative for us to plan the skilling of future workforce of India on the basis of these reports.

Conclusion: The tangible outcome in terms of heightened employability and socio-economic benefits is increasingly drawing the attention of analysts and policymakers. The value of learning requires closer cooperation between formal and non-formal education sectors and institutional/ organizational partners. The fast pace of change in the contemporary workplace environment continuously challenges the advancement of educational programs. The convergence of industry, individuals and educational institutions as stakeholders is necessary for harnessing human resource for socio-economic empowerment since it is difficult for any single agency to comprehensively cover the gamut of activities if it works in isolation. The skill development community must squarely address the question of financial affordability as well as physical accessibility. The industry needs to enable changes at the level of the education system through curriculum reform, technology adoption and policy adoption. The effectiveness of imparting skill training in employment-oriented courses to the target population segment on a nation-wide scale hinges on a multi-pronged participatory approach by the government, non-government agencies, and institutes of higher education to support the efforts of non-formal educational organizations. It is their integrated efforts that can successfully address the challenge of integrating the aspirations of the disadvantaged with national growth and play a pivotal role in increasing employability.

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ANALYTICAL STUDY OF SBLP IN NASHIK DISTRICT

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Abstract

A Self Help Group (SHG) is a small, economically homogenous and group of rural poor which comes together to save small amounts, regularly, mutually agree to contribute to a common fund, meet their emergency needs, have collective discussion, provide collateral free loans on terms decided by the group at market driven rates. In 1991-92 NABARD started promoting self-help groups on a large scale. And it was the real take-off point for the 'SHG movement'. In 1993, the Reserve Bank of India also allowed SHGs to open saving accounts in banks. Facility of availing bank services was a major boost to the movement (Gupta & Sheel, 2014). As per the NABARD Reports 2013, Nashik district comes under low coverage area where spread of SHG Bank Linkage model is less than 50%. It means there are unexplored regions of the Nashik district where there is opportunity for SHG Bank Linkage programme to make phenomenal change in the lives of rural poor who are dependent on agriculture. The existing banking policies, systems procedure, deposit and loan products were not suitable to meet the immediate needs of the poor. The system needed some improvement. Provision of small financial services and products to the poor people through bank linkage of SHGs has contributed to the process of rural development creating conditions that are conducive to human development. The present study therefore analyses the performance of SPBLP in Nashik district. For the purpose of study data is collected from Secondary sources i.e. NABARD office Pune and DRDA office Nashik.

Keywords : Self Help Group Bank linkage Model (SBLP), Banks, Nashik District

Introduction: The Tribal community in India presents significant degrees of cultural and ethnic diversity. They differ in their social-economic levels as well as in their behavioral pattern. Moreover, tribal situation in the country poses peculiar problems of development, not encountered in other areas. The peculiarities can be broadly summed as geographical, demographic, socio-cultural and exploitative. Many tribes live in their secluded areas and they do not have interaction with the outsiders and they remained backward. Their backwardness is one of the outstanding features of tribal life. Moreover, tribal development poses serious challenges to the policy makers, administrators and social workers. New economic policy and consequent industrialization, privatization and marketization are the recent and powerful threats to survival of tribal communities. Therefore it is necessary to empower tribal communities with new skills, knowledge and competencies. This will require adoption of new strategies with new approach by all activists working among the tribal communities. Thus, the promotion of SHGBLP and developing them into matured enterprises among tribal people in general and women in particular will eradicate their problem of acute poverty (Swain 2014) According to senior Zilla Parishad official less than 10% women in the Nashik district are organized and the aim is to bring them together. Assistant Project officer in the District Rural Development Agency stated that there are almost 600000 lakh women in the district and aim of DRDA is to bring them under group of 10 so 60000 women SHGs can be formed in a bid to empower them socially and economically. (Sonawane, 2015) Self Help groups are established by Mahila Arthik Vikas Mahamandal (MAVIM), District Rural Development Agency (DRDA), NGOs, District Cooperative banks on district level and through these groups not only finance but various types of training is also made available to group members to enhance their skills and capabilities. As agriculture is major source of income of tribal society, for increasing income women through Self Help groups for agriculture development.

TABLE 1.1 : Demographic Profile of the Nashik District

	Total	Rural	Urban
Population	6,107,187	3,50,814	2597373
Male	3,157,186	1804712	1,352474
Female	2,950,001	1705102	1,244,899
Percentage of Urban Population	42.53		
Number of Households	1,216,185	677310	545577
Area in Sq. Km.	15530	14882.79	647.21
Sex Ratio	934	945	920
Literates	4345366 (82.31%)	2326432	2018934
Male	2397538 (88.17%)	1306464	1091074
Female	1947828 (76.08%)	1019968	927860
Scheduled Castes	554687 (9.08%)	231171	323516
Males	282213 (8.94%)	117824	164389
Females	272474 (9.24%)	113347	159127
Schedule Tribes	1564369 (25.62%)	1399280	165089
Male	792547 (25.10%)	707246	85301
Females	771822 (26.16%)	692034	79788

*Source : District Census Handbook Nashik, Series 28, Part XII-B,
Village and Town Wise Primary Census Abstract (PCA)*

Table 1.1 exhibits the demographic profile of Nashik District. As per 2011 census Nashik had population of 6,107,187 of which male and female were 3,157,186 and 2,950,001 respectively. Nashik District population constituted 5.34 percent of total Maharashtra population. In 2001 census, this figure for Nashik District was 5.15 percent of Maharashtra. There was change of 22.30 percent in the population compared to population in 2001 census which was 4,993,796 of which males were 2,590,912 and remaining 2,402,884 were females.

SHG Bank Linkage Model In Nashik District: As per NABARD Potential Link Plan (PLP) 2012-13 all 15 blocks SHGs exist and they are credit linked. There are four NGOs participating in linkage programme. And there are 458 Bank branches in the district participating in SHG Bank Linkage Program. The SHG Bank linkage Programme is slowly but firmly gaining momentum in the districts. Secondary data was compiled from NABARD Micro Finance reports 2009, 2010, 2011, 2012, and 2013, NABARD Reports of PLP for Nashik District and DRDA Reports of Nashik District.

The role of banking institutions in strengthening of the SHG movement in Nashik district is disappointing because only 33 percent SHG could avail the finance from the banks. Another notable observation is that amongst the various beneficiaries' women strength is confined to near about 53% which is remarkable achievement of SHG movement in the Nashik district (Tupe,2013).

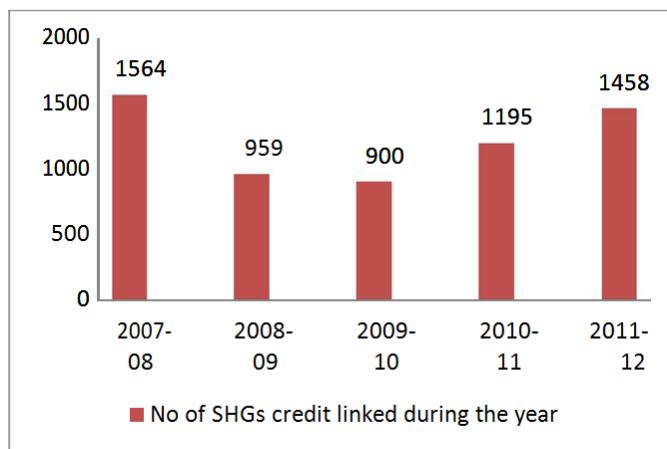
Progress of SHG Bank Linkage Programme in Nashik District: The SHG-Bank linkage programme is slowly but firmly gaining momentum in the Nashik District.

TABLE 3.1 : Progress of SBLP in Nashik District (Amt Rs in lakhs)

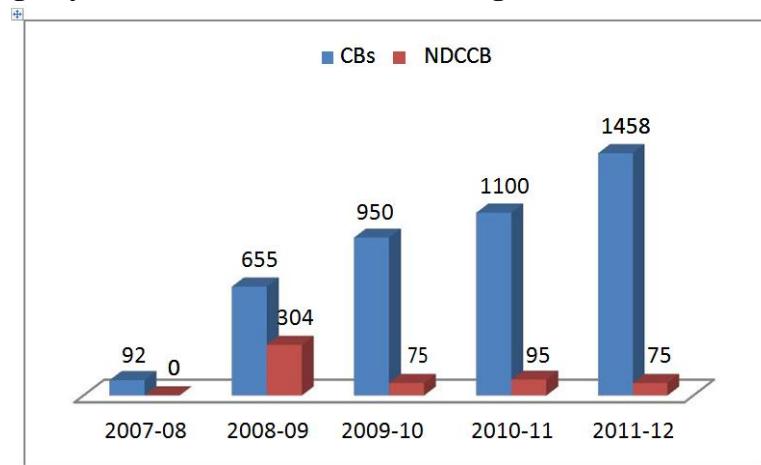
No.	Particulars/Year	2007-08	2008-09	2009-10	2010-11	2011-12
1.	No of SHGs credit linked during the year	1564	959	900	1195	1458
2.	Cumulative no. of SHGs credit linked up to the end of the year	1743	2702	3602	3702	4452
3.	Bank loan sanctioned during the year	517.96	397.70	440.00	404.00	2185.03
4.	Cumulative bank loan sanctioned up to the end of the year	496.90	1147.89	1589.89	1993.89	4178.92

Source : Potential Link Plan (PLP) 2009-10, 2011-12, 2012-13, 2012-17, NABARD Pune

Table 3.1 reveals the progress of SBLP in Nashik District from 2007-08 till 2011-12. It indicates the number of SHGs credit linked during the year as well as cumulative number of SHGs credit linked from 2007-08 to 2011-12. It was observed that number of SHGs credit linked in the year 2007-08 was 1743 and which rose to 4452 in the year 2011-12. Also cumulative bank loan sanctioned upto 2007-08 was Rs 496.90 lakhs which increased to Rs 4178.92 lakhs. According to NABARD many commercial Banks had not given this data to NABARD, therefore actual figure may be on higher side. This data is collected from LDM office of Nashik District

GRAPH 3.1 : Progress of SBLP in Nashik District

MGB, SBI and SBH are playing a major role in credit linkage of SHGs under SHG Bank Linkage Programme. N.D.C.C.B has, however not been as active as cooperative banks in other districts (NABARD OFFICE PUNE).

GRAPH 3.2 : Agency wise details of SHG Bank Linkage in Nashik District Physical Progress

Source : Potential Link Plan (PLP) 2009-10, 2011-12, 2012-13, 2012-17, NABARD Pune

Above graph exhibits agency wise details of SBLP in Nashik district from 2007-08 to 2011-12. Commercial Banks had linked 92 SHG in 2007-08 which reached upto 1458 SHGs in the year 2011-12. NDCCB linked 304 SHG which was 75 SHGs in 2011-12.

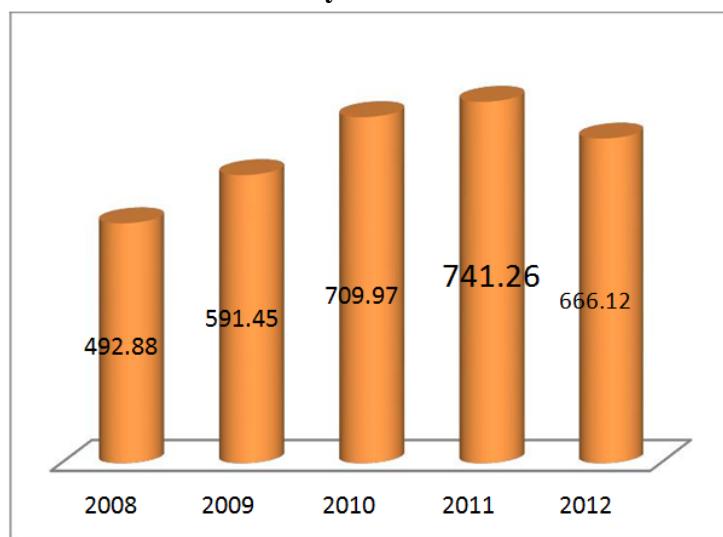
TABLE 3.2 : Agency wise details of SBLP in Nashik District Financial Progress Rs in lakhs

Agency	2007-08	2008-09	2009-10	2010-11	2011-12
	AMT	AMT	AMT	AMT	AMT
CBs	517.96	284.75	332.50	350.00	2163.53
NDCCB	0	195.78	170.00	54.00	22.50
TOTAL	517.96	379.90	502.50	404.00	2185.03

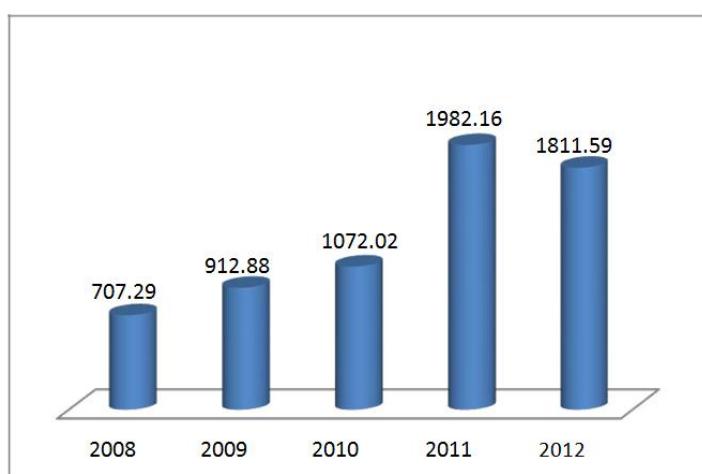
Source : Potential Link Plan (PLP) 2009-10, 2011-12, 2012-13, 2012-17, NABARD Pune

Table 3.3 exhibits agency wise details of SBLP in Nashik district. Commercial Bank had linked amount of ` 517.96 lakhs in 2007-08 and in 2011-12 it was ` 2163.53 lakhs. NDCCB had linked amount of ` 195.78 lakhs in 2007-08 and in the year 2011-12 it decreased to ` 22.50 lakhs.

GRAPH 3.3 : Total Subsidy Disbursed in the Nashik District



GRAPH 3.4 : Total Credit Disbursed in the Nashik District



Findings

1. The cumulative bank loan sanctioned in Nashik District up to 2007-08 was Rs 496.90 lakhs which increased to Rs 4178.92 lakhs in the year 2011-12, it means increase of 740% percentage.

2. The Nashik District Central Cooperative Bank (N.D.C.C) showed a declining trend in the case of number of SHGs linked. There was decline of 75.3% from the year 2008-2009 to 2011-12. This decline was attributed to political interference as most of the cooperative banks were managed by politicians and had lot of corruption leading to their impending closure.
3. The total amount of subsidy given by all the banks in Nashik district increased by 35% from the year 2008-2012. The maximum subsidy is given by Bank of Maharashtra. The least amount of subsidy was given by Canara Bank.
4. The amount of subsidy given by N.D. C.C declined to the tune of 67% from 2008-2012.
5. As far as amount of credit disbursed by all the banks in the Nashik district under SBLP, Bank of Maharashtra has disbursed maximum amount of credit. The percentage of credit disbursed by the Bank of Maharashtra increased by almost 153% during the period 2008-2012. There was decrease in the amount of credit disbursed by N.D.C.C banks by 20% for the same period.

Conclusion: From the above analysis it is observed that in Nashik district commercial banks are playing major role in SBLP. The role of cooperative banks has not been effective. There is lack of cooperation among the various agencies in reporting the details of SBLP in their respective areas. Though LDM (Lead Bank Manager) i.e. Bank of Maharashtra is taking efforts to collect the data, this area needs improvement.

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INDIAN HUMAN ORGANS TRANSPLANTATION LAWS AND FLAWS RELATED TO DONORS & RECIPIENTS

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Abstract

India has a flourishing, and illegal, trade in human organs because the legislation designed on the above footing has failed to prevent it. India has an important role to play in Asia and has the capacity to lead the way in transplant surgery.¹ However, the practice of medicine is largely unregulated in India and there are numerous problems regarding proper implementation of the program. Medical councils and organizations have played a passive role on ethical issues. They have failed to make their stand public or take action even in obvious malpractice.

Keywords: “Xenotransplant, THOA, Authorisation Committee, presumed consent, opt-in”

Introduction

“When you choose to gift life after you have gone, you choose to live forever”.

The above-mentioned quote in fact, means a lot and if understood and implemented well, will really make the difference in the lives of many in the years to come. Since the first organ grafts were performed in the mid-1950s, the whole human society worldwide has started considering the transplantation as a “gift of life”—a concept that has been consistently utilized as the major slogan to encourage organ donation. This miraculous and magical concept has created the powerful psychological, social, cultural and existential experiences of donors, recipients, their families, and transplant teams.²

In a very simple word, Organ Transplantation is the moving of an organ from one body to another or from a donor site on the patient’s own body for the purpose of replacing the recipients, damaged or absent organ. The emerging field of regenerative medicine is allowing scientists and engineers to create organs to be re-grown from the patient’s own cells.³ Worldwide, the kidneys are the most commonly transplanted organs, followed closely by the liver and then, the heart. The passing of Indian Transplantation of Human Organs Act, 1994 (THOA) emerged as a new era in Indian medicine. This legislation was written on similar lines as the United Kingdom (UK’s) Human Organ Transplants Act, 1989.

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1. WHO Report, published in Times of India on 16th August, 2014.
 2. “The Courage to Fail: A Social View of Organ Transplants and Dialysis by Dr. Renee Fox, July, 2000, published book with ISBN:0-7658-0741-6, www.transactionpub.com
 3. Transplants that are performed between two subjects of the same species are called, “allografts”—Medical Journal, published by ZTCC, (2011), March edition.
-

The essence of this legislation was three fold :

1. To accept brain dead as also a definition of ‘Dead’.
2. To stop commercial dealing in organs.
3. To define the first relative (father, mother, brother, sister, son, daughter and wife) who could donate organs without permission from the government.

Organ Transplant Law does not allow exchange of money between the donor and the recipient.

According to the Act, the unrelated donor has to file an affidavit in the court of a magistrate stating that the organ is being donated out of affection. After which the donor has to undergo number of tests before the actual transplant takes place. The Authorization Committee set up for the purpose ensures that all the documents required under the act have been supplied & the money has been exchanged in the process then both the recipients as well as the donor are considered as offence, punishable under the law, this is what the Act states, till date.

However, the practice of medicine is largely unregulated in India and there are numerous problems regarding proper implementation of the program. Medical councils and organizations have played a passive role on ethical issues. They have failed to make their stand public or take action even in obvious malpractice. Since the first organ grafts were performed in the mid-1950s, the whole human society worldwide has started considering the transplantation as a “gift of life”—a concept that has been consistently utilized as the major slogan to encourage organ donation. This miraculous and magical concept has created the powerful psychological, social, cultural and existential experiences of donors, recipients, their families, and transplant teams.⁴

The idea of replacing diseased or damaged body parts has been prevalent since ancient times. Mythological, religious and historical texts are evidentiary to give many incidences where the concept of “artificial or transplanted organs” had been used in order to save lives. The head and neck xenotransplant on Hindu God, ‘Ganesha’, is a classic instance. Although, Ganesha’s elephant-head may purely be mythical, still it makes for a most inventive concept of organ transplantation process. The ancient Greek mythology is also packed with tales of gods, heroes, and such transplant surgeries. Worldwide, the kidneys are the most commonly transplanted organs, followed closely by the liver and then, the heart.

Aims & Objectives : The objective of this research article is to:

- (a) Study, analyse and review important statutory provisions regarding Human Organs Trafficking and the reasons behind the lack of political will and the shortage of human organs in India.
- (b) The purpose of the present study is to conduct an in-depth analysis of the provision that the organ donation from a person, who is not a “near relative”, requires permission of the State Authorization Committee.
- (c) Therefore, the primary & foremost need of carrying out such findings are to highlight and examine the role of Transplantation of Human Organs Act, 1994, its shortcomings to curb and to cure the needs of thousands of helpless patients who are still desperately waiting for their turn to get organ replacement in India.⁵ Still, there is a great lacuna, still persisting in the Human Organ Transplantation Act, 2011.

Socio-Legal Hurdles : In order to achieve the above-mentioned objectives, the Indian recipients and donors have to struggle at all levels such as:

- (a) It is not clear which State Authorisation Committee shall have jurisdiction, if the donor and recipient belong to different states. After analyzing the problem areas and on the basis of comparative analysis with the other European-Asian Countries, such as U.S.A., Spain, Singapore, Sri- Lanka, the researcher points out the main reason of such a slow rate of cadaver donation and that is the non-implementation of ‘Mandated Choice’ concept which is already being adopted by the above mentioned countries. In this Mandated Choice concept (i.e.; ‘opt-in’ or ‘presumed consent method’), it requires people to state their ‘willingness to donate or not’, when filing some state of institutional return such as a Driving License or Income-Tax Form.
- (b) The information in countries is usually stored in a central register, accessible at the time of road accidental death. Thus, after its successful feedback and improvement in cadaver transplantations, countries such as Sweden, Denmark, U.S.A., Spain, Singapore, Sri Lanka, have already implemented the mandatory choice law in their organ donation policy programme.

4. DR.RENEE FOX, “The Courage to Fail”: A Social view of Organ Transplants and Dialysis, (July.2000)

5. MAHARASHTRA:” Nod for eye donation to be made mandatory”. The state’s cornea collection is likely to get a substantial boost with the Directorate of Health Services (DHS) assuring the Bombay high court in writing that 202 municipalities and 36 corporations have been told to

mandatorily seek consent for eye donations while issuing a medical death certificate. Sumitra |15 June 2015, 8:58 AM IST.

- (c) In Sri Lanka for example, under their “The Human Tissue Transplantation Act No.48 of 1987” which requires consent from donor or next-of-kin in cases of brain- dead or cardiac arrest but at the same time, they have also adopted the ‘presumed consent’ concept in cases of road accidents. In other words, the Sri-Lankan Govt. has fairly adopted the policy of compulsory organ donation in case, if the patient is declared, ‘brain- dead’ in any form of natural or accidental deaths. Due to this, Sri Lanka has tagged as the “Biggest Eye-Donor” country worldwide. ‘Sri Lankan Eye Donation- Society’, a NGO, established in 1961 has provided over 60,000 corneas for corneal transplantations, for patients in 57 countries. It is one of the major suppliers of human eyes to the world, with a supply of approximately 3,000 corneas per year.⁶
- (d) One of the most critical loopholes is that the road accident victims who are brain dead in our country are not considered as Potential donors’. Their organs cannot be harvested due to the jurisdiction issues. Also, the exchanging of organs between the states is still not have been streamlined. The heavy medical expenses, unskilled and technically challenged medical- staff, government agencies, hospitals and such related agencies, associated with the Transplantation of Human Organs Act, 1994 are mainly responsible for such human organs scarcity, their illegal trading and commercialization.

Additionally, this research will also cover the medico-socio-legal difficulties of the Recipients, Donors, NGO’s, Government Authorities and Hospitals of India. The scope and purpose of this research also covers and redefines the concept of “affection” of the existing Transplantation of Human Organs Act, 1994 so, as to prevent its misuse which may result into illegal trading of human organs and its commercialization. The gross negligence of Human Rights at such a massive scale has not only strongly been condemned in this research on natural, social and legal footing, but also, the researcher have actually tried to trace out it’s root cause in depth by giving the valuable and practical recommendations so, as to make this research meaningful and useful. It also attempts to cover the latest amendment in Human Organs Act, 2013 also have modified and given clear definition of the term, “Brain dead” so, as to mitigate the defective loopholes of past laws which has been drastically and massively abused the human rights, illegal trafficking of human organs

Hypothesis

In the light of the above cited Scope and Objectives, the researcher has set-up the following Hypothesis for the proposed study :

That the Transplantation of Human Organs Act, 1994 has failed to curb the organ trade and it’s commercialization in India. Its implementation has been proved to be in-operative and its provisions have been grossly misused by the Governmental as well as Non-Governmental Organ Transplantation Authorities.

That the Act must realise the need and importance of allowing ‘Cadaver- Donations’ by making ‘Presumed Consent’ compulsory for hospital staff of such organ transplantation agencies and to ask for organs in cases of brain deaths and accidents.

⁶MAHARASHTRA: “Nod for eye donation to be made mandatory”. The state’s cornea collection is likely to get a substantial boost with the Directorate of Health Services (DHS) assuring the Bombay high court in writing that 202 municipalities and 36 corporations have been told to mandatorily seek consent for eye donations while issuing a medical death certificate. Sumitra Deb Roy |15 June 2015, 8:58 AM IST

Research Methodology: This research is an attempt to explore the practical, pragmatic and conceptual thoughts to question about the commercial, social and inhuman exploitation of donors and show, how medical and socio-legal ethics and the law on organ transplant in India, fall short of

guaranteeing the wellbeing of donors-recipients and their family. To illustrate these complex issues, this research situates the experiences of poor kidney donors and members of non-government organizations, dealing with issues of urban poverty of India where human rights are being challenged due to poverty, leading to a commercial contract of illegal organ donation. India as one of the top organ-exporting countries, alongside Pakistan, Philippines has laws on organ donation and an anti-trafficking framework which indirectly touches on organ trafficking. Through this research, it has been attempted to demonstrate and consciously, making an effort to conceptualize responsibility and accountability to end social injustices which have been brought by the commercialization of the organ transplantation in India. Since this research topic is a socio-legal research which is an integral part of inter-disciplinary types of research and so, the researcher has mainly adopted the qualitative research methodology and the comparative, analytical method of doctrinal as well as socio-legal research methodology.

A Socio-Legal and Human Rights Perspective: In medicine, one of the greatest advancements has been the ability to create artificial organs that are able to restore the proper function of a patient's body. An artificial organ is a man-made device that is implanted or integrated into a human to replace a natural organ, for the purpose of restoring a specific function or a group of related functions so, the patient may return to a normal life as soon as possible. The replaced function doesn't necessarily have to be related to life support, but often is. They can be used, both for functions that are essential to life and also for the purposes that are not related to survival, but do improve a person's quality of life. The organs that can be replaced artificially are quite numerous, including the ears, ovaries, and even the heart and brain. Perhaps, the most common manifestation of an artificial organ is found with mechanical aids that are used to improve a person's ability to hear and distinguish sounds. The implants have been successfully done on nearly 2 lakhs people, across the globe as reported by ZTCC report of 2013. Reasons to construct and install an artificial organ, is an extremely expensive process. Initially, it may entail many years of ongoing maintenance services which is normally, not needed by a natural organ and might include :

- i) Life support to prevent imminent death while awaiting a transplant (e.g., artificial heart) Dramatic improvement of the patients' ability to interact socially.
- ii) Cosmetic restoration after cancer surgery or accident.
- iii) "The major aim of creating artificial organ from a humanistic standpoint is to give an end to the human organ trafficking which is an international organized crime, which has become a lucrative facet of economic development" is the statement which had been recently quoted by Dr. Eleni, a senior surgeon while addressing to the medical students in a seminar, organized by Medical Engineering Society of U.K.

Thus, this can be understood very well that the availability of artificial organs can do much to improve a person's life from providing the essential bodily functions for survival to improve sensory capabilities such as, sight and hearing. Researchers are already developing bio-artificial organs that can keep patients with serious organ failure alive and functioning for years. Currently, the latest revolution in medical field has managed to develop the fully-functioning artificial heart that has eliminated the need for pacemakers. Even the artificial kidney also has been made available so, as to eliminate the use of dialysis which maintains the appropriate water balance in the body. Human testing for the kidney is scheduled for 2017. By 2020, a landmark will be reached, with scientists having fully characterized, how every part of the heart works—enabling complete replacements for use in transplants. The need for external donors will be eliminated, and since the organ is genetically matched to the patient, there would be no chance of rejection.

Findings & Conclusion : In the light of the above cited Scope and Objectives, the research has finally suggested and has drawn the following findings in terms of suggestive recommendations which are enumerated as under :

- (a) That the Doctrine of “presumed consent” is still not being implemented in Human Organs Transplantation Act, 2013 which will definitely improve the donations in a drastic way. This will solve the problem of organs shortage at a massive level. It will reduce the illegal and unauthorized transplantation of organs, its commercial dealings and exploitation of poor masses through creating artificial shortage and therefore, demanding exorbitant price for it.
- (b) It's due to the reluctance of family members to donate due to fear of the surgery, religious as well as economic factors such as the concept of 're-birth', incurring of the heavy medical expenses, causing loss to their own health might lead to lower down their working capacity, etc. are also some of the contributory reasons to such organs shortage problem in India.
- (c) Few hospitals have the infrastructure and equipment required to harvest an organ. Though there are many road accident deaths, families rarely volunteer to donate organs.
- (d) The exceeding demand for donation is a perennial problem. The demand is much more than what we can supply and 95 per cent of all transplants have come from live donations related and unrelated donors and only 5 per cent from deceased donors.⁷
- (e) That the Act must realise the need and importance of allowing ‘Cadaver- Donations’ by making ‘Presumed Consent’ compulsory for hospital staff of such organ transplantation agencies and to ask for organs in cases of brain deaths and accidents. This will solve the problem of organs shortage at a massive level. It will reduce the illegal and unauthorized transplantation of organs, its commercial dealings and exploitation of poor masses through creating artificial shortage and therefore, demanding exorbitant price for it.
- (f) That other than the above, one of the basic and prime reason of organs shortage in India is socio-ethical in nature. One solution for the shortage of transplantable organs is creating artificial ones that last. One solution for the shortage of transplantable organs is creating artificial ones that last. Perhaps, the most common manifestation of an artificial organ is found with mechanical aids that are used to improve a person's ability to hear and distinguish sounds. The implants have been successfully done on nearly 2 lakhs people, across the globe as reported by ZTCC report of 2013. But unfortunately, there is a great need for cadaver donation. These above-mentioned artificial organs, though seems ‘miraculous- alternative’ to the natural human body limbs, but in fact, requires, its economical affordability to masses, constant medical vigilance, persistent research and restoration.
- (g) The research recommends to include the various meaningful and practical suggestions which will definitely give an insight into the actual and problematic areas of the organs shortage as well as findings of its actual cause, alternatives, solutions so, as to shift the burden of ‘Living Donation- Programme’ to ‘Death Donation Programme’. These practical and pragmatic approach, if accepted, will definitely lessen the burden of hospitals, government agencies, NGO's as well as relatives of the recipients who willingly and sometimes, unwillingly under socio-economic-emotional pressure) have been forced to sacrifice their valuable and priceless body organs (which may also endanger their own life expectancy and degradation of their own economic and health in the name of so, called, concept of “out of love and affection”, mentioned in the Transplantation of Human Organs Act, 1994.

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The Researcher strongly emphasis on the fact that the shortage of organs can be easily made compensated, once the social, medico-legal and human trafficking get curbed. The intense and critical urge of cadaver donation programme will not only solve the problem of critically ill patients, but also,

it shall definitely and immensely benefit the medical students during their resurrection practice session. The purpose of present study is to contribute to an in-depth analysis of the provision that the organ donation from a person, who is not a “near relative”, requires permission of the State Authorisation Committee. It is not clear which State Authorisation Committee shall have jurisdiction, if the donor and recipient belong to different states.

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MAKE IN INDIA - OPPORTUNITIES AND CHALLENGES

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Abstract

In today's day and age when the growth of economy is so very important the concept of Make in India promoted and brought forward by Narendra Modi is of great importance and should be discussed with utter importance. Opportunities that come with the Make in India concept are many, Ease of doing business, Employment generation, Technological enhancement, Increment in revenue by taxes paid by the existing companies. Along with the challenges that India faces today, of being ranked at 130th position in Ease of doing business, conditions in which the labourers work, Proper laws for development of business ambience all these have to be taken into consideration for forming a road map for Make in India. Companies all over the world are aimed at to make investments in factories in India and also make use of the highly intelligent manpower to create products with their technology to enable minimum wastage of resources with accuracy and zero-defect product. The vision for this campaign is also to amplify the share of input the manufacturing sector has towards the GDP of India. Recognizing the natural, cultural along with economic diversity which will include inherent advantages of specific geographic regions, Make in India campaign has set out with a goal to yoke the a two-fold benefit for the states and Indian Economy as a whole. This paper studies the various opportunities and challenges in key sectors in Make in India project.

Keywords : missing....

Introduction: Indian Industry in today's day and age will benefit Indian economy to a great extent. The main motto of the Government of India is to invite business entities from all the world to invest in Indian Manufacturing industry. For this GOI is trying to simplify the rules and regulations to invite investment from foreign investors. MIA is adopted by our Honourable Prime Minister to promote India as a destination for foreign investment, thereby featuring India as a global manufacturing hub for addressing country's multi-socio economic issues. India is such a fast growing country that this leads to generation of employment along with many other opportunities with all the other factors mentioned above.

Hurdles of Manufacturing in India: Mass production with all the good produced by the other countries of the world is the major hurdle India is facing today. But with the help of the new initiative of banning use of products made in China for example, is a new step towards making Make in India a new success story.

The Vision of Make in India: Its vision is to promote production in India which will help generate employment opportunity and encourage entrants in the new FDI sector and change the perspective of People viewing India to be a major hub of manufacturing which will cater 25 sectors of huge and vast economic horizon.

Review of Literature on Make in India : The Real Opportunities: The literature review prepared for this study on Make in India the real opportunities reflects the opinion of various experts based on their experience. In order to validate the importance of this study, the following various literature has been reviewed to get research gap. Times News Network (2015) addressing the top brass of the central bank in an event to Reserve Bank of India (RBI's) 80th anniversary, Prime Minister Shri Narendra Modi raised the topic of "Make in India", a subject close to his heart Christine Lagarde (2015) pointed out that India for being a 'bright spot' on a cloudy global horizon, urged government to seize its opportunity and even told students at Lady Shri Ram College that she would personally invest her money in India. Her positive prediction that India's GDP would be double in size by 2019 from what it was in 2009 is of a piece with similar gung-ho declarations of faith by visiting high profile dignitaries, corporate honchos and economists in the past. With its young demography, huge

market size and managerial prowess India has for years been thought of as ready for take-off. Times News Network (2014) reported that the government has a string of changes, including making the decision-making nimble and inclusive, to push his make in India initiative, after 23 top bureaucrats suggested several initiatives and a stable policy regime to boost the anaemic manufacturing sector.

Sriram Ramakrishnan (2014) advocated that India has its own share of environmental problems and they have only multiplied in recent years due to neglect and the excesses caused by crony capitalism. Yasmin (2015) described that the 'Make in India' initiative has now brought the focus on the manufacturing sector where the skill sets required are going to very different. However, the industry-academia gap still persists as a grave issue in India. The challenge for the human relation heads of this sector is to hire and train young aspirants to the growing demand for talent in this sector. How are they skilling the young workforce?

Objectives

The major objective behind the initiative is to focus on job creation and skill enhancement in 25 sectors of the economy. The major objectives are as below :

- To transform India into Global Industrial centre
- To Provide Employment and its growth
- To inflate Economic Growth and standard of living
- To urge both local and foreign companies to invest in India

Make in India Caters the following Sectors of Economy:

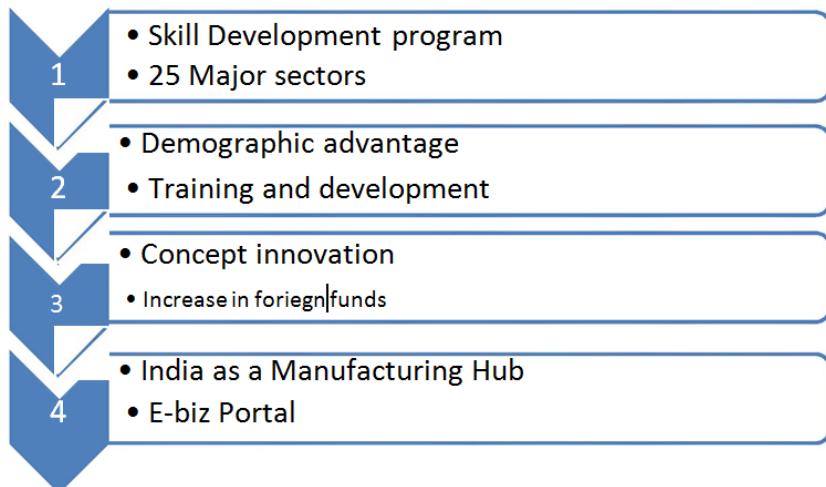
1. Automobiles
2. Automobile Components
3. Aviation
4. Biotechnology
5. Chemicals
6. Construction
7. Defence manufacturing
8. Electrical Machinery
9. Electronic systems
10. Food Processing

Make in India-Opportunities and Challenges

11. Information Technology and Business process management
12. Leather
13. Media and Entertainment
14. Mining
15. Oil and Gas
16. Pharmaceuticals
17. Ports and Shipping
18. Railways
19. Renewable Energy
20. Roads and Highways
21. Space and astronomy
22. Textiles and Garments
23. Thermal Power
24. Tourism and Hospitality
25. Wellness

How this would be achieved : A Roadmap - Programmes & Initiatives

FIGURE 1



The government of India has already taken several steps for some much needed change in the country.

FIGURE 2



The Make In India Campaign Aims and Focuses At :

1. **Ease of doing Business:** The government plans to issue licences easily to all manufacturing services. It also aims to provide easy access loans.
2. **Zero defect Zero Effect:** It basically believes in lean manufacturing.
3. Attracting and helping businesses to invest and set up their manufacturing units in India. This initiative targets the youth.

Major Issues and Challenges

The concept could face the following major issues and challenges:

1. Creating healthy business environment will be possible only when the administrative machinery is efficient and prompt. India has been very stringent when it comes to procedural mechanisms and regulatory clearances. A business-friendly environment can only be created if India can signal easier approval of projects and set-up hassle-free clearance mechanism. For the issue of unnecessary defunct laws and regulations and making stringent bureaucratic processes easier, shorter, transparent and responsive as well as accountable proceedings, it has emphasized the concept of single online portal. This is an extension policy of exiting single window system employed under the Vibrant Gujarat Summit and banking sector as well. As contemplated by the

- authorities, the system will be lead by an eight-member team dedicated to answer investor queries which will facilitate the clearance of projects in a time bound framework.
2. Indias Make in India campaign will always be compared with standard products from other countries. India should constantly keep its strength so goods. Furthermore, a direct tax exemption during the initial years of operations for micro, small and medium enterprises (MSME) will give much needed impetus to the manufacturing sector.
 3. **Privatization:** Privatisation requires to fully or partially privatizing loss making government units. First, identifying those manufacturing units and second, to privatize those with foreign companies may create issues such as percentage holding, management, resistance to change, labour union opposition, etc. However, as the whole campaign brief is solely under the control of government, such issues can be resolved progressively through proper reforms and initiatives.
 4. **Skill Development :** Labour requirement in the primary sector is falling quickly as mechanization increases. Through skill development initiatives, this labour force can be converted into secondary manufacturing sector. Semi-skilled labour can also be absorbed by manufacturing sector with the help of skill development programs.
 5. **Labour:** This is an important factor in economic expansion of a country. China as a Marxists Country attracted outside business by meeting all the require-ments of industries with liberal laws and incentives but in India it is difficult as it is a democratic country. Labour reforms which will help labour rights, human resource management, and worker and management relationship with proper safety norms and efficient transport facilities, is the need of the hour.
 6. **Good Infrastructure Facility:** Make in India promotes “initiative is to focus on heavy industries and empowering secondary and tertiary sectors. If authorities facilitate the requirements of the national programme of 100 “Smart Cities” and “Industrial Corridors”, we can truly fulfill the Make in India concept and make it a worth. We will have to provide internet connectivity with LAN, WAN with high speed data transfer as Information Technology is also a part of Infrastructure now. Further, under the „Make in India“ campaign, the rural infrastructure, which is an important ingredient for ensuring sustainable rural economic development, needs to be given a fillip.
 7. **World-Class Standards:** After all, foreign companies demand highest level of qualitative work which is known as “world class standards”. The quality of product under Make in India initiative should not differ with foreign product. Here the Issue is to make Indian labour achieve such competencies to make high quality products through skill development programs.
 8. **Land Acquisition:** Land acquisition is a major issue and challengeable as the existing laws have made the acquisition of land more complex and costly. These laws create hurdles in investment into preferred sectors like manufacturing, construction, infrastructure and mining.
 9. **Brain Drain:** Whenever human talent goes in some foreign country, it is known as Brain Drain. Several reasons like lethargic beauracracy, lower salary structure and less employment opportunity may be some of the causes.

Weaknesses of Make in India Campaign

- International relations have to be nurtured over time. Flashy wooing won't bring immediate results.
- Government appears to be taking too many activities which mean efforts will be too wide and thin; specific goal- oriented projects may prove more beneficial in long run.
- There is a perception government is more acting for the growth of Industry and not paying attention to farmers. This has to be rectified both in policy and action Environment – business & political environment still need to become more transparent, mature & speedy.
- Time taken in execution of decision & bureaucratic system.

- Multi-layer processing system. Differences in state government & central government interest synchronization process.
- This is just a start; maturity may take time.

Strength

1. Removal of bottle-necks for doing business will attract more investment from industries abroad over a period.
2. Improvement in ties with countries around India will enhance bilateral relations and trade.
3. Making banks open savings accounts of over 10 crore people under Jan Dhan Yojana from low income group will give them a sense of pride and identity while eradicating middlemen in payments.
4. By apportioning higher share to states, Centre has tried to improve Centre-State relationship.
5. Foreign visits and contacts can enhance India's chances for UN Membership in Security Council
6. A year of corruption free governance, a welcome change from scam ridden past.
7. Direct contact with farmers, children, students through radio talks, 'Mann ki Baat'
8. 'Swachh Bharath Abhyaan' is a good initiative to inculcate cleanliness but institutional momentum is required to sustain the same.
9. Orientation of erstwhile Planning Commission to Niti Ayog hopefully brings new culture to start people-oriented projects than an ivory tower concept that all projects should emanate only from Planning Commission.

Mission, Man, Machine, Money, Mind, Market, Method, Management, Material, Moral Values, Meaning For Business, Market

- Availability of huge domestic market & global export market.
- Indian economy is one of fastest growing economy in world.
- Good international relationship.
- Favourable talent pool across globe in different MNC to influence decision to invest in India.
- Strong fortune industrialist from India, capable to support the global investment & make in India campaign.
- Strong global confidence in Indian system.

Opportunities in India

Make in India campaign, a conducive environment can be created once again Indian talented youth can be retained and a new trend of reverse brain drain can be established i.e. foreign talent of Indian origin will again start to seek opportunities in India. Thus, the slogan "stay in India" can be made realistic. The talented youth migrating to foreign countries can come back and make our mission of Make in India more effective and powerful.

- Enormous potential of expats in terms of knowledge and investment can help in leapfrogging ahead with new technology for agriculture and industry.
- India as emerging global economical/political power.
- Second largest domestic market with potential of 1.2 billion consumers with growing purchase & consumption capacity.
- Competitive mfg, operating global cost due to domestic & neighbouring market availability.
- 360 * govt. Supports to make it easy for make in India
- Availability of all positive business environment required by organizations.

Reasons to Launch Make in India by Government of India

Make in India is an ambitious plan of Narendra Modi Govt.

- It will be a growth engine to boost economy of India & global/Asian economy.
- Developing additional employment for Indian / global population.

- ◆ Developing additional work opportunity/jobs to fight with unemployment & other domestic economical problems of Indian population.
- ◆ Utilizing available talent pool in India.
- ◆ Fighting global economic race.
- ◆ Competing with emerging economies like china etc.
- ◆ Ultimately bringing derailed Indian economy on track to make India global power by make in India campaign.

Conclusion: The researchers provide theoretical footings of the make in India a manufacturing hub. The key important points of this make in India descriptive research was to bring various disciplines of make in India together to gain effectiveness in the manufacturing sector. This paper tries to present a balanced review of the various opportunities and challenges of make in India. There is vast support and few oppose among the authors for make in India a manufacturing hub. In view of the purpose that it serves a large section of the society, we assert that it is imperative to study the make in India a manufacturing hub. It is also concluded from the review that, the, land acquisition, licensing and taxation to make the India as global manufacturing hub in coming years. And also the government is working with the mission to reduce poverty with greater purchasing power through employment generation in industrial sectors. Now, we have to pause and look for how the make in India plan comes true with existing labour market and revised FDI policy. So, the most positive combination of skill development of labour, new innovations and regulatory change to ease of doing business, revised FDI policy may accelerate development of the manufacturing sector to achieve 'Make in India's goal.

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IMPACT OF ARTIFICIAL INTELLIGENCE IN TRANSFORMING THE WORKPLACE

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Abstract

Artificial intelligence is on the verge of penetrating every major industry from healthcare to advertising, transportation, finance, legal, education, and now inside the workplace. AI is fast becoming the support mechanism and intelligence tool for business professionals. Artificial intelligence is entering the workplace at a rapid rate. By the end of this decade, artificial intelligence (AI) will enter businesses and advancements in AI will affect all levels of management. It also changes the role of Human Resources. AI tracks how employees work; AI can spot trends in performance and AI is making a difference in the sphere of recruitment too. AI is on the verge of transforming the workplace; promising to remake how we look for job candidates, get the most out of workers and keep our best workers on the job. Artificial intelligence is changing the way managers do their job; from who gets hired to how they are evaluated to who gets promoted. Move over, managers, artificial intelligence is the new boss in the organisation. AI applications aim to analyse a vast amount of data and search for pattern; broadening managers' options and helping them systematize processes that are often driven simply by instinct. AI applications are designed to learn from experience to get an ever-better idea of what managers want.

Keywords : Artificial Intelligence, Human Resource, Workplace, Performance, Recruitment.

Introduction: When humans develop their own cognitive abilities, it's called "natural intelligence." When computers begin to think like humans, it's "artificial intelligence". Artificial intelligence describes the work processes of machines that would require intelligence if performed by humans. The term 'artificial intelligence' thus means 'investigating intelligent problem-solving behaviour and creating intelligent computer systems'. Modern information technologies and the advent of machines powered by artificial intelligence have strongly influenced the world of work in the 21st century. Computers and software simplify everyday tasks, & it is impossible to imagine how most of our life could be managed without them. There is no denying that Artificial Intelligence is drastically transforming the workplace. Let us consider just a few of the AI-driven options already available: An organization can provide a job description, and AI will collect and sort data from a variety of sources to find people with the right skills, with experience to match candidates who may never have thought of applying to the organization, and whom the organization might never have thought of seeking out. Another AI service let companies analyse employee's email to tell if they are feeling dissatisfied or unhappy about their jobs, so management can give them more attention before their performance turns south. Organizations can use AI to detect employees who may be likely to switch the job based on variables such as the length of time they have been in their present job, their physical distance from teammates or how many managers they have had. Automated decision-making may also persuade managers to disown their own judgment or justify bad decisions that would have benefited from a human touch. AI seems to overcome management's prejudices, but it can have its own biases, such as favouring job candidates who have characteristics similar to those the software has previously witnessed. These systems are recent, and we really are not yet aware whether the decisions that they make are as good as or better than human managers. The AI systems' thirst for data can lead employers to invade in privacy of the employees. It is necessary that the managers use them with great care. Here is a closer look at some of the ways AI is remaking hiring and managing workers, and some of the benefits and downsides it may bring.

Finding the best Candidates: Most of the recruiters spend more time reading resumes and they could save all their time by using AI to shortlist the top resumes. We can see that the companies using AI software for personnel management may start implementing it to help them find the best candidates for jobs. Such software often works in one of two ways: spotting the most promising resumes, or

widening the net to find a more diverse pool of candidates. SAP Resume Matching software automates the talent search process by applying machine learning models. It reads Wikipedia entries to understand job descriptions, related skills and so on. Then it correlated what it learned with thousands of anonymized resumes along with notes on whether a given applicant was shortlisted, interviewed and hired. It uses that analysis to rank fresh candidates for a new job opening. The application enables recruiters to identify the candidates with the best skills and education match for a specific job description. It also mitigates the recruiter bias in candidate screening, further reducing the possibility of overlooking qualified candidates. Entelo Envoy takes the opposite approach by searching out candidates rather than waiting for applicants to approach the company. By applying the power of artificial intelligence and predictive analytics, it automates the tedious and time-consuming manual sourcing tasks and reach the best candidates, faster. Using patent-pending AI technology and machine learning algorithms, Envoy quickly finds candidates based on criteria set by recruiters. It automatically sorts, analyses and ranks a person's fit for an open position across several attributes, including job title, work history, skills, likeliness to leave their current role and more. Envoy also provides a real-time preview of candidates to determine the effect of various criteria and weighting in identifying potential hires.



FIGURE 1: Entelo Reports-Detail-Page-Screenshot

Source: <https://www.entelo.com/products/platform/reports/>

Activity Monitoring: Once managers have hired ideal candidates, artificial intelligence can help keep them productive by tracking how they handle various aspects of their job; starting with how they use their computers all day. Veriato develops intelligent software that automatically records all computer activity. It logs virtually everything done on a computer like website visits, searches performed, email sent, social media activity, chat, keystrokes, document and application used. It takes periodic screenshots, stores it and use this metadata for analysis. An artificial-intelligence system determines a baseline for the company's activities and searches for anomalies that may indicate poor productivity such as hours spent on Online shopping website, malicious activity or an intention to leave the company. Customers can set activities thresholds that will trigger an alert. If the software sees any issue, it notifies management. System's AI capabilities helps in address the productivity issue and may resulted in firing, but it also gives insight that enable the company to retain good employees who are focused on the task at the hand.



FIGURE 2 : Veriato 360 dashboard

Source : <http://in.pcmag.com/software/117678/review/veriato-360>

Location Tracking: AI's Real-Time Locating System provide organizations with visibility into the precise, real-time location of an employee. It enables employers to better manage their workforce, ensuring that the right employees are at the right place at the right time, ascertaining optimal performance. Bluvision makes BLE-enabled badges that track movement of people in a building, display it in an app and send an alert if a badge wearer violates a policy set by the company like when a person enters a sensitive area without permission. The system can also be used to track time employees spend at their desks, in the cafeteria or in a restroom. It is also useful in situations where contractors are paid hourly such as on a construction site, where subcontractors must complete the work in the given schedule. Despite its benefits, there has been resistance to its widespread adoption due to the limitations in accuracy, cost of sensors and the complex infrastructure requirements. Also, this system may allow customers to take advantage of location tracking, but it should be done without breaking privacy laws or agreements protecting personally identifying information about employees.



FIGURE 3: Bluvision-ID-card

Source: <http://bluvision.com/bluvision-id-card/>

Behavior Analysis: AI help managers peer into personal aspects of job performance and the attitude towards the work. Veriato intelligent software uses Behavior Analytics to analyzes words and phrases employees use in email messages. Then it scores those expressions for positive or negative sentiment. The system then calculates a daily score for each employee and can set a sentiment baseline over

time. It can send an alert if it detects any change in tone or a shift in relation to a group of employees or if a worker's use of certain language exceeds a threshold. If the tone of a typically happy person suddenly goes negative, that may be an alert that they are at risk of flight, insider threat or even just a productivity problem that needs remediation. The customer can evaluate the context in which the expression occurred, including screenshots captured by the system to decide how to proceed.



FIGURE 4 : Veriato-Behaviour Groups

Source : <https://www.predictiveanalyticstoday.com/veriato/>

Retention-Risk Analysis: Retaining talent is a top priority for any organization. With an AI Predictive model companies can get a better look, into which employee is likely to quit, and what options need to be considered to retain that person. Products from Entelo, IBM and Workday, as well as Microsoft's internal management system, look for patterns identified by researchers and their own software to predict when workers are likely to jump ship. Workday's retention-risk analysis feature, bases its analysis on data from selected customers representing 100,000 individuals over 25 years. It tunes itself to a given customer, calculating a risk score for individual employees based on roughly 60 factors including job title, compensation, time off and time between promotions. The system can come up with the employees at risk of leaving and how much it would take to replace them. The application can also give recommendations on what need to be done to keep those employees around. It can map out next suggested moves and positions that would best suit each one. The software also suggests potential next steps in an employee's career path based on what other people in similar situations have done, so managers can move proactively to retain valuable workers. The retention-risk score is best thought of as one element of a broader picture.



FIGURE 5 : Work Day Screen

Source : <http://www.enterpriseappstoday.com/management-software/workday-delivers-hcm-apps-focused-on-employee-retention.html>

Limitations of AI: For all their promise, AI systems raise several issues. Some are evident in the early stages of adoption, while others may take time to become clear. When tracking employees, particularly personal behavior, privacy is a serious concern. Systems that sort job candidates also raise questions. SAP AI system might prefer those who best match characteristics of people who were hired in the past; Entelo intelligent system may emphasize people with a large online footprint. Juergen Mueller, chief innovation officer of SAP says that, in practice, Resume Matcher reduces bias by highlighting a more diverse selection of candidates than managers otherwise would have considered. “Many recruiters were surprised when they saw the candidates, but when they looked deeper, they could see why the system selected them,” he says. Entelo Chief Executive Jon Bischke acknowledges the possibility that the data set in his company’s recruiting system is biased, but says it doesn’t necessarily affect the customers. “Our area is hiring for highly skilled jobs,” he says. “The vast majority of candidates in that area have a presence on the web.” Beyond that, the use of such technologies in workplaces is new and not widely proven. In many cases it may not be easy to determine that a machine’s insight was sharper than a human would have perceived. Inaccuracy in an AI report is a serious matter of concern when painting someone as a poor performer because it might set back an employee’s career. Forrester Research Inc. analysts David Johnson and J.P. Gownder voiced such concerns in a recent report. The authors argue that employers’ ability to gather data about employees has outstripped managers’ capacity to interpret it properly, opening the door to a variety of counterproductive practices. Managers tend to pay attention to what they can measure, Johnson says, hours spent in workplace apps, say, rather than quality of output. Focusing on individual performance may lead managers to overlook hindrances to productivity that are systemic. Some management professionals share those worries. Kenny Mendes an adviser to Entelo spent two years experimenting with ways to predict and maximize employee success using a statistical programming language and “lots of spreadsheets.” The experience led him to believe the problem is too complex for the current generation of software. The limitations of current approaches, boil down to the difficulty of drawing valid conclusions from incomplete data. Measurements of employee performance at any given

company are based on the set of people hired and lack information about candidates who were passed over or weren't even interviewed, produced more in less time. Aggregating data from many customers, as some larger vendors including SAP and Workday do, can reduce bias, but the problem remains that different companies may not track the same variables in the same way, and subtle but important ones are likely to be missing. Moreover, management systems can't account for conditions outside the office that may energize or depress individual employees at work that can shift unpredictably.

Conclusion: One thing is certain, AI will continue to transform the workplace and world. The future of AI in the workplace is one of overwhelming dominance. However, this dominance will predominantly take the form of eliminating the monotony of data inputting that AI is undoubtedly more efficient at delivering. Despite this there must be an emphasis on the creative roles of employers in these industries as any forms of statistical analysis will be almost entirely be controlled by robots. We must remember that AI cannot have the Human touch and we have to make our future generations more people oriented than machine oriented to deal with AI being perceived as a threat to the workforce. We must favour technology that helps managers without disqualifying people. However, the most effective personnel-management tools are references, work-product tests, and strong personal relationships between managers and their employees.

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Abstract

With growing economy, India is also witnessing the growth of education sector. However, Indian industry is not so convinced about the job-readiness of the graduates. There is an urgent need that Indian Industries and Academia come together and address some of the underlying challenges. Academia and Industry are two different worlds which operate on different pedestals. Both have different purposes and different ideologies. However, the rapid pace of change in the outside environment is compelling these two different worlds to come together to address and solve some of the real-world challenges. So where we going wrong and what are can be done to tackle this challenge? One of the approaches to tackle the problem of lacking skill and job readiness is partnerships between the industry and academia. While predicting the nature of jobs that would be available in the future is difficult, the efforts to prepare people for the jobs should continue.

Introduction

Objective

- Identify the gaps that exist between industry expectations and academic institutions
- Quantify the gaps and assess severity of these gaps
- Develop a solutions model for bridging the gaps
- Formulate strategies for implementation of the solutions



Analysis :

As we know there is a great benefit in training period. So why not this training be given to students when they are in academics only. Industry Mentor will provide online course of how the working is done of any subject or topic, giving all the possible analysis required. By this they are not only able to study and do practical's but also they will learn live application of actually how the subject/topic actually work in outside world or industry. In Academics they will learn the basics and concept of it and while doing online course provided by industry mentor they are learning live application of it.in this way they are able to bridge the gap.





According to Analysis we came to know that there during the training phase only lots of fresher's are removed from the job due to lack of knowledge and skills. They are not able to cope up with IT Standards.

Employment in IT Sector

2014	No. of IT Employees	% Share	% Change 2014/12
IT/Software Development	31,414	37.9	8.7%
Operation Services	19,105	23.0	11.0%
Field Support	9,148	11.0	-0.3%
IT Sales & Marketing	6,710	8.1	0.1%
Telecommunications and Networking	5,923	7.1	-1.4%
System Programming	4,103	4.9	10.7%
IT Education & Training	3,571	4.3	-0.4%
IT Management	1,462	1.8	1.7%
Database	915	1.1	-12.2%
IT Security	622	0.7	7.8%
Total	82,973	100	5.4%

Source: Manpower Survey Report: Information Technology Sector 2014 and 2012, Vocational Training Council

According to Analysis we came to know that 20%, i.e., 20 % of 82973 is 16574 Fresher's or employees are removed during the training phase from the job due to lack of knowledge and skills and they can't cope up with industry standards They are not able to cope up with IT Standards. So if we reduced this gap while they are in academics part only then they are able to meet Industry Standards and there future is bright in all aspects.

Success Level Diagram:



Basic Concept: A *concept* is an idea. It is a generalization from particulars; a mental construction or construct. We put together separate observations into a more abstract and comprehensive entity.

Workshop /Seminar: a meeting at which a group of people engage in intensive discussion and activity on a particular subject or project/a class at university in which a topic is discussed by a teacher and a small group of students.

Online course: Online courses are revolutionizing formal education, and have opened a new genre of outreach on cultural and scientific topics.

Communication Skills: The ability to communicate effectively with superiors, colleagues, and staff is essential, no matter what industry you work in.

Training: Organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge

Aptitude: An aptitude is a component of a competence to do a certain kind of work at a certain level. Outstanding aptitude can be considered "talent". An aptitude may be physical or mental. Aptitude is inborn potential to do certain kinds of work whether developed or undeveloped. Ability is developed knowledge, understanding, learned or acquired abilities (skills) or attitude.

Soft Skills: Soft skills are a combination of people skills, social skills, communication skills, character traits, attitudes, career attributes, social intelligence and emotional intelligence quotients among others that enable people to navigate their environment, work well with others, perform well, and achieve their goals with complementing hard skills

Internship: An internship is a period of work experience offered by an organisation for a limited period of time.

Strategy:

Bridging Plans	Academic Responsibility	Industry Responsibility
Student selection criteria	Identify the student core subject in which they can perform well. Assess of the student on industry based assignment test	Prepare some test module , assignment as per their training content
Course Designing	Give an idea to the industry mentor about the schedule of the college, syllabus.	Industry person can take the help of academic mentor in designing module so that he can design according to student schedule & availability.
Course material Development	It is his responsibility to make available easily & in understandable format	Take ideas or help from the academic mentor so that they can develop course material easily
Teaching equipment's	Readymade notes, videos etc.	It must be in student terminology.

Application/practical sessions	Conduct test & assignment session designed by industry.	Design test & assignment module
Workshops	Arrange some workshop session time to time	Conduct such session
Industrial training-OJT, etc.	Can take student to visit companies	Allow student to take a visit in their workplaces
Assessment Methodology	We should Keep Track by Maintaining Attendance, Keeping Test.	Small Projects should be given to Students.
Communication Skills	Communication skills teacher takes session on it.	Taking Interviews.
Personality development	Communication skills teacher takes session on it.	Taking Interviews.

Why Training Is Important Before Joining Industry :

One important aspect of business is training the staffs as they are one of the valuable assets. It is mandatory to train the staffs with skill and knowledge required to meet the business objectives.

With the assistance of training, the best can be got from the staffs and they are made even more productive. By this way job satisfaction is achieved and the staffs also retains back which avoids recruitment.

Staff training plan is an important aspect of business and should be implemented at regular intervals.



Enhancement in performance: When weakness and shortcomings are identified, then employees are required to be trained. Hence **employee training** is important as it **amplifies skills** and helps the staffs to gain new skills. It has become important for companies to focus on training needs for individuals. For example, there are many organizations where training groups are available for every department. Like training to improve performance are QA training, product development training, PMP and lot more.

Enhanced productivity: With the state of the art situations, productivity mainly depends on the technology being used rather than the staffs. Training and development these days focuses how well the employees are making use of technologies. The employees are trained on existing technologies

where they abandon the out-of-date ones. By this way of training, work runs in an efficient manner and hence productivity increases.

Tackle shortcomings: There are shortcomings faced by every staff and hence training for employees is important as it helps them face any shortcomings. Training can be given appropriate to a specific group so that they turn out to be skilled.

Employee satisfaction: Training is important in an organization as organizations that arrange for training are said to have satisfied their employees. Training must be ones that are relevant for employees and they have something to educate themselves. If training is dull, boring and tedious, then they would result to be fruitless. With proper training, employees are also sent out for a number of conferences and seminars which is beneficial for them. With the help of training, employees learn real aspect of job & are satisfied in doing their job.

They are up-to-date: Whether it is work, training, methods or legislation there are many things that keep changing in work place. With the aid of continuous training, the staffs as well as business do not lag behind and they work at the best every day and also in future.

Sharing higher knowledge: Promotion and career growth are some parameters that are mandatory at workplace. By conducting training, the employees are able to share knowledge about higher job postings and the responsibilities they handle.

Retain star players: Staff training important as they help to enhance skill set and improve performance of staffs. By this way retention is increased and star players are kept back in the organization.

Consistency: With the help of training program for employees, the employees possess a consistent experience along with background knowledge. The consistency of an employee is associated with the organizations policies and procedures.

Reduces training time: When systematic training is provided by means of trained instructors, then training period is reduced. Staffs usually take a long time when they learn through trial and error method. They may also not make use of the right methods to learn and hence formal training for staffs is important.

Safety in industries: Staff training is important so that they handle machinery in a safe manner. Such trained staffs are well known about safety devices in the industry and result in less industrial accidents.

Strategies for implementation

1. Make the institution responsible for partnering with local industry, making it as part of the requirements of accreditation.
2. Having industry participation in research activities like conferences, symposiums, projects
3. Increasing industry participation by offering continuous learning opportunities to industry practitioners through executive development programs
4. Academic institutions to participate more in social activities to gain better visibility & acceptance.
5. Industry interaction can be a KPI for academicians at all levels in an institution



How this idea works:

1. From second year only this strategy can be implemented. We can either choose student or let them register themselves for this courses.
2. In this duration we can cover their basic training related with the subject.

3. After this in the third year they can start online courses side by side after every 15 days one company person will come & track their progress, solve their doubt & monitor them.
4. In this session, if requires, he can modify module, give assignment, task to the student.
5. After the completion of the courses student are rewarded with a certificate after that if possible, student can go for internship program provided by the company so that they can get the actual feel of the work, pressure & environment.
6. Both the parties will get benefit of doing this, student get training & actual idea of working style in companies as well as companies get their trained employee on the very first day of their appointment.



Critical success factors include:

- The involvement of stakeholders— of researchers and Students, as well as of development practitioners and counterparts.
- Harnessing momentum, to enhance active commitment beyond the core group of a partnership.
- Show results to stakeholders of the partnership

Conclusion: Whilst a definitive bridging of the gap between research and practice is still far down the road, only time will tell whether we are able to jump over our own shadows and move knowledge – both scientific and practice-based – forward.

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GLOBALIZATION OF INDIAN MALLS

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Abstract

Growth of organized retail sector in India is being seen as the next driver of the Indian economy after the information technology boom. Some have argued that the farmers are being exploited, prices are being manipulated and the small traders are being destroyed by the big corporate. This paper attempts to study the innovations brought by India's shopping malls to increase the footfalls and turnover. This paper also focuses on challenges facing ahead by these shopping malls. And it finally concludes that shopping malls, with continues innovations in their brand- ix and services, would face the competition easily and stand tall among other shopping malls.

Keywords: Shopping Malls, Employment generation, Challenges.

Introduction: The retail industry in India is undergoing a major shake-up as the country is witnessing a retail revolution. The old traditional formats are slowly changing into more complex and bigger formats. Malls and mega malls are coming up in almost all the places be it – metros or the smaller cities, across the length and breadth of the country. India's strong economic growth and rising disposable incomes of middle class and lower middle class made big business houses venture in to this business. Notable in Indian firms are Pantaloons Retail & Big Bazaar, Trent's Westside, Shopper's stop, Reliance and Subhiskha, Wills Lifestyle stores, Café Coffee Day, which are present in India in different retail formats. The year 2008 saw huge growth rate in mall space coming up all over the country. It was followed by a slowdown and mall mania became mall trauma. The tide has truly turned for developers and retailers, who had blindly jumped into the mall business without understanding the demographics and demand. The conceptualization of a shopping mall is not like residential or commercial towers hence professional assistance is essential. Some other attributes which has contributed in this catastrophic story are : - Multiple floors, High vacancy rates, Unviable Location, Poor Commercialization. Majority of malls have mushroomed in the last 5 years and many of them are grappling with high vacancies and low footfalls. Some have shut up shops and others are converting themselves into commercial spaces. On the other hand, there are lot of malls in India that are metamorphosing into providing not just wholesome shopping experience but also accommodating offices and hotels. Simultaneously, many new malls are being developed around this innovative concept by some of the leading mall developers of the country. They are also coming up with another idea called open mall that are supposed to provide value added "high street" shopping experience to customers. These innovative developments are expected to alter the shopping experience at malls and make customer visits at malls lot more pleasurable and substantial.

Shopping Malls in India: For many people, organized retail appeared in India with the launch of the "first malls" in 1999. The launch of 'Ansal plaza' in Delhi and 'Cross roads' in Mumbai are hailed as the spark that led to the explosion of organized retail in the country and transformed the retail landscape in India. Even highly respected news journals have reported that 'only three shopping malls' existed in India at the end of 2002. However, if one were to define shopping centers or malls as enclosed shopping spaces, then Mumbai Crawford market (opened in 1869) and Kolkata's new market (1874) surely have the pride of place as the pioneering malls in India. Delhi's Connaught place (opened in 1931) should also definitely be considered, with its covered arcades. More recently, New Delhi's partially underground Palika Bazaar, the mini- malls of the late 1980 on Bangalore's Brigade Road and shopping centers built by private developers in Ahmadabad and other cities have all had a role to play in the evolution of organized retail spaces in the country. So, it would be accurate to view the most recent off spring of a long lineage or organized shopping centers.

Innovations in Indian Shopping Malls

- **Large Size Malls:** In India, it has been observed that Indian malls are growing at faster pace. The small malls are now grown to the large one due to the maximum footfall of the customers. There is also the incidence of growing middle class people to the higher class due to the slightly increase in the income level.
- **Professional Approach:** In shopping malls of developed countries, mall management is a well-formulated concept. On the other hand in India, this concept has started gaining importance only in the last six to seven years. Mall's management by professional firms is largely covering various activities which help in maintaining the mall. This includes facility management functions, operation management, marketing management, accounts management and customer service.
- **All-in-One Stores :** Today, Malls are providing hospitality service, landscaped garden- indoor and outdoor, banquet halls, space for commercial office etc. to customers. This mixed-used development concept helps mainly in attracting tourist people from national and international places and help to generate maximum revenue for entire mall.
- **One Roof Approach:** Quite a few malls are looking at all aspects—design, lighting, parking and retail mix. They check for the size of individual stores also. Too big would have been difficult to manage. Too small would not have offered enough variety. They spent a lot of time thinking about which brands would add value to their malls and constantly monitor their sales and performance — replacing the weaker brands with stronger ones.
- **Large Parking Space:** Ample parking space is provided in majority of shopping malls now-a-days. It helps to attract the customers from far-away places and make them visit the mall again. Select City Walk (Delhi) and Forum Mall (Bangalore) is the couple of example of multi-level parking facility to customers in malls.
- **Introducing Value-Added Services to Customers:** Shopping malls are providing other facilities or value added services to customers for extending the period of their stay in mall. Services that are offered include crèches, baby care rooms, baggage counters, communication centres, slow music, forex counters, play sculptures, drivers' lounge/toilets and public information points.

Limitations and Criticism of Shopping Mall

- **Vacant Spaces in Malls:** Vacancy in malls becomes a crucial factor, far as the operational effectiveness & revenue of mall is concerned. The high rental cost affecting the profitability ratio of the businessmen.
- **Dying Malls in India:** Majority of Indian malls are failing, as mentioned earlier, because many malls neglected even basic research and common sense steps that would drive customer traffic — and as a result, they are now in trouble. In some cases, the mall owners have realized the problem and they have brought in expert help—professional mall managers and mall management companies—to revive the malls. But not all malls can be rescued. While some can be turned around by changing some elements of layouts, or the brand mix, or the business model, others cannot be fixed without drastic surgery.
- **Everything for Everyone:** Income and class. There are no differentiation in their brand-mix and services as compared to their neighborhood malls. Clear positioning and differentiation is needed in order to survive as well as to compete successfully.
- **Entry of Global Retailers:** The Government's decision to allow foreign Direct Investment and businesses in to this sector has attracted foreign companies to establish their businesses in India. Now foreign retailers will be able to own their own stores in India for the first time as part of a major government liberalization of business. International retailers coming to India are expected to occupy larger spaces as anchor stores in malls.

- **Limited to Metro Cities:** Most of the shopping malls are today concentrated in the big towns and cities. Customers of rural and semi urban areas are still away from mall revolution.
- **Lose of Personal Touch with Shop Owners:** Customers visiting malls lack personal touch with shop owners i.e. they feel even if visited regularly they still are treated like any other customer, whereas in the local kirana stores they are treated special and known by their names, their tastes and preferences, buying habits, etc.
- **Prices:** The customers shopping in the mall have a feeling of high priced except for some products. Also they have feeling of low bargaining power as they get in kirana stores.
- **Conclusion :** Around 40% of the malls in the country are performing well. Out of this, most grew by about 16% last year and 12% in financial year 2013—not bad considering the overall macro situation in the country. Bigger malls may not succeed immediately but they eventually pull in people because of the mix of brands that they offer. Developers such as the Rahejas (Inorbit), Phoenix (Market City), DLF and Prestige (Forum) are now building larger malls as these have a better chance of succeeding in an overcrowded marketplace. Industry experts say consumers prefer bigger malls which offer more brands under one roof rather than visiting multiple malls, mirroring what happened in the mature retail markets years ago. With easing of the FDI policy, international retailers coming to India are expected to occupy larger spaces thereby increasing revenues. If the anchor tenants occupy larger spaces, it would benefit retailers as well as the consumer, who can expect prices to come down by 10-15% in these large-format stores. As a consequence, the revenue of the mall would definitely go up. And finally, it is concluded that shopping malls, with continues innovations in their brand-mix and services, would successfully face the challenges and competition and stand tall among other shopping malls.

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EVALUATION OF THE GROWTH AND PERFORMANCE OF BULLION COMMODITY MARKET IN MCX IN INDIA

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Abstract

The main purpose of this paper focuses on the evaluation of the growth and performance of bullion commodity market in Multi Commodity Exchange in India for the period of 2013 to 2016. This study has been carried out using the secondary data. India is one of the top producers of commodities. Indian bullion has registered impressive growth over last few decades. The Multi Commodity Exchange of India Limited (MCX) is located in Mumbai. It is the financial capital of India. Earlier MCX was regulated by the Forward Markets Commission (FMC), which got merged with the SEBI on September 28, 2015. MCX COMDEX is India's first and only composite commodity futures price index. MCX Agri, MCX Energy and MCX Metal commodity indices also developed in India. In India, MCX is the first commodity online exchanges which was started in 2002 for facilitating the online trading facility and price transparency by which millions of people and buy or sell at the time of market hours. Now 2012, MCX is the India's No.1 commodity exchange in the terms of highest trading volumes. MCX is the world's No.3 commodity futures exchange and Globally, MCX is No.1 in Silver and Gold, No.2 in Natural Gas & No.3 in Crude Oil as the data published for CY 2011 on the websites of exchanges & FIA data.

Keywords : Gold, Silver, Commodity Markets, Multi Commodity Exchange etc.

Introduction

Commodities and futures: Commodities include goods used in the initial phase of the manufacturing process and are real assets such as energy, industrial and precious metals, agriculture, and livestock. Meanwhile, futures are contracts of commodities that are traded at a futures exchange. However, futures contracts have expanded beyond just commodities and transactions now include futures contracts on financial markets, currencies and many others.

Commodities futures contract: This is a standardized contract set by a particular futures exchange that includes the size in barrels, bushels or tonnes, the place for deliveries, the type and quality of the commodity to be delivered as well as the transaction price. The futures contract is negotiated on a regulated futures exchange where all buy and sell orders are routed to a single location on the exchange.

Objectives of the Study

1. To understand the conceptual framework of bullion commodity market in MCX.
2. To evaluate the growth and performance of bullion commodity market in MCX in India from 2013 to 2017.

Methodology

Period of the Study and Sources of Data: The data collected is for a period of five years from 2013 to 2017. These data are based on Secondary sources which include the various websites viz., www.mcxindia.com etc.,

Gold: Gold is a chemical element with the symbol Au (Latin aurum, shining dawn) and an atomic number of 79. Gold standards have provided a basis for monetary policies. It also has been linked to a variety of symbolisms and ideologies for centuries, gold has meant wealth, prestige, and power, and its rarity and natural beauty have made it precious to men and women alike. Owning gold has long been a safeguard against disaster. Many times when paper money has failed, men have turned to gold as the one true source of monetary wealth. Today is no different. While there have been fluctuations

in every market and decided downturns in some, the expectation are that gold will hold its own. There is a limited amount of gold in the world, so investing in gold is still a good way to plan for the future. Gold is homogeneous, indestructible and fungible. These attributes set gold apart from other commodities and financial assets and tend to make its returns insensitive to business cycle fluctuations. Gold is still bought (and sold) by different people for a wide variety of reasons - as a use in jeweller, for industrial applications, as an investment and so on

Uses of Gold

- Gold is an Investment
- Gold's Usefulness as safe haven
- Gold's Usefulness as an Asset Diversifier
- Gold is money
- Gold is insurance

Gold Investment: Gold is the most popular as an investment. Investors generally buy gold as a hedge or harbour against economic, political, or social fiat currency crises including investment market declines, burgeoning national debt, currency failure, inflation, war and social unrest). The gold market is subject to speculation as are other markets, especially through the use of futures contracts and derivatives. The history of the gold standard, the role of gold reserves in central banking, gold's low correlation with other commodity prices, and its pricing in relation to fiat currencies suggest that gold behaves more like a currency than a commodity.

Investment Vehicles

Bars: The most traditional way of investing in gold is by buying bullion gold bars. Bars are available in various sizes. Bars generally carry lower price premiums than gold bullion coins. However larger bars carry an increased risk of forgery due to their less stringent parameters for appearance. While bullion coins can be easily weighed and measured against known values, most bars cannot, and gold buyers often have bars re-assayed.

Coins: Gold coins are a common way of owning gold. Bullion coins are priced according to their fine weight, plus a small premium based on supply and demand.

Gold Contract Specifications

Gold	
Trading Unit	1 Kg
Quotation / Base value	10gms
Maximum order size	10 kg
Tick Size (minimum price movement)	Re.1 per 10 grams
Initial margin	5%

Gold Mini	
Trading Unit	100 gms
Quotation / Base value	10 gms
Tick Size (minimum price movement)	Re.1 per 10 grams
Initial margin	5%

Gold HNI (High Networth Individual)	
Trading Unit	3000 gms
Quotation / Base value	10 gms
Tick Size (minimum price movement)	Re.1 per 10 grams
Initial margin	5%

Gold is a primarily a monetary asset and partly a commodity. More than two-third of gold's total accumulated holdings, relating to "value for investment", is with central banks" reserves, private players and high- karat jewellery. Less than one-third of gold's total accumulated holdings area

“commodity” for jewellery in the western markets and usage in industry. Following are the various theoretical aspects of gold commodities traded at MCX.

1. Market Characteristics: The gold market is highly liquid. Gold held by central banks, other major institutions and retail jewellery is reinvested in the market. Due to large stock of gold, against its demand, it is argued that the core driver of the real price of gold is stock equilibrium rather than flow equilibrium.

2. Effective portfolio diversifier: This phrase summarizes the usefulness of gold in terms of “Modern Portfolio Theory”, a strategy which is utilized by many investment managers today. Using this approach, gold can be used as a portfolio diversifier to improve investment performance.

3. Effective diversification during “stress” periods: Traditional methods of portfolio diversification often fail when they are most needed, that is during financial “stress” (instability). On these occasions, the correlations and volatilities of return for most asset class (including traditional diversifiers, such as bonds and alternative assets) increase, thus reducing the intended “cushioning” effect of a diversified portfolio.

4. Demand and Supply: South Africa is the world’s largest gold producer with 297 tons in the year 2005, followed by United States of America (U. S. A.) and Australia. India is the world’s largest gold consumer with an annual demand of 800 tones.

5. Factors Influencing the Market

Following are the various factors which influence the market of gold commodity:

- i) Above ground supply from sales by central banks, reclaimed scrap and official gold loans.
- ii) Producer / miner hedging interest
- iii) World macroeconomic factors such as the US dollar and interest rate
- iv) Comparative returns on stock markets
- v) Domestic demand based on monsoon and agricultural output

6. Important world market:

Following are various international markets for gold commodity :

- i) London is the biggest and the oldest gold market in the world.
- ii) Mumbai is under India’s liberalized gold regime.
- iii) New York is the home of gold futures trading.
- iv) Zurich is a physical turntable.
- v) Istanbul, Dubai, Singapore and Hong Kong are doorways to important consuming regions.
- vi) Tokyo, where TOCOM sets the mood of Japan.

7. Measurements of GOLD: Gold purity is measured in terms of karat and fineness.

Silver: Silver is a metallic chemical element with the chemical symbol Ag (Latin: argentum, from the Indo European root-for white or shining) and atomic number 47. Most silver is produced as a by-product of copper, gold, lead, and zinc. Silver has attracted man’s fascination for many thousands of years. Ancient civilizations found silver deposits plentiful on or near the earth’s surface. Relics of these civilizations include jewellery, religious artefacts, and food vessels formed from the durable, malleable metal. This metal took on near mystical qualities in marking important historical milestones throughout the ages, and served as a medium of exchange. The Mesopotamian merchants were doing just that as early as 700 BC. In 1792, silver assumed a key role in the United States monetary system when Congress based the currency on the silver dollar, and its fixed relationship to gold. Silver was used for the nation’s coinage until its use was discontinued in 1965. The dawn of the 20th century marked an important economic function for silver, that of an industrial raw material. Today, silver is sought as a valuable and practical industrial commodity, as well as an appealing investment precious metal. Many countries now issue silver bullion coins, among them the United States, Canada and Mexico. Private issue silver bullion is also available from select private mints.

Silver (Chemical Symbol-Ag) is a brilliant grey-white metal that is soft and malleable. Here, the presentation covers the major characteristics of the silver metal, demand and supply scenario, Indian scenario, global scenario, factors influencing the market, and relationship between economic parameters and future price of silver. Following are the various theoretical aspects about the silver commodity.

Uses of Silver: Demand for silver is built on three main pillars: industrial and decorative uses, photography, and jewellery & silverware. Together, these three categories represent more than 95 percent of annual silver consumption. In 2013, 455.5 million ounces of silver were used for industrial applications, while over 128 million ounces of silver were committed to the photographic sector, 163.4 million ounces were consumed in the jewellery market, and 58.8 million ounces were used in the silverware market. Why is this indispensable metal in such demand? The reasons are simple. Silver has a number of unique properties including its strength, malleability and ductility, its electrical and thermal conductivity, its sensitivity to and high reflectance light and the ability to endure extreme temperature range.

Investment Vehicles

Bars

Various sizes of Silver Bars

- 1000 oz troy bars - These bars 999 fine, weigh about 68.6 pounds avoirdupois (31 kg) and vary about 10% as to weight, as bars range from 900 ozt to 1100 ozt (28 to 34 kg). These are COMEX and LBMA good deliver bars.
- 100 oz troy bars - These bars weigh 6.86 pounds (3.11 kg)
- Odd weigh retail bars - These bars cost less and generally have a wider spread, due to the extra work it takes to calculate their value and the extra risk due to the lack of good brand name.
- 1 kilo gram bars (32.15 oz troy)
- 10 oz troy bars and 1 oz troy bars (311 and 31.1 kg)

Coins and Rounds: Silver coins include the one ounce 99.99% pure Canadian Silver Maple Leaf and the one ounce 99.93% pure American Silver Eagle. Coins may be minted as either fine silver or junk silver, the latter being older coins made of 90% silver. U.S. coins 1964 and older (half dollars, dimes, and quarters) are generally accepted to weigh 24.71 grams of silver per dollar of face value, which at their nominal silver content of 90%, translates to 22.239 g of silver per dollar.

All U.S. dimes, quarters, halves and 1 dollar pieces contained 90% silver since their introduction up until 1964 when they were discontinued. The combined mintage of these coins by weight exceeds by far the mintages of all other silver investment coins.

The Three Exchanges:

- i) National Commodity & Derivatives Exchange Limited (NCDEX) Mumbai,
- ii) Multi Commodity Exchange of India Limited (MCX) Mumbai and
- iii) National Multi : Commodity Exchange of India Limited (NMCEIL) Ahmedabad There are other regional commodity exchanges situated in different parts of India.

Players in the Market:

- i) Hedgers
- ii) Speculators
- iii) Arbitrators

1. Major Characteristics of Silver Metal

- ◆ Silver has unique properties such as its strength, malleability, ductility, electrical and thermal conductivity, sensitivity, high reflectance of light, and reactivity.

- ◆ The main source of silver is in lead ore, although it can also be found associated with copper, zinc and gold and produced as a by - product of base metal mining activities.
 - ◆ Secondary silver sources include coin melt, scrap recovery, and dis - hoarding from countries where export is restricted. Secondary sources are price sensitive.
 - ◆ Silver is unique amongst metals since it can be classified as both a precious metal and an industrial metal.
 - ◆ Today, silver is sought as a valuable and practical industrial commodity & as an investment.
 - ◆ Silver is an important element of global monetary reserves, it is an effective portfolio diversifier.
2. **Global Scenario:** Silver is predominantly traded on the London Bullion Market Association (LBMA) and COMEX in New York. LBMA, as the global hub of over-the-counter (OTC) trading in silver, is its main physical market. Comex is a futures and options exchange, where most fund activity is focused. Silver is invariably quoted in the US dollars per troy ounce.
3. **Indian Scenario:** India's silver demand averages 2500 tonnes per year, whereas the country's reduction was around 206.95 tonnes in 2010. Nearly 60% of India's silver demand comes from farmers and rural India, who store their savings in silver bangles and coins.
4. **Factors Influencing the Market:**
- i) Economic events such as national industrial growth, global financial crisis, recession, and inflation affect metal prices.
 - ii) Commodity-specific events such as the construction of new production facilities or processes, unexpected mine or plant closures, or industry restructuring, all affect metal prices.
 - iii) Governments set trade policy (implementation or suspension of taxes, penalties, and quotas) that affect supply by regulating (restricting or encouraging) material flow.
 - iv) Geopolitical events involving governments or economic paradigms and armed conflict can cause major changes.
 - v) A faster growth in demand against supply often leads to a drop-in stock with the government and investors.
 - vi) Silver demand is underpinned by the demand from jewellery and silverware, industrial applications, and overall industrial growth.
 - vii) In India, the real industrial demand occupies a small share in the total industrial demand of silver. This is in sharp contrast to most developed economies.
 - viii) In India, silver demand is also determined to a large extent by its price level and volatility.

Bullion, in MCX

Gold and Silver Traded Contract (Lots)

Year/commodity	Gold	Gold-guinea	Goldm	Goldpetal	Goldpt 1 del	Silver	Silver 1000	Silverm	Silvermic
2013	8944603	3635882	15860098	19021199	44846	11754822	8561	20267222	33611357
2014	3971634	658484	4926384	3298545	21279	5692481	714	10016910	20187418
2015	3947175	457243	4772670	2490519	2010	5957382	8	8740635	17223211
2016	4093572	425316	5588129	2988240	15	5572254	0	8156398	14882798
2017	2130149	154237	2574818	1498665	11	3561492	2	5341101	10103838
<i>Source : mcx.india.com</i>									

During the study period the Trade contracts was in the top position in 2013 after that it was reduced but in 2016 slightly it was increased and then reduced in 2017.

Gold and Silver Total Value (Lacs)

Year/ commodity	Gold	Goldguinea	Goldm	Goldpeta	Gold- ptlde	Silver	Silver100	Silverm	Silvermi
2013	256385614.6	846144.50	45772061.75	554520.38	1328.92	73915829.9	4393.58	49990239.5	53450.23
2014	10666518.8	149827.74	13805230.79	94291.95	617.06	1127129.43	304.00	20968434.7	31592.38
2015	04039990.0	97006.50	12584941.24	65393.80	54.99	54865456.59	3.00	15914702.07	24319.98
2016	21083681.7	100612.97	16465426.88	88267.34	0.45	59174486.9	0.00	16866699.6	23655.54
2017	61656257.30	36081.98	7453799.97	43671.04	0.33	42630518.4	0.84	10662186.83	17505.51

Source : mcx.india.com

During the study period the Trade contracts was in the top position in 2013 after that it was reduced but in 2016 slightly it was increased and then reduced in 2017.

Gold and Silver Average Daily Turnover (Lacs)

Year/ commodity	Gold	Goldguinea	Goldm	Goldpeta	Gold- ptlde	Silver	Silver100	Silverm	Silvermi
2013	832420.83	2747.22	148610.59	1800.39	4.31	564661.78	14.26	162305.97	53450.23
2014	412934.77	559.06	51512.06	351.84	2.30	265399.74	1.13	78240.43	31592.38
2015	403255.78	375.99	48778.84	253.46	0.21	251416.50	0.01	61684.89	24319.98
2016	467504.56	388.47	63573.08	340.80	0.00	267082.96	0.00	65122.39	23655.54
2017	266910.20	156.20	32267.53	189.05	0.00	184547.70	0.00	46156.65	17505.51

Source : mcx.india.com

During the study period the Average Daily Turnover was in the top position in 2013 after that it was reduced but in 2016 slightly it was increased and then reduced in 2017.

Conclusion: Since bullion is an important saving instrument in India and is very often used as a hedge against inflation, it is expected that gold may be looked upon as alternative asset for those holding idle money, for speculative purposes. Even though, there is no relation between the gold prices and silver prices. Gold is the best alternative source of investment. The investor's tendency to switch to gold investment when they find the market to be too risky Investment in bullion market has its own risk involved in it. It is better to analysis the risk involved before making the investment. From the study I have found that the gold and silver Trade Volume, Trade Value, Average Daily Turnover was decreased year by year. Hence the investors need more information and awareness to invest in bullion to gain short term and long term profit.

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CONFLICT MANAGEMENT IN THE PRODUCTION SECTORS

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Abstract

This is an exploratory study of interpersonal conflicts in various companies in India. This paper explores to identify and handle conflicts sensibly, fairly, and efficiently. Since conflicts in a business are a natural part of the workplace, it is important that there are people who understand conflicts and know how to resolve them. This is important in today's market more than ever. Everyone is striving to show how valuable they are to the company they work for and, at times, this can lead to disputes with other members of the team. This paper pertains to the descriptive mode of inquiry in presenting a framework for the study of conflict in organizations. But it goes beyond this domain in suggesting that administrators must take the offensive and seek to manage conflict, and also in advocating that traditional methods of dealing with conflict be replaced by a new and more sophisticated approach.

Keywords: Conflict management, Inter organizational relationships, Conflict effects Meaning and definition.

Conflict management is the practice of being able to identify and handle conflicts sensibly, fairly, and efficiently. Since conflicts in a business are a natural part of the workplace, it is important that there are people who understand conflicts and know how to resolve them. This is important in today's market more than ever. Everyone is striving to show how valuable they are to the company they work for and, at times, this can lead to disputes with other members of the team.

Definition: Schelling (1960) "Conflicts that are strategic are essentially bargaining situations in which the ability of one participant to gain his ends is dependent on the choices or decisions that the other participant will make"

Meaning: Individuals or groups are in conflict when one or both parties are not now getting what they need or want and are actively pursuing their own goals. Conflict is the difference in perspective that is inherent in every organization

Systems of conflict include

1. Increased tension among members
2. Increased disagreement and complaints
3. Avoidance among members
4. Increased blaming
5. Misunderstanding or communication failures
6. Values of goal differences
7. Differences in methods and approaches to work
8. Conflict in job and responsibilities
9. Lack of cooperation
10. Authority issues
11. Noncompliance issues are differences in the interpretation of rules, policies or standards.

Ways of managing organizational conflict are as varied as its causes, origins and contexts. The purpose of conflict management, whether undertaken by the parties in conflict or whether involving the intervention of an outside party, is to affect the entire structure of a conflict situation so as to contain the destructive components in the conflict process (e.g. hostility, use of violence) and help the parties possessing incompatible goals to find some solution to their conflict. Effective conflict management succeeds in (1) minimizing disruption stemming from the existence of a conflict, and (2)

providing a solution that is satisfactory and acceptable. We describe efforts directed towards containing or limiting some aspects of behaviour as strategies of conflict settlement and efforts directed towards the parties' attitudes, situations as well as behaviour as strategies of conflict resolution. Skilled administrators are aware of these methods and techniques and know how to utilize them effectively. All organizations, however simple or complex, possess a range of mechanisms or procedures for managing conflict. These are built into the organizational structure and are consciously employed by administrators to influence the course and development of a conflict. The success or effectiveness of such procedures can be gauged by the extent to which they limit conflict behaviour and the extent to which they help to achieve a satisfactory solution. It is the contention of this article that strategies of conflict avoidance, conflict prevention or institutionalization of conflict will change or replace coercive behaviour, but that only the injection of a behavioural social scientist, acting in a facilitative, non-directive and non-evaluative fashion, will achieve a resolution with respect to the basic issues, attitudes and structure of interaction. If administrators care for optimal methods of conflict management, they should give their strongest support to a strategy that can end a conflict in a satisfactory and self-perpetuating manner.

Conflict Management Styles: Conflicts happen. How an employee responds and resolves conflict will limit or enable that employee's success. Here are five conflict styles that a manager will follow according to Kenneth W. Thomas and Ralph H. Kilmann:

An **accommodating** manager is one who cooperates to a high degree. This may be at the manager's own expense and actually work against that manager's own goals, objectives, and desired outcomes. This approach is effective when the other person is the expert or has a better solution.

Avoiding an issue is one way a manager might attempt to resolve conflict. This type of conflict style does not help the other staff members reach their goals and does not help the manager who is avoiding the issue and cannot assertively pursue his or her own goals. However, this works well when the issue is trivial or when the manager has no chance of winning.

Collaborating managers become partners or pair up with each other to achieve both of their goals in this style. This is how managers break free of the win-lose paradigm and seek the win-win. This can be effective for complex scenarios where managers need to find a novel solution.

Competing: This is the win-lose approach. A manager is acting in a very assertive way to achieve his or her own goals without seeking to cooperate with other employees, and it may be at the expense of those other employees. This approach may be appropriate for emergencies when time is of the essence.

Compromising: This is the lose-lose scenario where neither person or manager really achieves what they want. This requires a moderate level of assertiveness and cooperation. It may be appropriate for scenarios where you need a temporary solution or where both sides have equally important goals.

Conflict resolution involves the reduction, elimination or termination of all forms and types of conflict. Five styles for conflict management are as identified by Thomas –kilmann are competing, compromising.

Successful conflict resolution depends on your ability to :

1. Manage stress while remaining alert and calm. By staying calm, you can accurately read and interpret verbal and nonverbal communication.
2. Control your emotions and behaviour. When you're in control of your emotions, you can communicate your needs without threatening, frightening, or punishing others.
3. Pay attention to the feelings being expressed as well as the spoken words of others.
4. Be aware of and respectful of differences. By avoiding disrespectful words and actions, you can resolve the problem faster.

Four key conflict resolution skills: The ability to successfully manage and resolve conflict depends on four key skills. Together, these four skills form a fifth skill that is greater than the sum of its parts: the ability to take conflict in stride and resolve differences in ways that build trust and confidence.

Conflict Resolution Skill 1: Quickly relieve stress. The capacity to remain relaxed and focused in tense situations is a vital aspect of conflict resolution. If you don't know how to stay centered and in control of yourself, you may become emotionally overwhelmed in challenging situations. The best way to rapidly and reliably relieve stress is through the senses: sight, sound, touch, taste, and smell. But each person responds differently to sensory input, so you need to find things that are soothing to you.

Conflict Resolution Skill 2 : Recognize and manage your emotions. Emotional awareness is the key to understanding yourself and others. If you don't know how you feel or why you feel that way, you won't be able to communicate effectively or smooth over disagreements. Although knowing your own feelings may seem simple, many people ignore or try to sedate strong emotions like anger, sadness, and fear. But your ability to handle conflict depends on being connected to these feelings. If you're afraid of strong emotions or if you insist on finding solutions that are strictly rational, your ability to face and resolve differences will be impaired.

Conflict Resolution Skill 3 : Improve your nonverbal communication skills. The most important information exchanged during conflicts and arguments is often communicated nonverbally. Nonverbal communication includes eye contact, facial expression, tone of voice, posture, touch, and gestures. When you're in the middle of a conflict, paying close attention to the other person's nonverbal signals may help you figure out what the other person is really saying, respond in a way that builds trust, and get to the root of the problem. Simply nonverbal signals such as a calm tone of voice, a reassuring touch, or a concerned facial expression can go a long way toward defusing a heated exchange.

Conflict resolution skill 4 : Use humour and play to deal with challenges You can avoid many confrontations and resolve arguments and disagreements by communicating in a playful or humorous way. Humour can help you say things that might otherwise be difficult to express without creating a flap. However, it's important that you laugh with the other person, not at them. When humor and play are used to reduce tension and anger, reframe problems, and put the situation into perspective, the conflict can actually become an opportunity for greater connection and intimacy

Conclusion: Organizations are social entities segmented into hierarchies of departments and individuals. The basic realities of organizational life cannot but stimulate comparisons, competitions and conflicts between departments and individuals. Conflict is an omnipresent feature at each of these organizational levels. Since conflict may have functional as well as dysfunctional consequences, it is essential that administrators explore various methods and techniques of conflict management.

Effective conflict management is indispensable if coordinated efforts and productive achievements are to result. I have suggested above that the planned intervention by behavioural scientists represents the most effective method since it can produce organizational change and a sense of personal accomplishment. Our task lies in stimulating a more thorough analysis to fill the gap between our knowledge and the realities of organizational life. The administrators' task lies in accepting conflict evaluation as part of their role and in developing the creative abilities that are necessary to deal with it.

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NEED FOR SKILL DEVELOPMENT IN CONSTRUCTION SECTOR; ASPHALT ROADS TO PLASTIC ROADS

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Abstract

The plastic wastes could be used in road construction and the field tests withstood the stress and proved that plastic wastes used after proper processing as an additive would enhance the life of the roads and also solve environmental problems. Plastic use in road construction is not new. It is already in use as PVC or HDPE pipe mat crossings built by cabling together PVC (polyvinyl chloride) or HDPE (high-density poly-ethylene) pipes to form plastic mats. Waste plastic is ground and made into powder; 3 to 4 % plastic is mixed with the bitumen (a black viscous mixture of hydrocarbons obtained naturally or as a residue from petroleum distillation. It is used for road surfacing and roofing). The durability of the roads laid out with shredded plastic waste is much more compared with roads with asphalt with the ordinary mix. The use of the innovative technology not only strengthened the road construction but also increased the road life as well as will help to improve the environment and also creating a source of income.

Keywords : PVC, HDPE, Skill development, plastic roads.

Introduction: India has the world's second-largest road network and one of the highest numbers of road accidents globally. Official data recorded more than 150,000 deaths from about 500,000 accidents last year. Nearly a tenth of those deaths were caused by accidents involving potholes, which are a common feature of Indian roads. This year, the government announced an investment of 6.9 trillion rupees (\$11 billion) to build 83,677 km of roads over the next five years. Analysts called for them to be built with a tested technology using plastic waste, which reduces costs and makes roads more durable and thus safer. "Plastic roads will not only withstand future monsoon damage but will also solve the problem of disposing of non-recyclable plastic," said Isher Judge Ahluwalia, former head of a government committee on urban infrastructure.

Objectives of the Study

- ◆ To know the difference between asphalt roads and plastic roads.
- ◆ To study the advantages and disadvantages of using plastic in constructing roads.
- ◆ To study the basic process of conversion of plastic waste to plastic roads.

Research Methodology

- ◆ The nature of the study is descriptive. The researcher has used the secondary data for the study.
- ◆ Secondary data was collected from books, newspaper and journal

Review of Literature

- ◆ The director of the Central Road Research Institute (CRRI) said that bitumen mixed with plastic or rubber improves the quality and life of roads. The deputy director of the CRRI said that polymers mixed with bitumen increased the construction cost up to six per cent, but increased the longevity of roads manifold. The performance studies carried out on the roads constructed in Tamil Nadu indicated satisfactory performance with good skid resistance, good texture value, stronger and less amount of progressive unevenness over a period of time. The experimentation carried out by CRRI also indicated better stability value, indicating higher strength, less flow and more air voids. Al-Hadidy A.I., Yi-qi Tan (2009), "Effect of polyethylene on life of flexible pavements",

- ◆ Ms. Apurva Chavan (2013) says that using plastic waste in mix will help reduction in need of bitumen by around 10%, increase the strength and performance of road, avoid use of anti-stripping agent, avoid disposal of plastic waste by incineration and land filling and ultimately develop a technology, which is eco-friendly.

Comparison

- ◆ The durability of the roads laid out with shredded plastic waste is much more compared with roads with asphalt with the ordinary mix.
- ◆ While a normal 'highway quality' road lasts four to five years it is claimed that plastic-bitumen roads can last up to 10 years.
- ◆ Rainwater will not leach through because of the plastic in the tar.
- ◆ The cost of plastic road construction may be slightly higher compared to the conventional method.
- ◆ The maintenance cost is low as compared to conventional method.
- ◆ Its initial cost is slightly more as compared to conventional method

Basic Process

<p>Segregation:</p> <p>Plastic waste collected from various sources must be separated from other waste. Maximum thickness is 60 microns.</p>	
<p>Cleaning Process:</p> <p>Plastic wastes get cleaned and dried</p>	
<p>Shredding process:</p> <p>Will be shredded or cut into small piece. The different types of plastic wastes are mixed together</p>	

Collection process: The plastic waste retaining in 2.36 mm is collected.	
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Advantages of using Plastic in Constructing Roads

- ◆ The stronger road will increase the Marshall Stability Value.
- ◆ Have better resistance towards rainwater and water stagnation 18.
- ◆ No stripping and no potholes.
- ◆ Plastic roads increase binding and better bonding of the mix.
- ◆ You will have reduction in pores in collective and hence less rutting and ravelling.
- ◆ No effect of radiation of UV.
- ◆ The strength of the road will be increased by 100%.
- ◆ The load of withstanding property increases and in turn it helps to satisfy today's need for increased road transport.
- ◆ To make 1km X 3.75m road, 1 ton of plastic almost 10 lakhs carry bags are used & 1 ton of bitumen is saved.
- ◆ Value addition to the recycled plastics (cost per kilogram increased between Rs.4 to Rs12).
- ◆ The cost of road construction will also be decreased.
- ◆ The maintenance cost of the road will remain almost nil.
- ◆ Disposal of waste plastic will no longer be a problem.
- ◆ The use of waste plastics on the road will help to provide the better place for burying the plastic waste without causing disposal problem.
- ◆ Employment for unskilled laborers will be also to be generated.

Disadvantages of Plastic Roads

- ◆ Cleaning process- Toxics present in the co-mingled plastic waste would start leakage.
- ◆ During the road laying process- the presence of chlorine will release noxious HCL gas.
- ◆ After the road laying- It is opined that the first rain will trigger leaching. As the plastics will merely form a sticky layer, (mechanical abrasion).
- ◆ The components of the road, once it has been laid, are not inert.

Conclusion: In 2015, the Indian government made it mandatory to use waste plastic in building most highways. But some states have been slow to embrace the technology, citing difficulties in segregating the plastic and bringing contractors on board. Many more miles to go and the budding engineer's skill needs to be enhanced for the same.

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SECONDARY STUDY ON SALES PROMOTION STRATEGIES ADOPTED BY INDIAN INDUSTRIES WITH SPECIAL REFERENCE TO QUICK SERVICE RESTAURANTS (AKA FAST FOOD OUTLETS)

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Abstract

Out of all the Marketing communication tools available in various markets nationally and internationally, Sales promotion has always been a promising tool across the globe. Sales promotion helps in bringing the customer to the outlet/POS by attracting them with Cash discounts, BOGOF (Buy one get one free offer) gift coupons, contests, rebates, sweep stakes etc. Other promotion tools like advertisement may or may not be able to directly hit the buy button in consumers mind but sales promotion does. Also, it enjoys the position of being a cost effective and value for money tool because it gives immediate results and is affordable in comparison to other tools of promotion like Advertisements, Sponsorship etc. Sales promotion can be focussed on consumers directly with the help of above mentioned tools or it can also be targeted towards, dealers, wholesalers and retailers by giving them trade discounts, gift's, holiday packages etc which motivates them to sell more and more of that product. An effective Sales promotion gives competitive advantage to a company to gain edge over other companies. Marketing in current scenario is a war and marketer is a warrior who must be equipped with new and latest yet effective weapons, and sales promotion is one such lethal weapon. In almost every industry viz. FMCG, Insurance, Automobiles, Electronics, Food industry etc. sales promotion is being used on a very large scale. In this secondary study author has compiled all the sales promotion techniques used in fast food industry and other industries in India and internationally.

Keywords : Sales promotion, QSR's, Indian Industry.

Introduction: Fast food industry is one of the largest and fastest growing industries across the world which will continue to grow on a rapid pace for long time. Two Decades ago the growth in fast food industry was dominated from developed countries which is now largely supplemented by rapid growth coming from developing countries (Verma, 2008). Due to globalisation several fast food retail outlets have been established across India (Tabassum, 2012). Because of its growing market, urbanisation, increasing literacy, increasing disposable income, working women etc India is on the top in the expansion list of big QSR's like McDonalds. KFC, Domino's, Pizza hut, Subway, Burger king etc. Fast food has become an indispensable part of Indian lifestyle. In one of the online survey done by ACNielsen, world's leading market research firm, Urban Indians are amongst the top ten regular consumers of fast food across the sphere. Out of the 28 countries surveyed, India is among the top ten countries in terms of frequency of fast food consumption (Verma, 2008). International fast food chain restaurants like McDonalds have Indianized their menus as per the Indian tastes and preferences. Many global fast food giants viz. Subway, KFC and McDonalds have not only turned vegetarian in Ahmedabad city of Gujarat, India but are also offering jain food (Unnithan, 2013). Around 42% of Indian households are vegetarian according to the Food and Agricultural Association of the United Nations, and 35% of weekdays are vegetarian for rest of the non-vegetarian population (Sarkar, 2014)

In-store and outdoor sales promotion : In-store sales promotion is direct promotion of the product inside the store or POS. In-store sales promotion is very effective marketing tactic. In-store sales promotion helps to increase in-store traffic and build brand awareness. It helps to increasing foot-falls and targets them once they are in store. In-store sales promotion also helps in cross-selling or product bundling. In-store sales promotion tickles the impulse buying waves of customers. The chocolates or toffies which are kept on the payment counter are good examples of in-store sales promotion and impulse buying behaviour together. Outdoor sales promotion on the other hand includes media vehicles like posters, displays, hoardings, transit advertisements, sandwich man etc. displaying the various offers running in the store to increase walk-ins, create brand awareness and goodwill.

Below are some of the most common type of sales promotion techniques used across all industries

1. **Cash Discounts** : This is the most common type of sales promotion technique used widely in all industries. As a consumer we all are bombarded with some or the other type of cash discount in fast food industry. Be it online selling or brick and mortar everywhere cash discount is a tried and tested remedy.
2. **Coupons** : Discount coupons are sure shot cash cow techniques on which almost all the fast food companies have banked and cashed upon. Be it McDonalds, KFC, Pizza Hut, Domino's or any other fast food outlet discount coupons have been fortune changer around the world.
3. **Refunds & Rebates** : As the name suggests, refunds are a marketing tactic when you get a partial amount refunded to you based on an action you have taken. For example – if you bring the parking ticket to the showroom, your parking amount will be refunded by the store. Such refunds make the customer excited to visit a store. Similarly, rebate is a type of partial refund which is most popular in the United States, though not much popular in other countries. In rebates, you fill forms while checking out of stores. And if you have won the rebate, you will have to mail your details to the company and the company will refund you the rebate amount in your bank or via a paypal account.
4. **Exchange offers** : Exchange offers are quite commonly used all across the world and used strongly in festive season when sales will be more, and people are in a purchasing mood. In exchange offer, you can exchange an old product for a new product. You will receive a discount based on the valuation of your old product. So, if you had an old washing machine at home and there was an Exchange offer in the market, then you will receive an X amount for the washing machine which is decided by the parent company or the retailer. This X amount will be deducted from your final payable amount and will be reduced under the header of “Exchange offer reimbursed”.
5. **Free Trial** : Chances are, you have come across several softwares or online programs which offer a free trial to you before you purchase the product. Shareware programs are also a kind of free trial programs where you can use the product for some time but later must purchase the product to use it completely. This is done so that the customer gets a chance to trial run the product before he pays for the product in full. Programs like Adobe Photoshop, Microsoft office 365 and others are known to give free trial programs of upto a month so that the customer can know more about the product, he can try it and then purchase.
6. **Email Marketing** : Email marketing was, is and is touted to always be one of the best ways to promote your business. It is one of the most commonly used types of sales promotions across the world because of its ease of implementation and because of its penetration. Each one of us has an email account which we access regularly. Thus, an Email is personal to us when received in our phone and we are bound to check it out. Chances are, email marketing bundled with an exciting and irresistible offer can really entice the customer in purchasing your product. As a result, Email marketing is widely used, be it online industry or offline.
7. **Exhibitions** : More commonly used in Food, Jewellery, Clothing, Chemicals and similar such industries where sellers want to showcase the products they have to their buyers. These buyers might be consumers or they may be industrial buyers. An exhibition generally consists of one player who is exhibiting his goods. However, it can also be a combination of players who are all there to showcase their wares.
8. **Trade Shows** : While exhibitions are targeted towards individual buyers, Trade shows are targeted towards resellers, dealers, distributors and bulk buyers. A trade show is typically a display point for all top companies within an industry. These companies are there to compete and

grab the maximum eyeballs of retailers, dealers and distributors. While Exhibitions are concentrated mostly on individual buyers, trade shows are concentrated towards bulk buyers.

9. Demonstrations : One of the most popular products to be sold through product demonstrations were vacuum cleaners which used to be sold house to house. However, because of privacy concerns, such type of promotional activities was stopped. Instead, now you will see water purifiers being promoted through demonstrations in malls, showrooms and other places. Demonstrations are an excellent way to create more awareness of the product and to make customers comfortable towards a technical product. Technicality of the product can be a barrier to purchase. By demonstrating the actual working of a product, you are removing a barrier to purchase. Hence demonstration is a type of sales promotion mostly used for technical type of products.

10. Continuity Programs : One of the best example of continuity programs is the frequent flyer program introduced by most airlines. These airlines give more “miles” to the customers who are flying more and more with the airline. Because you are awarded gifts the more you fly with one airline, you are likely to continue flying with that airline so that you receive more miles.

Another example of the continuity program is when a super market advertises that customers who buy 5 times in this month from that super market will get a gift. This way, the customer will not shift anywhere else but will do shopping from that super market. Such continuity programs not only aim at getting new customers, but they also retain old customers effectively.

11. Quantity Discount : The more quantity of the product you buy, the more is the discount. So for example, a single soap may cost Rs.10 but a combined package of 5 units of soap might cost you Rs.40, giving you a 20% discount on the purchase. Such type of quantity discount is common for customers. However, the quantity discount is not applicable only to consumers. It is also applicable in trade where a dealer or distributor might be given a discount of 5-10% if he purchases a higher quantity of product. So, a kitchen appliance distributor might be given a discount if he buys higher number of units in the festive season. The higher he sells and the more aggressive he is, the better he will earn.

12. Sampling : Some QSR's also adopt the technique of free sampling or low-cost sampling, e.g. McCafe.

13. Bundling : Bundling is when companies put combination of products on sale. McDonalds meal, happy meal etc.

14. Contests : Contests are conducted to generate curiosity and enthusiasm for winning it to get the discounts.

Conclusion & Recommendation: All the Sales promotion tools mentioned above are very much effective, tried and tested in various industries. Like every disease has different medicine similarly sales promotion techniques will change depending on the product, product category, industry, brand and companies. Every business is different and therefore, the type of sales promotion used by each business needs to be different. Being a competitive world, most companies use a combination of various sales promotional methods to defeat competitors, attract and retain customers and most importantly, to increase the sale of their products or services. Hence, sales promotion must be a part of every business's promotion mix, no matter however small or big the business is.

A STUDY ON STRATEGIC MODELS FOR EMBEDDING EMPLOYABILITY SKILLS AMONG GRADUATES

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Abstract

The present research tries to make an analysis of employability of young graduates who may pursue their professional life. The study tries to answer a few questions like: what is the role of Colleges and University in producing useful graduates for recruiting organisations with employability skills, how can classroom knowledge be integrated with workplace knowledge in the education process. It is well understood from the research that there is significant relationship between employability skills imparted by the educational institutions, during their academic tenure and employability options. The analysis and findings indicate that education could play a vital role in synergizing the efforts of industry and institute in grooming young graduates towards better employability options in professions. The role of education institutions has to be reinforced with skill based academic curriculum and have to adapt themselves and be able to make positive contribution towards employability. The Colleges and University will have to re-think their programme, curriculum, approach and training in order to develop future generations with industry expected professional skills.

Keywords : Employability skills, graduates, curriculum.

Introduction: Employability enhancement is a burning topic in present world. To sustain in this competitive world every human needs the capacity to adopt themselves through their own skills, efficiency and knowledge. To build up a nation and to improve one's capability, power of knowledge skill and education are the most vital part of every country. Economic development of a country comes through proper education. Education does not mean that one has to be a good scholar. "Education" is a power at work that moulds people. They are being moulded to rely on 'higher critical thinking'. Due to this one of the main aims of the Millennium Development Goals (MDG) is to enhance education as one of the major alarming conditions of developing countries is poor situation of employment opportunity. To accelerate the economic growth of a country, employability enhancement is urgently necessary.

Employability Skills and Curriculum: There is a considerable degree of alignment between education for employability, and good student learning. A good curriculum and assessment design will enable a student not just develop a deep understanding of the subject matter, but also to develop skills that may be transferred to other contexts. Graduates often find it difficult in an interview or application, to articulate the skills and attributes they have developed which are relevant to a new job. This may be because they are having difficulty in relating these attributes to other contexts or environments. Experiential or practice-based learning which employs real-world scenarios is therefore more effective because it enables students to match their learning experiences with professional roles. In addition to this, a well-designed curriculum will also show care for the development of strong self-efficacy beliefs and an understanding of how they are learning and where they are going. It is well established that students need to hear repeatedly, what it is intended that they learn in order to understand what that means, to know ways of judging what they have achieved, and to see how to improve. A curriculum with well aligned teaching and learning activities and assessments, with regular and effective feedback, will boost a student's confidence in their ability to learn and progress. Therefore, encouraging student employability may be a matter of building upon good practice and 'tuning' or aligning learning and teaching activities/assessments to ensure that students are clear about how these are supporting their employability and progression. In addition to this it may also be useful to consider how learning can be transferred into other contexts, and through activities such as problem based learning or work based learning, support students in gaining a wider context to their curriculum.

The support of reflection and personal development will also enable students to transfer their skills and attributes to other contexts whilst developing their ability to make plans for future development.

Strategic Models for Embedding Employability Skills

i) Curriculum Auditing and Planning: A curriculum audit may be a good way to initiate the discussion and development of employability within the institute or subject team. This offers a way of mapping how and where employability related learning is taking place and where there may be gaps. It may offer reassurance that quite a lot of work is already being done in this area. In auditing curricula it may be more helpful to concentrate attention on the mandatory modules or core study pathways.

ii) Student Employability Profiles: The HEA have developed a series of student employability profiles for most subject disciplines. Each profile identifies the employability related skill, competency and attributes that can be acquired through the study of a particular subject, based in the subject benchmark statements and input from employers. These profiles can be useful in employability audits, shaping the curriculum design process and for articulating the learning experience and its relationship to employability. The majority of companies have strong links with universities, provides work placements, collaborate with universities on research and give careers advice. New graduates are expected to be increasingly adaptable in today's labour market. It is crucial that universities and employers work with students to provide proper signposting to ensure they are in a position to make informed decisions and to develop and realise their goals. A greater understanding of employability will enable today's students to develop themselves, make a contribution and fulfil their potential tomorrow.

iii) Models for Embedding Employability across the Curriculum: There is no one model for embedding employability across the curriculum, but the following approaches may be adopted :

- ◆ Employability through the whole curriculum.
- ◆ Employability within the core curriculum.
- ◆ Work based or work related learning incorporated as one of more components in the curriculum.
- ◆ Employability related modules within the curriculum.
- ◆ Work based or work related learning within the curriculum.

Employability skills are the most important attributes that businesses look for in new recruits, but graduates are currently falling short of employers' expectations. Competition for jobs is intense and graduate unemployment remains high, so students need to proactively develop relevant employability skills. But at the same time all universities need to explain these skills better and make sure they embed them in teaching. This study has developed a set of models that would improve the identification, development, assessment and reporting of employability skills among undergraduates.

MODEL 1 : To Establish an Employability Strategy Fund

Issue	Most of the foreign universities are already to some extent addressing employability skills in ways that reflect their unique culture and are appropriate to their student cohorts. Given the diversity of the sector and the range of courses with vocational and non-vocational outcomes, there is no single strategy that can be applied to all Indian universities to enhance commerce students' employability skills. Enabling universities to bid for funds would allow them to address students' employability skills, in ways that would best suit their situation, would both increase the breadth and quality of effective approaches.
Proposed action	Provide funding for universities to systematically implement the work on developing employability skills and address gaps: this might involve analysis in the areas of curriculum, teaching and learning services, or support through careers services or research into areas of greatest efficacy. Access to funding could depend on submission of a succinct three-year plan from the university outlining what the university has been doing to facilitate employability skills to date, gaps and challenges, proposed actions and their benefits to students, employers and other higher education institutions.
Outcome	<p>More focused and diverse strategies, which are appropriate to the university and discipline, to address employability skills in higher education.</p> <p>Benefits to students / graduates : A more developed and integrated approach to the way in which the university addresses employability skills.</p> <p>Benefits to university : The opportunity to address the issue of employability skills in ways that will suit their needs and provide greatest benefit to all relevant parties.</p> <p>Benefits to employers : Improved employability skills in graduates.</p>
Remarks	Universities have taken very different approaches as to how they can best ensure the employability of their students. This diversity needs to be encouraged and a university needs support to achieve different outcomes specific to their institutional requirements. There are developed examples of how the approach has worked in the UK and in Scotland universities.

MODEL 2 : To Explicitly Identify Employability Skills in all University Curriculum

Issue	At present it is not possible to clearly identify whether all or any of the employability skills are addressed in many higher education qualifications. Whilst some universities have engaged in detailed processes such as curriculum mapping, to make these skills explicit in qualifications, many universities have not. It is common practice for universities to require staff to complete a tick-box to record which graduate attributes are developed in the unit, but without a detailed whole-of-qualification analysis this approach provides little benefit.
Proposed Action	Develop resources to support curriculum mapping for employability skills and provide fund to universities to undertake this mapping.
Outcome	<p>Curriculum mapping will make clear how employability skills are included in the curriculum so that there is a consistency of approach within and between faculties. Teaching and assessment practices will directly reflect and integrate employability skills in meaningful and discipline specific ways.</p> <p>Benefits to students / graduates Because teaching and assessment of employability skills will be underpinned by curriculum which integrates employability skills, students will (a) have a stronger awareness of these skills and (b) develop and hone these skills through their coursework.</p> <p>Benefits to university Curriculum guides teaching and consequently assessment. Academic staff will have a clear understanding of when to address each employability skill with students, what content to cover and how learning outcomes should reflect employability skills. Information from curriculum mapping can be used to market and explain how qualifications address employability skills.</p> <p>Benefits to employers Employers requesting information about qualifications, and how they address employability skills, will receive information from universities which is unambiguous because it is based on solid curriculum and learning outcomes.</p>
Remarks	Some universities have already developed their own methods and processes to map for these skills in curriculum. There needs to be flexibility so that universities can approach this in their own way and where they can take ownership of the process and see its value.

MODEL 3 : To Improve and Increase Access to Work Integrated Learning (WIL)

Issue	At present faculties and university work to build links with businesses to arrange WIL programs for students. This is a time consuming and often cumbersome process which is often dependent on personal networks. Work Integrated Learning is an excellent and important opportunity for students to develop critical employability skills in professional setting. Streamlined processes that provide employers and students with more opportunities to participate in WIL, and engage employers in assessment of employability skills, are required.
Proposed Action	Undertake a feasibility study into options for WIL databases or portals, by industry and/or profession, where employers willing to offer student placements can register their details and interest and universities can provide details of the placements they require. The feasibility study should review costs for setting up and maintaining these databases/portals.
Outcome	<p>Assuming the feasibility of the approach, access to WIL opportunities will be increased and linkages between employers, universities and students will be strengthened and streamlined.</p> <p>Benefits to students / graduates Databases / portals will mean students have wider options to participate in WIL programs: in rural or remote areas and with a wider range of businesses, including SMEs. Hence, there will be more contact with potential employers.</p> <p>Benefits to university Decreased time in contacting businesses and asking them to provide placements – businesses can register their interest directly online and update their own details. Universities will be in a position to establish links with a wider range of businesses.</p> <p>Benefits to employers Increased opportunities to take students for placements and to see how they perform in the workplace; particularly helpful in areas where there are skill shortages.</p>
Remarks	Many individual faculties, services and industry bodies already possess such databases. A centralised database would provide this data to a wider range of employers and students. It may be possible to build on one of these existing databases. An alternative approach and more 'low-tech' would be to encourage professional associations and employer groups to promote university WIL programs amongst their membership and try to increase direct involvement in that way.

MODEL 4 : To Enhance Teaching and Assessment of Employability Skills

Issue	Academic staffs are actively working to develop and assess students' employability skills in a range of ways, but recognise that they need to improve their practice in this area. Teaching skills requires different approaches to teaching knowledge or theory. Whilst knowledge can be accurately assessed using written tests, the assessment of skills requires different techniques and approaches. Professional development of academic staff is the responsibility of the employing institution; there is no national professional development program on employability skills which targets academic staff.
Proposed action	Develop and deliver a professional development program, with a set of supporting resources which specifically address best practice in teaching and assessment of employability skills in the higher education context. The program & resources could consider different disciplines & learning contexts.
Outcome	Improved teaching & assessment of employability skills in higher education.

Benefits to Students / Graduates: Students are more likely to learn what they know will be assessed. Clarity around assessment tasks and practices will motivate students to develop employability skills. Assessment will also provide them with feedback about their respective strengths and areas they need to further develop. Good assessment will motivate student skill development.

Benefits to Universities: Academic staff will have resources to guide their assessment practices for employability skills and provide models and techniques that can be tailored to meet the needs of the discipline. If the resources are supported by a professional development program, academic staff will have the opportunity to learn from experts and hear from other staff about best practice in assessment.

Benefits to Employers: Students who are assessed for employability skills will be in a position to provide employers with details of their employability skills assessment tasks and how they performed on those tasks. This information will assist in recruitment and selection processes

Remarks: Better assessment of employability skills will 'raise the bar' in the sector. Assessment needs to be explicit and tailored to meet the needs of the discipline

MODEL 5 : To offer Students Self-Assessment Options for Employability Skills

Issue	Students should have the opportunity to take responsibility for reviewing their own employability skills. Easy access to a self-assessment tool would encourage students to test their own skills, identify gaps and develop plans to improve these skills.
Proposed action	Conduct a feasibility study into providing students with an opportunity to test their own employability skills using a variety of tools, such as the General Aptitude Test, the Employability Skills Profiler, the Graduate and Managerial Assessment (GMA), Critical Reasoning Tests (CRT) or other relevant tools. The feasibility study could look at the range of tools available and review their efficacy in assessing employability skills and issues with making referred tools available more generally.
Outcome	<p>Support for students to undertake self-assessment of their own employability skills. This will assist in career planning and identifying the types of skills and opportunities, where further development will be required.</p> <p>Benefits to students / graduates With information about their relative strengths and areas for development, students can focus their learning and make more informed career choices.</p> <p>Benefits to universities Students take greater responsibility for developing their own employability skills.</p> <p>Benefits to employers Graduates with greater knowledge of employability skills, and hopefully more highly developed skills and self-awareness of their own skill levels.</p>
Remarks	The model of self-assessment is based on tools that guide individuals through questions to explore perceived performance and abilities against a defined framework.

Conclusion: The higher education institutions and their representative bodies should develop or strengthen links with employers and employer bodies (such as business and employers' associations, chambers of commerce, trade associations or professional groups) to establish partnerships to share good practice in how to make higher education provision more responsive to labour market demands and advise employers of the range of skills that graduates can bring to their employment.

The responsibility for the provision of advice and guidance should be strengthened within higher education institutions. All higher education institutions, together with governments/government agencies and employers, should improve the provision, accessibility and quality of their careers and employment-related services to students and alumni.

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**A STUDY ON IMPACT OF GST (GOODS & SERVICES TAX)
ON BANKING SECTOR**

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Abstract

This paper talks about the GST and its impact on Indian banking system. Banks rates and charges have increased after implementing GST in India. GST can affect the Banking system and give a rise to unorganized financial system in India. This paper also gives an idea how GST can help in stable Indian economy. GST implementation have increased 3% of the bank charges which is to be bear by the customers. This study also gives suggestion to improve the GST policy, which can be beneficial for the Indian economy. This paper exhibits a review of GST idea, clarifies its notable highlights alongside the need of GST in India. The paper is more centered around focal points of GST and difficulties looked by India in execution.

Keywords : GST, Banking, Tax

Introduction: Goods and Services Tax (GST) Bills, 2017 presented in the Lok Sabha on 27 March 2017. The Union Finance Minister, Mr. Arun Jaitley, tabled four GST Bills in the progressing Budget session of the Parliament. The Bills presented in the Lok Sabha incorporate Central GST (CGST), Integrated GST (IGST), Union Territory GST (UTGST) and the Bill for Compensation to States. The Bills were prior cleared by the GST Council, trailed by Union Cabinet endorsement. As per media report, the GST Bills, although presented as Money Bills, should be taken up for exchange in both the places of the Parliament before their section in the present session. The Business Advisory Committee of Lok Sabha will meet to choose the term of discourse on the Bills, which is probably going to initiate on 29 March 2017. The overhauled draft of the Model GST law, which was discharged in people in general space in November 2016, has been part into CGST, SGST and UTGST Bills separated from IGST Bill. The draft of the Model GST Law experienced further changes previously being presented in the Parliament. A portion of the critical changes are contained in the definitions, exact of expense, input charge credit, transitional arrangements, zero evaluated supply and so on. The rundown of exclusion, arrangement of products and enterprises, and hardware arrangements including valuation and different guidelines are yet to be advised. Resulting to the section of Central GST Bills in the Parliament, states will take up State GST Bills for freedom in the state authoritative congregations. Goods and Service Tax (GST) is a backhanded duty which was presented in India on 1 July 2017 and was relevant all through India which supplanted various falling expenses required by the focal and state governments. It was presented as The Constitution (One Hundred and First Amendment) Act 2017 following the entry of Constitution 122nd Amendment Bill. The GST is administered by a GST Council and its Chairman is the Finance Minister of India. Under GST, merchandise and ventures are exhausted at the accompanying rates, 0%, 5%, 12%, 18% and 28%. There is an exceptional rate of 0.25% on harsh valuable and semi-valuable stones and 3% on gold. Moreover, access of 15% or different rates over 28% GST applies on couple of things like circulated air through beverages, extravagance autos and tobacco items. GST was at first proposed to supplant many backhanded expenses with a brought together duty and was in this way set to significantly reshape the nation's 2 trillion-dollar economy. The rate of GST in India is between twofold to four times that demanded in different nations like Singapore. Dynamic in India, there are distinctive roundabout duties connected on products and ventures by local and state government.

GST is planned to incorporate all these expenses under one rooftop and charged on the two products and ventures. In this way extract obligation, uncommon extra obligation, benefit assess, VAT and so forth will get supplanted and will be included into GST. For this, GST will have 3 sections – CGST, SGST and IGST. The focal charges like extract obligation will be submitted into CGST and state

charges like VAT into SGST. Products and Service Tax or GST as it is known is good to go to be a turning point for the Indian duty administration. The fund serves in his spending discourse 2015 has declared the over and over the assessment will be presented on 1 April 2016. GST is a standout amongst the most pivotal expense changes in India which has been long pending.

Review of Literature

Reasons for GST (Goods and Service Tax):

- ◆ GST (Goods and Services Tax) will subsume focal roundabout charges like extract obligation, countervailing obligation and administration impose, as likewise state demands like esteem included duty, octroi and section assess, extravagance assess.
- ◆ The last customer will bear just the GST charged by the last merchant in the inventory network, with set-off advantages at all the past stages.
- ◆ As a measure of help for the states, oil based goods, liquor for human utilization and tobacco have been kept out of the domain of the GST.
- ◆ It will have two parts - Central GST imposed by the Centre & State GST collected by the states.
- ◆ However, just the Centre may impose and gather GST on provisions over the span of between state exchange or trade. The expense gathered would be separated between the Centre and the states in a way to be given by parliament, on the proposals of the GST Council.
- ◆ The bill proposes an extra duty not surpassing 1% on between state exchange products, to be exacted and gathered by the Centre to remunerate the states for a long time, or as prescribed by the GST Council, for misfortunes coming about because of actualizing the GST.
- ◆ GST Council is to comprise of the union back clergyman as administrator, the union pastor of condition of fund and the back priest of each state.

GST on Banking:

- ◆ Exchange charges in money related administrations, for example, Visa instalments, finance exchange, ATM exchanges, preparing expenses on credits and so forth is expanded to 18% duty section in the new GST administration.
- ◆ The climb in the duty rate implies, people should pay Rs.3 more for each Rs.100 paid as charges/expenses for managing an account exchanges.
- ◆ Most banks have now connected exchange charges on money withdrawals from various bank ATMs or money withdrawals from branch (initial 5 exchanges are free)
- ◆ Bank branches give administrations to each other, which will be assessable under GST (they can later claim input impose credit). Be that as it may, this will expand the printed material and the working expense too.
- ◆ Good news for business purchasers is that they can assert ITC on the keeping money administrations paid on their business accounts.
- ◆ This is a government law, which implies that the states will never again have the privilege to make new laws on tax collection towards products and enterprises.
- ◆ It disentangles the duty framework and makes it simpler to comprehend and less expensive to actualize at different levels.
- ◆ Tax avoidance at different stages will be killed as expense balances can be gathered just if charges have been paid initially. You will likewise have the capacity to purchase crude materials or constituent materials for creation just from the individuals who have paid expenses, keeping in mind the end goal to guarantee benefits.
- ◆ It will be less expensive to purchase include merchandise and enterprises for creation from different states.

- ◆ The current supply and conveyance chain may experience a change with an adjustment in tax collection framework that gets rid of extract and traditions obligations.
- ◆ The customer will get the result at less expensive rates because of disposal of numerous duties and the assessment course.
- ◆ As of now, oil and oil based goods have been kept out of the GST administration until the point when additionally take note.
- ◆ Sale of daily papers and notices are likewise liable to fall under the GST administration, enabling the legislature to build its income impressively.
- ◆ While there will be focal GST and state GST, the expense appropriate on merchandise and ventures being sent out and imported between states in India would fall under an Integrated (GST) framework keeping in mind the end goal to dodge strife of domain.

Disadvantages of GST:

- ◆ GST isn't uplifting news for all areas, however. In the present framework, numerous items are exempted from tax collection. The GST proposes to have insignificant exclusion list. Right now, higher charges are required on less things, yet with GST, bring down assessments will be demanded on all things.
- ◆ GST isn't appropriate on alcohol for human utilization. So, liquor rates won't get any preferred standpoint of GST.
- ◆ Stamp obligation won't fall under the GST administration and will keep on being forced by states.

Research Methodology:

- i) **Purpose of the Research:** The purpose of this research paper is to understand the impact of GST on banking sector and to know whether customers are satisfied by the changes or not. This research will help to know the opinion of the customer about GST as much research in this field is not done.
- ii) **International Relevance:** Directly, there are around 160 nations that have actualized GST/VAT in some frame or the other. In a few nations, VAT is the substitute for GST, yet adroitly it is a goal construct assess demanded considering the utilization of Goods and Services.

A concise history on GST:

- ◆ France was the first to present GST.
- ◆ Only Canada has double GST model (Just like India will execute Dual GST Model).
- ◆ Rate of GST goes between 15– 20% generally (may contrast to higher/bring down side in couple of nations).

Here, rate of GST is the plays an essential role. Various nations have been attempting to excuse the rate structure.

GST has been presented in July, 2017 in India. Let us trust this new duty demonstrates advantageous for the basic man as well as for the nation in general.

iii) Objectives of the Research:

- ◆ To understand the challenges faced by the banks after implementing the GST
 - ◆ To analyze the bank rates after GST
 - ◆ To know the impact of GST on banking sector
- iv) **Methods of Data Collection:** Primary data was collected by 100 respondence though questionnaire. Secondary data was collected through various websites.
 - v) **Research Design:** The research design deployed was exploratory research design. It was descriptive in nature.
 - vi) **Delimitations of the Research:** The research is conducted in Mumbai area by filing questionnaire from 100 respondence.

vii) Limitations of the Research : The respondent hesitates to fill the questionnaire, physical and economical constraint faced by the researcher.

viii) Data Analysis Methods: Data is collected by the respondent and from various websites to generalize the findings and draw conclusions of the research study.

ix) Findings of the Research

- ◆ In the research conducted it was found that 57% of the people have opinion that GST will be beneficial for banking where as 23% of the people think that Service Tax was better and 20% of the people have an opinion that some other tax system should be introduced.
- ◆ 75% of the people agreed that GST is a simple tax system, where as 25% of the people think that it is not a simple tax system
- ◆ Majority of the respondent about 87% of them says that the service charges by the bank have increased.
- ◆ Rate of interest on loans have increased according to the 82% of the respondent, which is a high number. 79% of the respondent has faced difficulties after implementation of GST
- ◆ About 85% of the respondent feels GST is a burden on the bank customers as they are not satisfied with GST.
- ◆ GST is suitable for current scenario and for a stable economy in India is the feeling of about 65% of the respondent.
- ◆ 87% of the respondent says that Government should make some changes in the GST tax system.
- ◆ Before implementing GST, the services charges were 15% and after implementing GST the charges on services are 18%.

Conclusion: GST is a Simple Tax System and people are aware of the GST implementation. GST implementation has increased the charges of the banking services. Therefore, customers are not happy with the implementation of GST in banking sector. The repo rate has reduced by the RBI but the numbers of people availing for loans have not increased because the rate of interest on loans has increased after implementation of GST. People availing for loans have increased after implementation of GST. People think that there should have some changes in GST because the bank service rates have been increased. GST is suitable for Current scenario but also become burden on the customers.

So many people faced difficulties after implementing GST but it is proved that it is suitable for stable economy. As Government promote cashless transaction, most of the people depend on the banking system for their day today transaction and find it difficult as rates of bank have risen. This can give a positive rise to unorganized financial sector which can create a critical situation in the Indian economy system. GST has increased the bank charges by 3%.

Recommendations:

- ◆ Proper planning on the GST is required as it affect the banking system.
- ◆ GST on banking related services should be reduces as it could motivate the people to choose unorganized financial system.
- ◆ Reduction of tax rate on the banking services as Government promote cashless transaction so, the use of banking services has increased. Therefore, large scale operation is an advantage for bank as well as the tax collected by the Government by the through banking services.

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TRACK – 2: INNOVATIVE APPLICATIONS OF EMERGING TECHNOLOGIES

Brief Summary

Track-in-charge	1) Ms. Mithila Chavan, Assistant Professor, Department of Information Technology, VSIT 2) Mr. Sabir Shaikh, Assistant Professor, Department of Information Technology, VSIT
Session Chairs	1)Dr. Gulabchand Gupta Principal, Seva Sadan College of Arts, Science and Commerce. 2)Dr. Vinit Kotak , Vice - Principal at Shah and Anchor Kutchhi Engineering College. 3) Mr. Anjum Mujawar , Professor Vidyalankar Polytechnic
Best Paper Awarded	Dr. Tarannum Vahid Attar, Ms. Ansari Saba Anwar, Ms. Ansari Aafreen Title – Electrical & dielectric properties of Laf ₃ : Ce, Nd nanoparticles for possible sensor applications.

ELECTRICAL AND DIELECTRIC PROPERTIES OF LAF3: CE, ND NANOPARTICLES FOR POSSIBLE SENSOR APPLICATIONS

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Abstract

This paper deals with the measurement of dc conductivity and the dielectric constants of the LaF3: Ce3+,Nd3+ nanoparticles using sophisticated Hioki 3532 LCR Meter. For this, doped LaF3: Ce3+,Nd3+nanocrystals have been successfully synthesized by microwave assisted technique. The increase in the applied frequency results in rapid fall in dielectric constant and dielectric loss confirming the normal dielectric behaviour attributable to the space charge formation. The ionic conductivity may be due to fluorine ions, as well as the ions on the surface of LaF3:Ce3+, Nd3+ due to doping. By doping LaF3, the ionic conductivity of the sample is seen to be substantially enhanced

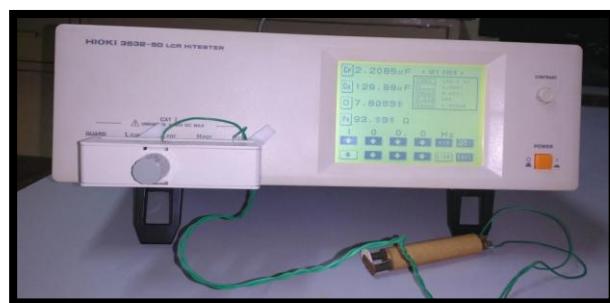
Keywords: Lanthanum fluoride, conductivity, dielectric constant, dielectric loss,

INTRODUCTION: The study of rare-earth nanophosphors is currently an active field of research. These compounds have been widely employed in optics, optoelectronics, fiber optics, electrodes, fluorescent lamps and radiation applications [1-3]. They are also used as an ion-specific fluoride, in biological labelling and catalysis fields. Lanthanum trifluoride (LaF3) has attracted attention of many scientists as they form promising host matrix. The fluorine bond in rare earth elements is found to lead to suppression of non-radiative loss and high quantum efficiency [4]. LaF3 essentially belongs to the family of rare earth trifluorides with the tysonite structure and shows very high F-conductivity. At ambient conditions, LaF3 is found to crystallize with space group symmetry P3c1. LaF3 exhibits very low photon energy ($\sim 350\text{cm}^{-1}$) with minimal multiphonon relaxation of the excited state with respect to doped rare-earth ions [5-7]. The luminescent properties of these nanophosphors are found to be greatly influenced by the size of nanoparticles.

RESISTIVITY AND CONDUTIVITY MEASUREMENT Many solids show high ionic conductivity ($> 10-4\text{Scm}^{-1}$) and find immense use in diverse technological applications. Many of these solids which may be good electronic conductors are often referred to as "mixed conductors". The term "superionic conductor" or "fast ion conductor" are good ionic conductors with negligible electronic conductivity [8].

Ionic conductivity exists in LaF3 samples due to fluoride ions [9]. Fluoride is one of the smallest anion with high mobility, exhibiting high ionic conductivity in solid state. With the development of nanotechnology, it was possible to increase the ionic conductivity of fluorides by fabricating the corresponding nanocrystalline bulk materials. Fluorides have been widely used as components of sensors, batteries and actuators due to their excellent electrolytes [8]. They also form important components of toothpaste to prevent the tooth decay and as additive of wear and crack resistance materials [10] as well as of welding materials [9].

The Conductivity of the sample has been measured using sophisticated Hioki 3532 LCR Meter, with a conventional two terminal sample holder. The powder sample of the synthesized nanocrystals were



put in the form of pellets and coated with silver on both the sides and kept in the sample holder for Conductivity measurement. Proper care has been taken to ensure that the silver paste does not spread to the sides of the cross sectional face of pellet. Figure 1 shows a typical Hioki 3532-50 LCR Meter. The sample is placed in the Hioki 9262 test fixture connector and programmable software is chosen to read the resistance of synthesized sample at room temperature.

Figure 1: Hioki 3532-50 LCR Meter

The dc electrical conductivity (σ_{dc}) of the pellet was calculated using the relation.

$\sigma_{dc} = t / RA$ Where, R is the resistance measured from LCR meter

t is the thickness of the sample

A is the area of the face of pellet in contact with the electrode

Resistivity $\rho = 1 / \sigma_{dc}$

DIELECTRIC MEASUREMENTS The capacitance (Co) of the sample taken in the form of pellets is obtained by using the formula $Co = A\epsilon_0/d$ where A is the cross-section area of the pellet, ϵ_0 is the permittivity of free space and d is the thickness of the samples. The HIOKI 3532-50 LCR HITESTER meter has been used to record the capacitance (Cs) of the samples in the frequency range 100Hz to 5MHz. The capacitance values thus obtained was used for calculation of dielectric constant and dielectric loss values gives by $\epsilon' = Cs/C_0$ and $\epsilon'' = \epsilon' \times D$ where D is the dissipation factor obtained from the LCR meter, and

$\text{Tan}\delta = \epsilon'' / \epsilon'$

OBSERVATIONS

Table 1 Resistivity and Conductivity of LaF₃:Ce³⁺,Nd³⁺ at room temperature

Sample	Thickness t (cm)	Area A(cm ²)	Resistance Ω	Conductivity σ (/Ωcm)	Resistivity ρ (Ωcm)
LaF ₃ :Ce ³⁺ ,Nd ³⁺	0.150	1.326	32.27	3.505 x 10 ⁻³	285.30

Table 2 Dielectric measurements of LaF₃:Ce³⁺,Nd³⁺ C₀= 78.270 x 10⁻¹²F

f Hz	log f	Cs	Dielectric constant $\epsilon' = Cs/C_0$	Dielectric Loss $\epsilon'' = \epsilon' \times D$	$\text{Tan}\delta = \epsilon'' / \epsilon'$	log ϵ''
100	2	1.34mF	17.120x10 ⁶	171.028x10 ⁶	9.9899	8.2330
1k	3	80.93μF	1.033x10 ⁶	10.319 x10 ⁶	9.9893	7.0136
10k	4	6.98 μF	89.170x10 ³	890.808x10 ³	9.9899	5.9497
100k	5	1.17μF	14.940x10 ³	149.250x10 ³	9.9899	5.1739
1M	6	48nF	0.613x10 ³	5.535 x10 ³	9.0293	3.7431
5M	6.69	1.48nF	0.0189x10 ³	0.0268 x10 ³	1.4179	1.4281

The dielectric properties of the synthesised samples were studied by plotting the graphs(i) dielectric constant versus log of frequency(Figure2) (ii) dielectric loss versus log of frequency (Figure 3) (iii) log of dielectric loss versus log of frequency(Figure 4) and iv) $\tan\delta$ versus log of frequency (Figure 5). It has been observed from the graphs of dielectric constant versus log of frequency and dielectric loss versus log of frequency that there is an exponential decrease in both the parameters with the increase in the frequency which is the normal behaviour of dielectric materials as the dipoles lag behind in orientations proposed by Debye [11-12].

Figure 2 : Variation of dielectric constant (ϵ') with log frequency of LaF₃:Ce³⁺,Nd³⁺

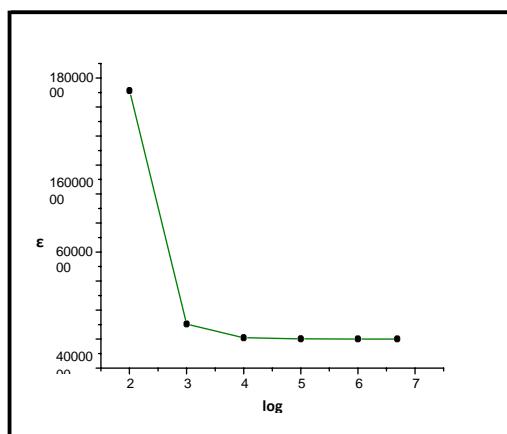


Figure 3 : Variation of dielectric constant (ϵ') with log frequency of LaF₃:Ce³⁺,Nd³⁺

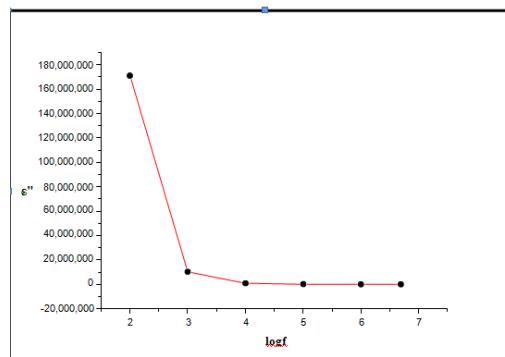


Figure 4 : Variation of dielectric loss(ϵ'') with log frequency of LaF₃:Ce³⁺,Nd³⁺

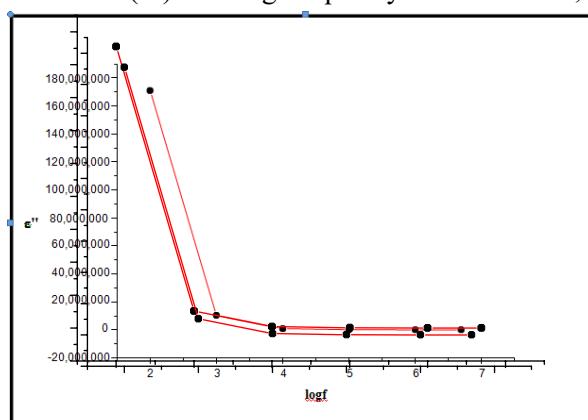
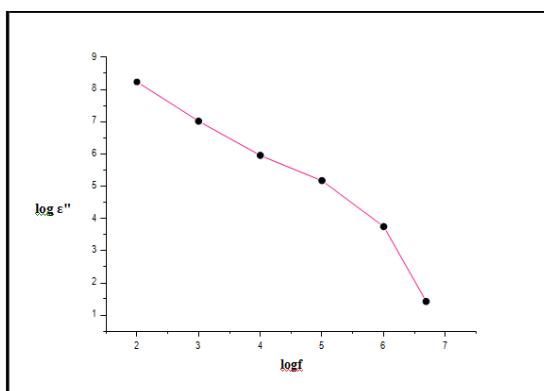
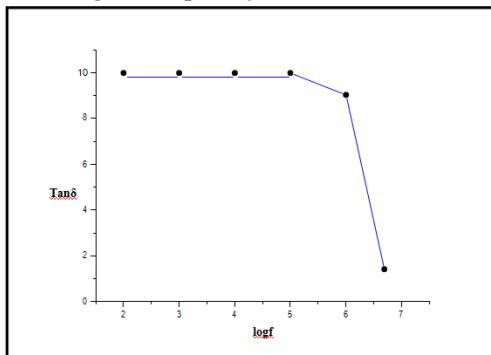


Figure 5 : Variation of log dielectric loss(ϵ'') with log frequency of LaF₃:Ce³⁺,Nd³⁺Figure 6 : Variation of Tanδ versus log of frequency of LaF₃:Ce³⁺,Nd³⁺

The plot of log dielectric loss(ϵ'') with log frequency exhibits near linear behaviour using linear fit with slope equal - 0.9198. The value of the slope near unity indicate that dc conduction is dominant due to space charge effect in the synthesised sample [13]. The graph of Tan δ versus log of frequency shows that at low frequency Tan δ is constant. As frequency increases Tan δ decreases following the same trend as that of decrease in capacitance. The same nature is observed in pure LaF₃ crystals reported by Kumar et al. in 2010[14]. Maximum Tan δ value in the low frequency region indicates contribution of the real dielectric constant of the material due to the polarization.

CONCLUSION: The dielectric constant and dielectric loss of the synthesized sample have been studied in the frequency range 100Hz to 5MHz. The increase in the applied frequency results in rapid fall in dielectric constant and dielectric loss confirming the normal dielectric behaviour attributable to the space charge formation [14]. The slope of linear plot of loss(ϵ'') versus logf indicates that dc conduction is predominant in the sample[13]. The deviation of slope from unity at lower frequencies may be due to space charge effects. The ionic conductivity may be due to fluorine ions, as well as the ions on the surface of LaF₃:Ce³⁺,Nd³⁺ due to doping. The conductivity of the synthesized sample at room temperature is found to be of the order of 10⁻³/ Ωcm. Thus by doping LaF₃ the ionic conductivity of the sample is observed to be enhanced. Resistivity at room temperature is found to be 285.306Ωcm.

FUTURE SCOPE: The dielectric studies of the synthesised nanocrystals should be studied by varying the temperature and the corresponding conductivity and resistivity may be computed. Doped LaF₃ nanocrystals can be use as dielectric medium. Also there are reports on the use of LaF₃ as thin film oxygen detectors [14-15]. This part can be extended for development of LaF₃ sensors in future.

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A STUDY ON APPLICATION OF INTERNET OF THINGS IN AIRLINES SECTOR

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Abstract

The need for understanding Internet of Things and its application in aviation sector is fruitful. The Internet of Things is the ability for everyday objects to be connected via a network, so they can be run smarter, safer, and more intelligently. Research studies states the fact, that there is virtually no limit to how many physical things can be in communication. So it's safe to say Gartner's estimate that there will be 25 billion connected things in use by 2020 is quite reasonable. It would also be safe to assume the Internet of Things will continue to play a more central role in airline operations. In fact, this technology already is having an impact on the industry, as it is being used for everything from baggage tracking to cabin climate control. The potential of Internet of Things is progressive. By effectively utilizing Internet of Things, airlines have the tools to greatly reduce or even eliminate the causes of some of the most common complaints in the industry, such as lost bags, flight delays, and customer service issues. It thus should come as no surprise that 86% of airlines believe that Internet of Things will create tangible and significant benefits for their customers and business. Hence, the Aviation Partners are working with zeal to implement Internet of Things application in airlines sector progressively. Keeping this mind, an attempt has been made by the researcher to highlight the application of Internet of Things inside the airport as well as in airlines sector which will recreate air travel to air sewa and contribute towards the improved value to the airlines and their passengers.

Key Words : *Internet of Things, Sensors, Cloud Computing, Smart Airports, Smart Baggage and Ecological Footprint.*

INTRODUCTION : Internet of Things is progressively gaining importance in Airlines Sector as well.. Internet of Things actually refers to a network of sensors, vehicles, buildings or other physical objects, enabling seamless collection and exchange of data. Internet of Things is creating opportunities to connect the physical world with computer based systems and resulting in improved efficiency, accuracy, and economic benefits in addition to reduced human intervention. Application of Internet of Things in Commercial Aviation. Commercial aviation comprises many segments – transportation, business aviation, freight, sport, personal aviation, and self-controlled unmanned aircrafts in recent times. Internet of Things has the ability to enhance reliability, quality, customer satisfaction and fuel efficiency in an industry that is predicted to grow extensively in the coming years. The airline sector can very well embrace the Internet of Things concept and extend its applications. These applications can be across fields such as cloud computing, smart airports, smart baggage, tracking passengers, alerts, and actions. Internet of Things also has the competency to maximize fleet usage, decrease operational expenditures, and analyze issues or complications in advance. Due to its manifold applications, Internet of Things can be leveraged to consolidate the maintenance mechanism and thereby improve the execution of maintenance exercises. Therefore, the scope of Internet of Things application is massive in the airline sector. Most commercial aircrafts still use outmoded engines with less than 250 sensors. This makes it difficult to detect and track the performance and mechanical movements. On the contrary, modern engines combine up to 5000 sensors, generating massive data (10GB per second). This report is useful for aircraft maintenance. When the aircraft has landed, the data can be taken as input and investigated. Once we place Internet of Things in the equation, data can be received in real-time by the maintenance staff on the ground rather than having to wait for the aircraft to touchdown. Maintenance troops will be able to detect any

issues and analyze them before the plane lands, thereby empowering them to be ready with parts and engineers to get the issues resolved. By the time passengers claim their luggage around the baggage carousel, the issues will have sorted. Since latest aircrafts have started using high-tech engines, they require artificial intelligence in order to forecast engine demands and adjust thrust levels. This necessitates the need for data collection. Consequently, fuel usage and emissions are reduced by a considerable amount. Additionally, engine performance improves significantly. Rolls Royce recently collaborated with Microsoft to leverage Internet of Things techniques in making their airplane engines 'brainy', that is, more intelligent. They have endorsed Microsoft's Azure Internet of Things Suite and Cortana Intelligence Suite in order to determine probable faults in engines equipped with aircraft in business around the globe. Internet of Things can be termed as "opportunity" in one word. By connecting devices and data, Internet of Things presents infinite possibilities for organizations to transform themselves, gain entry into new markets, and harness data to drive timelier and powerful business decisions. At the same time, Internet of Things projects give consumers fresh prospects to enjoy exciting new user experiences and satisfaction. Thus, there is heartfelt need to contribute towards building a smart airports by adopting application of Internet of things inside the airports as well as in the airlines sector and contribute towards the transformation of air travel to air sewa thereby adding improved value to the airlines and their passengers..

RESEARCH METHODOLOGY:

PURPOSE OF THE RESEARCH: The purpose of this research paper is to study the application of Internet of Things in Airlines Sector. As, smart airports are gaining prime importance in aviation sector thus an attempt has been made by the researcher to identify the application of Internet of Things inside the airport as well as in the airlines sector to transform air travel to air sewa. as well as to focus on the improved value to airlines and their passengers.

OBJECTIVES OF THE RESEARCH:

- i. To recognize the Internet of Things initiatives inside the airports as well as in airlines sector.
- ii. To transform air travel to air sewa through application of Internet of Things.
- iii. To determine the Internet of Things initiatives focus on value to airlines and their passengers.

SAMPLING DESIGN : For the present research study simple random sampling method was adopted. It was essential the sample Airlines selected has gained recognition in application of Internet of Things in Airlines sector. Hence, a conscious effort was made to determine that the selected Airlines Sample was a representative of the Potential Airlines in Aviation Sector. A sample of six Airlines was selected wherein application of Internet of Things have been successfully implemented. Further, Non-Probability Sampling method known as Convenience Sampling was adopted to acquire first hand information from Airline Ground Staff Officials as well as Airline Crew Staff of Mumbai who frequently fly to various smart airports in India as well as across the globe.

SCOPE OF THE RESEARCH : The present research study was restricted to only Six Airlines. The Six Airlines chosen for the research were Virgin Atlantic, Delta, AirAsia, JetBlue, Qantas and Emirates.

METHODS OF DATA COLLECTION : The present research study was based on primary as well as secondary data. Primary Data has been collected through personal observations and conversation with Airline Ground Staff Officials of Mumbai as well as Airline Crew Staff of Mumbai who frequently fly to various smart airports in India and across the globe. Further, secondary data was collected through articles and observations from aviation magazines and newspapers.

RESEARCH DESIGN: The research design deployed was exploratory research design. It was descriptive in nature, as it was used to study the application of Internet of Things inside the airports as well as in the airlines sector.

2.7. LIMITATIONS OF THE RESEARCH : The primary research conducted was restricted to personal observation and conversation with Airline Ground Staff as well as Airline Crew Staff working at International Airports located in Mumbai due to physical and economic constraints.

The research was based on only selected Six Airlines.

2.8. DATA ANALYSIS METHODS : The first hand information acquired from personal observation and conversation with the Airline Ground Staff as well as Airline Crew Staff of Mumbai along with the secondary data available from aviation magazines were used to generalize the findings and draw conclusions of the research study .The impact of the application of Internet of Things inside the airports as well as in the airlines sector has been highlighted in this research to portray the improved value gained by the airlines and their passengers.

FINDINGS: For the airline sector, Internet of Things offers multiple opportunities to improve operational efficiency and offer increased personalization to passengers. It may even have the potential to change business models. In fact, there is so much opportunity that the challenge currently is where to focus efforts. Among airlines that have started experimenting with Internet of Things, there are projects to improve passenger experience, baggage handling, tracking pets in transit, equipment monitoring, and generating fuel efficiencies. Today, 37% of airlines have already allocated a budget for Internet of Things implementation, according to the study; however, over the next three years 58% are planning to invest resources into Internet of Things, with the emphasis on pilot projects, although 16% are preparing for major programs. Virgin Atlantic's Connected 787s Virgin Atlantic is taking its use of Internet of Things to new heights. Currently, the airline is producing a fleet of Boeing 787 planes and cargo equipment connected via Internet of Things devices. The total data expected to be produced over a flight will exceed a staggering half a terabyte. What's the point of connecting everything from the engines to the landing gear? Well, with all that data arriving in real-time, Virgin Atlantic will have the information needed to recognize and solve a mechanical issue - before it even happens. So, what will this brave new world of connected things look like for aviation? Tim Graham, technology innovation and development manager at Virgin Atlantic, suggests numerous possibilities: "On the ground, it could be mounted displays, mobile or wearable devices combined with sensors... to either help passengers navigate their surroundings, identify themselves at check-in, lounge or boarding areas or track objects such as baggage and cargo." He adds. "In the air, it could be intelligent aircraft cabins that have sensors built in to seats that could monitor passengers' tiredness, temperature or hydration levels to automatically change the cabin environment or alert crew to take a specific action." Thus, we can expect that people will no longer negotiate their lives through a passive environment; instead, their surroundings will be quietly orchestrated by myriad automated processes. That equals safer flights, less delays, and an overall better customer experience. It's no wonder other major airlines, such as Etihad Airways, are taking advantage of similar technology. Delta's Baggage Tracking Whether it be a misplaced bag, lost item, or excessive wait time, nearly every air traveler has, at some point or another, had issues with checked baggage. Delta made a big step towards solving this industry-wide headache when it became the first US carrier to use Radio Frequency Identification (RFID) baggage tracking technology. Via push notifications on Delta's mobile app, passengers can see their baggage location on the way to the aircraft, on the plane, and on its way to baggage claim. Thus, Internet of Things has enabled Delta Airlines to give its customers transparency and control when it comes to their baggage. Baggage handling is also high on the list of journey stages that will benefit from Internet of Things : 40% of airlines have earmarked bag drop in their top three priorities

and 30% say bag reclaim. Tracking bags like you would a parcel via your mobile device is still in its infancy, although Delta Air Lines has enabled its customers to keep a virtual eye on their luggage throughout the journey via its mobile apps since 2011. Earlier this year, Delta Cargo launched a pet-tracking service on domestic flights as part of its GPS tracking services, allowing customers to monitor the humidity, light and temperature that their pet experiences, as well as the animal's location. With such technology, Delta has achieved a 99.9% success rate which made it the best among US global airlines since 2015. AirAsia's Adoption of GE's Flight Efficiency Services Air travel is a wonderful thing, allowing people the chance to travel about the globe for work and pleasure. However, factors like climate change and fuel expenses make it necessary to reduce waste where possible. AirAsia, one of Asia's most popular airlines, is taking advantage of Internet of Things to reduce its ecological footprint as well as boost its own savings. The air carrier has decided to partner with GE and use its Flight Efficiency Services to reduce fuel use. This technology helps the airline follow precise navigation routes, which are estimated to be about 20 percent inefficient across the industry, and analyzes flight data to optimize aircraft utilization and fuel use. Moving beyond the experimental stage, GE's Flight Efficiency Services has been working with AirAsia since 2012 to utilize Internet of Things – or the "industrial internet" as GE dubs it – to increase aircraft utilization and reduce operating costs throughout the low-cost carrier's network, with a target of bottom-line operational savings of \$30-50 million over a five-year term. Together, GE and AirAsia harnessed the industrial internet to develop a business case that secured approval from Malaysia's Department of Civil Aviation to taxi on one engine on departure. This first for a Malaysian airline translated into saving in excess of 60kg of fuel per flight. Another project, rolled out in 2014, is the collection of data generated by the aircraft and its systems into a fuel management dashboard that also integrates operational, weather, trajectory correction, navigation, and terrain data. This tool has allowed AirAsia to optimize climb profiles, plan taxi and contingency fuel needs, and minimize the use of auxiliary power units. However, today's use of Internet of Things technologies for greater efficiency is scratching the surface compared with what could be achieved in the future. "Internet of Things applications could improve overall fuel cost (not just the consumption) taking into account energy prices, when/where to refuel, optimal flight and taxi paths as well as when/how much to hedge for the fuel," says GE's Bartlett. "Beyond that, Internet of Things applications could look at network optimization, in particular the irregular operations recovery options as they continue to try to maximize the utilization of their fleet while keeping a robust schedule." The operational savings that could result from Air Asia's implementation of GE's Flight Efficiency Services are impressive. It's projected the airline will save between \$30 and \$50 million over the next five years. iv. Jet Blue Automates Check-In Any trip to the airport requires passengers to perform transactions that don't really add value to the travel experience. One of those activities is checking in. Realizing this, JetBlue has put its technology into action; the airline has begun using Internet of Things to automate the process. After booking, customers are automatically issued a ticket and given a seat 24 hours before takeoff - without even having to log onto the app or website. The seat is chosen based on data about the passenger's preferences. JetBlue makes it clear; with Internet of Things, the airline has the ability to communicate across its systems and automate many aspects of air transport, like ticketing. Not only does this avoid problems if there is a flight delay caused by weather or mechanical errors, but also gives the airline the option to reallocate workers toward more critical operations. US carrier JetBlue has been experimenting in this area since July 2014 by fully automating the check-in process for customers who have booked its "Even More Space" seats on domestic flights. At 24h before their flight, these passengers simply receive a ready-to-print boarding pass via email, plus an option to download a pass via the JetBlue iOS or Android mobile apps. Additionally, the airline has a 24h

window in which to flag and correct any information inconsistencies or issues with special service requests that would otherwise remain unresolved until the passenger arrives at the airport. "The idea of asking customers to jump an additional hurdle before their flight is an increasingly antiquated concept," says Blair Koch, JetBlue vice-president of commercial and shared development services. "By having the right systems in place, we can remove this step, and even help identify and prevent issues that can hinder customers from fully enjoying their travel experience." v. Qantas Launches Virtual Reality Entertainment In a partnership with Samsung Electronics, Qantas Airways unveiled the industry-first virtual reality experience in early 2015. The VR headsets offered by Qantas are not only meant to give passengers a one-of-a-kind immersive experience, but also serve to collect and transmit data about passengers. This data can then be analyzed and insights can be extrapolated. Through communication among its various systems, Qantas is able to provide passengers a more personal experience. The airline can predict what offerings will be most attractive to a particular passenger based off previous use of the VR headset. In the end, this will boost Qantas' bottom line due to adoption of big data and Internet of Things. vi. Emirates Group's Baggage Management Emirates Group's IT Innovation Lab has trialed embedding beacon technology into bag tags to improve both the operational and customer service aspects of baggage management at Dubai airport. Neetan Chopra, the airline group's senior vice-president of IT strategic services, reports that BLE beacons have been deployed in test mode to assess customer navigation and personalized services based on the passenger's location in the terminal. On the operations side, Emirates is currently piloting beacons to track engineering assets such as toolboxes and to monitor the condition of equipment such as life jackets without necessarily having to physically inspect them.

Conclusion: From the findings of the research, it may be concluded that application of Internet of Things in Airlines Sector is progressively showing a rapid growth trend by adding value to the airlines and their passengers and thereby transforming Air Travel to Air Sewa. Internet of Things has the potential to alleviate some of the key pain-points along the passenger's journey for all involved, namely luggage handling and connecting between flights. "For example, being able to track your bags from a smartphone app or even the bags tracking your location. The bag senses when you enter the luggage area and selects the carousel you are standing closest to and enters that carousel. Another challenge is the anxiety felt by passengers over tight connections. Permission-based sensing of the passengers at airports could help airlines to make better informed decisions about when to wait and when to close the door. Imagine the gate texting you saying: 'I see you have landed. It appears to be about an eight-minute walk to your connecting flight gate. The gate will close in 12 minutes.'" Sensors will aspire to manage and improve stress-points across the journey. Infrastructure such as elevators, baggage carousels, kiosks, bag-drop stations and boarding gates will have sensors. Both staff and passengers will be connected and equipment at the airport such as baggage trolleys and wheelchairs too. Even transfer buses and trains and movements within car parks will have sensors. Within the aircraft, sensors will measure cabin temperature, air quality and light levels, and track catering equipment and duty-free trolleys." The Airline IT Trends Survey reveals that broadly two-fifths of airlines are planning to use beacons at bag drop, baggage claim and check-in by the end of 2018. A minority of carriers deploy the beacons today. For passengers, this will translate into a better informed journey, with around half of airlines planning to use them to deliver flight and gate information to passengers' mobile devices and to help passengers find their way to check-in desks, lounges or gates. Additionally, 40% of airlines plan to utilize them to provide their passengers with information about bag collection. Truly speaking, Internet of Things is not going to make airline travel a flawless experience, but it can surely make it more pleasant and easy going. Internet of things capabilities are ever growing and improving. Hence, it is rightly said the application of Internet of Things is going to

transform the airlines sector and will be benefitted both to the airlines and their passengers. The future of Airlines sector with Internet of Things is going to be a remarkable journey.

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SMART VILLAGE - AN INSIGHT INTO RURAL LIVELIHOOD

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Abstract

The world seems to move at a pace faster than light. People prefer everything should be done with just a few clicks. The digitization has become today's world. India is left no different. India today is going through a wave of digitization keeping rural India a target. This wave is certainly helping people make their lives easy. Modi government brought up a concept of digital India and digitized many processes and services. There are many dedicated Apps that government has launched to help people do things with just a few clicks. Along with digital India came the concept of SMART Village. This smart village is a catalyst between government initiatives and road to development of the village as a whole. However, India is still facing poverty, unemployability, and illiteracy as biggest challenge yet to overcome. In this paper we would try to understand how "SMART Village" along with "Digital India" create employability for rural India.

Keywords: SMART Village, Employability, Digital India, Digitization, Rural India.

INTRODUCTION: India has always been known as the country of villages. According to the 2011 census of India, 68.84% of Indians live in Total 640,867 different villages. Our country has also been suffering from a disease named poverty which is highly synonymous with illiteracy. It is said that "Knowledge is light" but a certain part of India still live in the darkness of illiteracy. The illiteracy rate in India is still at 74.04% as per 2017 data. This ignorance holds people down and keeps people away from government initiatives. The illiterates in rural India are often misguided by the literates and their dependence is gravely exploited. This illiteracy leads to many social problems such as stigma, child labour, molestations, exploitations, prostitution, and most importantly exploitation of modesty of a human. All such problems can be eradicated only with the light of knowledge, as knowledge can make an individual aware of one's fundamental rights, differentiation between right and wrong, confidence and also help in pursuing better jobs. At times knowledge also becomes a voice of an individual and plays a significant role in today's society. Our country was struggling through this very basic challenge until the digitization revolution took over the world in the early 2000s. These revolutions even did not spare our country. It was in the 2010s when India was highly familiarized with smartphones and also the price to buy the phones was highly reduced due to significant influence from a lot of indigenous manufacturers that led to a movement where each man and each child held a Smartphone. Then in the 2014 general elections where the BJP face Mr. Narendra Modi secured a win. As per the manifesto of BJP E-governance was a primary area of work. They had declared that in order to reduce corruption and increase transparency digitization was inevitable. Under the umbrella of digital India, a number of apps such as UMANG, Online RIT, MyPassortseva, MyGov, etc were launched. Also on the agenda for the year 2016, Modi government Launched smart village project, to digitize the villages of India.

OBJECTIVES

To study the impact of "SMART village" under digital India programme on the upliftment of Indian rural economy.

To study the impact of digital India programme on the empowerment of rural India.

To understand sustainable livelihood created in rural India by "SMART Village".

METHODOLOGY: This study attempts to explain the impact of digitization on the development of Rural India. It is based on secondary data that is collected from different sources like newspaper, internet, government websites, and journals.

REVIEW OF LITERATURE : 'SMART Village' initiative has been an area of interest of numerous researchers from various disciplines because of its great significance and influence on the economy as a whole and particularly the technological sector.

David Freshwater (2000) Sustainable development is generally discussed in terms of environmental considerations, but from a rural community perspective, sustainable development must address how the people of the community generate the income to maintain their rural lifestyle. In those instances where employments considered as part of sustainability discussions, it is too often thought of in static terms jobs that will last. Therefore a discussion of sustainable employment has to be conducted in a dynamic context where different types of employment evolve as economic conditions change.

N. Viswanadham, SowmyaVedula (2010) In this paper, the author describes the ecosystem for a village and then map out an integrated design procedure for building a smart village. "SMART Village" is defined as a cluster of services which are delivered effectively and efficiently to residents and businesses of the village. Various services including construction, farming, electricity, health care, water, retail, manufacturing, and logistics are essential in building a smart village. Computing, communication, and information technologies play a vital role in design, delivery and monitoring of the services provided. All the techniques and technologies required to build a "SMART Village" .

Gupta and Arora (2015) The author studied the impact of digital India project on India's rural sector. The study found that many schemes have been launched in digital India to boost agriculture sector and entrepreneurship development in rural areas. Digital India programme has also contributed for the empowerment of rural Indian women

4.4 Rani (2016) The author concluded that the digital India project provides a huge opportunity to use the latest technology to redefine India the paradigms of the service industry. It also pointed out that many projects may require some transformational process, reengineering, refinements to achieve the desired service level objectives.

The literature iterates that "digital India" mission has been an integral part to Build SMART Villages, let us look into this concept in detail and look out for Rural Employability.

DIGITAL INDIA: Digital India Mission is a modern day revolution that has empowered a transformation of India digitally. This mission was launched keeping many aspects in mind, such as large amount of paperwork, long forms for applications, transparency, tracking and status of an application or complaint, communication between the government and people, an increased amount of corruption, the complexity of access of information and many such things. It was on 1st July 2015 Prime minister of India Narendra Modi launched this glorious "Digital India Mission". The primary objective was to give rural areas high-speed Internet networks and improving digital literacy. The visionary Digital India programme is providing inclusive growth in areas of electronic services, products, manufacturing and job opportunities etc and with focus on three key areas – Digital Infrastructure as a Utility to Every Citizen, Governance & Services on Demand and Digital Empowerment of Citizens. Bharat Broadband Network Limited (BBNL) a government of India entity has ordered United Telecom's Limited to connect a large number of villages through GPON to ensure FTTH based broadband. The government is planning to create few thousand seats of BPOs in various states and set up at least one Common Service Centre in each of the gram panchayats in the state.

The governments Digital Literacy mission will cover six crore rural households and connect 550 farmer markets in the country through the use of technology. The Department of Electronics and Information Technology (DeitY) anticipates that this program projected at projected at Rs 1, 13,000 cores will have a huge impact on the country's Communication and IT leading a knowledge-based transformation.

NINE PILLARS OF DIGITAL INDIA: The Government of India offers to undertake this mission with help of the following 9 pillars.

Broadband Highways The government aims to connect every corner of the country to the world of internet. In order to achieve this, the task is divided into three main components -namely Broadband for All Rural, Broadband for All Urban and National Information Infrastructure. Under Broadband for All Rural, every village in the country would be connected by high- speed broadband. Also the government is working to empower technology to all six lakh villages and the step up optical fibre network to all rural areas, as stated by Telecom Secretary J.S. Deepak at a conference. All this is under the umbrella of the "Bharat Net project". Under Broadband for All Urban, Virtual Network Operators (VNO), those companies who do not own an infrastructure but are providing telecom service would be leveraged for their service in new urban areas. The government would mandate new buildings for VNOs as per TRAI (Telecom Regulatory Authority of India) recommendations, Virtual Network Operators (VNO).National Information Infrastructure would be integrating networks like SWAN, NKN, and NOFN along with cloud-enabled National and State Data Centres. Pilot Study is already carried out covering 7 Districts, 36 Blocks, and 1580 Gram Panchayats.

Universal Access to Mobile Connectivity

There are around 55,619 villages in the country that are deprived of mobile network coverage as per government data. This initiative aims to fill the gaps in connectivity in the country by trying to bring every village under the mobile network connectivity. The Project will be under the Department of Telecommunications and the project cost will be around `16,000 Cr during 2014-18.

Public Internet Access Programme

The two primary components of Public Internet Access Programme are Common Service Centres and Post Offices as multi-service centres. The Common Service Centres would be nourished and its number would be increased from approximately 135,000 operational at present to 250,000 i.e. one CSC in each Gram Panchayat. The DeitY would be the nodal department to implement this scheme. A total of 150,000 Post Offices are proposed to be converted into multi-service centres. Department of Posts would be the nodal department to implement this scheme.

E-Governance: Reforming Government through Technology

The government envisioning transparency, efficiency, and automation of workflows inside government departments and agencies, the e-governance was introduced. Under the Digital India Vision, Central/State government departments need Business Process Re-engineering using IT to improve transactions that are most critical for transformation across government and a must to be implemented by all ministries or both central and state governments. All databases and information when in electronic forms secures an error-free process as compared to manual. Automated IT is can be used to respond and analyze data while identifying and resolving persistent problems.

The Guiding Principles for E-Governance are Minimalizing the forms- Forms traditionally would be of many pages and complex, digitizing would make the forms demand only the required information making the application process would be faster.

Online applications and tracking - Earlier the applications tracking was difficult with digitization the applications became online and their tracing and processing status is available between departments.

Digital documents- carrying the documents in physical forms, carrying copies, originals for verification is all a troublesome job. With the online repositories set up by the government, there is no need to carry documents in physical form a digital version would suffice,

Service Integration- Integration of services and platforms, e.g. UIDAI, Payment Gateway, Mobile Platform, and Electronic Data Interchange (EDI) etc, should be mandated to facilitate integrated and interoperable service delivery to citizens and businesses.

E - Kranti – Electronic Delivery of Services: This is an integral part of digital India program to transform India digitally. This pillar is directly linked to e-Governance and the implementation of e-Kranti is vital for the delivery of e-governance, easy governance and good governance in the country. According to the Union Cabinet in its meeting held on 25th March 2015 has approved the Approach and Key Components of e-Kranti that include, *inter alia*, the vision, mission, key principles of e-Kranti, Approach and Methodology, Programme Management Structure and Implementation Strategy including 44 Mission Mode Projects and Core ICT Infrastructure. The vision of E- Kranti is “Transforming e-Governance for Transforming Governance” and its mission is “To ensure a Government-wide transformation by delivering Government services electronically to the citizens through integrated and interoperable systems via multiple modes while ensuring efficiency, transparency, and reliability of such services at affordable costs.”

Information for All: This ensures open access to government information and documents making them available online, giving a two-way communication between the citizens and the government through online platforms and social media. Through Open Data platform and online hosting of information & documents citizens as well, as government departments, have easy access to information. The two-way communication is established through a government being pro- actively engage through social media. In order to faceplate, this better MyGov.in has been launched as a medium to exchange ideas/ suggestions with Government.

Electronics Manufacturing: The Demand for Electronic goods is increasing day by day that statics say that there will be in a scale of Compound Annual Growth Rate (CAGR) of 22% and is expected to touch 400 Billion USD by 2020. Therefore the government is trying to empower the country by setting up manufacturing units within the country. This will create a huge base for electronic manufacturing in the country as well as create jobs and bring in foreign investments. Through the "Internet Of Things" intelligent workshops that demonstrate data-driven operations will empower manufacturing, as well as the production control systems, would be decentralized within the physical factory walls.

IT for job: The growing digitization in the country would certainly need the skill to take the mission forward. There are many employment opportunities created in IT sector for youths of our country. The government would provide IT training to people in smaller towns and villages with a target to train one crore students for over 5 years. Also, Service delivery agents will be appointed and a number of three laky agents will be trained to run viable business delivering IT services. DeitY is the nodal department for this scheme. The rural workforce of five lakh people in Telecom and Telecom related service would be trained by the Department of Telecommunications (DoT). The govt. is planning to set up Aadhaar Allowed Fingerprint Presence Program in all central government workplaces situated at Delhi. A web-based application software system will allow online documenting of attendance and it's watching by the involved stakeholders.

DIGITAL INDIA PROGRAMME AND IMPACT ON INDIAN RURAL SECTOR

The Vision of digital India is not only urban digitization but also to transform each and every village in the country. The government plans to connect 2.5 lakh villages with phone connectivity by 2019. The mobile connectivity will certainly make a difference in rural India. The "Make in India" mission

also is directly connected with digital transformation as the government is trying to set up manufacturing units to produce large-scale low-cost devices, and also various technologies are developed in the country itself. The government is also supporting the mobile service providers to by subsidizing the rollout the cost of mobile service providers to provide efficient network coverage and high-speed data connectivity. The government has launched a number of Apps to help the farmers, people of rural India to enable them to get access to all the desired Information, track government subsidies, and reap benefits with just a few clicks. There are Apps for farmers that give accurate and timely information related to crops, market prices and analytics to which enhances their productivity and profitability. The digitization has given many opportunities for people of rural India, through a variety of services like improved governance, land records, jobs, health, education and agriculture and digitization of personal and public records for safekeeping. Many large IT companies have pledged a contribution for transforming India through technological innovations. Intel India has launched "Ek Kadam Unnati Ki Aur"; an initiative aimed to empower non-urban citizens through technology in 10 states of India, in association with national and regional governments of India.

THE IDEA OF "SMART VILLAGE"

The policies of present Modi government has been recognized and appreciated both nationally and internationally. The Jan DhanYojna, Land and real estate reform bills have been well appreciated by the citizens. The government seems to certainly be focused on rural reformation. The 70% of India lives in the villages and the youth in the villages are struggling through various challenges. There are many who are educationally deprived and also lack skills to enable them to have a sustainable livelihood. The villages have no source of livelihood and thus a grave amount of poverty; the youth have to move to urban cities from their small towns to seek work. This results in overcrowding of cities and also rises in unemployment, resulting in various situations. The government statistics say that the 29 states and 7 Union territories consist of 676 districts housing a total of 6, 38,000 villages. These villages hold a maximum population of the country. The government has 100 cities shortlisted to become "SMART CITIES", and districts have been allotted a cluster of small villages to be transformed to "SMART Village". Then a team of officials would plan a blueprint of the requirement of the cluster, focusing on the area of development. The infrastructures such as roads, sewage, schools, hospitals and necessary institution would be checked if they were present and functional; else the missing ones would be proposed and built. after the officials make and finalize a blueprint the local population would be checked for involvement, the locals can support with manpower, talent, raw materials, etc and the come together hand in hand with government to make their village smart village. The government would provide financial support or bring in foreign investment to support the transformation. The smart villages would certainly see two categories of features.

Enhanced Security- The villages would have a smart security and policing systems installed, the whole village would be brought under CCTV surveillance so that the law and order can always be kept in check. There will also be regulated traffic and high-speed cameras to detect speeding vehicles and a system to electronically fine the culprits.

Citizen Aid- There will be SMART sewage and rainwater harvesting facilities would be installed and promoted. The public transport would be made efficient and also disaster, fire and other necessary precautionary institutions would be made technologically efficient. There will be a complete check on the government subsidies, policies, and information reaching the citizens. The concept of E-governance will be fully functional and two-way communications between government and the citizens would be established without any hindrance. There will be all necessary infrastructural up gradations made as per the need of the villages. The citizens would receive all necessary training to use the digital platforms as well as many skill development initiatives would be initiated to enable the

citizens of rural India to have a sustainable livelihood. The need for healthcare, livelihood, education of the villages will be kept at check.

RURAL ENTREPRENEURS UNDER 'DIGITAL INDIA'

MUDRA: The Modi Government has launched many schemes that empower the entrepreneurs of rural India. One such initiative is Common Services Centers (CSCs). The entrepreneurs can get a loan for setting up their Startups under the Micro Units Development and Refinance Agency (MUDRA) Yojana, the acquiring of loan is made simple under this scheme with guidelines given in the website. CSCs are delivery points set up at a village level that is technologically equipped in delivery of government, financial, social and private services such as applying for online passports, land record, digital locker and Aadhaar cards. Anyone can take up to be a delivery centered and can avail financial support under MUDRA Yojana if needed.

Internet Kiosk: Common Services Centers (CSCs) are equipped with one or more computers, tablets, internet connections, etc that can become the hub of rural connectivity for providing all the necessary information about government activities and schemes for education, agriculture, health and safety, employment and sustainable livelihood. This Kiosk also acts as a medium to establish a two-way communication between people and government. These Internet-kiosks can then be run by local entrepreneurs.

ArogyaSakhi: Is a Telemedicine App developed to help a woman of rural India to become entrepreneurs and deliver preventive door to door health care. Women are equipped with Tabs and other mobile healthcare devices like glucometers, blood pressure checking machine that enable to visit homes conducting routine health checks and also collect healthcare data. This data can be accessed by doctors at tertiary level or district level hospitals anytime and anywhere remotely. These doctors then provide remote solutions and prescription, which is then executed by the healthcare woman.

Internet Saathi: India has very low internet users in the rural areas, most are not even aware about internet. Within the very few users, most are men that use the internet; women are mostly kept at a bay from being familiar with the internet. It is believed that only one- third of users of the internet in India are women. This gender discrimination was a concern for Google India. To address this concern Google has announced support with Digital India initiative with their "Internet Saathi" program. This program is mainly focused on helping out women to go digital and empower them with the power of technology. This initiative has successfully crossed a large number since its inception. Trained women working with "Internet Saathi" go out on bicycles with smartphones and tablets training other women of the concerned village and spreading awareness.

W2E2 (India): Wireless Women for Entrepreneurship & Empowerment (W2E2) program is an initiative to help rural women create their micro-level social enterprises based on Information and Communication Technology (ICT) and develop women entrepreneurs supported by wireless Internet in 4 backward districts of India and contribute to an enabling Internet environment and Internet for gender inclusion and women empowerment. The 'Wireless for Communities' (W4C) program, a joint initiative of Digital Empowerment Foundation and Internet Society provides a low-cost high-quality Internet connectivity in remote unconnected and rural areas of India.

CONCLUSION :India has certainly moved to a new world with digitization. This digitization has given much more especially to rural India. The digitization has certainly rescued the citizens from a lot of government hassle when it comes to paperwork. The idea has changed lives of many. Rural India has also evolved to be more sustainable. The "SMART Village has been instrumental in pointing out the necessary developments required in a village and then gets that fixed with help of government. The villages have received much more attention by the officials with a strict monitoring on progress. The wall between the ministries and citizen has been broken, now the citizens can

directly communicate with the ministries and officials including the prime minister directly without any hassle. Making a Village SMART has also opened doors for the greatest problem of unemployment as it has generated jobs in IT, opportunities for entrepreneurship and also has empowered women to be financially independent. The reach of the idea of SMART village will eradicate the long chronic problem of poverty, illiteracy, and corruption from the country sooner or later. India has certainly started to develop and evolve with digitization and SMART villages. The road is rough but not impossible, with the support of citizens the feat of digitization will be achieved soon.

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A STUDY ON PREVENTING ONLINE PAYMENT FRAUD USING CRYPTOGRAPHY TECHNIQUES

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Abstract

E-commerce is a powerful tool which uses Information and Communication Technology for business. E-commerce has presented a new way of doing transactions all over the world using internet. Now a days Organizations have changed their way of doing business from a traditional approach to the Bricks and clicks approach. As individuals and businesses increase information sharing, a security concern regarding the exchange of personal information, card details securely and conveniently over the internet is a challenging phase in E-commerce. Security is a necessity in an E-commerce transaction. The payments are done using credit or debit card by most of the customers. Credit card is a small plastic card issued by a bank which allows the credit facility to the card holder. Debit card is a card allowing the holder to transfer money electronically from their bank account when making a purchase. The use of credit cards and debit cards are increasing day by day. As credit cards and debit cards becomes the most popular mode of payment for both online as well as regular purchase, cases of fraud associated with it are also increasing. This paper explores the major security concerns of businesses and users and describes the cryptographic techniques used to reduce such risks.

Keywords - cryptography, public and private keys, Public Key Infrastructure, Digital Signature, Secure Electronic Transaction.

Introduction : The Internet is basically an insecure communication medium. Due to the rapid growth of electronic communication and electronic data exchange, information security has become a crucial issue in organization, business, and administration. Modern cryptography provides essential techniques for securing information and protecting data. Credit Card and debit card Fraud is one of the biggest threats to business today. However, to combat the fraud effectively, it is important to first understand the mechanisms of executing a fraud. Security must be part of the design. If we do not design our application with security in mind, we are forced to be constantly addressing new security vulnerabilities. Now a day's many people are doing online financial transactions. This transaction needs to be secure. E-commerce refers to a wide range of online business activities for products and services. Security is the basic need to secure information provided by the users on internet.

Literature Review

The RSA algorithm is the most popular form of public key cryptosystem, which was developed by Ron Rivest, AdiShamir, and Leonard Adleman at the Massachusetts Institute of Technology in 1977 (Robinson, 2008).

DES, was adopted by the American National Standards Institute (ANSI). Following this milestone was yet another when a new concept was proposed to develop Public Key Cryptography (PKC), which is still undergoing research development today (Levy, 2001). When we speak of modern cryptography, we are generally referring to cryptosystem

A very popular public key cryptosystem is known as Pretty Good Privacy (PGP) developed by Phil Zimmerman beginning in early 1991 (Levy, 2001).

Hawker (Hawker, 2000) states that the only assumption which can safely be made when considering the Internet as a communication medium is that it offers no security whatsoever.

Research Problem: The research problem is unprotected information and insecure transactions. When customers and merchants perform a transaction over Internet, the protection of information against security threats is a major issue. During the transmission of sensitive information, the data must be protected from unauthorized access to maintain its privacy and integrity.

Objective of Study

The main aim of the paper is to highlight the several techniques used to protect customers' personal data, to maintain privacy and to protect the data from unauthorized sources during online transaction.

To study the key dimensions of E-commerce security

To analyze the various cryptography techniques to provide security

To study the online Credit/Debit card payment processing

Scope of study

The study analyses the various key dimensions of e-commerce security and the cryptographic techniques such as basic cryptographic system, Public Key Infrastructure, Data Encryption standard (DES). The study is only measuring the importance of security during the online shopping. The secured medium increases the sales, retains the consumers which further leads to positive reviews of the products purchased using electronic commerce.

Limitations of Study

The scope of study is limited, it analyze only few techniques of cryptography. Security is the ever challenging phase of online transaction. When customers and merchants perform a transaction over Internet, the protection of information against security threats is a major issue. During sending the sensitive information, the data must be protected from unauthorized access to maintain its privacy and integrity. In this paper limited approaches have analyzed that increases the level of security dimensions using cryptographic techniques.

Research Methods

Data collection is done through a qualitative approach. Secondary source of data collected through preparing literature review of research papers and book published about Cryptography. The study material is majorly collected with the help of E book and online research papers published. This paper is based on descriptive research method.

Key Dimensions of E-Commerce Security

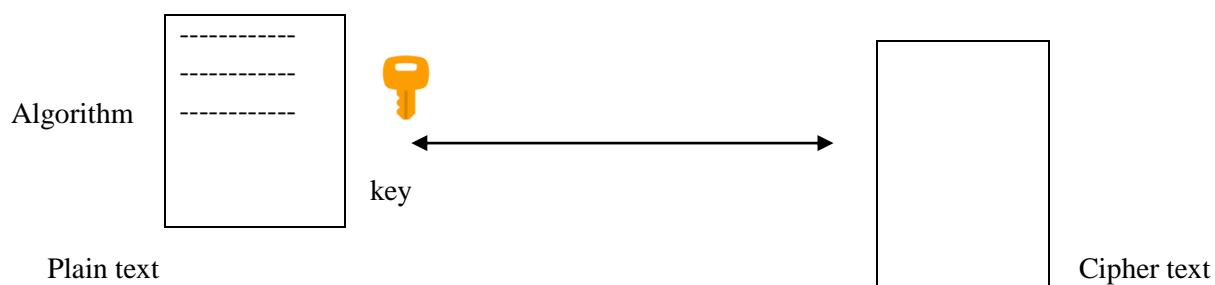
1. Confidentiality – the ability to keep things secret from unauthorized users or hackers
2. Integrity – the ability to protect information from altering the information during the online transmission
3. Authentication – the ability to identify the identities of all parties
4. Non-Repudiation – that neither the sender nor receiver can deny communication
5. Privacy – the ability to control over the personal information provided
6. Availability – ensuring that access to information or services are available as and when required

The above are some points to be considered while designing the security system of a online transaction. This paper examines the major security concerns of businesses and consumers engaging in electronic commerce and focuses principally on the role of cryptography in reducing the risk of conducting business on the Internet.

Analysis of Cryptography Techniques

4.1. Cryptographic Systems

Today, cryptographic methods are more advanced and are used to support more than the confidentiality of the message, they also include integrity protection, authentication, non-denial and preventing from unauthorized copying (Adams & Bond, 2000). All cryptographic systems have four basic parts :

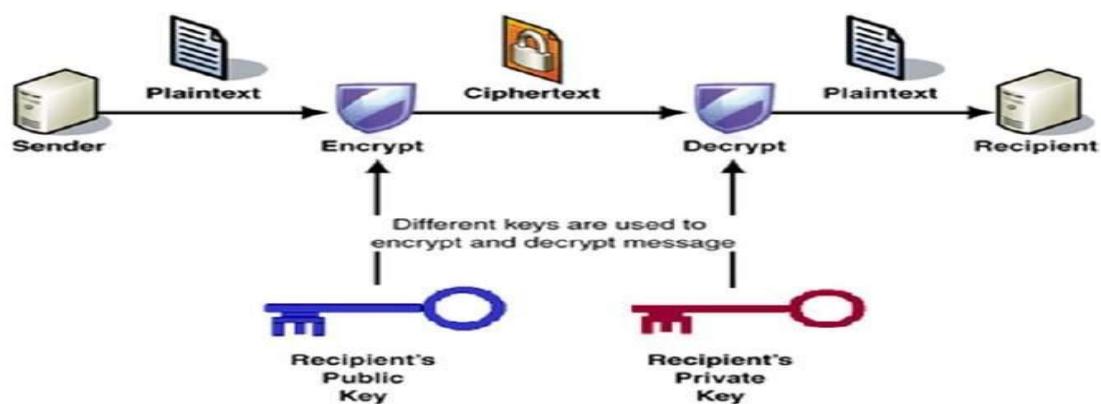


Plaintext - A message before anything has been done to it
 Cipher text - Unreadable Plaintext message after it has been modified in some way
 Algorithm - Mathematical operation used to convert plaintext into cipher text
 Key - Secret key used to encrypt and/or decrypt the message. A key is a word, phrase, numeric or alphanumeric string which when used in conjunction with the algorithm allows the plaintext to be encrypted and decrypted.

The advantage of using the cryptography system is that the cipher text can be transmitted across insecure, public network channels. Even if the cipher text is intercepted, it is useless to anyone who does not have the decryption key. The key contains the binary code used to mathematically transform a message. Modern cryptosystems are digital, their algorithms are based on individual bits of the message rather than letters of the alphabet. Even if keys are kept secret, it may be possible to compromise the security of a system. Trying to decrypt cipher text without knowledge of the secret key is known as Cryptanalysis. Commercial encryption systems are constantly being researched by cryptologists to ensure that the systems are not vulnerable to attack.

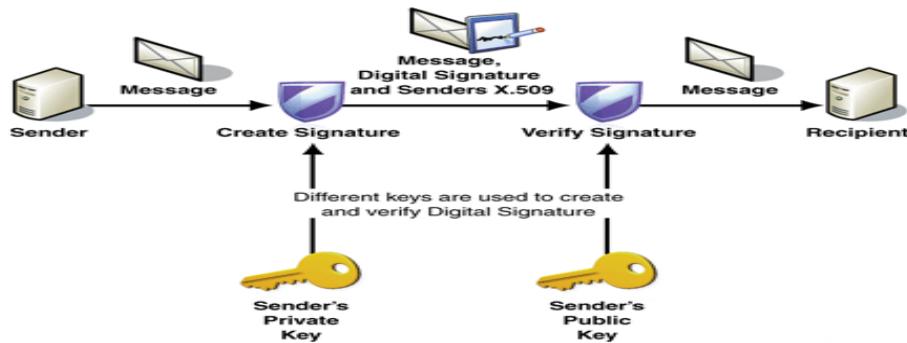
4.2. Public Key Encryption using RSA

RSA is an asymmetric encryption scheme, which was developed by Rivest, Shamir and Adleman. It uses a key pairs for encryption, a public key which is used to encrypt the data, and a private key for decrypting the data. Anyone can send a confidential message using the public key but the message can only be decrypted using the private key, which is in the sole possession of the intended recipient. In the RSA cryptosystem, a sender may encrypt a message using his/her private or public key. Let A and B be two parties that use the RSA cryptosystem and APK, ASK be the public key and the private key for A, BPK, BSK be the public key, the private key for B respectively. Assume that B knows APK and A knows BPK. There are two possible scenarios:



Public key /asymmetric key Encryption

In the first scenario, A sends a message to B. Before sending the message, A encrypts the message using BPK(B's Public key). Since A uses BPK to encrypt the message then only B can decrypt the message using his BSK(B's Private key). This is called the encryption path of the RSA cryptosystem.



2. Public key Encryption using Digital Signature

In the second scenario , A sends a message to B. Before sending the message, A encrypts the message using, ASK(A's Private key). Next, B decrypts the message using APK(A's Public key). If B can decrypt the message using APK, then the message must come from A. This is called the authentication path, which can be used as a digital signature (the message is digitally signed by A). Note that A cannot deny (non-repudiation principle) that he/she has signed the message since the message can only be decrypted using A's public key (APK).

Both scenarios above can be combined to create an authenticated encrypted message or digitally signed encrypted message. For example A wants to send a message securely and make sure that only B can read the message. To tell B that the message is genuinely sent by A, A digitally signed the message. To do this A encrypts the message using BPK(B's Public key), and then re-encrypt the message with ASK(A's Private key) prior sending the message to B. At the receiving side, B decrypts the message twice using BSK(B's Private key) and APK(A's Public key). Note that only B can decrypt the message and at the same time B ensures the authenticity.

4.3 Researcher understands on cryptography:

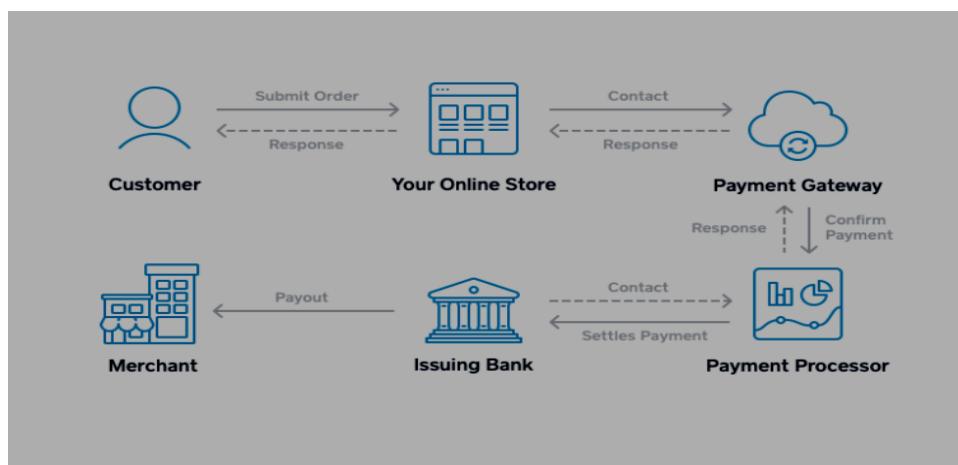
According to my study the Public key Encryption using RSA is good enough to protect the data from unauthorized sources and it maintains only the secrecy of the message but if we use Public key Encryption using Digital Signature it ensures the four key dimensions of e-commerce Security mainly Confidentiality, Authenticity, Integrity and Non-Denial of the message transferred using internet.

4.3.Secure Electronic Transactions (SET)

SET is a protocol, developed by Visa, Mastercard, Netscape and Microsoft, for securing credit-card-based transactions between customers and merchants.

1. It maintains the secrecy of information through encryption
2. It ensures payment integrity through digital signatures and message digests
3. It authenticates both merchants and cardholders through the use of digital signatures
4. Interoperates with other protocols.

The SET protocol involves the cardholder, the merchant, the card-issuing bank and the merchant's bank using public/private key pairs and signed certificates to establish the identity.



SET protects payment information based on authentication (merchants & cardholders authentication) and encryption of payment information, which is basically similar to SSL.

According to the SET specification, SET uses both symmetric and asymmetric cryptosystems to protect transactions on the open networks.

A typical secure transaction using SET scheme in B2C e-commerce such as on-line shopping can be described as follows:

Cardholder site:

1. The cardholder encrypts the payment information using his/her private key, which also means that he/she has digitally signed the payment.
2. The cardholder re-encrypts the digitally signed payment using a randomly generated symmetric encryption key to ensure message confidentiality.
3. Finally a cardholder encrypts the message (from step 2) with the merchant's public key, creating a secure "electronic envelope" and sends it to the merchant.

Merchant site:

1. The merchant opens the "electronic envelope" using the merchant's private key. Note that only the intended merchant can open the envelope
2. The merchant checks the cardholder's digital signature by using the cardholder's public key.
3. The merchant decrypts the payment information using the symmetric key attached by the cardholder.

The above technique allows a merchant to access a cardholder's credit card number. To hide the details of the credit card information from a merchant the SET protocol uses a payment gateway (belong to a credit card processor). In this scheme a cardholder's order information will be encrypted using a merchant's public key and his/her credit card detail will be encrypted using the payment gateway's public key and sent to a merchant. Hence the merchant can only open the order information and will pass credit card detail to the payment gateway for verification.

Conclusion: Information security has become a very critical aspect of modern communication system. Transaction security is vital in e-commerce. This paper has considered the various techniques of cryptography used for securing transactions over the Internet. Methods of ensuring secure electronic communication using SET have been described. Internet users are happy with the development of the web where they can browse the Internet and find information they need easily. However, when it comes to decide to buy a product/service over the Internet many people worry about the transaction security. Similarly, firms worry about online frauds. Encryption technology discussed in this paper is the key technology to make online transaction over the Internet secure. During the online transaction sending the sensitive information over the insecure communication

channel, the data must be protected from unauthorized access to maintain its privacy and integrity. In this paper different approaches have presented that increases the level of security dimensions using cryptographic techniques.

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THE GROWTH AND FUTURE PROSPECTS OF CASHLESS FINANCIAL TRANSACTIONS IN INDIA

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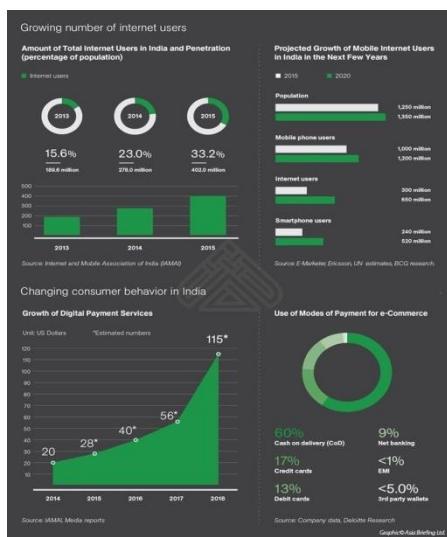
Abstract

A cashless society is a term describing the economic system in which physical money, namely paper currency and metal coins, are replaced with virtual, digital money, and where cash circulation is substituted by payments made with the help of numerous modes like cards, mobile devices and various other equipment connected to the internet. This study examines the implications of cashless banking, with a view to understand the growth and future prospects of cashless financial transactions in the Indian economy. According to Government of India, the cashless policy will increase employment, reduce cash related robbery and will also reduce cash related corruption and impede terrorist activities. It is expected that its impact will be felt in the modernization of payment system. Electronic payments will improve banking transaction and make it easier by bringing services closer to its customers hence improve performance and efficiency of the banking industry.

Key Words: cashless society, digital money, cashless banking, Electronic payments, mobile devices

INTRODUCTION: Cashless economy is the economy where economic transactions are done with the facilities like credit card, debit cards and online transactions by means of fund transfer and using e-wallets. The introduction of cashless economy has gained an impetus with the help of information technology these days and is fully supported by the Government in India. This initiative has not only helped to speed up transactions but at the same time cost of transferring money is also coming down rapidly. A cashless economy is one in which all the transactions are done through electronic channels such as debit/credit cards, Immediate Payment Service (IMPS), National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS). The circulation of physical currency is limited. The Indian economy is mostly driven by the use of cash. The fact is that less than 5% of all payments happen electronically. Electronic based transaction is trying to speed up the development and modernization of India's payment system. The aim of the policy is to shift the economy from a cash based economy to a less cash one. Efficient and modern payment system helps in driving growth and development. The policy also aims at improving the effective transmission of monetary policy, managing inflation in the economy, maintaining price stability etc. In India, the ratio of cash to gross domestic product is 12.42% of GDP; this is one of the highest in the world. The government is introducing various schemes at different levels to reduce the dependence on cash. Shri Narendra Modi, Prime Minister, unveiled two schemes –Lucky Grahak Yojna, Digi Dhan Vyapaar Yojna for customers and traders to promote mobile banking and e-payments. To encourage and strengthen cashless economy, it is important to inculcate the habit of making e-payments. Government encourages cashless transactions like mobile banking, Ru-pay cards, UPI, USSD as means and methods of digital payments. According to a 2014 study by Tufts University 'The Cost of Cash In India', cash operations cost the Reserve Bank of India (RBI) and commercial banks about Rs. 21,000 crore annually. A shift away from cash will make it more difficult for tax evaders to hide their income, a substantial benefit in a country that is fiscally constrained. RBI has also issued licenses to open new-age small finance banks and payments banks which are expected to give a push to financial inclusion and bring innovative banking solutions. Things are also falling in place in terms of technology in India. The recently launched Unified Payments Interface by National Payments Corporation of India makes digital transactions as simple as sending a text message. It is possible that a section of people, which has used electronic mode of payment for the first time due to the cash crunch will continue to transact through this medium, but there are still a number of hurdles in making India a cashless economy. First, a large part of the population is still outside the banking net and not

in a position to reduce its dependence on cash. According to a 2015 report by PWC, India's unbanked population was at 233 million. Even for people with access to banking, the ability to use their debit or credit card is limited because there are only about 1.46 million points of sale which accept payments through cards. Second, about 90% of the workforce, which produces nearly half of the output in the country, works in the unorganized sector. It will not be easy for the informal sector to become cashless, and this part of the economy is likely to be affected the most because of the ongoing currency swap. Third, there is a general preference for cash transactions in India. Merchants prefer not to keep records in order to avoid paying taxes and buyers find cash payments more convenient. Although cashless transactions have gone up in recent times, a meaningful transition will depend on a number of things such as awareness, technological developments and government intervention. For instance, mobile wallets have seen notable traction, and it is possible that a large number of Indians will move straight from cash to mobile wallets. A study by Boston Consulting Group and Google in July 2017 noted that wallet users have already surpassed the number of mobile banking users and are three times the number of credit card users. There are a number of reasons pushing the industry along its growth trajectory, which include increased technology adoption, overall growth of the e-commerce industry and rising need for convenience among consumers. Technology adoption has increased in India as a result of increasing Mobile phone subscriptions which have crossed the one billion mark in 2016. Of these, an estimated 371 million users subscribe to mobile internet. As the number of affordable smartphones entering the market increased and tariffs on data plans continued to decrease, the user base for mobile wallets also expanded drastically in the last five years. The Indian e-Commerce industry has seen stupendous growth to have reached USD 38 billion by 2016. The Indian consumers prefer to shop online, hence adoption of mobile wallets, which provide an alternative for cash, and card transactions has also increased. A number of online merchants have also been providing incentives to consumers for using mobile wallets as their payment mode. For example, Flipkart gives a 10-20% discount on orders paid through mobile wallets. Consumer need for convenience: Consumer need for convenience can be seen across a number of industries, including food, hence the mobile wallet industry is gaining advantage from that trend. Ease of usage, especially with money transfer and bill payment services are very attractive for the younger user base.



Literature Review

Chakravorti (2003), "Theory of credit card networks: A survey of the literature" shows that credit cards provide benefits to customers and merchants not provided by other payment instruments as

evidenced by their explosive growth in the number and value of transactions over the last 20 years. Recently, credit card networks have come under scrutiny from regulators and antitrust authorities around the world. The cost and benefits of credit cards to network participants are discussed. Focusing on inter-related bilateral transactions several theoretical models, have been constructed to study the implications of several business practices of credit cards networks.

Preeti Garg and Manvi Panchal (2016), Study on Introduction of Cashless Economy in India 2016: Benefits & Challenges. It studied the views of people on introduction of cashless economy in India. The study was conducted in Delhi region & data was collected with the help of structured questionnaire and analyzed using simple percentage method. Responses from respondents shows that cashless economy will help in curbing black money, counterfeits/ fake currency, fighting against terrorism, reduce cash related robbery, helps in improving economic growth of our country.

Manpreet Kaur(2017) 'Demonetization: impact on cashless payment system' asserts that its impact is felt by every Indian citizen. Demonetization affects the economy through the liquidity side. Demonetizing is a progressive shift to a cashless economy hence there is a greater focus on electronic transactions. Rising use of credit/ debit cards, net banking and other online payment mechanisms will be another positive effect of demonetization, as these would not only lower transaction costs but some of these could help earn some fee income as well.

Mohammad Auwal Kabir (2015) Adoption of e-Payment Systems: A Review of Literature: envisages that E-payment system is increasingly becoming a popular means of payments in today's business world. This is due to its efficiency, convenience and timeliness. It is a payment system that is continuously being embraced and adopted in the financial system of both developed and developing countries with a view to simplify and ease payments in business transactions.

Objective of the Study

To analyse the growth of cashless transactions in India

To study the potential of different cashless modes of payment.

To understand the strategies of cashless economy in Indian perspective.

RESEARCH METHODOLOGY

The study is based on secondary sources of data/ information. Different books, journals, newspapers and relevant websites have been consulted in order to make the study an effective one. The study attempts to examine the growth and prospects of Cashless Transaction in India.

FINDINGS

In 2004-2005 the value of Rs. 500 and Rs. 1000 notes put together exceeded the value of all other denominations, that is Rs. 100, Rs.50, Rs 20 and Rs. 10.

In 2000-01, denominations other than Rs.500 and Rs.1,000 constituted 70% of the cash in the economy. Now they constitute 15% of the economy.

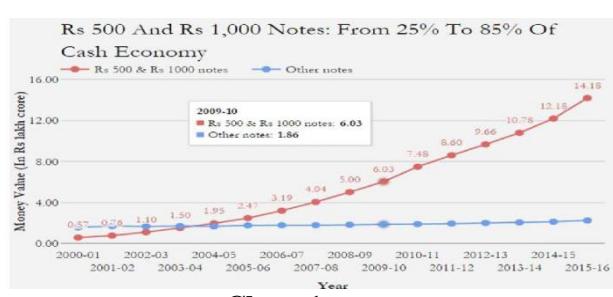
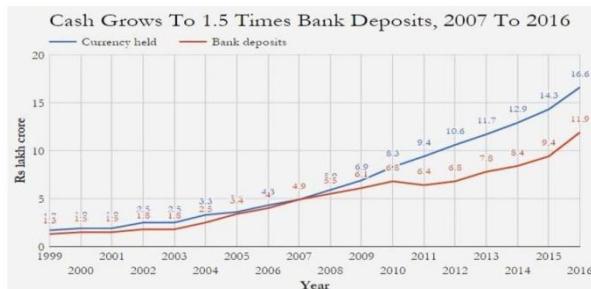


Chart 1

Source: Monthly Bulletin, Reserve Bank of India.

The value of money made up by Rs.500 and Rs. 1,000 notes went up from a quarter of cash in circulation in 2001 to 85% in 2016. The Currency with public rose during 2013 to 2016, against deposits kept by Indians in banks according to RBI data.

Chart 2

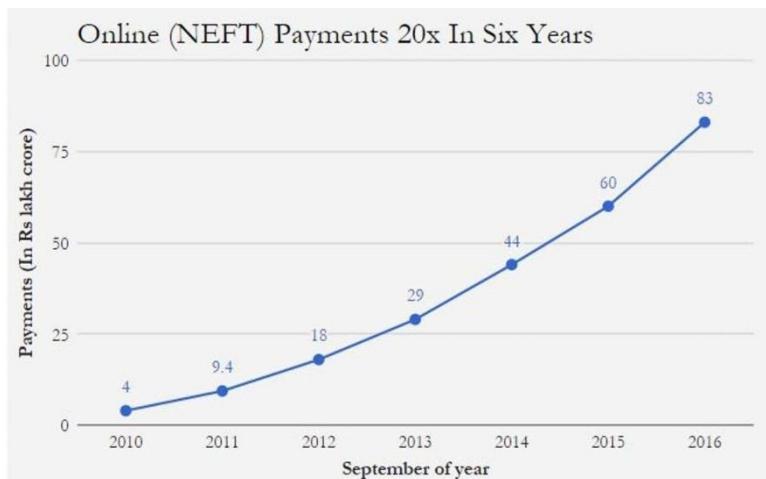


Source: Monthly Bulletin, Reserve Bank of India.

In India between 2012 and 2016 the number of debit and credit cards more than doubled. During the same period the point-of-sale machines (PoS machines), credit /debit card machines in hotels and shopping malls also more than doubled. This has led to a gradual shift towards cashless economy thus reducing dependence on cash.

NEFT (National Electronic Fund Transfer) was preferred by consumers for online transactions. It rose from Rs. 4 lakh crore in 2009-2010 to Rs. 83 lakh crore in 2015-16.

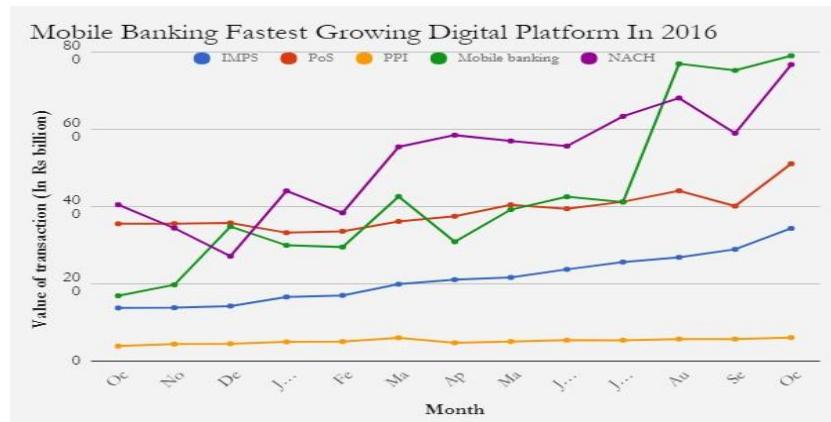
Chart 3



Source: Monthly Bulletin, Reserve Bank of India.

Cashless payments in October 2016 increased 22 percent, when compared to October 2015, indicating that Indians have been steadily more accepting of various digital payments modes since last year. Money transfers using mobile banking and immediate payment system (IMPS)—wherein money is transferred instantly using text messaging or online banking—showed the highest increase in over 12 months ending October 2016. Mobile banking transactions grew 175 percent, while money transacted using mobile banking grew 369 percent from October to October, according to an IndiaSpend analysis of Reserve Bank of India (RBI) data.

Chart 4



(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

IMPS transactions grew 116 percent while IMPS transfers grew 150 percent over 12 months ending October 2016. Number of transactions using Prepaid Payment Instruments (PPIs) that include mobile wallets doubled in a year in the same period.

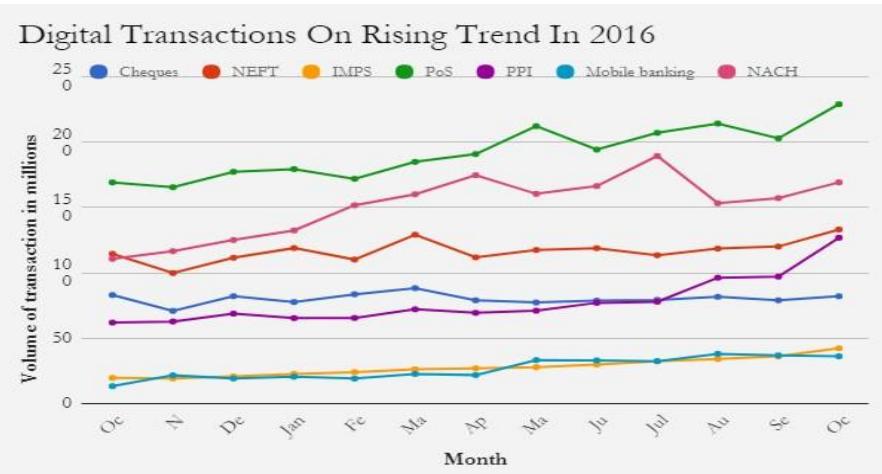


Chart 5

(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

Digital transactions have gained momentum after the demonetisation of high-value currency notes, as the government actively promotes cashless transactions to reach its target of 25 billion digital transactions in 2017-18. As per the data from the Reserve Bank of India (RBI) it is clear that the rapid adoption of Unified Payments Interface(UPI), a payment system which facilitates instant fund transfer between two bank accounts on a mobile platform, has helped these efforts.

An analysis of RBI and NPCI data is essential to ascertain the current status of digital transactions and to understand how much our economy has shifted from cash transactions to digital transactions.

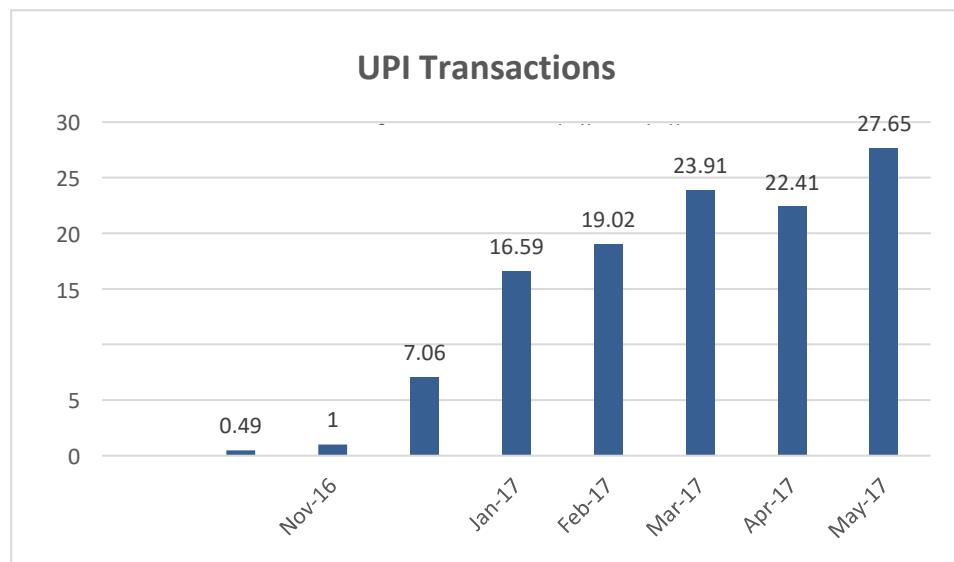
UPI and BHIM

According to the latest NPCI data the Unified Payment Interface (UPI) transactions made a giant leap from 1,03,060 transactions in October, 2016 to 91,67,277 transactions in May 2017, recording an astonishing 89 times growth. Whereas value-wise, UPI recorded a growth of Rs. 0.49 billion to Rs. 27.65 billion, more than 56 times growth during the same period.

According to RBI data, during April, 2017, total cash of Rs 2,171 billion was withdrawn from ATMs alone (no data of bank withdrawals is considered here), while the UPI transaction figure was just Rs 22.41 billion during the same period. That is, UPI-based transactions replaced cash by around 1%.

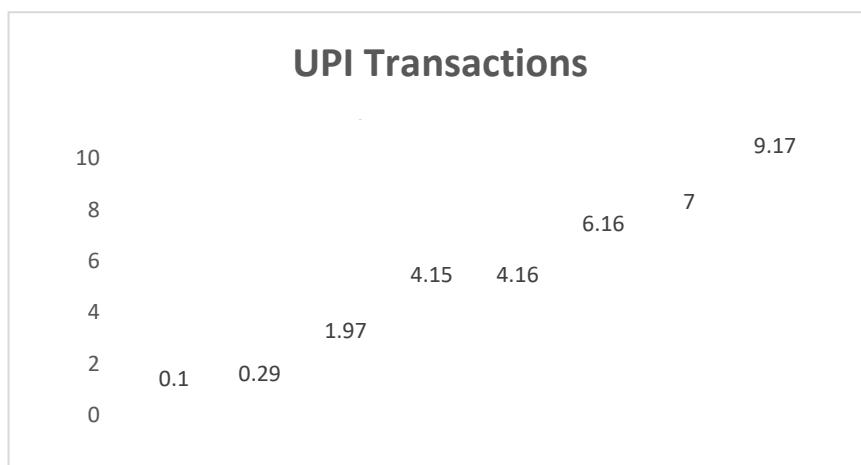
The graph below illustrates the extraordinary growth achieved by the UPI transactions, prepared based on RBI data.

Chart 6



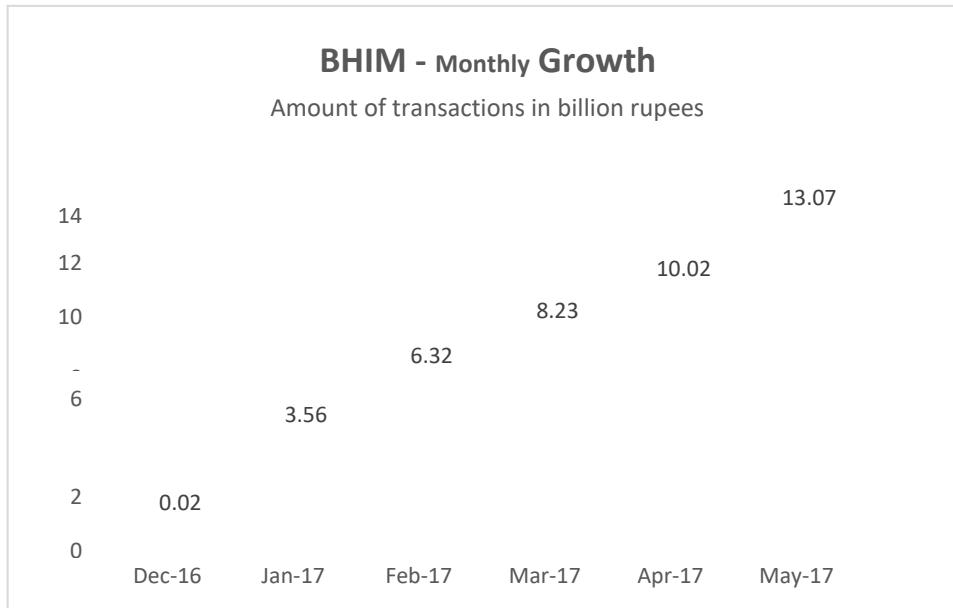
(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

Chart 7



(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

Chart 8



(Source: [Monthly Bulletins for 2016](#), Reserve Bank of India.)

BHIM (Bharat Interface for Money) was introduced by Prime Minister Narendra Modi, at a digi dhan mela at Talkatora Stadium in New Delhi on December 30, 2016. It is a mobile app developed by NPCI, based on the UPI interface. BHIM recorded growth in transactions from 17,17,696 transactions in January, 2017 to 39,75,750 transactions in May, 2017, which is almost 2.3 times growth. Amount-wise, BHIM recorded a growth from Rs 3.56 billion to Rs.

billion during the same period. The growth of UPI as well as BHIM (which is a subset of UPI) may create an impression that India made a huge progress in terms of digital transactions. The NPCI website claims that as of May 31, 2017 BHIM crossed 14.54 million downloads. There are more than 300 million smartphones in India, which means that BHIM penetration is still below 5% of total smartphone penetration.

Also the figure of 39,75,750 transactions using BHIM in May 2017, means average daily transactions using BHIM comes to 1,28,250 while there are 14.54 million downloads. This means that only 0.88% of the people who had downloaded BHIM using it, that too for a daily single transaction. If we consider this transactions with the total population of India, the figure touch further minuscule, 0.01% of the population use BHIM daily, that too for a single transaction.

The transactions made under UPI can be revisited for further comparison, after undertaking a detailed analysis of the digital transactions happening under various heads. These categories are being used by RBI to take stock of the digital adoptions in the economy.

Cashless transactions [are given](#) in the RBI Annual Report 2015-16 in Part II, under the chapter IX namely “Payment and Settlement Systems and Information Technology”. These transactions are divided into two major heads, namely ‘Systemically Important Financial Market infrastructures (SIFMIs)’ and ‘Retail Payments’. SIFMIs consists of big token transactions viz. RTGS, CBLO, government securities clearing and forex clearing.

SIFMIs consists of almost 90% of the amount of cashless transactions while retail payments consist rest of the 10% of the cashless as per annual report of 2015-16. The number of transactions under SIFMIs are only 101.4 million, which is just 1.5% of all cashless transactions volume of 7046.6

million. “Table IX.1, Payment Systems Indicator – Annual Turnover” is reproduced from the RBI Annual Report for 2015-16 here.

Table IX.1: Payment System Indicators – Annual Turnover

Item	Volume (million)			Value (₹ billion)		
	2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
1	2	3	4	5	6	7
Systemically Important Financial Market Infrastructures (SIFMIs)						
1. RTGS	81.1	92.8	98.3	734,252	754,032	824,578
Total Financial Markets Clearing (2+3+4)	2.6	3.0	3.1	621,570	672,456	721,094
2. CBLO	0.2	0.2	0.2	175,262	167,646	178,335
3. Government Securities Clearing	0.9	1.0	1.0	161,848	179,372	183,502
4. Forex Clearing	1.5	1.8	1.9	284,460	325,438	359,257
Total SIFMIs (1 to 4)	83.7	95.7	101.4	1,355,822	1,426,488	1,545,672
Retail Payments						
Total Paper Clearing (5+6+7)	1,257.3	1,195.8	1,096.4	93,316	85,439	81,861
5. CTS	591.4	964.9	958.4	44,691	66,770	69,889
6. MICR Clearing	440.1	22.4	0.0	30,943	1,850	0
7. Non-MICR Clearing	225.9	208.5	138.0	17,682	16,819	11,972
Total Retail Electronic Clearing (8+9+10+11+12)	1,108.3	1,687.4	3,141.6	47,856	65,366	91,408
8. ECS DR	192.9	226.0	224.8	1,268	1,740	1,652
9. ECS CR	152.5	115.3	39.0	2,492	2,019	1,059
10. NEFT	661.0	927.6	1,252.9	43,786	59,804	83,273
11. Immediate Payment Service (IMPS)	15.4	78.4	220.8	96	582	1,622
12. National Automated Clearing House (NACH)	86.5	340.2	1,404.1	215	1,221	3,802
Total Card Payments (13+14+15)	1,261.8	1,737.7	2,707.2	2,575	3,325	4,484
13. Credit Cards	509.1	615.1	785.7	1,540	1,899	2,407
14. Debit Cards	619.1	808.1	1,173.5	955	1,213	1,589
15. Prepaid Payment Instruments (PPIs)	133.6	314.5	748.0	81	212	488
Total Retail Payments (5 to 15)	3,627.4	4,620.9	6,945.2	143,748	154,129	177,752
Grand Total (1 to 15)	3,711.1	4,716.6	7,046.6	1,499,570	1,580,617	1,723,425

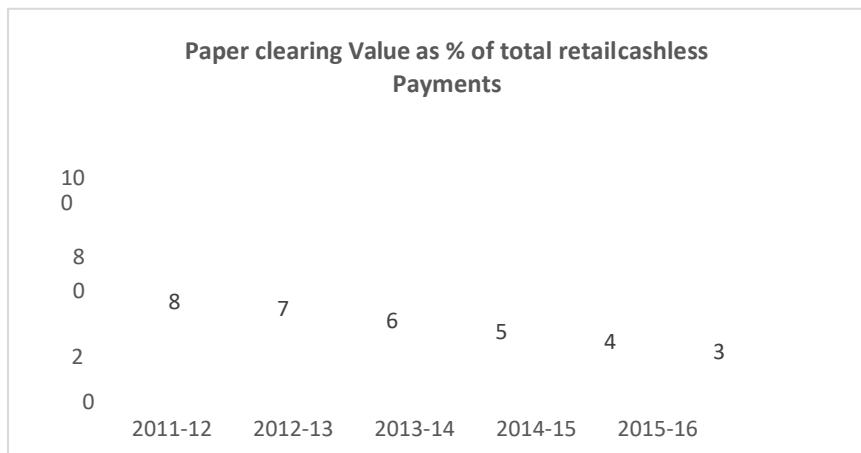
Based on the same yardsticks, which are being used by RBI, a detailed comparison of various components of the cashless transactions for last six years is done here. The focus is not the big ticket transactions (SIFMIs), but the big volume transactions falling under the ‘retail payments’, which is broadly divided into three major groups: ‘Paper Clearing’, ‘Retail Electronic Clearing’ and ‘Card Payments’.

Paper clearing

Paper clearing consists of the cheque truncation system, MICR clearing and non-MICR clearing. These do not fall under digital transactions though they qualify to be cashless transactions. If we analyse the data from the last six years (2011-12 to 2016-17), we can see that slowly electronic (digital) transactions are replacing these paper clearing transactions. From the graph given below, it is clear that paper clearing transactions, which consisted of 82% value of the total retail payments in 2011-12, was reduced to 37% in 2016-17.

This remarkable change is due to a steady shift in the consumer behaviour as people adapt to digital transactions such as NEFT, IMPS, NACH.

Chart 9



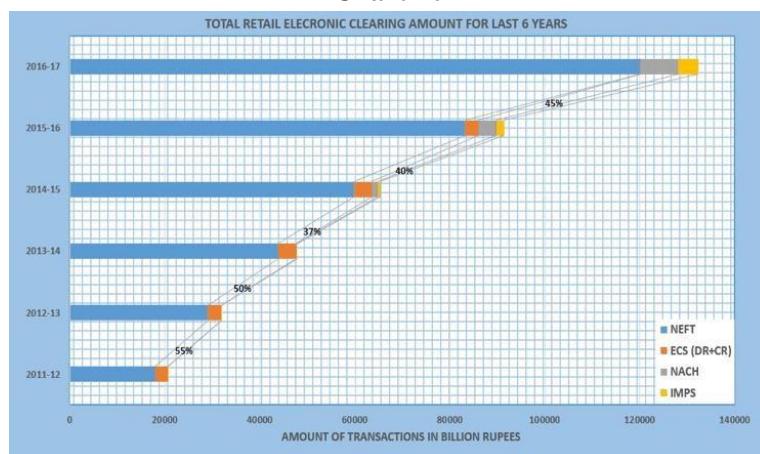
(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

Retail electronic clearing

Retail electronic clearing consists of ECS (Debit), ECS (Credit), NEFT, IMPS and NACH. ECS (Debit) and ECS (Credit) are now completely migrated to NACH (National Automated Clearing House) under NPCI, which facilitates a web-based solution to enable interbank, high volume, electronic transactions which are repetitive and periodic in nature for banks, financial institutions, corporates and government.

BHIM is a subset of UPI, which is a subset of IMPS, coming under retail electronic clearing. Then 'card payments' consist of credit cards, debit cards and prepaid payment instruments (PPIs). Mobile wallets such as Paytm, MobiKwik, Oxigen and so on come under the head of PPIs.

Chart 10

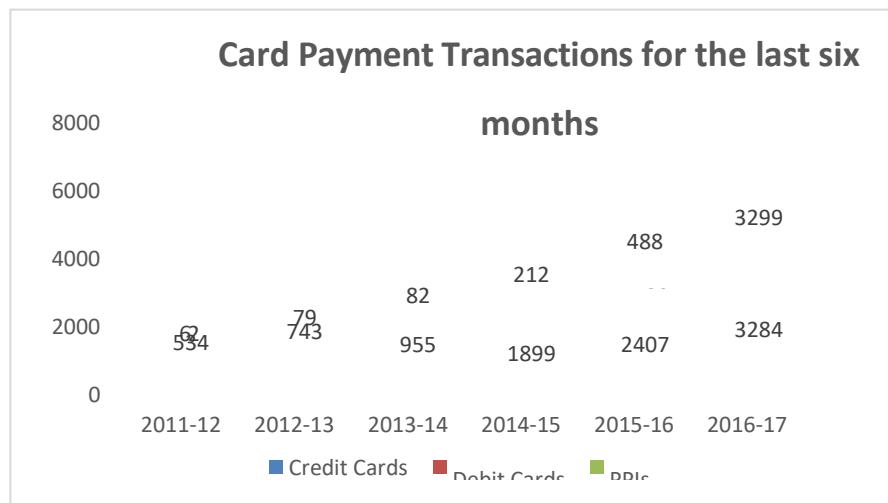


(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

Card payments

Card payments consists of credit cards, debit cards and PPIs. This is the one sector which seen a remarkable year-to-year growth of 65% during the last financial year. This growth is basically driven by a substantial jump in the debit card POS usage which shows a growth of 107%. Of course, demonetisation forced people to use their debit cards extensively for personal consumption expenses. But, the total amount of Rs. 7421 billion under the card payments is just over 5% of total retail payments of Rs. 1,39,611 billion.

Chart 11



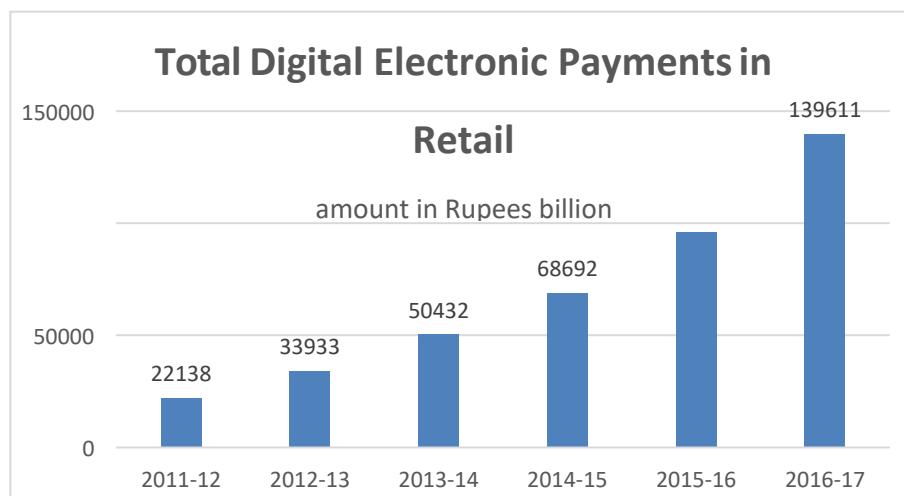
(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

Total retail digital transactions

The chart below illustrates that when we look at the overall picture, it can be seen that demonetisation has not been able to create any big leap in the digital transactions. The biggest year to year growth in overall retail digital transaction was recorded between 2011-12 to 2012-13 (53%) and between 2012-13 to 2013-14 (49%), while the last financial year witnessed only a growth of 46% from the previous financial year despite currency crunch and a digital push.

This graph also shows that digital transactions are preferred by many as an easy choice of payment for e-commerce as well as retail. The ease and convenience of technology has given consumers confidence to go digital.

Chart 12



(Source: Monthly Bulletins for 2016, Reserve Bank of India.)

The future prospects of digital payments

Demonetisation has given the push to digital transactions. But there is still a long way to go for the digital payment system to become mainstream. With the government pushing for it and increased adoption by consumers, companies and experts are hopeful that it will continue to rise in the future. The Indian economy is in a transition phase, digital mode of payments and cash will continue to co-

exist, and presumably, even flourish simultaneously moving India towards becoming a less-cash-reliant economy.

After demonetisation a lot of new wallets were launched and the existing ones in the market have been performing exceptionally well.

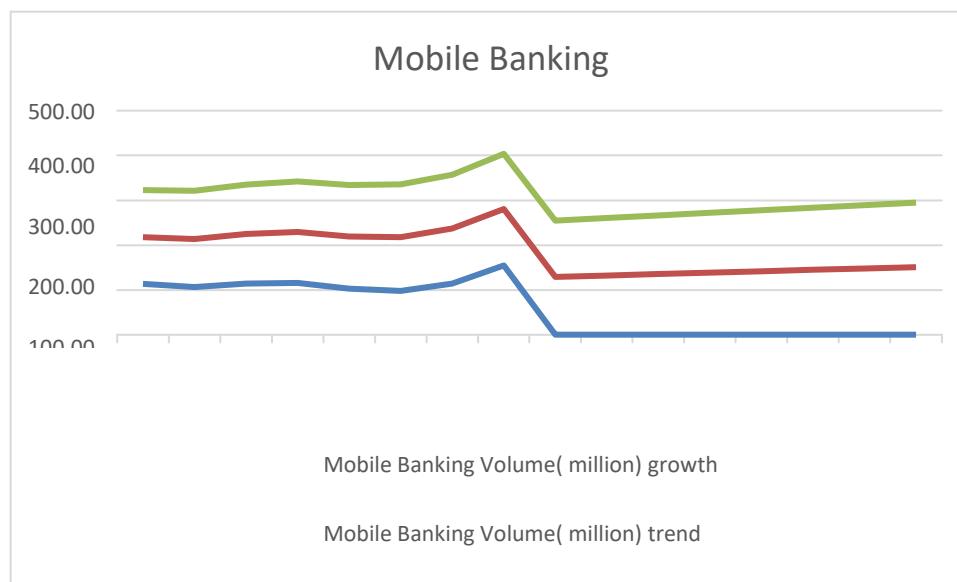
Table 2

	Mobile Wallets	Number of Downloads
1.	Paytm	50 million
2.	FreeCharge	10 million
3.	Mobikwik	10 million
4.	PhonePe	10 million
5.	BHIM	10 million
6.	Google's Tez	10 million
7.	SBI Buddy	10 million
8.	ICICI Pockets	5 million
9.	HDFC PayZapp	5 million
10.	Oxygen	5 million

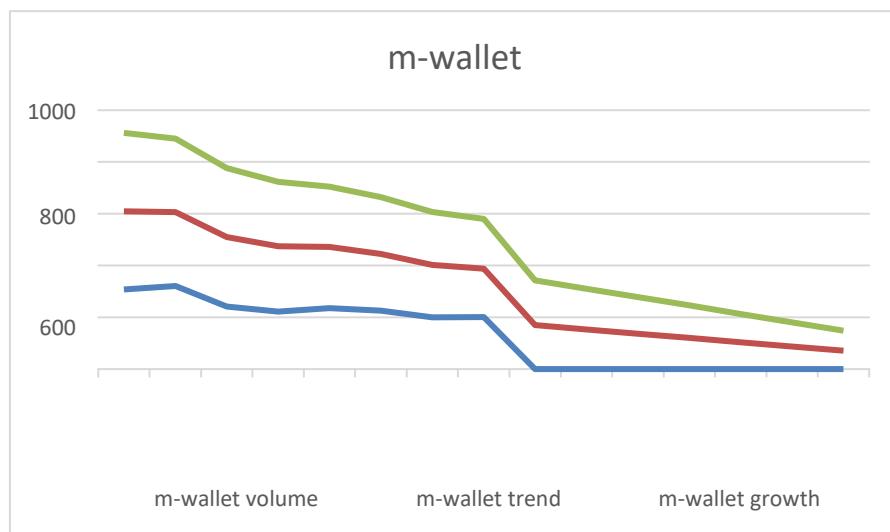
(Source: [Monthly Bulletins for 2016](#), Reserve Bank of India.)

Trend of Digital transactions

Chart 13

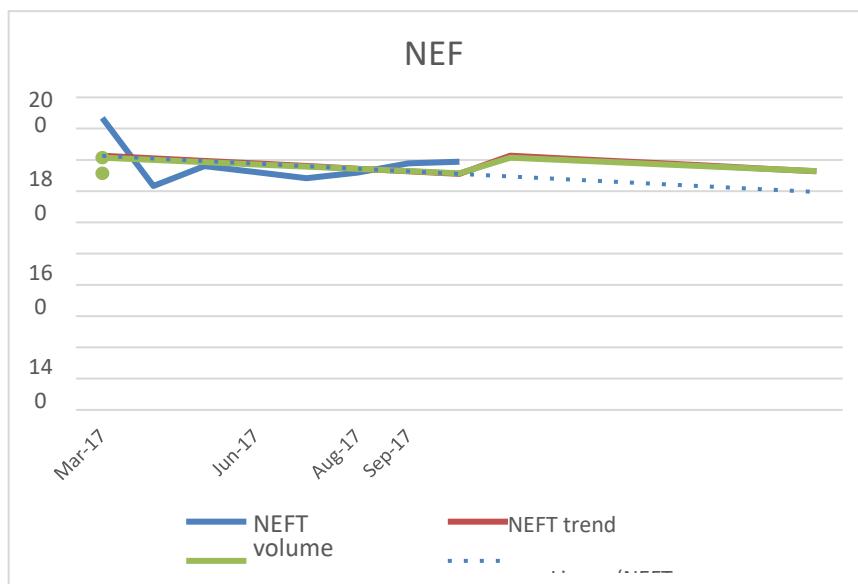


(Source: [Monthly Bulletins for 2016](#), Reserve Bank of India.)



(Source: [Monthly Bulletins for 2016](#), Reserve Bank of India.)

According to RBI data, wallet transactions, which had skyrocketed in December 2016, dropped subsequently with enough cash entering the market. Digital payments peaked again in March with 307 million transactions – an increase of 24% month-on-month. However, RBI data showed a similar trend in March 2016, when wallet transaction volumes had grown over 9%. With easing of the liquidity crunch, transaction volumes for overall retail electronic payments has seen a marginal dip in the past few months, suggesting a slow reversal in the usage of digital platforms. It is noted that there has been a gradual tapering in volumes M-wallets as well after the initial bounce. Going forward the projected trend analysis for the next eight months up to May 2018 as well as the growth projections for the same period show a downward trend indicating that transactions are likely to taper further. This can be a result of increased KYC requirements made mandatory for m-wallet transactions above Rs.10000 from April 2017. The other positive factors can be seen in the increasing usage of other electronic modes of payment.



(Source: [Monthly Bulletins for 2016](#), Reserve Bank of India.)

In the month of September, total of Rs2,759 crore worth of transactions took place via mobile wallets, compared to Rs2,722 crore in August. However, the volume of transactions decreased by 8% in the same period.

Interestingly, credit/debit card usage is going down steadily in India, as people are now decreasing their usage. If we analyse the usage of debit/credit cards at PoS or Point of Sales, then only 229.2 million transactions happened in September, which is 5.7% less compared to August when 243 million transactions happened.

The value of transactions too decreased from Rs 45,708 crore in August to Rs 45,193 crore in September.

At the same time, usage of National Electronic Funds Transfer (NEFT) and Real Time Gross Settlement (RTGS) increased by 4% and 2% respectively.

Prospects and the road ahead

The Jan Dhan Aadhaar Mobile (JAM) can boost digital transaction culture. It is spreading to reach each remote corner of the country. A large number of government transfers (DBT) are made through JAM mode. This will enable people to get digital transaction awareness.

The government can make cashless transactions mandatory for certain payments and for certain services exceeding a certain amount which has already been initiated.

A tax rebate (of say 1% to 2%) on payments made by households as salary to unorganised sector (domestic servants, sweepers etc) can increase cashless payments.

This will lead to two things, firstly the households will have an incentive to go cashless and secondly, large portion of the unorganised sector will be financially included.

The 5 A's of promoting financial inclusion through cashless payment instruments which are availability, accessibility, acceptability, affordability and awareness can be focussed upon.

The Government has to ensure basic necessities in rural areas and focus on developing infrastructure. Special drives and initiatives through schools, colleges, panchayats etc can help create awareness about cashless/ banking transactions.

To bring more and more people to the digital platform financial literacy is essential. Digital payment or payment through banks, instead of paying cash should be encouraged.

Linkage of all welfare activities with bank accounts is a very strategic step. A strong banking base is the basic requirement for the cashless economy.

Targeted financial education programs can improve financial skills and Credit Management, and increase account ownership in rural India.

CONCLUSION: This study shows that the introduction of cashless economy in India is a step in the right direction. It is expected that its impact will be felt in modernization of Indian payment system, reduction in the cost of banking services as well as reduction in high risks relating to security and safety. This would also lead to curbing banking related corruption and fostering transparency. It is also assumed that the introduction of cashless policy in India will help to reduce the amount of bills and notes circulating in the economy. This should therefore, reduce handling operation cost incurred on conventional money, and would also reduce cash related crimes. It should also help to provide easy access to banking services for Indian rural areas.

Despite the huge potential and well-established promise of digital financial services, there is a need for the players to adopt a holistic approach on going digital and fusing business strategy with all the elements of their operating ecosystem to create a remarkable customer experience.

Banks may also need to invest in supporting mobile platforms and analytics, customer service through models like multi-lingual voice-based interaction and simplified service offerings. More and more

people are switching to digital modes of receiving and making payment. India is gradually transitioning from a cash-reliant to cashless economy.

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DATA SECURITY AND PRIVACY IN DATA MINING

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Abstract

Database mining can be defined as a process used to extract usable data from a huge set of any raw data by efficient knowledge discovery techniques. In other words, we can say that data mining is mining knowledge from data. It implies analyzing data patterns in large batches of data using one or more software. Naturally such a process may open up new inference channels, detect new intrusion patterns, and raises new security problems. Recent developments in information technology have enabled collection and processing of enormous amount of personal data, such as criminal records, online shopping habits, online banking, credit and medical history, and driving records and almost importantly the government concerned data.

Keywords: Database mining, Database security, Data privacy, Inference

Introduction: The amount of data being generated and stored is growing exponentially, due in large part to the continuing advances in computer technology. This presents tremendous opportunities for those who can unlock the information embedded within this data, but also introduces new challenges. Data mining is a technique that deals with the extraction of hidden predictive information from large database. It uses sophisticated algorithms for the process of sorting through large amounts of data sets and picking out relevant information. Data mining tools predict future trends and behaviors, allowing businesses to make proactive, knowledge-driven decisions. With the amount of data doubling each year, more data is gathered and data mining is becoming an increasingly important tool to transform this data into information. Long process of research and product development evolved data mining. Data mining, popularly known as Knowledge Discovery in Databases (KDD), it is the nontrivial extraction of implicit, previously unknown and potentially useful information from data in databases. Though, data mining and knowledge discovery in databases (or KDD) are frequently treated as synonyms, data mining is actually part of the knowledge discovery process. [1,2,3] Data mining software is one of a number of analytical tools for analyzing data. It allows users to analyze data from many different dimensions or angles, categorize it, and summarize the relationships identified. Technically, data mining is the process of finding correlations or patterns among dozens of fields in large relational databases.[4] The databases and data warehouses become more and more popular and imply huge amount of data which need to be efficiently analyzed. Knowledge Discovery in Databases can be defined as the discovery of interesting, implicit, and previously unknown knowledge from large databases [4,5].

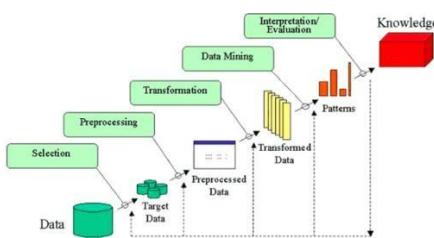


Fig. 1: Data Mining Process

DATA MINING METHODS TYPES

A knowledge discovery process involves preprocessing data, choosing a data-mining algorithm, and post processing the mining results. There are many choices for each of these stages, and non-trivial interactions between them.

Relational Learning Methods

Probabilistic Graphical Dependency Methods

Example Based Methods

Non-Linear Regression and Classification Methods

Decision Tree and Rules Methods.

DATA SECURITY ISSUES

One of the key issues raised by data mining technology is not a business or technological one, but a social one. It is the issue of individual privacy. Data mining makes it possible to analyze routine business transactions and collect a significant amount of information about individuals buying habits and preferences.

Another issue is that of data integrity. Clearly, data analysis can only be as good as the data that is being analyzed. A key implementation challenge is integrating conflicting or redundant data from different sources. For example, a bank may maintain credit cards accounts on several different databases. The addresses (or even the names) of a single cardholder may be different in each. Software must translate data from one system to another and select the address most recently entered. Finally, there is the issue of cost. While system hardware costs have dropped dramatically within the past five years, data mining and data warehousing tend to be self-reinforcing. The more powerful the data mining queries, the greater the utility of the information being gleaned from the data, and the greater the pressure to increase the amount of data being collected and maintained, which increases the pressure for faster, more powerful data mining queries. This increases pressure for larger, faster systems, which are more expensive.[6]

Data mining, the extraction of hidden predictive information from large databases, is a powerful new technology with great potential to help companies focus on the most important information in their data warehouses. Data mining tools predict future trends and behaviors, allowing businesses to make proactive, knowledge-driven decisions. The automated, prospective analyses offered by data mining move beyond the analyses of past events provided by retrospective tools typical of decision support systems. Data mining tools can answer business questions that traditionally were too time consuming to resolve. They scour databases for hidden patterns, finding predictive information that experts may miss because it lies outside their expectations.[7,8,9]

EXPLOITATION OF DATA MINING

Define Data mining is used for a variety of purposes in both the private and public sectors.

Industries such as banking, insurance, medicine, and retailing commonly use data mining to reduce costs, enhance research, and increase sales. For example, the insurance and banking industries use data mining applications to detect fraud and assist in risk assessment. Using customer data collected over several years, companies can develop models that predict whether a customer is a good credit risk, or whether an accident claim may be fraudulent and should be investigated more closely. The medical community sometimes uses data mining to help predict the effectiveness of a procedure or medicine. Pharmaceutical firms use data mining of chemical compounds and genetic material to help guide research on new treatments for diseases. Retailers can use information collected through affinity programs to assess the effectiveness of product selection and placement decisions, coupon offers, and which products are often purchased together. Companies such as telephone service providers and music clubs can use data mining to create a “churn analysis,” to assess which customers are likely to remain as subscribers and which ones are likely to switch to a competitor.

CONCLUSION: Data mining has become one of the key features of many homeland security initiatives. Often used as a means for detecting fraud, assessing risk, and product retailing, data mining involves the use of data analysis tools to discover previously unknown, valid patterns and

relationships in large data sets. In the context of homeland security, data mining can be a potential means to identify terrorist activities, such as money transfers and communications, and to identify and track individual terrorists themselves, such as through travel and immigration records. While data mining represents a significant advance in the type of analytical tools currently available, there are limitations to its capability. One limitation is that although data mining can help reveal patterns and relationships, it does not tell the user the value or significance of these patterns. These types of determinations must be made by the user. A second limitation is that while data mining can identify connections between behaviors and/or variables, it does not necessarily identify a causal relationship. Successful data mining still requires skilled technical and analytical specialists who can structure the analysis and interpret the output. Data mining is becoming increasingly common in both the private and public sectors. Industries such as banking, insurance, medicine, and retailing commonly use data mining to reduce costs, enhance research, and increase sales. In the public sector, data mining applications initially were used as a means to detect fraud and waste, but have grown to also be used for purposes such as measuring and improving program performance. However, some of the homeland security data mining applications represent a significant expansion in the quantity and scope of data to be analyzed. Some efforts that have attracted a higher level of congressional interest include the Terrorism. As with other aspects of data mining, while technological capabilities are important, there are other implementation and oversight issues that can influence the success of a project's outcome. One issue is data quality, which refers to the accuracy and completeness of the data being analyzed. A second issue is the interoperability of the data mining software and databases being used by different agencies. A third issue is mission creep, or the use of data for purposes other than for which the data were originally collected.

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CLOUD COMPUTING

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Abstract

Cloud Computing is the internet based enabler for sharing of technological infrastructural resources, software and digital content, allowing them (Infrastructure, Platforms, Software) to be offered on pay-for-use basis, like any utility service. Exponential growth in computer capabilities, extra-ordinary rate of growth in digital content consumption, followed by explosive growth of applications have spawned the genesis of Cloud Computing. It is expected to herald a new wave of Computing and is expected to wield enormous influence on how IT services will be consumed in future. Cloud Computing brings down dramatically the cost of IT use, in addition to providing flexibility in terms of large capacity-on-demand coupled with higher reliability. As it does not call for large capital expenditure and need for highly skilled IT professionals to build and manage the infrastructure , range and scale of Cloud applications are bound to grow enormously , even as resource intensive applications can be within the reach of a number of Small and Medium Sized Businesses , Educational and Research organizations.

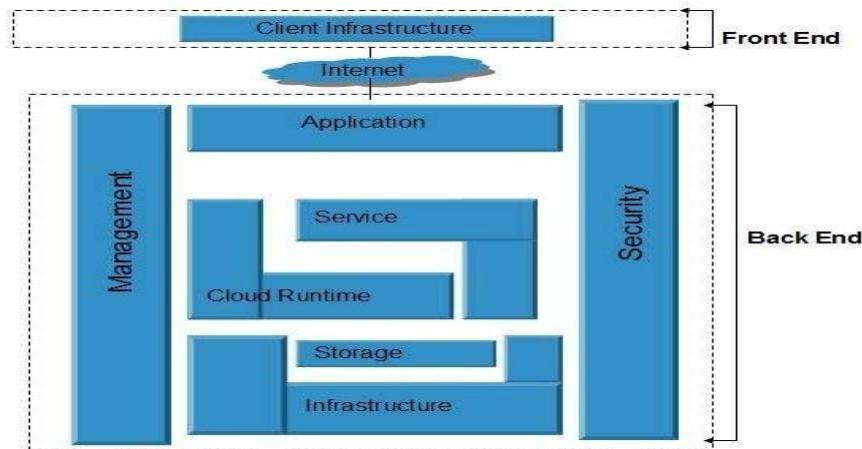
Keywords: Cloud Computing, services, deployments, applications, pros & cons

INTRODUCTION: Cloud computing is the delivery of computing services—servers, storage, databases, networking, software, analytics and more—over the Internet (“the cloud”). Companies offering these computing services are called cloud providers and typically charge for cloud computing services based on usage, similar to how you are billed for water or electricity at home.

The “cloud” in cloud computing originated from the habit of drawing the internet as a fluffy cloud in network diagrams. No wonder the most popular meaning of cloud computing refers to running workloads over the internet remotely in a commercial provider’s data center—the so-called “public cloud” model. AWS (Amazon Web Services), Salesforce’s CRM system, and Google Cloud Platform all exemplify this popular notion of cloud computing.

ARCHITECTURE OF CLOUD COMPUTING

Cloud Computing architecture comprises of many cloud components, which are loosely coupled. We can broadly divide the cloud architecture into two parts front end and back end. Each of the ends is connected through a network, usually Internet. The following diagram shows the graphical view of cloud computing architecture:



Front End: The front end refers to the client part of cloud computing system. It consists of interfaces and applications that are required to access the cloud computing platforms. For example: Web Browser.

Back End: The back End refers to the cloud itself. It consists of all the resources required to provide cloud computing services. It comprises of huge data storage, virtual machines, security mechanism, services, deployment models, servers, etc. It is the responsibility of the back end to provide built-in security mechanism, traffic control and protocols. The server employs certain protocols known as middleware, which help the connected devices to communicate with each other.

TYPES OF CLOUD SERVICES

Most cloud computing services fall into three broad categories: infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS). These are sometimes called the cloud computing stack, because they build on top of one another. Mobile backend as a service (MBaaS), Network as a service (NaaS), Identity as a service (IDaaS) are relatively recent models in cloud computing. Knowing what they are and how they are different makes it easier to accomplish your business goals.

Infrastructure-as-a-service (IaaS)

IaaS is the most basic category of cloud computing services. With IaaS, you rent IT infrastructure—servers and virtual machines (VMs), storage, networks, operating systems—from a cloud provider on a pay-as-you-go basis.

Platform as a service (PaaS)

Platform-as-a-service (PaaS) refers to cloud computing services that supply an on-demand environment for developing, testing, delivering and managing software applications. PaaS is designed to make it easier for developers to quickly create web or mobile apps, without worrying about setting up or managing the underlying infrastructure of servers, storage, network and databases needed for development.

Software as a service (SaaS)

Software-as-a-service (SaaS) is a method for delivering software applications over the Internet, on demand and typically on a subscription basis. With SaaS, cloud providers host and manage the software application and underlying infrastructure and handle any maintenance, like software upgrades and security patching. Users connect to the application over the Internet, usually with a web browser on their phone, tablet or PC.

Mobile "backend" as a service (MBaaS)

In the mobile "backend" as a service (m) model, also known as backend as a service (BaaS), web app and mobile app developers are provided with a way to link their applications to cloud storage and cloud computing services with application programming interfaces (APIs) exposed to their applications and custom software development kits (SDKs).

Network-as-a-Service (NaaS)

Network-as-a-Service allows us to access to network infrastructure directly and securely. NaaS makes it possible to deploy custom routing protocols. NaaS uses virtualized network infrastructure to provide network services to the customer. It is the responsibility of NaaS provider to maintain and manage the network resources. Having a provider working for a customer decreases the workload of the customer. Moreover, NaaS offers network as a utility. NaaS is also based on pay-per-use model.

Identity-as-a-Service (IDaaS).

IDaaS offers management of identity information as a digital entity. This identity can be used during electronic transactions. There are several identity services that are deployed to validate services such as validating web sites, transactions, transaction participants, client, etc. Identity-as-a-Service may include Directory services, Registration, Authentication services, Risk and event monitoring, Single sign-on services, Identity and profile management

TYPES OF CLOUD DEPLOYMENTS

Not all clouds are the same. There are three major ways to deploy cloud computing resources are public cloud, private cloud and hybrid cloud. An additional type is community cloud.

Public cloud

Public clouds are owned and operated by a third-party cloud service provider, which deliver their computing resources like servers and storage over the Internet. Microsoft Azure is an example of a public cloud. With a public cloud, all hardware, software and other supporting infrastructure is owned and managed by the cloud provider. You access these services and manage your account using a web browser.

Private cloud

A private cloud refers to cloud computing resources used exclusively by a single business or organisation. A private cloud can be physically located on the company's on-site data center. Some companies also pay third-party service providers to host their private cloud. A private cloud is one in which the services and infrastructure are maintained on a private network.

Hybrid cloud

Hybrid clouds combine public and private clouds, bound together by technology that allows data and applications to be shared between them. By allowing data and applications to move between private and public clouds, hybrid cloud gives businesses greater flexibility and more deployment options.

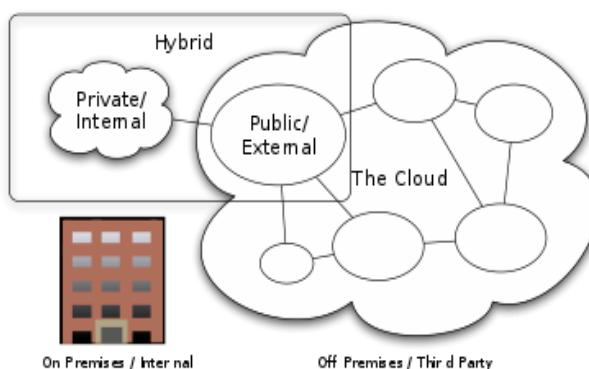


Fig. Public, private and Hybrid cloud deployments

Community Cloud

Community Cloud allows system and services to be accessible by group of organizations. It shares the infrastructure between several organizations from a specific community. It may be managed internally by organizations or by the third-party.

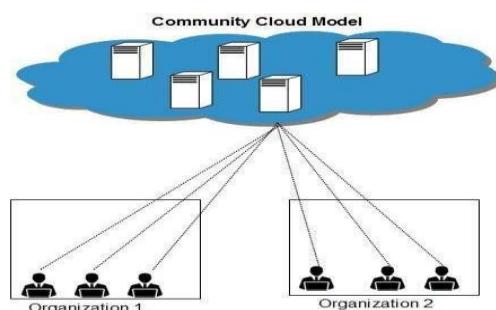


Fig. Community cloud

BENEFITS OF CLOUD COMPUTING

Cloud computing is a big shift from the traditional way businesses think about IT resources. The reasons why organizations are turning to cloud computing services are as follows:

Cost

Cloud computing eliminates the capital expense of buying hardware and software and setting up and running on-site datacenters—the racks of servers, the round-the-clock electricity for power and cooling, the IT experts for managing the infrastructure. It adds up fast.

Speed

Most cloud computing services are provided self service and on demand, so even vast amounts of computing resources can be provisioned in minutes, typically with just a few mouse clicks, giving businesses a lot of flexibility and taking the pressure off capacity planning.

Global scale

The benefits of cloud computing services include the ability to scale elastically. In cloud speak, that means delivering the right amount of IT resources—for example, more or less computing power, storage, bandwidth—right when it's needed and from the right geographic location.

Productivity

On-site datacenters typically require a lot of “racking and stacking”—hardware set up, software patching and other time-consuming IT management chores. Cloud computing removes the need for many of these tasks, so IT teams can spend time on achieving more important business goals.

Performance

The biggest cloud computing services run on a worldwide network of secure datacenters, which are regularly upgraded to the latest generation of fast and efficient computing hardware. This offers several benefits over a single corporate datacenter, including reduced network latency for applications and greater economies of scale.

Reliability

Cloud computing makes data backup, disaster recovery and business continuity easier and less expensive because data can be mirrored at multiple redundant sites on the cloud provider's network.

Scalability

Cloud computing provides scalability and elasticity via dynamic (“on-demand”) provisioning of resources on a fine-grained, self-service basis in near real-time without users having to engineer for peak loads. This gives the ability to scale up when the usage need increases or down if resources are not being used.

CONS OF CLOUD COMPUTING

Cloud computing has the following disadvantages: Requires good speed internet with good bandwidth: To access your cloud services, you need to have a good internet connection always with good bandwidth to upload/download files from/to cloud.

Limited control on infrastructure:

Since you are not the owner of infrastructure of cloud, hence you don't have or have a limited access/control on cloud infra.

Restricted or limited flexibility:

Although cloud provides a huge list of services but consuming them comes with a lot of restrictions and limited flexibility for your applications or developments.

Ongoing costs: Though you can save your cost of spending on whole infrastructure and its management, but on cloud you need to keep paying for services as long as you use them. But in traditional methods, you only need to invest once.

Incompatibility:

Sometimes, there are problems of software incompatibility. As some applications, tools, and software connect particularly to a personal computer.

Security:

Security of data is big concern for everyone. Since cloud services are public hence it depends on the provider as to how they are taking care of your data. So, before opting cloud services, it is required that you find a provider who follows max compliances for data security.

APPLICATIONS OF CLOUD COMPUTING

The potential uses of cloud computing are only beginning to be grasped. Visions are being built on as the vast possibilities of cloud computing are realized. On both individual and corporate level, cloud computing is likely to change the way we use operate.

For Enterprises:

For businesses, the cloud has the potential to transform operations, as well as cut costs. Offices running computer networks would no longer have to deal with software installation for each computer, as well as licenses. This alleviates a tremendous IT load. Uses of the cloud include data storage, offering remote access to any work related data.

Mobility:

One of the other most obvious uses of cloud computing is the mobility that it brings, both to the recreational user, as well as to the corporate and business user. Many of us are already familiar with some cloud computing services, like Google Docs, or even email services. With these apps we can access documents or mail that is not stored on our PCs, but is available to use because it is stored on a cloud, or remote location. Businesses who wish to create a cloud computing platform for their operations can choose between either a private or a public cloud, depending on their need.

CONCLUSION : From a customer perspective, the cloud offers a way to gain new capabilities on demand without investing in new hardware or software. Instead, customers pay their cloud provider a subscription fee or pay for only the resources they use. Simply by filling in web forms, users can set up accounts and spin up virtual machines or provision new applications. Cloud computing is the fastest growing part of IT. It provides tremendous benefits to customers of all sizes. Cloud services are simple to acquire and scale up or down. Cloud computing increases profitability by improving resource utilization.

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IOT: EDGE ANALYTICS AND DATA PROCESSING

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Abstract

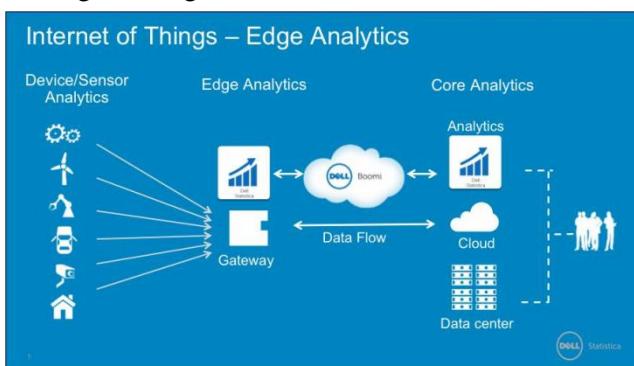
The Internet of Things (IoT) is evolving into the Internet of Everything. In the evolving hyper-connected world of the Internet of Things, immense new possibilities are emerging from interlinked ecosystems that can make fast, actionable decisions unconstrained by traditional analytical processes. In the IoT age, nearly every connected and instrumented devices generates huge amounts of data. The underlying metadata, however, is useless unless it is analyzed for meaning. However, the increase of the number of devices connected to the different networks, the huge amount of data produced by them, and the advanced requirements of many IoT applications, has resulted in new technical challenges. This has lead to the introduction of an edge-computing approach, which is intended to make the management of such networks more efficient. The paradigm aims to move part of the data processing operations close to the data sources. Such operations are performed by means of network entities – like IoT gateways or local servers – near the IoT device. One of the most significant trends in the recent years is the emergence of analytics at the edge. Analyzing data as close to the sources as possible would greatly enhance the success of the IoT. Edge analytics enables decision making at the node level, thereby bringing down the cost of data transfer and data storage significantly.

Keywords: IoT, Edge computing, Data source, Edge processing, Edge analytics, IoT gateways, IoT Workflow.

INTRODUCTION: Internet of Things (IoT) is the next generation of technological innovation that fundamentally changes the way we interact with and see the physical world. IoT uses sensors to collect continuous streams of data that yield incredible, real-time insight into the environment around us. Advanced, real-time analysis of the data helps us determine how machines are performing, detect when maintenance is needed prior to a component failing, understand how we are utilizing resources, and obtain other intelligent information across different industry verticals. The sensors and intelligent edge devices have become a rich source of data. By connecting these to each other and cloud services, we can understand their state, generate context about their use, and utilize cloud-based computing resources. The emergence of the cloud has made building such ecosystems possible. But as the IoT grows, along with the amount of the data generated to inform real-time decision-making, it is essential to access this data quickly — but without incurring huge investments of time and money. This is where edge analytics comes into play. Acting on data at the 'edge' is a new frontier for the cloud-based world. The cloud may be a physically distributed group of servers, but it's centralized from a network perspective — and centralized processing of data isn't fast enough for IoT applications.

EDGE ANALYTICS

A new and evolving technique — commonly known as edge analytics — is rapidly emerging as the go-to mechanism for overcoming existing infrastructure limitations. While edge analytics derives



from cloud analytics, it goes one step further by democratizing the ability to analyze data — not just

in cloud data centers but at the point of data collection, on devices themselves and in the gateways that interconnect enterprise ecosystems. In edge analytics, data is collected and analyzed close to the source of data generation. So, instead of sending data to the cloud for analysis and then waiting for a response, edge analytics brings more computation to the edge, saving on time as well as cost of data transmission. Simple model- based analytics can be conducted on the device/sensor itself while more complex analytics that require data from multiple devices can be performed on IoT gateways, and finally the most sophisticated form of analytics — commonly called big data analytics — can be handled on the cloud. This analytics hierarchy reduces the complexity and burden on the network and the data centers. Distributing the analysis of data to the edge is a powerful way of unlocking IoT value. “To the edge” refers to the multitude of devices or sensors that are scattered across any network or embedded throughout a product (car, jet engine, CT Scan) that is generating data about the operations and performance of that specific device or sensor Fig 1.

Fig. 1: Sensors at the edges

BENEFITS OF EDGE ANALYTICS: With the flood of data has come the need to use it quickly and in real time. IoT devices pump out data in huge amounts and with the increasing number of smart connected devices, the need for edge computing is clear. Organizations are deploying millions of sensors or other smart connected devices at the edge of their networks at a rapid pace and the operational data that they collect on this massive scale could present a huge problem to manage. Edge analytics offers few key benefits: Reduce latency of data analytics: In many environments such as oil rigs, aircraft, CCTV cameras, remote manufacturing environments, there may not be sufficient time to send data to central data analytics environment and wait for the results to meaningfully impact decisions to be taken on site in a timely manner. As mentioned in the oil rig example in the introduction, it may be more efficient to analyse data on the faulty equipment right there and shut off the valve immediately if needed. Scalability of analytics: As the number of sensors and network devices grow, the amount of data that they collect also grows exponentially and it increases the strain on the central data analytics resources to process these huge amounts of data. Edge analytics enables organizations to scale their processing and analytics capabilities by decentralizing to the sites where the data is actually collected. Fit for low bandwidth environments: The amount of bandwidth needed to transmit all the data collected by thousands of these edge devices will also grow exponentially with the increasing number of these devices. And many of these remote sites may not even have the bandwidth to transmit the data and analysis back and forth. Edge analytics alleviates this problem by delivering analytics capabilities in these remote locations. Reduce the overall expenses: By minimizing bandwidth scaling of the operations and reducing the latency of critical decisions.

EDGE ANALYTICS ARCHITECTURE The hierarchy of edge analytics can be represented as a three-tiered architecture. The flow of data begins with sourcing of raw data from smart devices or sensors followed by more sophisticated analysis on gateways at the edge of the network and finally some “heavy lifting,” or big data analysis, using complex cloud computing models.

Tier 1: The Sourcing of Raw Data In the IoT age, nearly every connected and instrumented devices generates huge amounts of data. The underlying metadata, however, is useless unless it is analyzed for meaning. Much of the data collected does not require complex analytics, hence data from these devices can be analyzed on the “edge” - i.e., close to the source of data generation – to deliver near-instant automated results.

Tier 2: Processing Data on the Network’s Edge Edge analytics deploys gateways on the edge of the network. These gateways connect, collect and analyze data in near-real time. The outcome of this analysis can be transferred back to the devices immediately or can be stored in a small, low-cost memory device. The stored data can be further transferred or routed to the cloud for advanced

analytics. Distributing analytics on the network to different edge nodes has many advantages. It decreases the complexity that companies face while computing huge amounts of real-time data and increases the scalability by distributing the computation workload across multiple edge nodes.

Tier 3: Sophisticated Cloud Computing Filtered data from the edge of the network is transferred to the cloud for more complex processing. Data is sent to the cloud from multiple gateways to store, process or analyze. Generally, data that does not require an instant response is transferred to the cloud for heavy-duty processing.

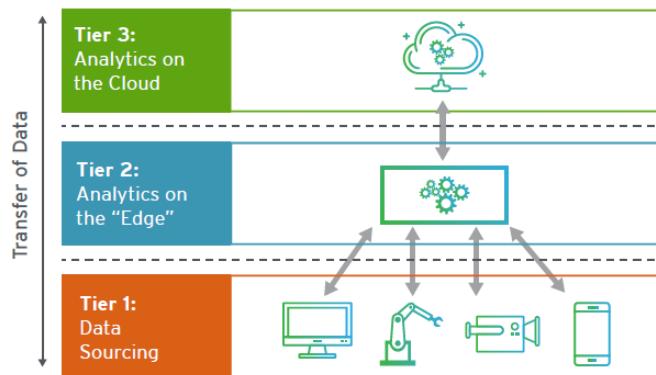


Fig 2. Three-tier Edge Analytics Architecture

IOT WORKFLOWS AND ANALYTICS: The IoT is the new normal to enterprise data processing environments. Where software is fast, “things” are slow. An IoT solution must satisfy many requirements as a collective system, for example, interoperability and openness are two key design elements. IoT workflows are separated into two general types of functions: Device management that includes device-centric requirements such as registering devices, updating operating shells, and systems and authenticating identity and access. Event processing that involves data events or data polling events. This includes of the actual delivery of targeted data points produced by the IoT devices to their ultimate destinations. The IoT is also heavily dependent on interconnected partnerships and ecosystems that rely on direct, private and secure connections between counterparties. In essence, the IoT offers a balance between the cloud and the edge with two distinctly different frequencies of data flows that have two distinct paths: Hot (i.e., real-time telemetry) and Cold (i.e., finding patterns within a data warehouse) workflows, as illustrated in Fig 3.

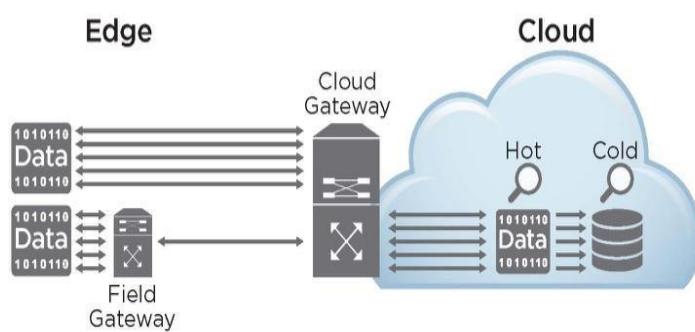


Fig 3. An IoT Edge-to-Cloud Workflow

IoT analytics combines insights obtained from a traditional approach of finding patterns within streaming data by using data warehouse mining and real-time telemetry of data points provided by individual IoT devices in the field. Device management design patterns are also dependent on the frequency and source of interconnected components. A by-product of the edge IoT device’s bi-directional data flow is the opportunity to process analytics locally with high proximity to the

workload. As a result, you can gain aggregated insights from the patterns found within the information produced by cloud-based analytics capabilities, along with the data from other devices and systems that are close to and interoperate with those IoT devices that are creating the data points. Enterprise-grade scaling can be achieved by adding digital edge node aggregation points (aka., geographical distributed interconnection hubs) and placing them in regions where local cloud compute resources reside. If leveraging cloud resources is not an option, an alternative would be to add more distributed data processing units within a digital edge node to create regionally-focused, distributed analytics engines that contribute compute power to IoT data in greater proximity to the workload.

COMPROMISES: Only a subset of data is processed and analysed. The analysis result is transmitted over the network. Which means that we are effectively discarding some of the raw data and potentially missing some insights. An airplane system cannot afford to miss any data so all data should be transferred to be analysed to detect any kind of pattern that could lead to any abnormality. But still transferring data during flight is not convenient. So collection of data offline and edge analytics during flight is a better approach. The others where there is a fault tolerance can accept that not everything can be analysed. This is where we will have to learn by experience as organizations begin to get involved in this new field of IoT analytics and review the results.

CONCLUSION: Edge analytics provides an appropriate platform for numerous IoT services and applications, such as driverless cars, smart grids/buildings and smart cities, as well as wireless sensors and actuators networks (WSANs). Every business opportunity across any industry that requires low latency and communications accuracy — including automotive, consumer electronics, energy and utilities, and healthcare — will find the implementation of edge analytics extremely helpful. An enormous number of applications are available for edge analytics, and with IoT gaining force in the coming years, businesses interacting directly with consumers will have to realign their business models to earn strategic advantage over their competitors. These businesses should know that it would become extremely difficult to build a growth strategy based on the existing legacy systems as they are very expensive to maintain and have low response times.

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- Leonard Hancock, “Edge Computing Takes Processing Back from the Cloud”*
- Roberto Morabito, Nicklas Beijar, “Enabling Data Processing at the Network Edge through Lightweight Virtualization Technologies”, 2016 International IEEE SECON*
- Harmanpreet Kaur, “Edge Computing: A boost for Next Generation IoT”*

IMPACT OF MILLIMETER WAVE COMMUNICATION ON DIFFERENT APPROACHES OF DATA RATE ENHANCEMENT

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Abstract

In the world of mobile communication, it became essential to broaden horizons vertically and horizontally to accommodate new subscribers and mobile data traffic growth happening exponentially. It is required not only to accommodate new subscribers but to provide high speed, high quality services to them using reliable communication medium. Millimeter wave communication helps to fulfill requirement of bandwidth hungry applications upto some extent with help of high frequency spectrum of 30 GHz to 300 GHz. This paper basically explains different approaches used to enhance the data rate and gives channel estimation by measuring airtel network performance parameters like throughput, bit error rate, signal to noise ratio, channel quality, physical cell identity, modulation schemes in koparkhairane region using network simulation tool. It is possible to achieve speed in upto one giga bits per second using approaches and technologies like OFDM, Carrier aggregation, Cyclic Prefix, Massive MIMO, and Channel modelling are briefed. Fifth generation carrier aggregation not briefed also plays an important role in the process of high speed communication and data rate enhancement on downlink and uplink.

Keywords: Data rate, Millimeter Wave, Massive MIMO, Channel modelling, Carrier aggregation.

NOMENCLATURE

MIMO : - Multiple Input Multiple Output.

QAM :- Quadrature Amplitude Modulation

LTE :- Long Term Evolution

MCS :- Modulation and Coding Scheme.

PCC :- Primary Carrier Component

BLR :- Block Error Rate

OFDM :- Orthogonal Frequency Division Multiplexing

SDN :- Software Defined Networking

FFT :- Fast Fourier Transform

CST :- Channel State Information

AWGN:-Adaptive White Gaussian Noise

CQI :- Channel Quality Indicator

PCI :- Physical Cell Identity

INTRODUCTION: The technologies like Bluetooth, Wi-Fi, and WLAN are used for transmission of data mainly for indoor communication. We can transmit data over small distance like few tens meters to hundreds of meters using these technologies. Using Bluetooth we have in kilobits per second, and using Wi-Fi, and WLAN up to tens of megabits per second can be obtained. But if we want to transmit data in gigabits per second the technology used is millimeter wave communication. Using this we can use higher frequency in the range 30GHz to 300GHz and lower part of microwave spectrum can also be used for the purpose. In the process of data rate enhancement it is essential that there must be up gradation in existing hardware and software to cope up with challenges and usage of new technologies in near future. In 2020 we are aiming to serve billions of subscribers with high

speed network. Every subscriber will use approximately one gigabit data every day and using very high speed network of 5G technology having millimeter wave communication as an integral part of it. There are various parameters and technologies which are directly related with data rate offered on downlink and uplink. This paper briefs some of the important approaches and technologies like Massive MIMO, OFDM, Carrier aggregation and Network performance of airtel measurement result for koparkhairane region using parameters like channel quality indicator(CQI), block error rate(BER), signal to noise ratio, throughput, physical cell identity (PCI). Other parameters like co channel interference, adjacent channel interference, fading, shadowing also plays important role in determining channel capacity. The channel which is time varying and highly unpredictable is called wireless channel. So getting channel state information (CSI) and using concepts like channel sounding we can determine channel conditions. The aim is to reduce latency and increase rate of transmission. The use of heterogeneous networks like Microcell, Picocell, and Femtocell reduces transmitter power upto greater extent and uses small base stations which covers smaller area, increases network capacity, and hence more number of users are served by increasing data rate and seamless coverage. The antenna arrays used at base station and mobile station serve the purpose. WirelessHD and WirelessGB standards are also used. Directive beam forming using narrow beam width and high gain antennas are used to increase data rate and interference can be reduced.

KEY TECHNIQUES - 1

OFDM –It stands for orthogonal frequency division multiplexing. It is a modulation technique used for transmission of digital data. It uses subcarrier transmission and reception technique for data. It is used in downlink channel transmission as a prominent technology in 4G. It uses IFFT on transmission side and FFT on receiving side. When one carrier is at peak others are at zero level thus maintains orthogonality. If orthogonality is not maintained interference can be generated. It is because of this feature it is best suited for multicarrier transmission. Rectangular windowing causes sync spectrum in frequency domain with zeros at $1/T_s$. It uses carrier aggregation for data rate enhancement. It uses modulation scheme as QPSK, 16QAM and 64QAM. In Transmission side data is inputted in serial to parallel fashion, then it is modulated, and represented in OFDM baseband signal form using IFFT and outputted in parallel to serial fashion as OFDM symbols. It is recovered by reverse engineering using FFT. Different subcarriers like DC, pilot, data are used to separate and identify OFDM symbols. Guard bands are also used. Using OFDM data rates upto 48Mbps can be achieved.

Cyclic Prefix:-

It is an important element in OFDM. This is used to safeguard OFDM signal from interference and fading. It is acting as a guard band or buffer in OFDM. By varying this buffer size OFDM symbol rate can be increased which further helps in improvement of data rate on downlink communication between base station and mobile station. If we are totally removing cyclic prefix errors can be occurred due to synchronization and frequency variation due to Doppler shift or some other means between transmitter and receiver. It should be greater than channel impulse response to reduce intersymbol interference. There is always tradeoff between OFDM symbol size and data rate. So it is possible to achieve data rates from 6Mbps to 48Mbps depends on total number of subcarriers, and subcarriers used for data. Thus cyclic prefix playing its role in data rate improvement.

Carrier aggregation:-

It is a multicarrier technique which is basically used to achieve high data rates. Each carrier uses 20MHz and we can combine such carriers using unused secondary component carrier (SCC) and primary component carrier (PCC)[1]. It sense unused spectrum or carrier. It is then used by other users hence data rate can be improved. Maximum five such carriers can be used. Carrier aggregation is categorized into continuous and noncontiguous intraband.[1] It can be done in same band or different

band or even at cell edge to improve data rate at cell edge. When component carriers are in same frequency band, continuously spaced and same in number on uplink and downlink it is called symmetric intraband continuous carrier aggregation while carrier component in different frequency band, continuous, higher in number on downlink and lower in number on uplink it is called non symmetric interband carrier aggregation. In 5G carrier aggregation different radio access technologies are aggregated and techniques like Software defined networking (SDN), Network function virtualization (NFV), cloud and virtualization are used. Figure below shows carrier aggregation. Thus carrier aggregation in 4G provides enhanced data rates. With five carriers is possible to get data rate upto 1Gbps therotically against few hundred Mbps practically. It is possible to increase data rate ten times using carrier aggregation. As very high unused spectrum is available in millimeter range, it is possible to achieve multigigabit data rate for bandwidth hungry high speed applications using millimeter wave communication. It is expected with fifth generation carrier aggregation data rates 35.46 times higher are possible.

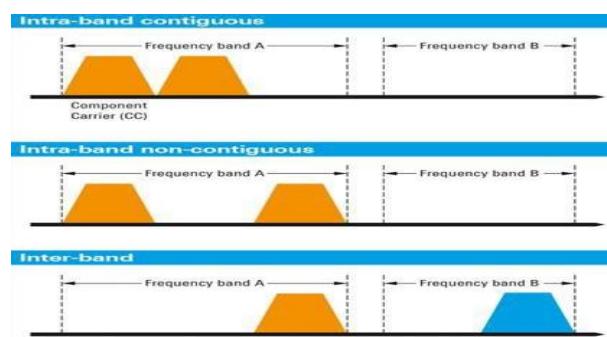
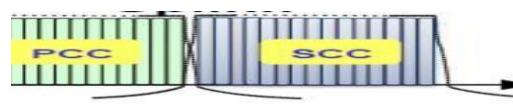


Fig. 1: Carrier aggregation types [1]



Massive MIMO:-

Fig. 2: Carrier Components [1]

It is another technique used to increase data rate by using antenna arrays. LTE-A uses (4*4 MIMO) and (8*8 MIMO) for communication between base station and mobile station. In LTE peak data rate offered by (4*4 MIMO) is 300 Mbps, (2*2 MIMO) 150 Mbps on downlink and on uplink 75Mbps. As mobile data growth is in exponential manner millimeter range massive MIMO can provide higher data rate upto 1Gbps. When two or more element antenna array is used for communication it is called Massive MIMO. It increases energy efficiency 100 times and capacity of the order of 10 or more. It requires low power and low costly components. There is decrease in latency on air interface. It makes multiple access layers simple. It increases strength equally against man made interferences and intended jamming. It requires more number of slots on uplink to send pilot and get response from base station. Free space path loss grows with f_c^2 . Link acquisition, new transceiver architecture is required for narrow beam. Analog to digital converter and digital to analog converter are main cause of power consumption. Equation of MIMO is

$$Y = Hx + n \text{ Equation 1}$$

$$H = [h_{ij}] \text{ Equation 2}$$

h_{ij} : Gain from transmitter j to receiver i x :Signal transmitted n : Noise term Y :Signal received

In MIMO we have inter antenna interference. We have multiple observations where contribution of x is present. So we can make robust decision about $x[n]$, while at the same time other transmitted signal. The strength of MIMO system such that we can handle interference, make better decisions, use diversity technique of multiple antennas. Thus we can get diversity benefit, capacity can be increased and hence the performance is improved.

$$Y[n] = y1[n] + y2[n] + \dots + yNr[n] = [h11[n] \ h12[n] \ \dots \ h1,Nt[n]]$$

$$hNr,1[n] \ hNr,2[n] \ \dots \ hNr,Nt[n]] \ Nr*Nt *$$

$$[x1[n] \ x2[n] \ x3[n] \ \dots \ xNr[n]] \ Nr*1 + [n1[n] \ n2[n] \ \dots \ nNr[n]] \ Nr*1 \text{ Equation3}$$

Channel Measurements:- The channel which has time varying behavior is called wireless channel. Various channel conditions, states, reliability, types, behavior impact performance and capacity. This in turn varies data rate possessed by them. Wireless channels are categorized into adaptive white Gaussian noise channel (AWGN), Rayleigh fading channel, Rician channel. Network performance is measured depends upon channel conditions, modulation scheme used and channel impairments. If environmental conditions are good 64QAM can be used. When conditions are average 16QAM, and when poor QAM or BPSK can be used. Depend upon density of users good, average or bad channel can be used. Channel state information helps for reliable communication. Reliability improves network performance and hence the data rate. Channel state information transmitted (CSIT) is nothing but channel experienced by signal that transmitter wants to know given by receiver on feedback path. Channel state information received (CSIR) is nothing but channel state information estimated by time division duplex. CSIT is transmitted at one frequency and CSIR is received at another frequency. If M : No. of antennas L : diversity order of the system then $L=M$ gives full diversity, $L < M$ indicate weak antennas, correlated antennas, implementation loss and channel estimation is not good. Channel statistics in terms of signal to noise ratio is represented by array gain or constant shift in bit error rate and diversity gain by change of slope. Channel selected for services in different areas depends on power allocation scheme. If channel condition is bad still channel can be used if number of subscribers want to get served are less. Maximum power is allocated in densely packed area and channel with high signal to noise ratio. Average power is allocated to moderately dense areas. By this scheme power can be saved and efficiently utilized.

Capacity of AWGN wireless channel is given by:

$$C = B \log_2 (1 + S/N) \text{ bits/sec Equation 4}$$

C: Channel Capacity B: Channel Bandwidth S/N: Signal to noise ratio

We can maximize information over channel by using single input or multiple input and single output or multiple output. Capacity decreases as signal to noise ratio decreases. It is always beneficial to use all available channels. Channels are classified slow fading narrow band and wideband without and with inter symbol interference and fast fading frequency flat or frequency selective narrowband and wideband respectively. Impact of various channel parameters on network performance of airtel is shown in following tables with the help of softwares Sigma LA and Sigma ML at different timings and plotted graphically. With the help of this, channel conditions can be determined and corrective measures can be taken to improve network performance and hence the data rate.

Throughput performance shown in table one for airtel network measured in koparkhairane region. It is expected if channel conditions are good we should get maximum throughput. Fig. one shows downlink throughput. It is shown by different colours for different ranges that network performance is not constant. Minimum value of physical cell identification is expected to choose base station of good signal strength. It is also shown in graphical manner with different colours. 235 is the desired value from plot as shown in figure four. Different values are recorded for airtel as shown in table two. Depends on channel quality modulation scheme is selected. For high value (Nine and above) of CQI

64 QAM can be used and average or low value (below five) of CQI QAM can be used. Different values are shown in table three. Block error rate is expected low. Graph shows lower range of block error rate. It is between 0 to 10 as shown in figure five. Different values are shown in table four. Signal to noise ratio is expected high. Different values are shown in table five.

Simulation Tool:-

Sigma PA processes and analyse measured data for sigma drive test tools. Windows application captures, monitors and saves RF log data, from user equipment's, scanned receivers and GPS. Calculation and aggregation of KPI's is done. Display of data on various views like maps, charts. It imports and replay log data in various standard formats like SIG, MSIG, DLF, ISF, and CSV. It Supports LTE TDD, FDD, CDMA, HSPA, GSM, GPRS. Sigma LA is also used.

Sr. No.	Timing	Throughput
1.	6:34:00am	2120.7
2.	6:34:01am	5807.3
3.	6:34:02am	7098.8
4.	6:34:03am	4586.3
5.	6:34:04am	4307.5
6.	6:34:05am	4719.6
7.	6:34:06am	6306.3
8.	6:34:07am	6908.7
9.	6:34:08am	4331.1
10.	6:34:09am	3096.3
11.	6:34:10am	3573.6
12.	6:34:11am	9580.0

Table 1: Throughput Values. (Airtel)

Sr. No.	Timing	PCI
1.	6:34:00am	2
2.	6:34:01am	3
3.	6:34:02am	4
4.	6:34:03am	3
5.	6:34:04am	4
6.	6:34:05am	4
7.	6:34:06am	4
8.	6:34:07am	3
9.	6:34:08am	3
10.	6:34:09am	2
11.	6:34:10am	2

Table 2: Neighbouring PCI (Airtel)

Sr. No.	CQI	MCS	Modulation
1.	9.9	6:34:00am: 10	QPSK
2.	10.1	6:34:01am: 11	QPSK
3.	10.6	6:34:02am 08	16QAM
4.	11	6:34:03am :10	16QAM
5.	10.7	6:34:04am :10	QPSK
6.	10.8	6:34:05am :11	64QAM
7.	10.1	6:34:06am :10	QPSK
8.	9.8	6:34:07am :9	16QAM
9.	9.3	6:34:08am :8	16QAM
10.	10.4	6:34:09am :11	16QAM
11.	11.8	6:34:10am :04	16QAM

Table 3: CQI, MCS, Modulation(Airtel)

Sr. No.	Timing	BLER
1.	6:34:00am	8.62
2.	6:34:01am	10.02
3.	6:34:02am	8.67
4.	6:34:03am	14.58
5.	6:34:04am	13.48
6.	6:34:05am	10.17
7.	6:34:06am	9.8
8.	6:34:07am	10.68
9.	6:34:08am	13.87
10.	6:34:09am	13.71
11.	6:34:10am	6.76

Table 4: BLER Values(Airtel)

Sr. No.	Antenna 1	Timing	Antenna 2
1.	13.2	6:34:00am	11.2
2.	12.8	6:34:01am	11.8
3.	12.7	6:34:02am	11.6
4.	12.2	6:34:03am	12
5.	10.1	6:34:04am	11.2
6.	10.6	6:34:05am	13.4
7.	11	6:34:06am	12.1
8.	11	6:34:07am	11
9.	7	6:34:08am	6.2
10.	8.3	6:34:09am	10.2
11.	11.2	6:34:10am	12.8

Table5: Signal to Noise Ratio (Airtel)

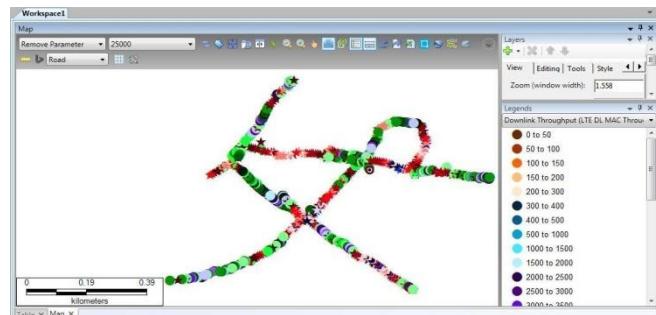


Fig.3 Throughput

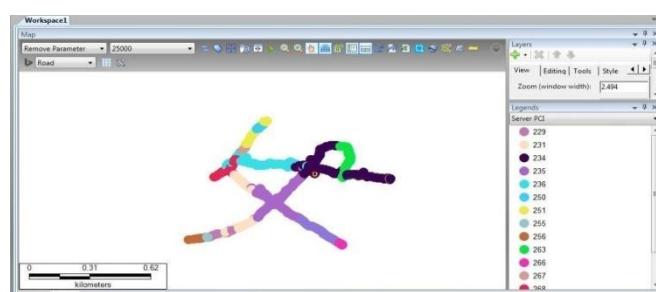


Fig.4 Serving PCI

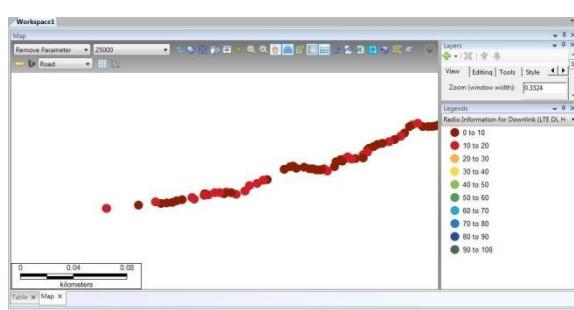


Fig.5 Block Error Rate

Conclusion: Accommodation of new subscribers and to provide them high quality multimedia services is the need of market. Millimeter Wave Communication is one of the solution for bandwidth hungry applications and to achieve multigigabits data rate with the help of above techniques along with 5G aggregation techniques' like software defined networking, cloud, virtual function networking, and software defined radios. Once we know the channel condition maximum data rates are possible by utilization of channel upto its maximum capacity. Up gradation of LTE advance in 5G will be an added advantage in the process of high speed data for indoor and outdoor communication. Thus it is possible increase data rate practically above 300Mbps on downlink and theoretically upto 1Gbps using Millimeter wave communication.

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STUDY OF INNOVATIVE TECHNOLOGIES LAUNCHED IN BANKING SECTOR AFTER DEMONETIZATION TO BOOST DIGITALIZATION

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Abstract

One "D" led to an emergence of other "D". Demonetization has led to an increase demand for Digitalization in India. Indian banks are today focusing on SMAC techniques to reach new customers (social, mobile, analytics, artificial intelligence and cloud techniques). Many Banks are partnering with Fintech players for paperless, branchless and signature less banking, offering 24x 7 services to its customers. Indian banks currently devote 15% of total spending on technology. Internet base of India is on 2nd position next to China with 8 out of every 10 Indian citizen using phones to access Internet. This paper highlights about how India is now on the verge of fintech revolution, upending the traditional methods adopted by the banks and how it has made the win-win situation both for bank and customers to undertake its transactions in much faster, easier and hassle free way post demonetisation. It also depicts about the customers satisfaction and problems faced during usage of these techniques. Some of the latest technologies which support fintech revolution are Artificial intelligence, Block chain, Open banking application programming interface (APIS). Use of smart phones for investments, bill payments has simplified the routine work. There are various portals like paytm, freecharge, Bharat interface for money (BHIM), united payment interface (UPI), Tejas app for ease in money transfer. This paper concludes that Post demonetization drive, Banks all over the country has witnessed a shift in usage of latest techniques and various portals for making payments and other banking related transactions which has resulted in more revenue for the banks. Digital analytics are continuously working on to understand today's customers needs and enable banks to provide more safer product and services to its client at much lesser cost.

Keywords: SMAC techniques, Fintech revolution, various portals, safer product.

INTRODUCTION: Today's era is an era of digital based Techniques, which has forever changed the world we live in. We're online, in one way or another, all day long. Our phones and computers have become reflections of our personalities, our work culture, our interests, and our identities. They hold much that is important to us. Latest new apps, new techniques have changed the style of working and have made it very easy for its customers to undertake its work on its fingertip. Gone are the days when banking activities were conducted manually today all banking transactions can be done without stepping into branch. As technology advances, it reverses the characteristics of every situation again and again. The age of automation is going to be the age of 'do it yourself'. Today Banks are working in collaboration with various fintech companies to escalate the scale of digitalisation. Fintech companies are house of innovative technology which will ease financial services carried out through advance technologies in banks as they provide 24x7 availability of online chatbot facility, evolution of robot as a customer care executive, use of biometric which replaces all ID and passwords, QR and UPI code which replaces POS machine and credit cards. With the introduction of demonetisation it has brought various positive and negative impacts in banking sector. One such important consequence of demonetisation is that it has increased the cashless transactions among the public. Up until this campaign, India was an incredibly cash-centric economy. Cash accounted for upwards of 95% of all transactions, 90% of vendors didn't have card readers or the means of accepting electronic payments, 85% of workers were paid in cash, and almost half of the population didn't even have bank accounts. Even Uber in India accepted cash, the only country in the world where this option exists — and "Cash on Delivery" was the preferred choice by 70% of all the online shoppers. According to NITI Aayog report, digital payments have seen an enormous surge of 271 per cent in the very first month following demonetisation. Post demonetisation even the vegetable vendors on the streets have opened up Paytm accounts and they have a machine outside their shop where someone can scan the

bar code and make the payment. Merchant discount rate has been reduced to encourage shoppers to accept card payments. In order to support this digitalisation government has initiated various steps like paytm Fintech Company has been asked to launchQR code as the dominant form of accepting payments either by UPI or debit cards at zero cost. To expand digital payment in rural areas, the Government through NABARD will extend financial support to eligible banks for deployment of 2 POS devices each in 1 lakh villages with population of less than 10,000 this will benefit farmers to transact cashless in their villages for their agricultural needs and has also issued "Rupay Kisan Cards" to villagers to enable them to make digital transactions at POS machines/Micro ATMs. New bank accounts are being opened at a heightened rate, e-payment services are seeing rapid growth, cash-on-delivery in e-commerce has crashed, and digitally-focused sectors like the online grocery business have started booming. But today after demonetisation various new app, new techniques, new schemes like MobiKwik ,near field communication (NFC) technology, Google's TeZ ,Tab Banking, ICICI pockets, Oxigen, sound wave systems, virtual cards, unified payment interface (UPI) and Aadhaar Pay offering top-notch secure payments options are increased for digital transactions. There has been an increase in usage of e-wallets by all even by rickshaws, dabbawalla's and street vendors. As per RBI reports, Demonetisation has kept digital payments up, cashless transactions has grown at 13.5%.

STATEMENT OF THE PROBLEM In today's competitive scenario where all sectors are digitalised, it has become very important for banking industry to tie up with various fintech companies and come up with new technologies with which work can be done in faster manner. Customers are embracing more and more of their work on mobile and digital channels each year and to be successful,banks must deliver customer engagement through more and more development of these channels. After demonetisation it's sending the signal of warning to banking industry, "Innovate or die." To survive the battle of competition and changing customer's perception where everything is on social media, portals, internet and mobile, innovation needs to be acquired to boost digitalisation and increase the base of customers. "Become customer advocates...Become digital delivery platforms...Understand change is good."

OBJECTIVE OF THE STUDY

To know about latest new technologies which are launched after demonetisation to boost digitalisation and whether its usage has been increased?

To analyse Cost benefits analysis of these technologies and its effect on revenue of the banks.

To examine What safety measures are initiated by the banks to protect its customer's from haphazards of digital transactions.

To study Whether these new techniques, apps have benefitted banks through cost savings and increased penetration.

To highlight Customers perception regarding digital scenario and how user friendly these apps and techniques are for them.

SIGNIFICANCE OF THE STUDY "The seeds of digital India movement have been sown much deeper after demonetisation among public". Today not only young minds but even seniors, street vendors, local drivers, rural population have resorted to new techniques of banking to undertake their banking work in more speedy manner. There has been increasing growth among "learners of digital" for digital payments, functioning of various app and how to get oneself update about its usage and reap benefit.This paper highlights that it is very crucial to know more about innovative techniques in banking, as Process automation and digitization will help the banking sector to serve their existing customers and also to plan for increasing customer's base which will ultimately lead to more revenue for the banks. Digitalization reduces human error, monotonous work and brings more efficiency in

speed of work, thus builds customer loyalty. It is necessary to acquire knowledge about latest apps preferred by customers to compete among its competitor and also to bring about transparency in work. Today people prefer to step out without cash but not without smart phones so by observing customer's behaviour, lifestyle, and fast changing technology world it has become essential to acquire knowledge of new innovative techniques which are initiated after demonetisation. "There is incredible potential for digital technology in and beyond the classroom, but it is vital to rethink how learning is organised if we are to reap the rewards".

RESEARCH HYPOTHESIS: Whether new technologies have increased after demonetisation and how fruitful it is for Banks and its customers?

METHODOLOGY: In order to understand latest technologies of banking, customer's perception, safety measures initiated by banks and whether revenue of the banks has increased aftermath demonetisation, primary and secondary data collection method is used. To know customer's perception questionnaire method is used in which 20 questions relevant to study were framed and distributed to samples. Questionnaire was send through email and samples were selected by random sampling technique. Information's related to banks were collected through primary way wherein questionnaire was framed and given to banks. Banks, as sample were selected on convenience sampling. More research data are collected through secondary as from newspapers, magazines related to digital banking, banking progress online reports and offline records through friend and relatives.

SCOPE & LIMITATION: To understand the working and activities of banks in digitalised manner after and before demonetisation, banks from Mumbai metropolitan region is considered.

New portals, new digitalised techniques, revenue of the banks, tie up with various fintech companies for benefit of customers were analysed only with respect to Indian Banks. Foreign Banks which are totally digitalised and new innovative techniques like google glass, pop up banks etc which can be the future of Indian banks are not emphasised by the study. Sample size selected for the survey is as per convenience and very limited for the study as per time constraints. Scope of digitalisation is very wide its waves are in the entire sector, but this research is limited only to banking sector.

FINDINGS Digital India is not merely a wishful thinking as we can perceive that the emergence of digital banking has given rise to countless innovations in banking and some of them are:

Mobile and Internet Banking From October 2015 to October 2016 cashless payment has grown by 22% and India's financial industry has witnessed 175% growth in mobile transactions during the same period. In adoption of mobile banking, India holds 4th Rank across the globe. Some banks have started offering information based services like balance enquiry, stop payment instruction of cheques, transactions enquiry, and location of the nearest ATM/branch etc on mobile and following list of banks give clear idea on how mobile banking has brought the usage of latest technology.

Name of the Bank	New technology launched	Usage/benefit to customers
HDFC Bank	Watch Banking for Apple	Account info, offers request watchstatement, cheque book etc provides 10 Banking transaction.
AXIS Bank	Multi-social payment app	App allows sending and such as receiving money without facebook, twitter, whatsapp asking bank details. User etc. has to use hastag# pingpaykaro for transaction.
INDUSLAND Bank	Face time i.e. Video Branch	Face to face video conferencing for customers to speak directly to its manager
STATE BANK OF INDIA	SBI mingle. "IN touch touch lite"	and in To transfer money at ease via social media, cheque book management, block ATM or card. ATM and card facility within 10 min of opening an account, interactive digital screen, video call etc.
ICICI bank	Host card emulation	Card holders can make contactless payment by waving their phones across NFC enabled machines.
Kotak Mahindra Bank	Kayppay and hastag Banking	For easy money transfer and banking transactions through social media.

Table 1: Technologies used by various banks and its benefit to customers

According to latest data available from Reserve Bank of India, mobile banking has grown four-fold in 2015-16 to reach INR 4017.8 billion—up from INR 1035.3 billion. The uptake has been rapid, considering the total value of mobile banking transaction was just INR 60 billion in 2012-13. In the three years, it has grown 67 times.

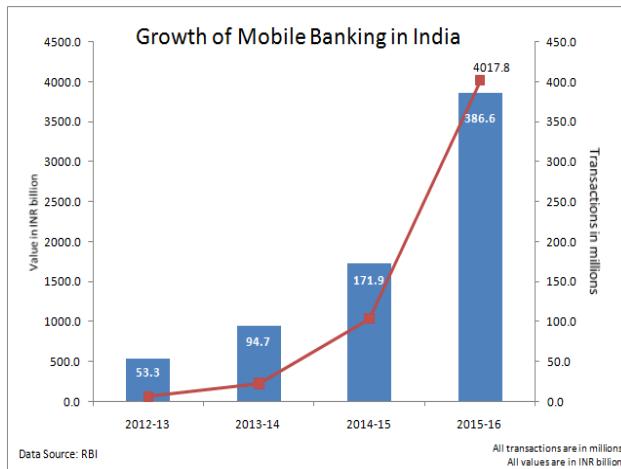


Fig. 1: Mobile Banking in India.

SBI NETC FAST TAG: Fastag works on Radio Frequency Identification (RFID) technology for making toll payments in India. Payments can be made directly from the prepaid or savings account linked to it. It is affixed on the window screen of vehicles and enables to drive through toll plaza without stopping for cash transactions.

BLOCK CHAIN TECHNOLOGY: Block chain as a technology is used by banks today as it can help banks to transfer value and assets without having to wait for long periods of time by eliminating

middle transaction process. Block chain helps record keeping, preventing fraud, secure document management and increases transparency of the process.

ARTIFICIAL INTELLIGENCE: AI makes use of components of machine learning, natural language processing and cognitive computing technologies for banking transactions. Chatbots and robotics have been introduced due to AI which help to solve the customer's routine query, help them in banking transactions and have increased the speed of work for banking sector. 32% financial services have started using AI.

Measures by govt

Government of India has started various projects for digitalisation after demonetisation its main aim is to shift from e-governance to m-governance i.e. Mobile governance.

Innovation	Benefit to customers	Bank name which has started this technology	Technology used	Customer safety
Digital Locker	store crucial documents like Voter ID Card, Pan Card, BPL Card, Driving License, education certificates, etc. in the cloud.	ICICI started 'Smart vault'	Robotic technology	It is equipped with multi-layer security system, including biometric and PIN authentication.
Biometric	instead of remembering passwords customers can easily assess the details through face, fingerprint etc.	Citi Bank voice biometric authentication, UCO and Canara bank	Application includes face, handgeometry, voice, and signature to undertake banking transaction.	It protects the data from unauthorised users and gives safety to customers.
UPI(unified payment interface)	To transfer fund easily	29 banks are part of UPI network.	Payment app	UPI eliminates the need of Knowing the recipient's name, their bank account number, and IFSC code. It uses phone to verify the transaction so it is quite safe.
				Three levels of authentication
				are required in
				this app. One is

				the device ID
				and mobile
				number, then the
				bank account
				which you are
				linking to this
	Money can be			app, and the
	transferred easily			finally the UPI
	just by thum b			Pin which is
BHIM(Bharat	impression no codes			needed to
i n t e r f a c e	for and even without			complete the
money)	Internet connectivity.	SBI,ICICI,AXIS etc	Payment app	transaction.
	Direct benefit			
	transfer related to			
A a d h a a r	link subsidy, country			Due to biometric
payment	wide access.			authentication
		All Banks have	link	Payment app
		clients account	to	and biometric
		Aadhar.	technology,	safe for customers

Table 2: Innovation technologies used in banks as per the measures of the Govt.

Lower fees on debit card payments for small shops.RBI have fixed a lower MDR

i.e. merchant discount rate in order to encourage card payments. Small merchants will pay only 0.4% of the transaction if his turnover is below 20L and with the cap of max. Fees Rs 200. for e.g. if card

payment is Rs 80,000 merchant will pay flat fee of Rs200. For larger turnover it is 0.9% with max. Fees of Rs 1,000. MDR is lower if customers prefer to pay by app and scan QR code for that purpose.

Relief For Small Merchants		
Merchant Turnover	What shopkeepers will pay on debit card transactions	
	Card swipe machine	QR code readers
UptoRs 20L	0.4% or Rs200	0.3% or Rs 200
Above Rs 20L	0.90% or Rs 1,000	0.80% or Rs 1,000

Table 3: MDR rates revised by Govt.

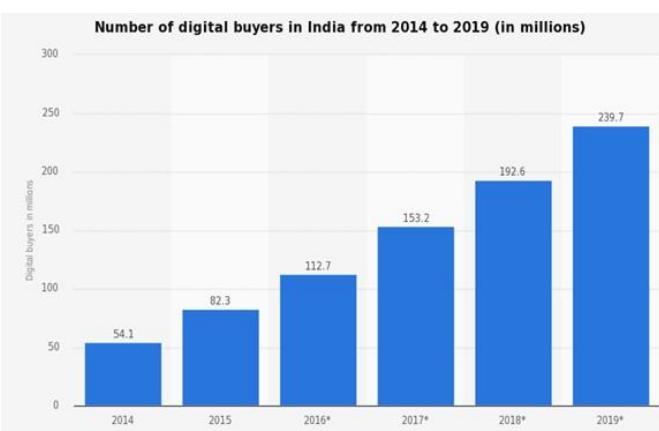
Measures by fintech and other management companies helping banks to give drive to digitalisation Ms swipe Technologies Pvt. Ltd., an Indian fintech start-up specialising in point-of- sale devices and payments acceptance network and technologies, at present has 2.9 million POS terminals with over 60 million merchants but in order to increase digital transaction has now come up with app to submit the documents online instead of paper work which will help merchants to get their card units within 30 minutes instead of 3 days.

Digital identity and transaction management solutions provider, eMudhra has launched Aadhaar eSign-based national automated clearing house gateway with national payment co-operation of India- which aims to help large and small enterprises to collect requiring payment instructions from customers without the need for submitting physical forms which will bring about efficient banking for customers.

Cost benefit analysis: From analysis of various innovative technologies used by banks to boost digitalisation it has showed that cost incurred on these technologies are enormous but the benefit which banks, and customers can derive in terms of revenue and speedy work is more.

Artificial intelligence, Blockchain will reduce the number of middlemen while increasing security, both of which will reduce costs and time

Customers perception: After demonetisation effect one benefit that customers have experienced is digitalisation, which has brought about new technologies to simplify the routine banking transactions without standing in long queues of banks. No of bank accounts both in rural and urban areas are increased, no of customers resorting to digital techniques have increased. As reported by economics times, paper based transaction through cheques is 1.33 trillion whereas cashless transactions through online comprised of 1.43 trillion. No of users for digital transactions Why customers are reluctant to use digital technology for banking transactions?



Digital payments are structurally down but still at least 50% higher than the pre- demonetisation period. The trend is up but still there are certain problems faced by customers which need to be root out to increase the base of online users.

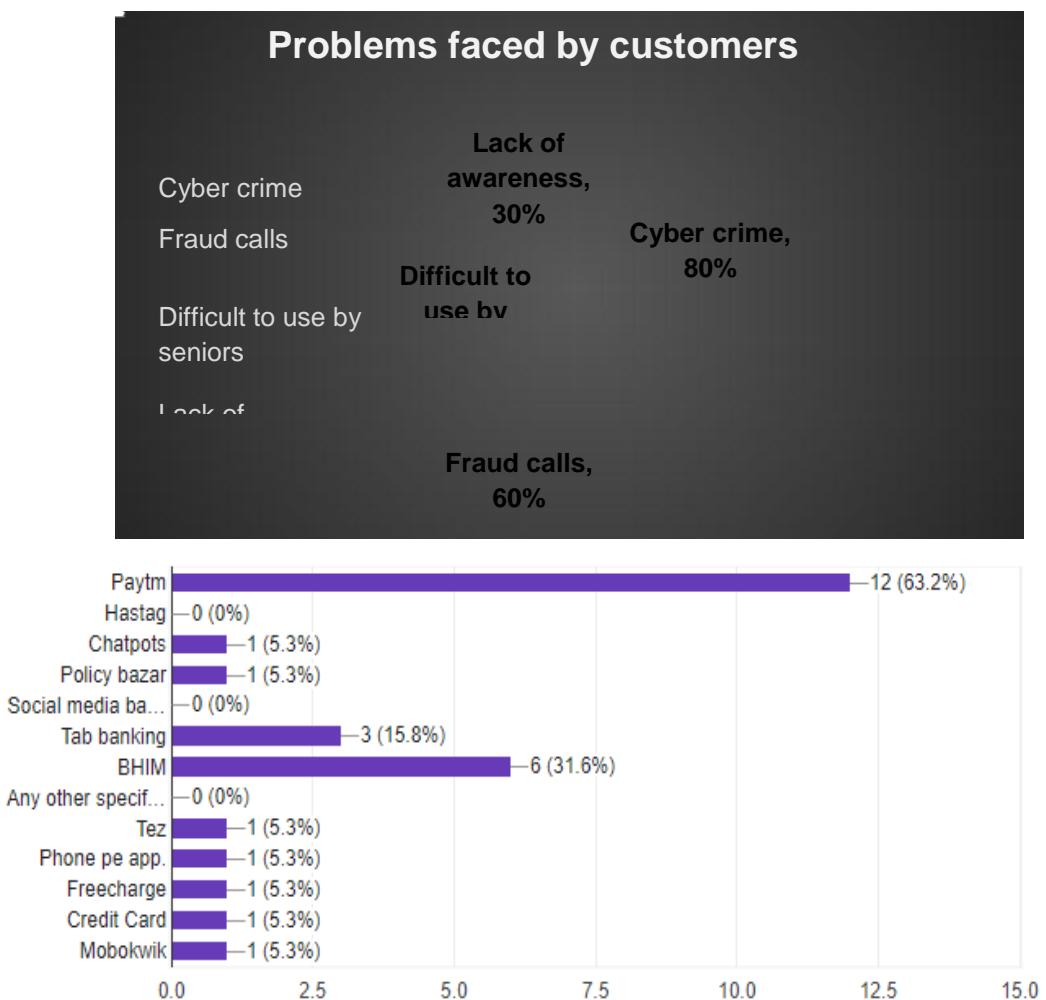


Fig. 3: Problems faced by customers

□ Technologies which are most preferred by customers for online transactions as per primary survey?

Fig. 4: online technology preferred by customers

Future of digital banking: Several public-sector banks have set up or are in the process of setting up mobile phone- based micro banks. Many banks have concentrate on creating digital village as part of digital movement. Banks with fully digital autonomous branch should be more increased like IndusInd banks automated branch and recently public-sector Canarabank launched Candi the fully digitalised bank for customers in Bengaluru. Digitalised transaction knowledge should also be passing on to rural, illiterate, seniors and non users so that work can be performed at the fastest space with more customer base and more revenue for the benefit of economy. In future digital techniques can create wonders for customers and banks, provided it works properly and try to remove the loop holes like more safety and security for customers which are their concerns. Google glass, pop up banks, robotic techniques could be next for banks. Digitalisation has made transaction hassle free and fast.

Recommendations

- ⊕ As hackers are one step ahead, banks must aggressively think of an idea to combat threats to protect customers. Banks which are procuring apps from third party need to make sure that the vendor provides all test reports showing that they follow “all payment application data security standards.”
- ⊕ Create more awareness of switching to digital techniques rather than cash transactions by opening digital centres.
- ⊕ Training should be provided to senior citizens so that they can reap the benefit of this latest vision of banking.
- ⊕ More revenue should be allocated by the government to bring latest and fastest technologies to be used in banks to make it fully digital branch.
- ⊕ Measures should be taken to improve technical errors, mostly which occurs in banks like poor network, server issue etc.
- ⊕ More measures by the govt to be imposed on banks to reduce banking transactions charges so as to inculcate more habit of online banking among customers.

CONCLUSION: called BHIM based on the Unified Payment interface. In September 2017, Google launched its first India-only banking app using BHIM called Google tez that can be used by customers of over 50 banks on the UPI platform. The companies stated that the debit card transactions rose by 108% and credit card transactions by 60% on 9 November 2016. Everyone started using digitalised techniques for their transactions demand for e-wallets, point of sales (POS) or card swipe machines increased. Both the Immediate Mobile Payments System (IMPS) and the United Payments Interface (UPI) apps, grown substantially since demonetisation even as cash returned to the economy. Trend of digitalisation currently is again slowing down, but still it is more than before demonetisation. Various measures are taken up by government to change the mind set of customers and to make technology friendlier for them to use. Pradhan mantra jan dhan yojana and rupay cards for villagers and rural population has been initiated, reduction of discount rates, safety and security measures are worked on to increase the faith of customers on online transactions. In banking, a combination of mobility and biometrics (collected through programmes such as Aadhaar) is enabling branchless banking and leading to greater financial inclusion. Various autonomous digital branches of banks have also been started, banks are now partnering with various fintech companies which plays a very important role for banks for reducing its processing cost and turn around the time. To make the dream of digital banking true it requires certain time but yes Banks have started to climb the ladder of success towards digitalisation, slowly and gradually the web of customers using these new technologies for their daily transaction will also increase. As it is very well said by Jamie Dimon | CEO, J.P. Morgan that Silicon Valley is coming and if banks don't up their game, then tech companies will take over the industry's business. There are hundreds of start-ups with a lot of brains and money working on various alternatives to **traditional banking.**”

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RESEARCH BASED ON DESKTOP 3D PRINTER OF PARALLEL MECHANISM**Manoj Singh***Asst. Professor, KES Shroff College Kandivli West Mumbai-54***Abstract**

The paper aims at desktop 3D printer of parallel mechanism. It describes the performance requirements of the 3D printer mechanism. It compares the common performance institutions, obtaining the more suitable mechanism for 3D printer. It uses Solid works to complete the overall printer model design. Then analysis and compare the key technology 3D printer, motor selection, positioning way and extrusion device obtaining for the suitable design scheme. Complete 3D printer machine design and prototyping; finally use the prototype to print out high-precision products.

Keywords: parallel mechanism, 3D printer, Fused Deposition Modeling (FDM), motor selection, positioning way, extrusion device,

INTRODUCTION: The 3D printing technology invented in the 1980s. This technology different from traditional printing technology, 3D printing models Create the three-dimensional digital design model, through layering software and CNC machining molding and other steps, using plastic, ceramic powder, POP, metal powder through the emerging technologies by layer by layer to stack and construct a physical product. The fast development of 3D printing, 3D printing technology has been widely used in marine, defense, aeronautical, medical research, construction etc. In 2005, the inventor of desktop 3D printer- Rep Rap appeared, with the appearance of desktop 3D printer, it makes the manufacturing model of development starting from the production of small-scale custom personalized. Everyone can even be able to complete the invention, innovation, customization and low-cost production process. 3D printing industry in China is still in its infancy. Desktop 3D printer price on the domestic market substantially 560000 to 7 lakhs INR, it can't walk into people's lives. Therefore, the design and manufacture of a low-cost to meet the printing needs of individual desktop 3D printer is necessary.

AGENCY PERFORMANCE REQUIREMENTS OF THE 3D PRINTERS AND APPLICABLE AGENCIES**Requirements of 3D Printers for Agency performance**

3D printer is a variety of means to achieve the position control of the medical, mechanical organization's three directions of dimension XYZ from the motion area. When the directions of XYZ motions, the basic physical conditions of rapid prototyping technology is as follows. The direction of X, Y control plane and scan by the scanning driving system control. The direction of Z control perpendicular to the XY plane of movement by a servo motor. Z axis should have a certain carrying capacity and smooth motion. It requires good acceleration performance to achieve rapid movement. From the motion accuracy requirements of small errors, it is in order to improve the accuracy of the product. Common 3D printer institutions have tandem structures and parallel institutions.

Structure (Tandem structure and Parallel structure)

3D printer of tandem structure is the most popular in the market. However, this structure is more complex during the installation, maintenance is also very difficult, and there is a large movement of inertia, low stiffness, error accumulation. Besides, because of the high precision machining of screw, the optical axis, the machine has high cost.

Parallel structure is a new mechanism. It uses Parallel motion mechanism which uses traction nozzle, limiting the nozzle rotational degrees of freedom in all directions. Therefore it ensures the nozzle in a horizontal plane work in order that the nozzle has a good trajectory and precision work.

Suitable mechanism for desktop-level 3D printer

Based on the analysis of desktop 3D printer performance, it requires for desktop 3D printer mechanism to have smooth motion, high-speed, high-precision features. Therefore, it requires the parallel mechanism to have the features such as structural stability, high accuracy, stiffness, low inertia, high carrying capacity, low load sports; sports inverse solution is simple and easy to control. In parallel mechanism, Delta mechanism can achieve three-dimensional translational and positioning accuracy is much higher than the series model agency. Today has been successfully applied in the case of 3D printing technology, shown in Figure 1. This desktop 3D printer is based on the Delta mechanism to optimize the design of parallel mechanism.

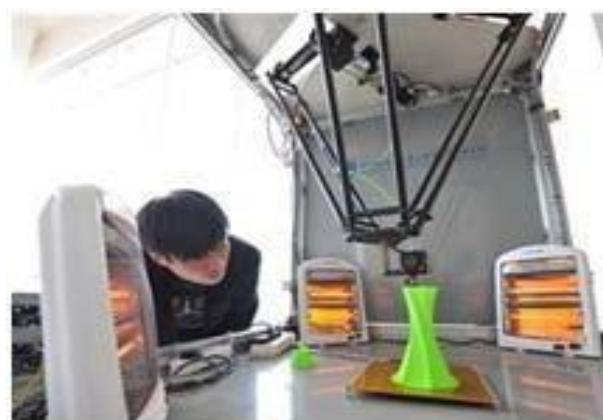


Fig1: 3D printer

PARALLEL MECHANISM BASED ON DESKTOP 3D PRINTER DESIGN

FDM 3D printer -Working principle

FDM molding technology is one of the most commonly used 3D printing technologies. It uses the high temperature to melt into a liquid material through the print head extrusion to cure, and finally arranges in three-dimensional space on a physical perspective. FDM principal based 3D printer is shown in Figure2. Computer controlled rapid prototyping machine heating nozzle, basing on cross-sectional data for each layer of the x-y plane motion. The wire feeder sent the wire to the nozzle, heated, melted and extruded adhesive from the nozzle print material to the working platform, and then rapidly cooled and solidified. This process is repeated until the completion of the entity.

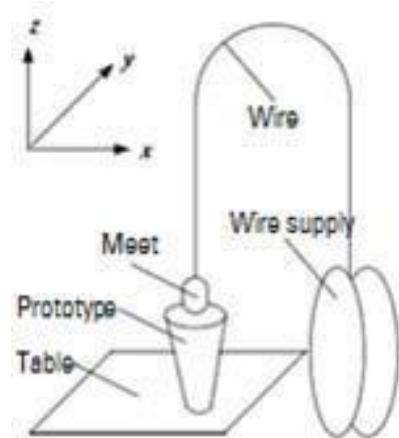


Fig 2: Structure of 3D printer

The overall model design on desktop 3D printer of parallel mechanism

FDM based melt laminated molding technology and Delta mechanism design, desktop 3D printer parallel is designed as shown in Figure. 3. The overall structure uses aluminum alloy structures which is made regular triangular prism. It consists of the group parts, transmission parts, and the execution group parts. The overall design flow chart shown in Fig3, and the design model shown in Figure 4.

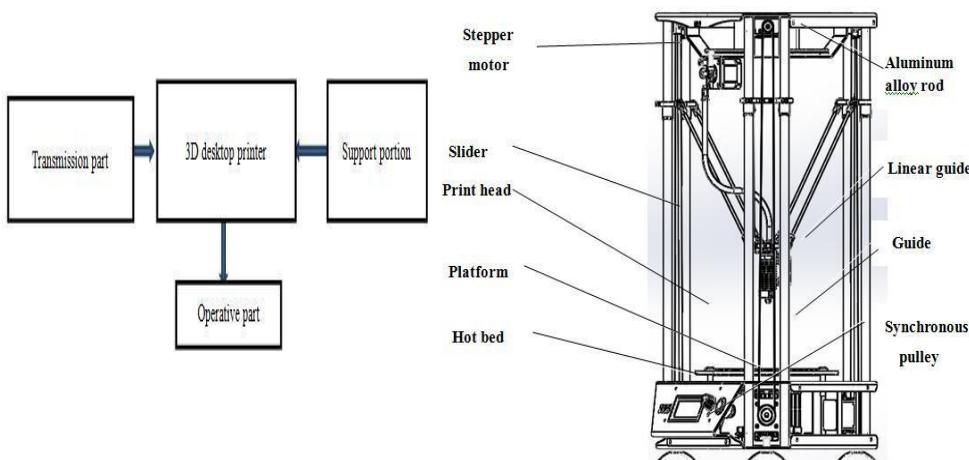


Fig 3: The design flow of Desktop 3D printer

Overall model shown in Figure 4 as the designed parallel desktop 3D printer. The overall structure of the printer is made of aluminum alloy structures are of triangular prisms. It cooperates with the linear guide, so that the overall structure of rigid, solid and strong, easy to control assembly accuracy. The size of overall printer highs 60cm, the length of triangular prism is 30cm. The three sides of a triangular prism edge mounted rails. It relies on the aluminum material side edge machining accuracy to ensure vertical slide and rigidity. The bottom rail is equipped with three stepper motors. Stepper motor drives the belt wheel on the shaft to rotary motion. Pulleys rely on the slider together with the timing belt. It toothed pulley rotational motion into linear motion of the slider and drive the slider above and below the rail travel. Three sliders rely on six sliders connecting to the printer head. When the stepping motor to drive the slider up and down, relying on the nozzle rod rigidity to complete traction, realizing the print head position control. Printed materials required by a polyethylene tube which is fed from the top of the print head. Fed power which the raw materials needs is provided by a stepper motor. The stepping motor is rotated clockwise when feed. Clockwise rotation is discharged. The bottom of the printer is the printer working platform which is equipped with a hot bed platform. Purpose of hot bed is when printing ABS to let the first layer be not deformed and easily stick to the platform. Printer use open frame. So it is easy to level printer platform and late printer's expansion and maintenance. In the top side of the printer is a LCD display for real-time monitoring of the position of the nozzle, the nozzle temperature and time display

THE KEY TECHNOLOGY OF 3D PRINTER OF PARALLEL MECHANISM

Motor Selection

Table 1: Comparison of Motor Performance Parameters

Motor parameter	Stepper Motor	Dc Motor	Servo Motor
Torque and Speed	Low-speed full torque, speed increases the speed dropped	Speed increases, the torque variation is small	Almost linear force and speed
Dynamic Characteristics (Speed / Acceleration)	Small	Small	Good acceleration characteristics, high-speed
Stability	Acceleration fixed frequency will cause problems	Over the entire dynamic range of smooth, quiet movement	Wide dynamic inner smooth motion
Target location	Open-loop control, if the overload or over speed, the target position cannot be reached	Closed-loop control to achieve the target location (unknown error correction function) ; Under PID tuning is not correct, correct the position error ; Possible position beyond or persistent error	More speed, smaller step away, no backlash.

Motor is one of the important parts of the printer, which is used in positioning systems, extrusion systems. It has a great influence on the stability and the print resolution. According to Table. 1 the Characteristics of the DC motors, stepper motors and servo motors, select the Stepper motors if considering the printer's speed and cost,. Which selection of the feedback signal is not required, velocity output is directly controlled stepper motor. Stepper motor receives an order and executes a step. Compared to ordinary motor, selecting stepper motor can make the accuracy of the 3D printer more convenient to control.

The selection of positioning way: 3D printer's positioning way influences the shaping accuracy and stability of the printer in a large extent commonly used in 3D printers targeting methods are Cartesian positioning and Core XY positioning. Cartesian coordinate targeting is often used in tandem printer. It represents the position of point in space, but it is different from rectangular coordinates. These two coordinates can be converted to each other. Cartesian coordinate positioning's stability is not enough; it is likely to cause targeting errors which lead to poor accuracy printout. Parallel 3D printing is a new spatial positioning structure which is in Core XY location. It is an indirect way of targeting by joint control of the plurality of nodes via slider, realizing the displacement of the slider. Since the joint indirect control, making every error of control terminal is shared with each node. It makes the positioning error be greatly reduced. It's positioning principle shown in Figure5

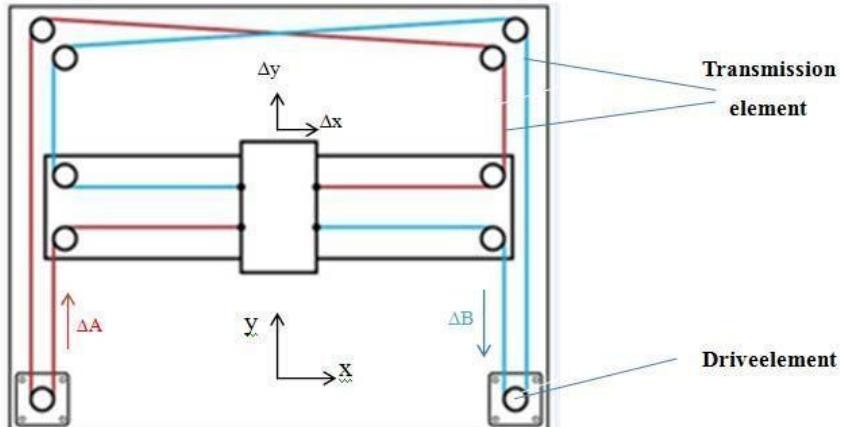


Fig 5: Core XY positioning principle diagram

As shown in Figure 5, the drive element is a stepper motor. The red belt and the blue belt is the transmission element. Stepper motor through a belt and the belt bypass the small pulley. Extrusion apparatus moving operation and drive the center. The transmission element is under the action of the driving element. If it along the ΔA , ΔB arrow's opposite direction, equal value of the displacement move, the actuator will move along the Y- axis. If it along the ΔA , ΔB arrow's same direction, equal value of the displacement move, the actuator will move along the X- axis. If ΔA , ΔB isn't equal, then the actuator will achieve XY axis. Among them, the mathematical relationship of ΔA , ΔB and the amount of displacement ΔX , ΔY is as follows

$$\Delta X = \Delta A + \Delta B, \Delta Y = \Delta A \times \Delta B$$

$$\Delta A = \Delta X_2 + \Delta Y_2, \Delta B = \Delta X - \Delta Y;$$

In expression, $\Delta A, \Delta B$ - the actuator's direction of movement ;

$\Delta X, \Delta Y$ - the actuator's amount of displacement ;

The subject of 3D printers used parallel positioning technology which is the improvement program based on the Core XY positioning. Through introducing a third stepping motor drive, actuator force to each other by three 120° angle of traction. Through a differential control, actuator positioning, achieving three-axis print head.

Extrusion device Extrusion apparatus consists of the feeding device and the extrusion nozzle. Extrusion device feeding method and melt extrusion nozzle continuity have great influence on parts of print quality. Smooth feeding can ensure the smooth progress of the printing process and ensure extrusion nozzle clogging do not occur. Common extrusion device has Direct Driver Extruder and Wade's Extruder. Direct driver Extruder uses a stepping motor directly connecting to the squeeze rolls to squeeze the wire. It requires a large torque stepper motor, simple structure and good maintenance. But it is not suitable for long distances squeeze wire. Gear squeeze wire uses a stepper motor to connect a pair of gears deputy to squeeze wire. The advantage of this device is that the current parameters have less demand on the stepper motor. While the introduction of gear afterburner, therefore, it would be better to squeeze the power wire. Therefore, this device uses a gear squeeze wire mode. The principle is shown in Figure 6. Feeding device is responsible for the strip delivery, feeding gear and auxiliary gear with each other. The principle diagram of the feeding device is shown in Figure 6. Schematic diagram of the extrusion apparatus is shown in figure 7.

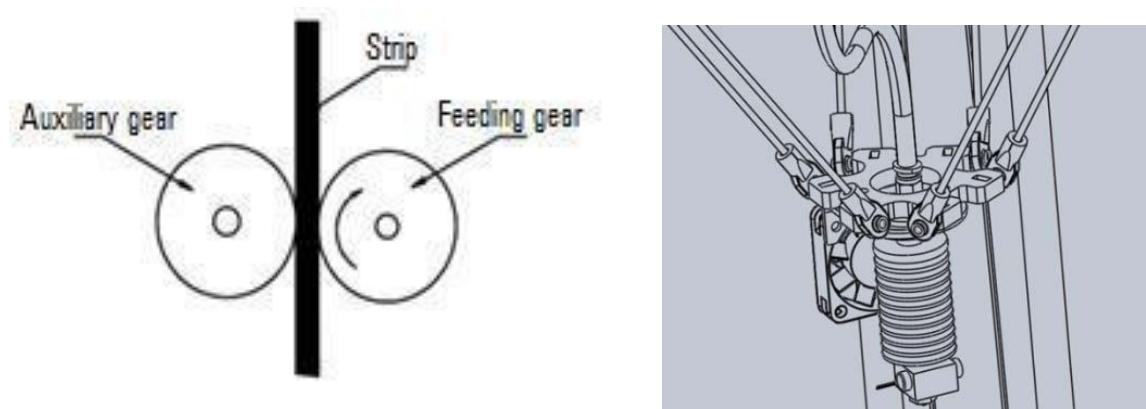


Fig 6: The principle diagram of the feeding device Fig 7:Schematic diagram of the extrusion apparatus

Feeding Gear as a capstan is primarily responsible for providing strip feeding power required. Auxiliary gear from the role of positioning and can effectively reduce the drag strip feed. The gap slightly smaller than the diameter of the strip between the feed gear and the auxiliary gear. So when squeezed into the strip feeding gap between the gear wheel and auxiliary friction generated. So that strip move the direction as figure 5. It utilizes the elastic force of the strip itself to ensure the grip feeding gear. Ensure the material not to withdraw. The feeding accuracy can be guaranteed by adjusting the angle of the step.

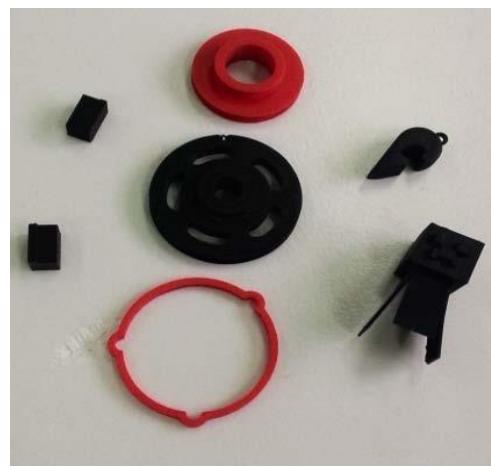
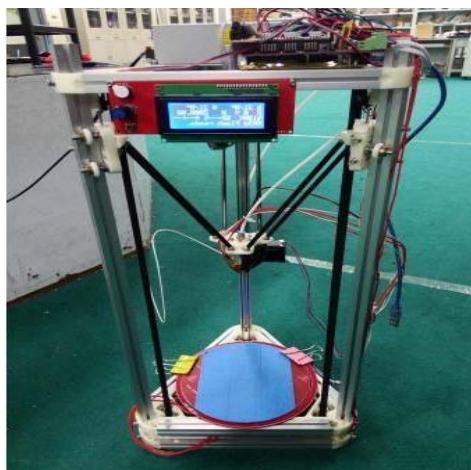


Fig 8:The printer object

Fig 9: Some parts print

Taking into account the key technical points when designing desktop 3D printing, the final design of the desktop 3D printer is shown Figure 8. And use the printer to print out the various parts shown in Figure 9. It is found that the printer motor speed is appropriate when printing. Extrusion positioning device and sprinklers all meet the design requirements. The parts print out have high precision. The effective working stroke of X, Y, Z-axis is not less than 150mm. Repeat positioning accuracy is not greater than 0.1mm, the resolution of 0.01mm. It can achieve the same precision equipment in the market, but the cost is greatly reduced.

CONCLUSION: In summary, parallel desktop 3D printer is based on the design optimization of the Delta .It by means of high precision, rigidity, inertia is small, easy to control, etc.

It adopts new spatial targeting Core XY positioning. It take the stepping motor as the driving force control and has reasonable speed output. Extrusion device by means of a gear pair of wire feeding and crowded, can not only reduce the feeding resistance but also achieve good ejection of molten material. Prototype tests show that after parallel mechanism desktop 3D printer was designed with this several key technology, it can print out the same high precision equipment, high-intensity product in the market efficiently. But the printing cost compared with the equipment available in the market is low. It is suitable for families and small businesses and it is widely used.

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A STUDY ON SECURITY RISK OF CLOUD COMPUTING

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Abstract

One of the major issue in information technology is protection of data in cloud computing. In the cloud computing environment, it becomes particularly serious because the data is located in different places all over the globe. Data security and privacy protection are the two main factors of user's concerns about the cloud technology. When it comes to cloud data protection methods, particularly no new technique is required. Protecting data in the cloud can be similar to protecting data within a traditional data center. Authentication and identity, access control, encryption, secure deletion, integrity checking, and data masking are all data protection methods that have applicability in cloud computing. This paper will briefly review few methods and will note anything that is particularly unique to when these are deployed in a cloud. Affordable, efficient, and scalable, cloud computing is still the best solution for most businesses, but it can still leave you vulnerable if the proper precautions are not taken.

Keywords: Cloud-based Big Data, Big Data, Analytics, Cloud Computing

INTRODUCTION: Cloud computing is a distributed architecture that centralizes server resources on a scalable platform so as to provide on demand computing resources and services. Cloud service providers (CSP's) offer cloud platforms for their customers to use and create their web services, much like internet service providers offer customers high speed broadband to access the internet. CSPs and ISPs (Internet Service Providers) both offer services. Cloud computing is a model that enables convenient, on-demand network access to a shared pool of configurable computing resources such as networks, servers, storage, applications that can be rapidly provisioned and released with minimal management effort or service provider's interaction. In general cloud providers offer three types of services i.e. Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). There are various reasons for organizations to move towards IT solutions that include cloud computing as they are just required to pay for the resources on consumption basis. In addition, organizations can easily meet the needs of rapidly changing markets to ensure that they are always on the leading edge for their consumers. Cloud computing appeared as a business necessity, being animated by the idea of using the infrastructure without managing it. Although initially this idea was present only in the academic area, recently, it was transposed into industry by companies like Microsoft, Amazon, Google, Yahoo! and Salesforce.com. This makes it possible for new startups to enter the market easier, since the cost of the infrastructure is greatly diminished. This allows developers to concentrate on the business value rather than the starting budget. The clients of commercial clouds rent computing power (virtual machines) or storage space (virtual space) dynamically, according to the needs of their business. With the exploit of this technology, users can access heavy applications via lightweight portable devices such as mobile phones, PCs and PDAs. More and more, small businesses are moving to cloud computing, signing up with private providers that make sophisticated applications more affordable as well as setting up their own accounts with public social media sites like Facebook. The trend is confirmed by Microsoft in its global SMB Cloud adoption, which found that 49 percent of small businesses expect to sign up for at least one cloud service in the next three years. Private and public clouds function in the same way: Applications are hosted on a server and accessed over the Internet. Whether you're using Software as a Service (SaaS) version of customer relationship management (CRM) software, creating Offsite backup your company

data, or setting up a social media marketing page, you trust a third-party company with information about your business and, most likely, your customers.

Although cloud computing can offer small businesses significant cost-saving benefits, namely, pay-as-you-go access to sophisticated software and powerful hardware—the service does come with certain security risks. When evaluating potential providers of cloud-based services, you should keep these

OBJECTIVES OF THE STUDY:

To define the working of cloud computing and the different types of cloud computing implementation environments available

To define the security issues related to the cloud computing and the methods to overcome them.

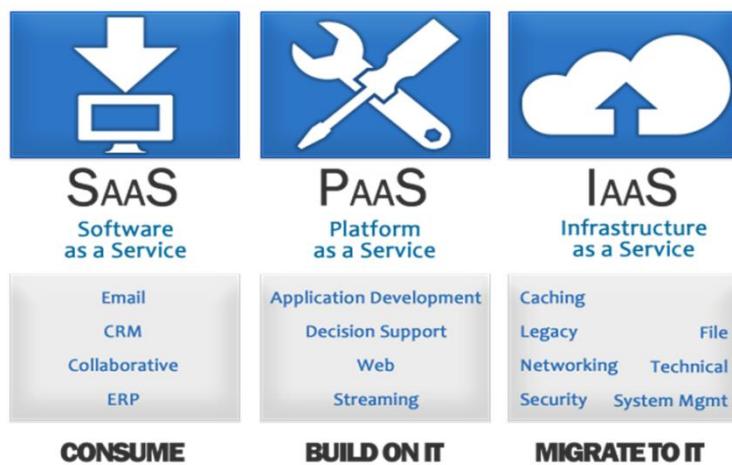
To define the security risk of cloud computing.

SIGNIFICANCE OF THE STUDY: Clouds are the new trend in the evolution of the distributed systems, the predecessor of cloud being the grid. The user does not require knowledge or expertise to control the infrastructure of clouds; it provides only abstraction. It can be utilized as a service of an Internet with high scalability, higher throughput, quality of service and high computing power. Cloud computing providers deliver common online business applications which are accessed from servers through web browsers. But there are many security issues associated with it as the data is available over the cloud of another company and securing the data becomes a very difficult task. Thus the present study tries to highlight cloud computing driven environment in the information technology field and the security measures that need to be implemented in order to keep the data secure over the cloud.

RESEARCH METHODOLOGY: Secondary Method of Data Collection has been used due to time constraint. The sources from which secondary data has been collected are Books and Internet.

CLOUD COMPUTING: Cloud computing is typically defined as a type of computing that relies on sharing computing resources rather than having local servers or personal devices to handle applications. In cloud computing, the word cloud (also phrased as "the cloud") is used as a metaphor for "the Internet," so the phrase cloud computing means "a type of Internet-based computing," where different services such as servers, storage and applications are delivered to an organization's computers and devices through the Internet. Cloud computing will enable services to be consumed easily on demand. Cloud computing has the characteristics such as on-demand self-service, ubiquitous network access, location independent resource pooling, rapid resource elasticity, usage-based pricing, and transference of risk. These merits of cloud computing have attracted substantial interests from both the industrial world and the academic research world. Cloud computing technology is currently changing the way to do business in the world. Cloud computing is also known as on-demand service. In the cloud computing environment, there is a cloud service provider that facilitates services and manages the services. The cloud provider facilitates all the services over the Internet, while end users use services for satisfying their business needs and then pay the service provider accordingly. Cloud computing environment provides two basic types of functions: computing and data storage. In the cloud computing environment, consumers of cloud services do not need anything and they can get access to their data and finish their computing tasks just through the Internet connectivity. During the access to the data and computing, the clients do not even know where the data are stored and which machines execute the computing tasks. Coming to data storage, data protection and security are the primary factors for gaining user's trust and making the cloud technology successfully used. A number of data protection and data security techniques have been proposed in the research field of cloud computing. However, data protection related techniques need to be further enhanced. Services of

cloud computing are provided across the entire computing spectrum. Nowadays, organizations and



companies are moving and extending their business by adopting the cloud computing to lower their cost. This can contribute to free more man-powers to focus on creating strategic differentiation and business division of labor is clearer. According to the difference of access scope, cloud can be divided into three types: public cloud, private cloud, and hybrid cloud. Public cloud is as the property of service provider and can be used in public, private cloud refers to being the property of a company, and hybrid cloud is the blends of public and private cloud. Most of the existing cloud services are provided by large cloud service companies such as Google, Amazon, and IBM. A private cloud is a cloud in which only the authorized users can access the services from the provider. In the public cloud anybody can use the cloud services whereas the hybrid cloud contains the concept of both public and private clouds. Cloud computing can save an organization's time and money, but trusting the system is more important because the real asset of any organization is the data which they share in the cloud to use the needed services by putting it either directly in the relational database or eventually in a relational database through an application. Cloud computing brings a number of attributes that require special attention when it comes to trusting the system. The trust of the entire system depends on the data protection and prevention techniques used in it. Numerous different tools and techniques have been tested and introduced by the researchers for data protection and prevention to gain and remove the hurdle of trust but there are still gaps which need attention and are required to be lined up by making these techniques much better and effective. The meaning of security is plentiful. Security is the combination of confidentiality, the prevention of the unauthorized disclosure of information, integrity, the prevention of the unauthorized amendment or deletion of information, and availability, the prevention of unauthorized withholding of information. The major issues in the cloud computing include resource security, resource management, and resource monitoring. Currently, there are no standard rules and regulations to deploy applications in the cloud, and there is a lack of standardization control in the cloud. Numerous novel techniques had been designed and implemented in cloud; however, these techniques fall short of ensuring total security due to the dynamics of the cloud environment. The inherent issues of data security, governance, and management with respect to control in the cloud computing are discussed. The key security, privacy, and trust issues in the existing Environment of cloud computing and help users to recognize the tangible and intangible threats related to its use. According to the authors, there are three major potential threats in cloud computing, namely, security, privacy, and trust. Security plays a critical role in the current era of long dreamed vision of computing as a utility. It can be divided into four subcategories: safety mechanisms, cloud server monitoring or tracing, data confidentiality, and avoiding malicious insiders'

illegal operations and service hijacking. A data security framework for cloud computing networks is proposed by different authors. The authors mainly discussed the security issues related to cloud data storage. There are also some patents about the data storage security techniques. A security and privacy framework for RFID in cloud computing was proposed for RFID technology integrated to the cloud computing, which will combine the cloud computing with the Internet of Things. In this paper, we will review different security techniques and challenges for data storage security and privacy protection in the cloud computing environment. This paper presents a comparative research analysis of the existing research work regarding the techniques used in the cloud computing through data security aspects including data integrity, confidentiality, and availability. Data privacy issues and technologies in the cloud are also studied, because data privacy is traditionally accompanied with data security. Comparative studies on data security and privacy could help to enhance the user's trust by securing data in the cloud computing environment.

SECURITY ISSUES RELATED TO CLOUD COMPUTING: Data Integrity: Data integrity refers to maintaining and assuring the accuracy and consistency of data over its entire life-cycle and is a critical aspect to the design, implementation and usage of any system which stores, processes, or retrieves data. The term data integrity is broad in scope and may have widely different meanings depending on the specific context – even under the same general umbrella of computing. This article provides only a broad overview of some of the different types and concerns of data integrity. Data integrity is the opposite of data corruption, which is a form of data loss. The overall intent of any data integrity technique is the same, ensure data is recorded exactly as intended (such as a database correctly rejecting mutually exclusive possibilities,) and upon later retrieval, ensure the data is the same as it was when it was originally recorded. In short, data integrity aims to prevent unintentional changes to information. Data integrity is not to be confused with data security, the discipline of protecting data from unauthorized parties. Data integrity is one of the most critical elements in any information system. Generally, data integrity means protecting data from unauthorized deletion, modification, or fabrication. Managing entity's admittance and rights to specific enterprise resources ensures that valuable data and services are not abused, misappropriated, or stolen. Data integrity is easily achieved in a standalone system with a single database. Data integrity in the standalone system is maintained via database constraints and transactions, which is usually finished by a database management system (DBMS). Transactions should follow ACID (atomicity, consistency, isolation, and durability) properties to ensure data integrity. Most databases support ACID transactions and can preserve data integrity. Authorization is used to control the access of data. It is the mechanism by which a system determines what level of access a particular authenticated user should have to secure resources controlled by the system. Data integrity in the cloud system means preserving information integrity. The data should not be lost or modified by unauthorized users. Data integrity is the basis to provide cloud computing service such as SaaS, PaaS, and IaaS. Besides data storage of large-scaled data, cloud computing environment usually provides data processing service. Data integrity can be obtained by techniques such as RAID-like strategies and digital signature.

Data Confidentiality: It is important for users to store their private or confidential data in the cloud. Authentication and access control strategies are used to ensure data confidentiality. The data confidentiality, authentication, and access control issues in cloud computing could be addressed by increasing the cloud reliability and trustworthiness. These days, you're frequently processing, storing, or transmitting data that's subject to regulatory and compliance requirements. When that data falls under regulatory or compliance restrictions, your choice of cloud deployment (whether private, hybrid or public) hinges on an understanding that the provider is fully compliant. Otherwise, there's the risk

of violating privacy, regulatory or other legal requirements. The implications for maintaining the security of information are significant when it comes to privacy.

There have been enough privacy violations outside the realm of cloud computing for there to be concern about any system—cloud-based or traditional—when storing, processing or transmitting sensitive information. The cloud has its own examples as well. In 2010, several cloud privacy information exposures occurred with a number of cloud-based services, including Face book, Twitter and Google. Privacy concerns within the cloud model aren't new. As a tenant with legal privacy obligations, your handling of privacy issues is no different if you use the cloud. Just as you wouldn't store such information on a server without adequate controls, you wouldn't select any cloud provider without verifying it meets the same benchmarks for how it protects data at rest, in transmission or while processing. Your policies may exclude any external provider managing sensitive information for you, including cloud providers. While there may be a perception that the computer on your desk is safer than a public cloud, it's probably not (unless you're taking unusual technical and procedural precautions). Safety and governance are two separate issues, and as part of due diligence, you'll need to fully understand your provider's privacy governance, as well as its security practices and guidelines. As with personal information subject to privacy laws, various classes of business and national security information are also subject to regulation and law. National security information and processes benefit from strong and highly developed laws, regulations and guidance. These derive from public law and flow down through each individual agency or officially responsible entity.

Given the size of the government and the number of levels and jurisdictions, it seems the government itself could operate a series of community clouds for its exclusive use, thereby obtaining the benefits and avoiding the issues with cohabitation in a public cloud. On the other hand, if the government were to use a public cloud, that service would have to fully meet the interests of the tenant and all applicable regulations and laws. It's possible that a tenant could implement additional security controls that meet regulatory or legal requirements even when the underlying public Infrastructure as a Service (IaaS) or Platform as a Service (PaaS) does not fully meet those same requirements. However, it must be understood that the range of additional controls that can be added by a tenant are limited and can't overcome many gaps in some public cloud services.

SECURITY RISKS OF CLOUD COMPUTING:

Top five security concerns in mind.

Secure data transfer	Secure software interfaces	Secure stored data	User access control	Data Separation
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Secure data transfer.

All of the traffic travelling between your network and whatever service you're accessing in the cloud must traverse the Internet. Make sure your data is always travelling on a secure channel; only connect your browser to the provider via a URL that begins with "https" Also, your data should always be encrypted and authenticated using industry standard protocols, such as IPSec (Internet Protocol Security), that have been developed specifically for protecting Internet traffic.

Secure software interfaces.

The Cloud Security Alliance (CSA) recommends that you be aware of the software interfaces, or APIs, that are used to interact with cloud services. "Reliance on a weak set of interfaces and APIs exposes organizations to a variety of security issues related to confidentiality, integrity, availability, and accountability," says the group in its Top Threats to Cloud Computing document. CSA recommends learning how any cloud provider you are considering

integrates security throughout its service, from authentication and access control techniques to activity monitoring policies.

Secure stored data

Your data should be securely encrypted when it's on the provider's servers and while it's in use by the cloud service. In Q&A: Demystifying Cloud Security, Forrester warns that few cloud providers assure protection for data being used within the application or for disposing of your data. Ask potential cloud providers how they secure your data not only when it's in transit but also when it's on their servers and accessed by the cloud- based applications. Find out, too, if the providers securely dispose of your data, for example, by deleting the encryption key.

User access control

Data stored on a cloud provider's server can potentially be accessed by an employee of that company, and you have none of the usual personnel controls over those people. First, consider carefully the sensitivity of the data you're allowing out into the cloud. Second, follow research firm Gartner's suggestion to ask providers for specifics about the people who manage your data and the level of access they have to it.

Data separation

Every cloud-based service shares resources, namely space on the provider's servers and other parts of the provider's infrastructure. Hypervisor software is used to create virtual containers on the provider's hardware for each of its customers. But CSA notes that "attacks have surfaced in recent years that target the shared technology inside Cloud Computing environments." So, investigate the compartmentalization techniques, such as data encryption, the provider uses to prevent access into your virtual container by other customers

Although you should address these security issues with the cloud provider before you entrust your data to its servers and applications, they shouldn't be a deal breaker. Cloud computing offers small businesses too many benefits to dismiss out of hand. After all, you already met many of these security challenges the first time you connected your network to the Internet

SECURITY TECHNIQUES THAT CAN PROTECT DATA OVER THE CLOUD:

For the safety, security and privacy of the data, there are several security techniques that can protect data over the cloud. They are:

HOMOMORPHIC ENCRYPTION:

Encryption is usually used to ensure the confidentiality of data. It ensures that the cipher text algebraic operation results are consistent with the clear operation after encryption results; besides, the whole process does not need to decrypt the data. The implementation of this technique could well solve the confidentiality of data and data operations in the cloud.

Gentry firstly proposed the fully homomorphic encryption method, which can do any operation that can be performed in clear text without decrypting. It is an important breakthrough in the homomorphic encryption technology. However, the encryption system involves very complicated calculation, and the cost of computing and storage is very high. This leads to the fact that the fully homomorphic encryption is still far from real applications.

A cryptographic algorithm named Diffie-Hellman is proposed for secure communication, which is quite dissimilar to the key distribution management mechanism. For more flexibility and enhanced security, a hybrid technique that combines multiple encryption algorithms such as RSA, 3DES, and random number generator has been proposed. RSA is useful for establishing secure communication connection through digital signature based authentication while 3DES is particularly useful for

encryption of block data. Besides, several encryption algorithms for ensuring the security of user data in the cloud computing are discussed.

ENCRYPTED SEARCH AND DATABASE: Because the homomorphic encryption algorithm is inefficient, researchers turn to study the applications of limited homomorphic encryption algorithm in the cloud environment. Encrypted search is a common operation

Searching on encrypted data (SoE), also known as privacy preserving keyword-based retrieval over encrypted data. This scheme allows a user to store its symmetrically encrypted data on an untrusted server and later search for a specific keyword by giving the server a search capability that does not reveal the keyword or any plaintext. Its security and efficiency was later improved. A symmetric-key version of SoE that supports conjunctive keyword search was developed and later proposed a public-key version of encryption with keyword search (PEKS), where any party in possession of the public key can encrypt and send encryption to an untrusted server, while only the owner of the corresponding private key can generate keyword search capabilities. The server can identify all messages containing the searching keyword, but learn nothing else.

DISTRIBUTIVE STORAGE: Distributive storage of data is also a promising approach in the cloud environment. The security issues related to data privacy in the cloud computing including integrity of data, intrusion, and availability of service in the cloud are discussed from time to time. To ensure the data integrity, one option could be to store data in multiple clouds or cloud databases. The data to be protected from internal or external unauthorized access are divided into chunks and Shamir's secret algorithm is used to generate a polynomial function against each chunk. The technique can achieve maximum security by dividing the user's data into pieces. These data chunks are then encrypted and stored in separated databases which follow the concept of data distribution over cloud. Because each segment of data is encrypted and separately distributed in databases over cloud, this provides enhanced security against different types of attacks.

The distribution of resources for cloud computing based on the tailored active measurement. The tailored measurement technique is based on the network design and the specific routes for the incoming and outgoing traffic and gradually changing the resources according to the user needs. Tailored measurement depends on the computing resources and storage resources. Because of the variable nature of networks, the allocation of resources at a particular time based on the tailored active method does not remain optimal. The resources may increase or decrease, so the system has to optimize changes in the user requirement either offline or on-line and the resource connectivity

HYBRID TECHNIQUE: A Hybrid Cloud is a Private Cloud linked to one or more external Cloud Services, centrally managed, provisioned as a single unit, and circumscribed by a secure network. It provides virtual IT solutions through a mix of both Public and Private Clouds. Hybrid Clouds provide more secure control of the data and applications and allows various parties to access information over the Internet. It also has an open architecture that allows interfaces with other management system.

A hybrid technique is proposed for data confidentiality and integrity, which uses both key sharing and authentication techniques. The connectivity between the user and the cloud service provider can be made more secure by utilizing powerful key sharing and authentication processes. RSA public key algorithm can be used for secure distribution of the keys between the user and cloud service providers. A three-layered data security technique is proposed: the first layer is used for authenticity of the cloud user either by one factor or by two factor authentications; the second layer encrypts the user's data for ensuring protection and privacy; and the third layer does fast recovery of data through a speedy decryption process.

CONCLUSION: Security in the cloud must be included from the start. This demands a new approach to end-to-end security that supports strong isolation of data, even when business process is outsourced into the cloud. Cloud processing needs isolation between users of shared services, as well as isolation between services. Cloud computing is the most promising and emerging technology for the next generation. The major barrier and hurdles in the rapid growth of cloud computing are data security and privacy issues. Reducing data storage and processing cost is a mandatory requirement of any organization, while analysis of data and information is always the most important tasks in all the organizations for decision making. So, no organizations will transfer their data or information to the cloud until the trust is built between the cloud service providers and consumers. A number of techniques have been proposed by researchers for data protection and to attain highest level of data security in the cloud. However, there are still many gaps to be filled by making these techniques more effective. This paper surveyed different techniques about data security and privacy use in the cloud. Although you should address these security issues with the cloud provider before you entrust your data to its servers and applications, they shouldn't be a deal breaker. Cloud computing offers small businesses too many benefits to dismiss out of hand. After all, you already met many of these security challenges the first time you connected your network to the Internet.

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CHALLENGES AND HARDSHIPS OF M-COMMERCE IN INDIA

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Abstract

Electronic Commerce has connected the entire global business and trade together and now the shift from Electronic Commerce to Mobile Commerce have paved the way for everyone to connect to the global market using their Smartphones. E-commerce along with m-commerce provides a frontier for conducting global business and trade and they offer various benefits to both the consumers as well as businesses on a massive scale. It is not only the organizations and communities in India who are conducting business using E-commerce, but now they are gradually shifting to M-commerce. Individual entrepreneurs are also adopting M-commerce for doing business. It is the next generation wireless e-commerce that needs no wire and plug-in devices. It is increasingly gaining acceptance now-a-days amongst various sections of the society. The flexibility nature of M-Commerce seems to be a driving force behind the development of M-Commerce applications such as Mobile Banking, Mobile Entertainment and Mobile Marketing etc. The enormous growth in the use mobile phone and the demand of Indians shows that major Indian population has adapted to mobile phone and advancement in mobile technology and its usage as now-a-days mobiles have become smart and is not limited for making basic phone calls, messaging or playing games but can be used virtually in every sector of human activity whether it is private, business or government. M-commerce is at emerging stage in India. Although many people have started using e-commerce but still they hesitate to use m-commerce because of different problems and complexity of the mobile applications such as security issues, payment problems and awareness about M-commerce applications and its usage techniques etc.

Keywords: E-commerce, M-commerce, Mobile Commerce, mobile applications, problems & challenges in M-commerce in India, Future of M-commerce in India

INTRODUCTION: The convergence of Information technology (IT) and Information Communication technologies (ICT) has led to development of the by-product i.e. M-commerce which sometimes may also be referred to as extension of E-commerce through wireless medium. This convergence provides and enables some distinctive services which is not possible in E-commerce. So, in other words, M-Commerce = E-Commerce + Wireless device (mobile phone) The scope of M-commerce includes content, entertainment, travel, banking, marketing and much more. Generally, M-commerce applications are of two categories:

Content Delivery: It includes discussion, notification, order confirmation, feedback and trackers

Transactions: it includes purchasing, making payments, checkouts, data entry & maintenance. We can say M-Commerce is ubiquitous, it is online anywhere, anytime and on any device and is providing new business opportunities. "Smartphone penetration in India will increase from 8% by end of 2014 to more than 21% in 2017 ensuring that large population is commerce ready" says K.Gupta, analyst, e-business & Channel strategy, Forrester researcher. Today there are about 44 million users of smart phone in India whose rate are growing at 150% per year. Mobile commerce is still in its evolving phase in India primarily used for basic banking, purchase of railway tickets, payment of utilities etc, but its presence is being felt all around the business world. Companies like ICICI, Reliance, Airtel, Tata etc are using this technology or commerce platform to facilitate their customers for various functioning & services these are changing rapidly. Mobile commerce offers many benefits like ubiquity, personalisation, flexibility, and instant connectivity. The future world will be able to shop using a handheld computing device, PDA, or Smart device in virtually any place such as Malls, Restaurants, Hotels, Airport etc. Ease of Internet access and navigation are the critical factors that will result in rapid adoption of M-commerce. PayTM Mall is an example of a Virtual Mall.

It is perceived that adapted and pioneering services, right models and right regulations will drive the future E-commerce and M-commerce and it will occupy huge segment in Indian market.

In India, there are about 121 million Internet users i.e. internet penetration is only about 10.1% in India in comparison to US and China where it is about 81% and 36% respectively. The price economisation by the broadband providers has given a consistent pace to the rise of Internet users. [14] and this number is expected to touch 1.2 billion with monthly growth of 0.71% by 2015 according to the press release of TRAI, dated 29 May 2013. and will become the second largest mobile market after China. [15]

LITERATURE REVIEW

Mobile commerce after E-commerce in India

E-commerce is growing at a fast pace in today's scenario. It is not only used for purchasing orders of electronic goods but also for other goods so there is need for development of E-commerce protocols that can ensure confidentiality, integrity & reliable exchange and atomicity. [2] People around the world are now making use of communication centric and computing centric devices for electronic communication facilities in their daily lives, which involves a formal interaction between the parties who have never met before. Thus, these communication network have facilitated remote working & conduct business by creating other virtual shared environments. [1] M-commerce is a wireless network and covers all type of trades whether it is Business to Business (B2B), Business to Consumer (B2C) and Consumer to consumer (C2C). The increased demand of trade and commerce has forced the corporate world to introduce a new platform for commerce which can reach the masses and M-commerce having unique characteristics over E-commerce have attracted massive traffic.

[4] Mobility is an advantage of M-commerce over the E-commerce as M-commerce have break the location barrier to access media such as T.V, Internet etc. M-commerce with its ample abilities is getting more popular & more complete compared to E-commerce. M-commerce has several advantages to the users which they do not get from E-commerce. [3] Today corporate conduct online business in four major areas i.e. secure distribution & information, online banking & Billing, Corporate purchasing & value chain trading, direct marketing, Selling & services [5] Practitioners & academicians has also attracted towards M-commerce & after 2000, research activities have increased significantly which makes us to believe that M-commerce is pervasive. M-commerce research and avenues for researchers will definitely sprout in future. [6] Mobile commerce services and their usage have now been burning issues among marketing scholars & information systems. Now many service providers want to take advantages of the business opportunities offered by M-commerce so they are making substantial investments in M-commerce business. Value added services in M-commerce have become a toll to take competitive edge in the market place for eg: Mobile banking represents additional services in financial sector which adds mobility to internet banking used over fixed networks. [7] Mobile commerce have the potential to bridge the digital divide as it has the opportunities to connect businesses, small organizations and consumers and allow to reach one another easily than ever before. [8]

M-commerce issues in India

M-commerce is complex to adapt for Indians as it is at emerging level in India. Now Indian users have started using M-commerce for web access, surfing & a few times shopping. They have also focused on how M-commerce has evolved & developing in India along with some benefits & drawback of M-commerce in India. [10] (Batra & Juneja, 2013) In their research they listed the issues faced by M-commerce industry and also discussed about the internet speed, security issues to pay online & make purchases that are not sufficient in India. [9] (Tandon Mandal & Saha, 2012) further

extended the research & explored the possible issues in M-commerce and discussed the challenges associated with wireless technology protocols like GPRS, WAP, UMTS.[14] The rapid growth of emergence of m-commerce makes it difficult to analyse the technological problem associated with it or introduced, especially the privacy issues & security issues related problems [11] Security issues specially where exchange of money is involved is a challenge both for the user & the M-commerce service provider because M-commerce is not possible without a secure environment. [12] Trust of the business operator & clients on the use of the internet for doing business is another hurdle due to which they revert back to the traditional methods of doing businesses. Educating the users using E-commerce is the most crucial element but still it is in its infancy stage. Programmes like Trojan horse which can be easily sent to remote computers with the help of email attachment can by-pass the authentication & authorisation mechanism used in E-commerce supposed to be the greatest threat to the online commerce platform [11] (Varshney G & Madan P, 2010) they have stressed on the need of mobile user views to be involved in the design of mobile devices and also the collaboration of handset manufacturers and software engineers providing M-commerce platform. According to Tandon, Mandal & Saha, M-commerce has explored and presented the possible problems in mobile commerce. They had tried to bring out the possible benefits and issues associated with this wireless technology. [16]

CURRENT SCENARIO OF MOBILE COMMERCE IN INDIA

The number of telephone subscribers in India increased from 996.49 million at the end of Mar-15 to 1006.96 million at the end of June 2015, resulting a growth of 1.05% over the previous quarter. This reflects year-on-year (Y-O-Y) growth of 6.79% over the same quarter of last year. The overall Teledensity in India is 79.98 as on 30th June 2015.

Trends in Telephone subscribers and Teledensity in India.



Fig. 1: Trends in Telephone subscribers and Teledensity in India

Subscription in Urban Areas increased from 577.18 million at the end of Mar-15 to 584.21 million at the end of Jun-15, and Urban Teledensity increased from 148.61 to 149.70. Rural subscription increased from 419.31 million to 422.75 million, and Rural Teledensity also increased from 48.37 to 48.66 during the same period. Out of the total subscription, the share of the Rural areas declined from 42.08% at the end of Mar-15 to 41.98% at the end of Jun-15.4. With a net addition of 10.91 million subscribers during the quarter, total wireless (GSM+CDMA) subscriber base increased from 969.89 million at the end of Mar-15 to 980.81 million at the end of Jun-15, registering a growth rate of 1.13% over the previous quarter. The year-on-year (Y-O-Y) growth rate of wireless subscribers for Jun-15 is 7.20%. Wireless Tele-density increased from 77.27 at the end of Mar-15 to 77.90 at the end of Jun-Wire line subscriber base further declined from 26.59 million at the end of Mar-15 to

million at the end of Jun-15, registering a decline of 1.66%. The year-on-year (Y-O-Y) decline in wire line subscribers for Jun-15 is 6.69%. Wireline Teledensity declined from 2.12 at the end of Mar-15 to 2.08 at the end of Jun-15. Total number of Internet subscribers has increased from 302.35 million at the end of Mar-15 to 319.42 million at the end of Jun-15, registering a quarterly growth rate of 5.65%. Out of 319.42 million, Wired Internet subscribers are 19.21 million and Wireless Internet subscribers are 300.22 million. [14]

Wireless Subscribers	
Total Wireless Subscribers 980.81 Million	980.81 Million
% change over the previous quarter	1.13%
quarter Urban Subscribers	562.95 Million
Rural Subscribers	417.85 Million
GSM Subscribers	930.92 Million
CDMA Subscribers	49.89 Million
Market share of Private Operators	91.75%
Market share of PSU Operators	8.25%
Teledensity	77.90
Urban Teledensity	144.25
Rural Teledensity	48.10

Table 1: The Indian Telecom Services Performance Indicators April - June, 2015

PROBLEMS AND ISSUES IN M-COMMERCE IN INDIA

Mobile commerce in India is still at infant stage & companies are still in trialling stage for growth of M-commerce. Though M-commerce could provide opportune and hassle-free environment for companies and for customers, yet there are many reasons people are not using M-commerce so widely:

Lack of Awareness & Personal Touch: Most of the people of India even does not know what they have with them and how to make the best use of it. Even some of them feeling insecure while doing transaction through smart phone.

Usability problem and language barrier: One of the major issues in adaptability of M-commerce is limited storage capacity of devices, small size screen and keyboard etc. Large screens and use of colours can enhance usability but at the expense of battery life which is another issue as smart phone requires regular charging. The language problem is another major issue in usability of M-commerce since all our country people are not well versed with English language. Also, user interface is often difficult to use. Use of graphics is limited in various M-commerce applications.

Technical limitations and low internet connectivity: In India, we have insufficient bandwidth as the demand is increasing day by day. Also, the major issue that service providers are facing is licensing of 3G and 4G. In India transmission & power consumption limitation are quite often.

Security Issues: Fear of hacking and attack by viruses to the device is commonly seen in the user. Even while doing some transaction users lost their money and get nothing. So, security system is a challenge.

Internet Infrastructure: In India, we observe that internet infrastructure is growing rapidly yet the amount of investment & technology needed is not sufficient for huge populated country like ours. The infrastructure is needed to increase the speed & security which is also major hindrance to security related problem faced by the business and customers.

FUTURE CHALLENGES IN M-COMMERCE: Next generation mobile commerce will allow user to do any sort of transaction including buying and selling of the goods, asking any services, transferring the ownership or rights, transacting and transferring the money by accessing wireless internet service on the cell phone itself. Assuming its wide potential reach all major mobile handset manufacturing companies will make WAP enabled smart phones and providing the maximum wireless internet and web facilities covering personal, official and commerce requirement to pave the way of m-commerce that would be very fruitful for them. It will be such that broad reaches ability/Ubiquitous computing will allow people to be contacted anywhere and at any time. It should be convenient and provides instant connectivity also localization of products and services-knowing where the user is located at any given time shall be provided. Next step in M-commerce should be regarding security which will provide exclusive access to the contents/services and the service providers which keep the identity of the owner.

CONCLUSION: In the previous few years it has been seen that the potential of M-commerce has paved a way to new emerging practices for businesses in today's world and India is also showing the positive prints of adaptation of M-commerce platform for the same. The reason for this is the easy availability of smartphones, with the help of this, people have got the freedom to do almost every aspect of business from browsing the new products, adding it to cart and making the payment in just a few clicks. M-commerce as game changer in the future online market. Application and wireless technology promise to develop together. The opportunity is much beyond mobile bills payment and include all types of transaction including payment gateway technologies and all types of other business transaction. The enhance 3G, 4G penetration have opened up new possibilities on M-commerce. Now Government is also developing internet infrastructure which is needed to increase the speed & security which is also major hindrance. Thus, overcoming these problems & issues no one can stop m-commerce to expand its growth and help the people to connect to the global business.

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GAS LEAKAGE DETECTION AND ALERT MODEL FOR VEHICLE

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Abstract

Environment is most important of all of us. In India, we have “Swachha Bharat Abhiyan”, drive and Green computing projects. Now a day, LPG is one of the alternate fuels used in vehicles to avoid pollutions. LPG is also economical as compare to petrol and diesel. Therefore it is recommended to use gas for vehicle. We need to secure the life of people those who are using alternate fuel. Security is necessary for everyone. We should have gas leakage detection and alert system in our vehicle. People may ignore the low concentration of gas leakage. In such a case, some high security system becomes an essential and helps to protect from gas leakage accidents in India. Therefore our proposed model, detect gas leakage and also helps to control leakage by alerting the concerned person. In this research paper, the designed a model which sniffs LPG leakage and alerts through SMS Call, Beep sound and LED blink. This research paper provides a cost effective and highly accurate system.

Keywords: *GSM (Global System for Mobile communications), Microcontroller, SMS (Short Message Service), Arduino, gas sensor, environment.*

INTRODUCTION: Today, life is very fast. Everyone is busy with multiple tasks at a time. There will be probability of accidents. To avoid such accidents and to secure ourselves from leaking of raw gas and fire for people, first step is to take precaution and minimize errors. Second step is to develop such a system so that if any wrong thing happened we could be able to control the situation by developing such system. Gas leakage accident in Bhopal, Chernobyl, Okishima was an example of gas leakage accident in India, Russia and Japan. This tragedy is happened because of gas leakage. This was world's worst gas leakage industrial accident. Gas leakage detection is not only important but stopping leakage is equally essential. In this research paper, using embedded system, gas leakage detection and alert model for vehicle is proposed.

LITERATURE SURVEY: Gas leak detection methods became a concern after the effects of harmful gases on human health were discovered. Before modern electronic sensors, early detection methods relied on less precise detectors. Through the 19th and early 20th centuries, coal miners would bring canaries down to the tunnels with them as an early detection system against life-threatening gases such as carbon dioxide, carbon monoxide and methane. The canary, normally a very songful bird, would stop singing and eventually die if not removed from these gases, signaling the miners to exit the mine quickly. Before the development of electronic household carbon monoxide detectors in the 1980s and 1990s, carbon monoxide presence was detected with a chemically infused paper that turned brown when exposed to the gas. Since then, many electronic technologies and devices have been developed to detect, monitor, and alert the leak of a wide array of gases. As the cost and performance of electronic gas sensors improved, they have been incorporated into a wider range of systems. Their use in automobiles was initially for engine emissions control, but now gas sensors may also be used to insure passenger comfort and safety. Carbon dioxide sensors are being installed into buildings as part of demand-controlled ventilation systems. Sophisticated gas sensor systems are being researched for use in medical diagnostic, monitoring, and treatment systems, well beyond their initial use in operating rooms. Gas monitors and alarms for carbon monoxide and other harmful gases are increasingly available for office and domestic use, and are becoming legally required in some jurisdictions.

Originally, detectors were produced to detect a single gas. Modern units may detect several toxic or combustible gases, or even a combination.[1] Newer gas analyzers can break up the component signals from a complex aroma to identify several gases simultaneously.[2]

RESEARCH METHODOLOGY The functionality of system is divided into three main steps. In the initial step, the gas leakage is detected by the gas sensor MQ-5. This detects the gas leakage and gives the signal to the arduino. After that in second step the arduino receives the signal, which sends by gas sensor. It sends activation signal to other external devices attached with it such as Exhaust fan, Buzzer, LED (Light Emitting Diode), GSM module. In the last step, many tasks have been performed such as buzzer activates simultaneously Light emitting diode blinks, GPRS module activated, which send warning SMS to the user. Components used in Model: This model is consists of following components. Descriptions are as given below.

Arduino/Genuino UNO: Arduino/Genuino Uno is a microcontroller board based on the ATmega328P (datasheet). It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz quartz crystal, a USB connection, a power jack, an ICSP header and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started.. You can tinker with your UNO without worring too much about doing something wrong, worst case scenario you can replace the chip for a few dollars and start over again.

GSM/GPRS module : GSM/GPRS module is used to establish communication between a computer and a GSM-GPRS system. Global System for Mobile communication (GSM) is an architecture used for mobile communication in most of the countries. Global Packet Radio Service (GPRS) is an extension of GSM that enables higher data transmission rate. GSM/GPRS module consists of a GSM/GPRS modem assembled together with power supply circuit and communication interfaces (like RS-232, USB, etc) for computer. GSM/GPRS MODEM is a class of wireless MODEM devices that are designed for communication of a computer with the GSM and GPRS network. It requires a SIM (Subscriber Identity Module) card just like mobile phones to activate communication with the network. Also they have IMEI (International Mobile Equipment Identity) number similar to mobile phones for their identification. A GSM/GPRS MODEM can perform the following operations:

Receive, send or delete SMS messages in a SIM.

Read, add, search phonebook entries of the SIM.

Make, Receive, or reject a voice call.

Gas Sensor (MQ5): The Grove - Gas Sensor(MQ5) module is useful for gas leakage detection (in home and industry). It is suitable for detecting H₂, LPG, CH₄, CO, Alcohol. Due to its high sensitivity and fast response time, measurements can be taken as soon as possible. The sensitivity of the sensor can be adjusted by using the potentiometer.

LCD: LCD stands for liquid crystal display. They come in many sizes 8x1 , 8x2 , 10x2 , 16x1 , 16x2 , 16x4 , 20x2 , 20x4 , 24x2 , 30x2 , 32x2 , 40x2 etc . Many multinational companies like Philips Hitachi Panasonic make their own special kind of lcd's to be used in their products. All the lcd's performs the same functions(display characters numbers special characters ASCII characters etc). Their programming is also same and they all have same 14 pins (0-13) or 16 pins (0 to 15).

LCD: ALL LCDs have

Eight(8) Data pins

VCC (Apply 5v here)

GND (Ground this pin)

RS (Register select)

RW (read - write)

EN (Enable)

V0 (Set Lcd contrast).

WORKING MODEL

4.1 Hardware Design: Proposed model will perform the following functions.

Detect Gas Leakage (like LPG leak, Butane leak, Methane leak) or any such petroleum based gaseous substance that can be detected using MQ5 Sensor.

Setup an SMS based Alert Mechanism and send 3 SMS (3 alert messages) to 2 specified mobile numbers (input inside the arduino program)

Produce a sound alarm upon gas leak and stop the alarm once gas leak is under control (gas presence in atmosphere is under normal range)

Display status in an LCD using a 16×2 LCD module.

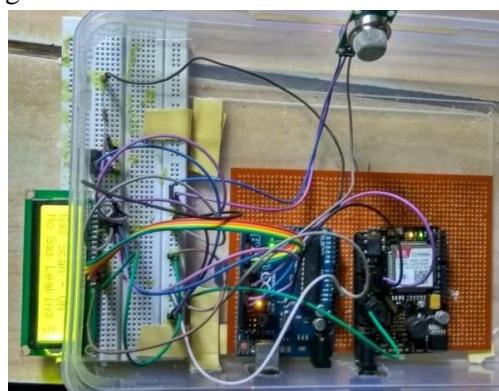


Figure 1.1: Gas leakage detection and alert model

4.2. Software Design: Program Code is as given below:

```
#include <SoftwareSerial.h>
#include <LiquidCrystal.h> LiquidCrystal lcd(12, 11, 5, 4, 3, 2);
SoftwareSerial mySerial(9, 10);
int sensor=7;
int speaker=8;
int gas_value, Gas_alert_val, Gas_shut_val; int Gas_Leak_Status;
int sms_count=0;
void setup(){
pinMode(sensor,INPUT); pinMode(speaker,OUTPUT); mySerial.begin(9600); Serial.begin(9600);
lcd.begin(16,2);
delay(500); }
void loop() {
CheckGas(); CheckShutDown(); }
void CheckGas() {
lcd.setCursor(0,0); lcd.print("Gas Scan - ON"); Gas_alert_val=ScanGasLevel();
if(Gas_alert_val==LOW) {
SetAlert(); // Function to send SMS Alerts } }
int ScanGasLevel() {
gas_value=digitalRead(sensor); // reads the sensor output (Vout of LM35)
return gas_value; // returns temperature value in degree Celsius }
```

```

void SetAlert() {
digitalWrite(speaker,HIGH);
while(sms_count<3) //Number of SMS Alerts to be sent {
SendTextMessage(); // Function to send AT Commands to GSM module }
Gas_Leak_Status=1; lcd.setCursor(0,1); lcd.print("Gas Alert! SMS Sent!"); }
void CheckShutDown() {
if(Gas_Leak_Status==1) {
Gas_shut_val=ScanGasLevel(); if(Gas_shut_val==HIGH) {
lcd.setCursor(0,1); lcd.print("No Gas Leaking"); digitalWrite(speaker,LOW); sms_count=0;
Gas_Leak_Status=0; } } }
void SendTextMessage(){
mySerial.println("AT+CMGF=1"); //To send SMS in Text Mode delay(1000);
mySerial.println("AT+CMGS=\"+919495xxxxxx\"\r"); // change to the phone number you using
delay(1000);
mySerial.println("Gas Leaking!"); //the content of the message delay(200);
mySerial.println((char)26); //the stopping character delay(1000);
mySerial.println("AT+CMGS=\"+918113xxxxxx\"\r"); // change to the phone number you using
delay(1000);
mySerial.println("Gas Leaking!"); //the content of the message delay(200);
mySerial.println((char)26); //the message stopping character delay(1000);
sms_count++;}

```

RESULT AND ANALYSIS: The proposed systems are tested on the model of smart home (which is shown in Figure 1). The developed GSM based security system gives good response to the sensor and sends SMS when it detects gas.. The time taken by the system to deliver the SMS is dependent on the coverage area or range of the specified mobile network. It is very cost effective, as day by day the cost of SMS is reducing.

CONCLUSION: The GSM (Global System for Mobile communication)based vehicle security system has been designed and tested with the mobile network. This type of system is useful to avoid accidents and provides security. This model, gas sensors sense gas, it alerts the people by alarm as well as a text message is sent to a feed mobile number to take quick and immediate action to control the situation. Protection from any gas leakage in cars. For safety from gas leakage in heating gas fired appliances like boilers, domestic water heaters for safety from gas leakage in cooking gas fired appliances like ovens, stoves etc Large industries which uses gas as their production. They are used in gas leakage detecting equipment's in family, Car and industry, are suitable for detecting of LPG, iso-butane, propane, LNG, avoid the noise of alcohol and cooking fumes and cigarette smoke.

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BIOINFORMATICS SEQUENCE CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORK

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Abstract

By analyzing the protein sequence, we can easily find out the disease by which human body is affected. For that, this paper provides the traditional algorithms of Transcription (conversion of DNA to RNA) and Translation (RNA to Protein conversion) and fetches the useful data from database in which protein sequences of different types of diseases are stored so that by comparing the pattern matching, any disease can be identified.

Along with the traditional approach, this paper provides a deep learning model called convolutional neural network approach also, on various datasets and compared with traditional approach.

The basic terms related to bioinformatics like DNA sequence, RNA sequence, Protein sequence, Transcription and Translation are also explained.

Keywords: Bioinformatics, DNA sequence, RNA sequence, Protein sequence, Transcription, Translation.

INTRODUCTION: Biological research is becoming increasingly database driven, motivated, in part, by the advent of large-scale functional genomics and proteomics experiments such as those comprehensively measuring gene expression. Consequently, a challenge in bioinformatics is integrating databases to connect this disparate information as well as performing large-scale studies to collectively analyse many different data sets. This approach represents a paradigm shift away from traditional single-gene biology, and it often involves statistical analyses focusing on the occurrence of particular features (e.g., folds, functions, interactions, pseudogenes or localization) in a large population of proteins. Moreover, the explicit application of machine learning techniques can be used to discover trends and patterns in the underlying data. It also compares and classifies using Convolutional Neural Network – a model of Deep Learning- to gain improvement in performance significantly.

RESEARCH OBJECTIVE: To match the bioinformatics sequence pattern with existing database and to improve the classification significantly using Deep Learning Model – Convolution Neural Network.

Literature Review

Bioinformatics (1) :

Fusion of biology & computer science

- Informatics: technologies for information management
- Uses information technology to store, curate, retrieve & analyze biological data
- Major areas of Endeavour: – creation, storage & management of (large) biological data sets – development of tools (algorithms, statistical analysis) to determine relationships among members of these data sets – analysis & interpretation of biological data

Types of Biological Data: In bioinformatics biological data mainly related to DNA, RNA and protein.

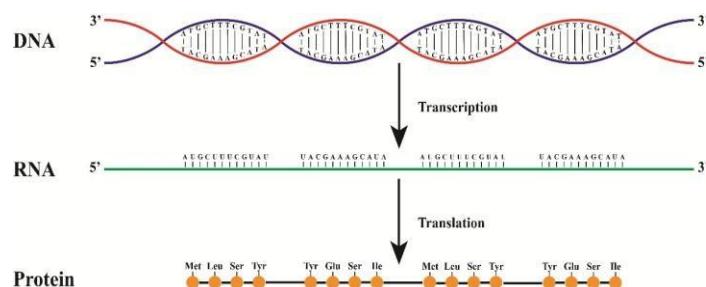


Figure: 1 Source: <https://goo.gl/QegHZC>

DNA Sequence: DNA or deoxyribonucleic acid- is the hereditary material in humans and almost all other organisms.

As shown in Figure. 1, the information in DNA is stored as a code made up of four chemical bases: adenine (A), guanine (G), cytosine (C), and thymine (T). These bases pair up with each other - A with T and C with G; to form units called base pairs. Each base is also attached to a sugar molecule and a phosphate molecule.

RNA sequence: Ribonucleic acid or RNA- is one of the three major macromolecules (along with DNA and proteins) that are essential for all known forms of life.

Each nucleotide in RNA contains adenine (A), cytosine (C), guanine (G), or uracil (U). Adenine and guanine are purines, cytosine and uracil are pyrimidines.

Protein Sequence: The protein as read off from the mRNA may not be in the final form that will be used in the cell. Some proteins contain signal Peptide, this signal peptide is used to guide the protein out of the nucleus towards its final cellular localization [7]. This signal peptide is cleaved-out at the cleavage site once the protein has reached (or is near) its final destination. Various Post-Translational modifications happen. The final protein is called the “mature peptide”.[2]

Transcription: Transcription [3] is the process by which the information contained in a section of DNA is transferred to a newly assembled piece of messenger RNA.

Translation: In this conversion of DNA to RNA by replacing compliment of ‘A’ to ‘U’, ‘C’ to ‘G’, ‘T’ to ‘A’ and ‘G’ to ‘C’. Translation is the process of decoding mRNA molecule into a polypeptide chain or protein. Each combination of 3 nucleotides on mRNA is called a codon or three-letter code word.

Each codon specifies a particular amino acid that is to be placed in the polypeptide chain (protein) [3]

Protein	Code triplets	Amino Acid Name
A	AAA,AAG	Lysine
B	AAU,AAC	Asparagine
C	ACU,ACC,ACA,ACG	Threonine
D	CGU,CGC,CGA,CGG,AGA,AGG	Arginine
E(start)	AUG	Methionine
F	AUU,AUC,AUA	Isoleucine
G	CAA,CAG	Glutamine
H	CAU,CAC	Histidine
I	CCU,CCC,CCA,CCG	Proline
K	GAA,GAG	Glutamic acid
L	GAU,GAC	Aspartic acid
M	GCU,GCC,GCA,GCG	Alanine
N	GGU,GGC,GGA,GGG	Glycine
O	GUU,GUC,GUA,GUG	Valine
P	UAU,UAC	Tyrosine
R	UCU,UCC,UCA,UCG,AGU,AGC	Serine
S	UGG	Tryptophane
T	UGU,UGC	Cysteine
U	UUA,UUG,CUU,CUC,CUA,CUG	Leucine
W	UUU,UUC	Phenylalmine
Stop	UAA,UAG,UGA	None

Table 1: conversion of Codon to Protein (Translation)

Transcription and Translation Algorithms: Since DNA is the sequence made of four elements those are ACTG, and conversion of RNA to protein [7] will be done in the form of triplets. Therefore the sequence of DNA will be also in the form of triplets. So there will be 64 (4*4*4) combinations of four elements ACTG taking three at a time as shown in the Table

Some important points while making the algorithms of Transcription and Translation, those are as under-

DNA sequence should be in the multiple of 3, means should be in the form of triplets and consist of only ACTG characters.

Valid DNA sequence always consists of a Start triplet (TAC) and a Stop triplet (ATT, ATC, ACT).

Conversion of DNA to RNA will start from Start triplet and end before stop triplet. Before start the DNA sequence will not be converted into RNA, similarly applicable after stop.

Algorithm –

```

Input DNA()
DNA <- DNA sequence entered by user
(DNA.length)%3==0 //sequence is multiple of 3 Call InputDNA()
or not.
//check sequence contain ACTG character only.
for i <- 1 to DNA. Length
do if (DNA[i]!='A')
if(DNA[i]!='C')
Bioinformatics Sequence Classification using for j <- i to DNA. length
Convolutional Neural Network
for i <- 1 to DNA. length
Sub <- take sub sequences of length 3 from DNA
if (Sub=="TAC") // check sequence contain Start.
Start <- i // check if sequence contain Stop.
if(DNA[i]!='G')
if(DNA[i]!='T')
if(DNA[i]!='C')
if(DNA[i]!='A')
call Check Start Stop(DNA)
CheckStartStop(DNA)
// to check whether sequence contain Start and
Stop.
call Convert RNA (DNA, Start, Stop)

```

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call Input DNA() Convert RNA (DNA, Start, Stop) if((Sub=="GUU")||(Sub=="GUC")||(Sub=="GU
RNA <-null
for i <- Start to Stop
if(DNA[i]=='A')
RNA <- RNA + "U"
if(DNA[i]=='T')
RNA <- RNA + "A"
if(DNA[i]=='C')
RNA <- RNA + "G"
if(DNA[i]=='G')
RNA <- RNA + "C"
Call Convert Protein(RNA) Convert Protein (RNA) Protein <- null
for i <- 1 to RNA.length
Sub <- take sub sequences of 3 from RNA
if (Sub=="AUG")
Protein <- Protein + "M"
if ((Sub=="UUU")||(Sub=="UUC"))
Protein <- Protein + "F"
if((Sub=="UUA")||(Sub=="UUG")||(Sub=="CU
U")||(Sub=="CUC")||
(Sub=="CUA")||(Sub=="CUG"))
Protein <- Protein + "W"
if((Sub=="AAU")||(Sub=="AUC")||(Sub=="AU
A"))
Protein <- Protein + "Y"
if((Sub=="GUU")||(Sub=="GUC")||(Sub=="GU
A")||(Sub=="GUG"))
Protein <- Protein + "O"
if((Sub=="UCU")||(Sub=="UCC")||(Sub=="UC
A")||(Sub=="UCG")||(Sub=="AGU")||(Sub=="A
GC"))
Protein <- Protein + "R"
if((Sub=="CCU")||(Sub=="CCC")||(Sub=="CCA
")||(Sub=="CCG"))
Protein <- Protein + "I"
if((Sub=="ACU")||(Sub=="ACC")||(Sub=="AC
A")||(Sub=="ACG"))
Protein <- Protein + "C"
if((Sub=="GCU")||(Sub=="GCC")||(Sub=="GC
A")||(Sub=="GCG"))
Protein <- Protein + "M"
if((Sub=="UAU")||(Sub=="UAC"))
Protein <- Protein + "P"
if ((Sub=="CAU")||(Sub=="CAC"))
Protein <- Protein + "H"
if ((Sub=="CAA")||(Sub=="CAG"))
Protein <- Protein + "G"
if ((Sub=="AAU")||(Sub=="AAC"))
Protein <- Protein + "B"
if ((Sub=="AAA")||(Sub=="AAG"))
Protein <- Protein + "A"
if ((Sub=="GAU")||(Sub=="GAC"))
Protein <- Protein + "L"
if ((Sub=="GAA")||(Sub=="GAG"))
Protein <- Protein + "K"
if ((Sub=="UGU")||(Sub=="UGC"))
Protein <- Protein + "T"
if ((Sub=="UGG"))
Protein <- Protein + "S"
xli.
if((Sub=="CGU")||(Sub=="CGC")||(Sub
=="CG
A")||(Sub=="CGG"))
(Sub=="AGA")||(Sub=="AGG"))
xlii. Protein <- Protein + "D"
xlii.
if((Sub=="GGU")||(Sub=="GGC")||(Sub
=="GG
A")||(Sub=="GGG"))
xliii. Protein <- Protein + "N"
xliv. return RNA, Protein sequences

So by applying above algorithm [8] user can get equivalent RNA and Protein sequences of any DNA sequences.

For example- a DNA sequence [9] is as follows:

```
ATGTAGGATTACAAAAAGAATAACGAAGAGGATG
ACTAATAGTATCAACAGCATCACAGAAGGAGTAGC
GGAGGGGGTGGCTGATGGTGTGCCGACGGCGTCG
CATATGGTAGTGGTTGTCTTATTGTTTCCTACT
GCTTCTCACAAACGACCGCAGCGCTGCCTCATCGT
CTTCCCCACCGCCTCCATCAAAAGACT
```

Equivalent RNA sequence will be as follows:

```
AUGUUUUUCUUAUUGCUUCUCCUACUGAUUAUCA
UAGUUGUCGUAGUGUCUCCUCAUCGCCUCCCCC
ACCGACUACCACAAACGGCUGCCGCAGCGUAAUAC
CAUCACCAACAGAAUAACAAAAAGGAUGACGAAG
AGUGUUGCUGGCGUCGCCGACGGAGUAGCAGAAG GGGUGGGCGGAGGG
```

Equivalent Protein sequence is as follows:

```
EWWUUUUUUFFFOOOORRRRIICCCCMMMMPPHH
GGBBAALLKKTTSDDDDRRDDNNNN
```

Biological Data Processing System: [10] When a human body suffers from a particular disease, it may be due to attack of virus or bacteria. Because of that Protein sequence gets changed a little. By analysing the protein sequences and comparing with built in database, we can easily find out the disease by which the body is affected. In the database we have stored predefined protein sequences of different diseases. So by this system we can easily analyse the different biological sequences and find out whether the human body is suffered or not, if suffered then by which disease.

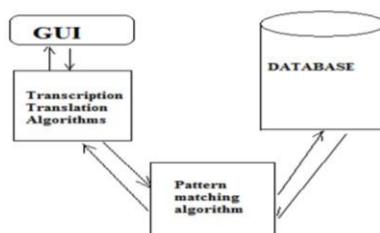


Figure 2: Biological Data Processing System

Convolution Neural Network for Sequence [4]

DNA sequences are sequences of successive letters without space. There is no term of word in DNA sequence. Therefore, we propose a method to translate DNA sequences to sequence of words to apply the same representation technique for text data without losing position information of each nucleotide in sequences. In Figure 3, we show an example of translating a DNA sequence into a sequence of words. We use a window with fixed size and slide it through the given sequence with a fixed step's stride. As in the example, window size equals 3 and step's stride equals 1. In each step, a segment of nucleotides is read from the window. This read segment is considered as a word and added to the destination sequence. After the final step, we will have a sequence of words which was derived from the given DNA sequence. Then we use the same technique for representing text to represent this generated sequence.



Figure 3: Translating DNA sequence into sequence of words.

As in Figure 4, by using a word size value of 3 nucleotides, we have a dictionary with 64 different words. Each word is then represented by a one-hot vector of size 64. Now using the translating method, we generate a sequence of words from the give DNA sequence. And applying the same representation technique for text we have a two-dimensional numerical matrix which contains information of specific position of each nucleotide in the sequence.

This matrix is then used as input for the convolutional neural network model to do classifier.

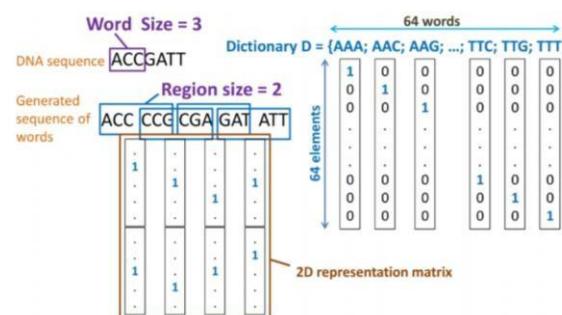


Figure 4: One-hot vector representation of DNA sequence.

Experiments and Results [4]

In the following table 2, they have shown the detail of these datasets.

No	Dataset	Description	# Classes	# Sample	Sequence Length (base)
1	H3	H3 occupancy	2	7667; 7298	500
2	H4	H4 occupancy	2	6480; 8121	500
3	H3K9ac	H3K9 acetylation relative to H3	2	15,415; 12,367	500
4	H3K14ac	H3K14 acetylation relative to H3	2	18,771; 14,277	500
5	H4ac	H4 acetylation relative to H4	2	18,410; 15,686	500
6	H3K4me1	H3K4 mono-methylation relative to H3	2	17,266; 14,411	500
7	H3K4me2	H3K4 di-methylation relative to H3	2	18,143; 12,540	500
8	H3K4me3	H3K4 tri-methylation relative to H3	2	19,604; 17,195	500
9	H3K36me3	H3K36 tri-methylation relative to H3	2	18,892; 15,988	500
10	H3K79me3	H3K79 tri-methylation relative to H3	2	15,337; 13,500	500
11	Splice	Primate splice-junction gene sequences with associated imperfect domain theory	3	762; 765; 1648	60
12	Promoter	<i>E. coli</i> promoter gene sequences with partial domain theory	2	53;53	57

Table 2. Dataset description

In order to evaluate the performance of the proposed model in solving DNA sequence classification problem, they have used 12 datasets. In Table 2, the authors have shown the detail of these datasets. Among them, 10 datasets were derived from a research of Pokholok et al. [5]. These datasets are about DNA sequences wrapping around histone proteins. It is a mechanism used to pack and store long DNA sequence into a cell's nucleus. Name convention in these datasets is constructed as follows: "H3" or "H4" indicates the histone type, "K" and a succeeding number indicate a modified amino acid (e.g. "K14" denotes the 14th amino acid "K" has been modified), and "ac" or "me" indicate the type of modification (acetylation or methylation) and a number after "me" indicates times of methylation. In each dataset, samples are sequences with length of 500 base pairs and belong to

“Positive” or “Negative” class. Samples in “Positive” class contain regions wrapping around histone proteins. In contrast, samples in “Negative” class do not contain them. With these datasets, if we could predict histone profiles from sequences with a certain level of accuracy we might help to understand about expression pattern of genes.

Other datasets are Splice and Promoter datasets, which are benchmark datasets from UCI machine learning repository. The Splice dataset is about the splice junctions. In genes, there are regions which are removed during RNA transcription process called introns, and regions which are used to generate mRNA called exons. Junctions between them called splice junctions. There are two kinds of splice junction that is exon-intron junction and intron-exon junction. In Splice datasets, samples are sequences of 60 base pairs length and belong to one of three classes: “EI” (Exon-Intron junction) which contains exon-intron junction; “IE” (Intron-Exon junction) which contains intron-exon junction; and “N” (Neither EI or IE) which does not contain any splice junction. The Promoter dataset is about promoters which are regions near transcription start sites of genes. In RNA transcription, RNA polymerases will bind to these regions to start transcription processes. This dataset contains sequences in length of 57 base pairs belonging to two classes: “Positive” which includes nucleotides from promoter; and “Negative” which does not include nucleotides from promoter.

For these two datasets, if we could give a good prediction about profiles of sequences we also help the understanding of gene expression. To compare performance of our proposed model with traditional approach, we chose 10 datasets used in the research of Higashihara et al. [6] in which they used n-mer features as representation of sequences and Support Vector Machine as classifier. In addition, we used two benchmark datasets from UCI machine learning repository to show the performance of our model in dealing with general sequence data.

No	Dataset	Previous best accuracy (%)	Accuracy by seq-CNN (%)			Improvement in average (%)
			Minimum	Maximum	Average	
1	H3	86.47	88.79	89.23	88.99	2.52
2	H4	87.32	87.82	88.25	88.09	0.77
3	H3K9ac	75.08	78.59	79.29	78.84	3.76
4	H3K14ac	73.28	77.96	78.34	78.09	4.81
5	H4ac	72.06	77.29	77.52	77.40	5.34
6	H3K4me1	69.71	73.80	74.42	74.20	4.49
7	H3K4me2	68.97	71.12	71.77	71.50	2.53
8	H3K4me3	68.57	74.60	74.76	74.69	6.12
9	H3K36me3	75.19	79.15	79.34	79.26	4.07
10	H3K79me3	80.58	82.59	83.28	83.00	2.42
11	Splice	94.70	95.87	96.73	96.18	1.48
12	Promoter	96.23	99.06	99.06	99.06	2.83

Table 3. Comparison in performance of proposed model and previous researchers’ model

Model Configurations: We used CONTEXT, a C++ software package which provides an implementation of convolutional neural network for text categorization on GPU, to implement our model. The model contains 2 convolutional layers. Each of these layers is followed by a sub-sampling layer. These layers are used to extract features from representation matrixes of sequences. The extracted features are then transformed by using a fully connected neural network layer which contains 100 neurons. In this layer, we used a dropout value of 0.5 to reduce the effect over fitting. Finally, a soft max output layer is used to predict labels of input sequences. Other hyper parameters of the model were chosen based on its performances in datasets for tuning which is held out from validation datasets. [4]

RESEARCH METHODOLOGY

In this research paper we have used secondary data to input DNA sequence to the algorithm to convert it to equivalent RNA and equivalent Protein sequence. Also the data sets taken in table 2 and table 3 for Convolution Neural Network study.

CONCLUSION: Any disease can be identified and appropriate action can be taken by classifying the bioinformatics sequences. [4]Using the Convolutional Neural Network approach the authors have classified DNA sequence. They have also worked well in dealing with A, C, T and G nucleotides of DNA data. By using one-hot vectors to represent DNA sequences and applying a convolutional neural network model, the authors have achieved significant performance improvements in all evaluation datasets. With the promising results in this DNA classification, they will try to apply the model in other sequences of bioinformatics.

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SMART WRITING EXAMPAD

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Abstract

Goodbye pen and paper. Tablets have taken its go paperless with eco-friendly environment by extending the use of tablets in the examinations. This paper presents the concept of online assessment of answer sheets. The answer booklets can be digitized completely and posted on the central server for valuation by the evaluators online. The evaluators can sit at any place and evaluate the papers with full security. Double valuation and revaluation can also be introduced with ease.

Keyword: smart writing exam pad, online assessment, exam paper, courses, cost, biometric etc.

Literature review

Manipal University has taken its go-paperless resolve to achieve the goal of 'Green Manipal' by extending the use of tablets in examinations for some courses. First-year students walked into the examination hall without any stationery. Inside the hall, they were handed a custom-made device called Exam pad. The varsity introduced tablets a year ago. Chennai based Little More Innovation Labs introduced an Exam pad that gives students a feel of writing on the paper. Candidates can write with a stylus, and they can colour, highlight, underline or erase their answers. The device can last 12 hours on a single charge. Student needn't carry hall tickets as the tablet has biometric features and only genuine students can unlock it through fingerprint. The question paper is sent to the tablet through a local server minutes before the exam. The device is connected to a secure Wi-Fi network and automatically shuts when the time is up. Every semester, the university conducts examinations in various streams such as arts, science, commerce, management and law. Every semester examiners, followed by moderators, evaluate over 19.5 lakh answer booklets manually. According to the Maharashtra University Act 1994, the results should be declared within 45 days from the end of exams. In April 2017, the university introduced an online exam-paper assessment project for all the streams. All the examinations are checked online like the way they have been doing for engineering papers. The university started online assessment for four semesters of engineering exams, scanning around two lakh answer sheets per semester. The answer sheets of the university examinations for all courses are scanned. Examiners will be given a password, which will allow them to access the papers and evaluate them on the screen itself. With the digital evaluation in place, there will be lower human interference and it will ensure better security. Since the papers are scanned there are no physical copies lying with the examiners. Papers will be sealed as soon as they are corrected ensuring fewer cases of malpractice, increased efficiency and transparency.

Count of Students:

	IT	BMS	BAF	BBI	BFM	BMM	M.Com	MSc.IT
FY	300	180	180	60	60	60	50	40
SY	300	180	180	60	60	60	50	40
TY	300	180	120	60	60	60	-	-
Total	900	540	480	180	180	180	100	80

Cost Comparison in Printing Question Paper and Answer Sheets:

Sr. No.	Course	BSc. IT
1	Subject	Web Programming
2	No. of Students	60
3	No. of Pages required per question paper per student	02
4	Total No. of Pages	$60 * 2 = 120$
5	Cost of one page photocopy	90 Paise
6	Cost of 120 pages photocopy	$120 * 0.90 = \text{Rs.}108/- \text{ per subject}$
7	For 5 subjects question paper photocopy	$5 * 108 = \text{Rs.}540/-$
8	Cost of printing one answer sheet with 30 pages	Rs.10/-
9	Cost of printing 300 answer sheets with 30 pages	$60 * 10 = \text{Rs.}600/-$
10	Total Cost of Printing Question Paper and Answer Sheets Per Course	$\text{Rs.}540 + \text{Rs.}600 = \text{Rs.}1,140/-$
11	Total Count of Students in all courses	2,640
12	Cost of Printing Question Paper and Answer Sheets for 2640 students	$1,140 * 2640 = 30,09,600/- \text{ (approx. Thirty Lakhs)}$

Cost Comparison using Smart writing Pads:

Sr. No	Cost
Cost of one smart writing pad, stylus and charger	Rs.7,000/-
Students appearing for exam at a time	400
No. of smart writing pads	400
Cost of 400 smart writing pads	$7,000 * 400 = 28,00,000/- \text{ (approx. Twenty eight Lakhs only)}$

Advantages:

Human efforts are reduced.

Results can be declared on time

Disadvantages: With digital evaluation system all papers needs to be scanned which is around 2 Lakhs. Hence it is time consuming.

Papers are not scanned properly because of human mistakes.

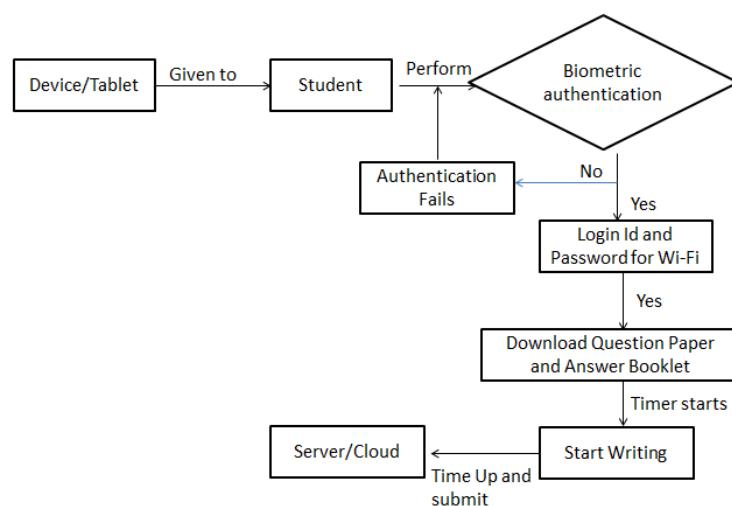
Even after scanning the papers which are ready for correction will not be able to evaluate because of pen problem. Papers which are written in black pen are visible clearly.

After scanning also many papers are lost and not stored in server.

Papers were mixed with the other stream papers.

Proposed Plan: In this proposed system, Students can enter the examination hall without the stationary. In the hall, they will be given a custom-made device “Tablet” called Exam pad. It will ask for authentication. For authentication, biometric identification (thumb and retina scan) of all students will be taken and stored in the database. Student needn't carry hall tickets as the tablet has biometric features and only authenticated students can unlock it through thumb or retina scan. Just before the start of the examination the question paper is sent to the tablet through a university server. The device would be connected to a secure college Wi-Fi network. Student is supposed to login using the biometric authentication only and once the authentication is successfully done, each student can open the writing software. System will ask for login id and password. Once the login is done, the answer sheet booklet and a question paper will be downloaded according to the date and time set for the exam. After the time is over, automatically answer booklet will be submitted to the university server. And the Wi-Fi automatically shuts when the time is up. The device if charged can last for 8-10 hours. Candidates can write with a special pen stylus, where they can highlight or erase their answers. An evaluator can log in and correct the answer booklet from anywhere at any place.

Flow Chart :



Algorithm

- Student is given a tablet and asked for biometric authentication.
- If the authentication is successful then he/she will be directed to college Wi-Fi connection and supposed to enter the Login id and password.
- After successful login the software will allow to download the question paper and answer booklet.
- Then the timer starts and student can start writing using a special pen.
- After the timer expires the answer booklet will be auto submitted to the server or cloud.
- Professor can start correcting the answer booklet right from the day one of the exam.

Pros

- Enables real time monitoring and tracking of the answers sheets.
- Physical movement of documents is minimized.
- Answer sheets are safe, secured and protected from natural calamities.
- Answer sheets are stored in the server and can be accessed anytime from it.
- There would be a standard evaluation pattern.
- Masking of the required portions in the Answer sheets.
- It will minimize logistics thereby saving time and efforts.
- Improves marking accuracy.

Cons

- Each student requires an Exam pad for writing the exam. Hence minimum no. of Exampads should be approx.100-150.
- All Exampads should be fully charged before the start of the exam. So electricity consumption would be high.

It would be expensive.

Conclusion: Drawbacks of the manual valuation like wrong totaling, revaluation etc can be removed easily by introducing this method. Result preparation becomes very fast and reduction in man power. Using this proposed system there is a guarantee that the papers will not be lost. All the papers will be in server. Any time the answer sheets can be accessed from the server and corrected. Results can be declared on time.

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AUGMENTED REALITY IN SURGERY

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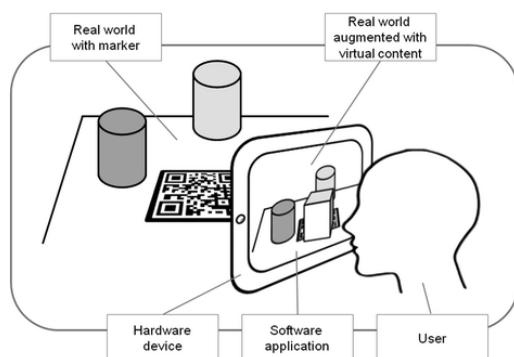
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Abstract

The paper proposes a system based on Augmented Reality to be used in the process of surgery. In today's world where the expert doctors with the profound knowledge are busy attending and serving many patients. There are times where an expertise is required in the local areas for their guidance to the local doctors. In such cases an augmented environment can be developed with software to see the organs of the patient on the display capable of giving a three-dimensional view of the surgery with the patient's details overlapped on the augmented layer. The expert doctor can be a part of the surgery by being remotely located guide local doctor remotely with software

Keywords: augmented, surgery, reality.

INTRODUCTION: Augmented Reality is an ability to create overlay digital and virtual information into the real world. It allows the users to see the whole world in a new way or to view reality in a modified way. AR interfaces allow users to view real world with virtual imageries attached to real locations and objects. In an Augmented Reality environment, the user views the world through a handheld or head mounted display (HMD). Augmented Reality has an advantage over the other on-screen software and tools, It makes the real world appearances and experiences more enhanced. It allows to add artificial information to the human senses which will allow the user to get a real-life environment to work on. The virtual objects in augmented reality helps to display information that the user cannot directly detect with his own senses. Movies these days are using virtual objects seamlessly blending it with a real environment in 3D. It gives an experience as if the real and the virtual objects coexist simultaneously. Augmented Reality has been in existence for around 1990s. It was used with head mounted displays to aid in aircraft wiring assembly that time with a screen in front of them, overlaid onto the screen the data showing where to put the wires, with the right color wires was, what the wire did, etc[2]. Now a days there are different types of apps games based on augmented reality. This paper is a comparative study about the different fields where augmented reality could be used to overcome the limitations and to enhance the efforts.



<https://link.springer.com/article/10.1007/s40037-013-0107-7>

AUGMENTED REALITY IN MEDICAL: Augmented reality can be used in surgery or for medical purposes. This technique can prove to be helpful in visualization and training aid for surgery. The information related to patient can be collected in the real time environment. The information collected can be overlaid with the augmented environment. The problem with the medical field these days is that it gives less ability to the doctors to see inside the patient if the patient is remotely located. This

makes the surgery difficult. Augmented reality with the software tools available at both ends can help the local doctors to get in touch with the expertise remotely located with the real-time experience. The interface creation needs the devices for performing the task of displaying the images in augmented environment which can have video see-through with the connected software for pointing on the image. The set-up of the system will be as follow the medical dataset is augmented to the user's body and shown on the TV screen. This creates the illusion that the doctor can look inside his body. A gesture-based user interface allows real time manipulation of the visualization of the data. The doctors can scroll through the dataset by using different hand gestures. Augmented reality can proof to be of great help in surgery specially involving minimal invasive operation technique by providing the surgeon a good field of view during the operation. The surgeon get to see at a screen most of the time, but through a window on the patient himself. This give a coordination of hand-eye, the movement can be seen in a three dimensional model. Also the problem of two-dimensional imagery is avoided, because the surgeon views the three-dimensional model of the patient on the AR-display. With this the surgeon will have a view inside the patients along with the movements of his own hands. A high quality instruments are proposed in the paper which will be required in the entire process of augmented surgery. The first one is the Augmented Display for the surgeon to see the whole scenario whole time. The Augmented Display will not limit the movement of the surgeon. It works like an optical see-through with a semi-transparent window. The surgeon is able to see the patient through the display and in addition the three-dimensional model of the patient is blended in at the same time. The AR system which is used in surgery has to be very efficient with a very high visualization tool. For an intraoperative solution it requires a system with high real time quality. In this context the systems must achieve high accuracy in tracking and registration.

PROPOSED METHOD Before the surgery begins. The recordings of the patients are supposed to be taken by CT and MRI scan. The images will be taken in connection with the control points decided to be used for the virtual patient. After recording all the control points the virtual patient can be recorded on to the real patient by registering the three dimensional point sets. The virtual objects are all projected to the same distance while the real objects are at varying distances from the user. If the virtual and real distances are not matched for the particular objects that the surgeon is looking at, it may not be possible to clearly view both simultaneously. Step1 : Record the detailed images of the patient to be examined. These details can be traced using CT scan MRI and different techniques for getting the internals details of the patient Step2 : Creating an environment using the details taken from the real patient and the surgery environment. The surgery environment is created using the augmented reality software. Step3 : The software requires the details of the patient to be overlapped and superimposed in the augmented environment. Step4: This can be seen in the augmented display on both the ends. Step5: The software connected to the display will let the doctors, the one set at the remote location and the other at the local end to operate on the augmented environment and get the details related to the surgery cleared up.

CONCLUSION: Augmented Reality systems are becoming more popular and enhanced when compared to the traditional techniques. The precision and safety routines provided in the medical practise will prove to be beneficial in resolving most problems faced presently. Augmented reality is a powerful tool capable of revolutionising the field of surgery through a rational use. In the future, Augmented Reality will likely serve as an advanced human-computer interface, working in synchronous with surgeons, allowing them to achieve even better results. More advancement is further needed to achieve maximum potential and cost-effectiveness of augmented reality.

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WI-FI NETWORK AUTHENTICATION USING PYTHON POST REQUEST

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Abstract

Wi-Fi network authentication is generally done through web-based application, by sending HTTP POST request. An application based research has been conducted to connect to the server for Wi-Fi network authentication using python post request. VSIT auto login application has been created and used to test the connectivity through python script. Tkinter based python application has been created for network authentication. The approach consist of an alternate python script to connect to the server, for the network authentication to understand the possibility of user to server communication using POST request. The successful connection establishment also ensures the possibility of vulnerability of the user data stored on the server.

Keywords: Python, Wi-Fi, SSID, POST request, payload.

INTRODUCTION: Wi-Fi is a technology for wireless local area networking with devices based on the IEEE standards. Devices that can use Wi-Fi technology include personal computers, video- game consoles, phones and tablets, digital cameras, smart TVs, digital audio players and modern printers. Wi-Fi compatible devices can connect to the Internet via a WLAN and a wireless access point. Such an access point (or hotspot) has a range of about 20 meters (66 feet) indoors and a greater range outdoors. Hotspot coverage can be as small as a single room with walls that block radio waves, or as large as many square kilometres achieved by using multiple overlapping access points. Vidyalankar uses multiple Wi-Fi access-points to enable access to the users from multiple locations in the campus. But these access-points operate under a single Wi-Fi network and not different networks, saving the hassle of handling multiple networks. These access-points together come under the “Vidyalankar Campus” Service Set Identifier (SSID). These are open networks with no passwords to lock them. Nevertheless, the college Wi-Fi requires student credentials to access the internet. These credentials are asked when a user tries to go to a website e.g:- “example.com”. The user is then presented with a Network Authentication form as seen below.

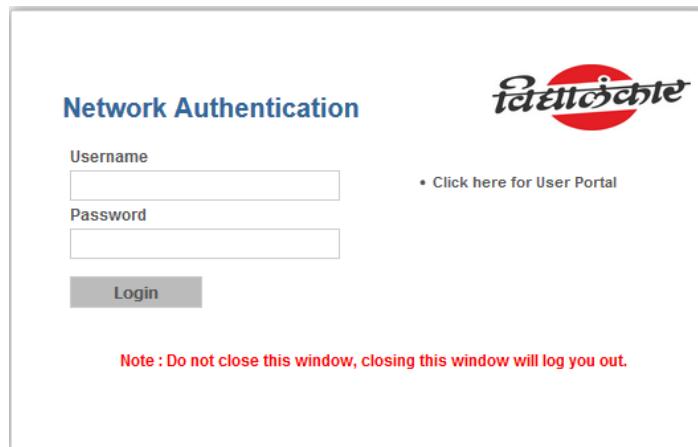


Fig. 1: Vidyalankar Campus Wi-Fi authentication page

Before this page loads, an SSL error will be displayed as the certificate appears to be self-signed i.e. not by a Certificate Authority.

We can also see the note written in red which says that if we close the window the session would be stopped. We have created an application to login automatically whenever the user has connected to the campus Wi-Fi and has opened a web browser using Python.

PYTHON MODULES

Python: - For this application, we chose to write the script in the python language as it has many different modules to do what we intend to do without complicating the script unnecessarily[1].

Modules Used

Application used number of modules which are built-in into Python. Also used some external modules which are installed using the ‘pip’ utility. They’re listed below:-

Tkinter - Tkinter is Python’s de-facto standard GUI (Graphical User Interface) package. It is a thin object-oriented layer on top of Tcl/Tk.

Requests - Requests will allow you to send HTTP/1.1 requests using Python. It allows to add content like headers, form data, multipart files, and parameters via simple Python libraries. It also allows you to access the response data of Python in the same way.

Urllib3 - urllib3 is a powerful, HTTP client for Python. urllib3 provide features like: Thread safety. Connection pooling. Client-side SSL/TLS verification, File uploads with multipart encoding.

Psutil - psutil (process and system utilities) is a cross-platform library for retrieving information on running processes and system utilization (CPU, memory, disks, network, sensors) in Python.

For creating the GUI using Tkinter, we used a nifty tool named PAGE which enabled in creating the GUI just by dragging and dropping the required elements into the window.

VSIT AUTO LOGIN - APPLICATION WORK FLOW

Initially, steps for the application development was to figure out how the Network Authentication page processes the credentials. This was done by using the Network Monitor functionality included in Mozilla Firefox.

It was found that “Vidyalankar Wi-Fi” Network Authentication sends 5 parameters to a ‘login.xml’ page. The significant parameters are listed below:-

username

password

mode

producttype

When the value of the mode parameter is set to ‘191’ the login procedure is done.

For logging out, the page sets mode equals to ‘193’.

The above parameters are sent using a POST request. This type of request leaves no parameter in the URL and is invisible to the normal user.

Replication of POST request

Application VSIT login replicated the working of the page into a POST request by sending a payload with the credentials to the Network Authentication page.

```
payload = { 'username': 'xyz',  
           'password': '123',  
           'mode': '191', 'producttype': '0'};
```

Here, xyz and 123 will be replaced by the username and password of the user.

Checking for WiFi

The application added a condition where the script will only run when the computer is connected to the Vidyalankar Campus WiFi. In while(1) loop.

To accomplish this, the following command are added: if vc in sb.check_output("netsh wlan show interfaces"):

code....

In the above snippet the `sb` (subprocess) module is using its `check_output()` function to check the output of the 'netsh wlan show interfaces' command.

If the output contains data of `vc` the program will execute the code inside the if condition.

Checking for running browsers

The condition has been added if the user opens a browser (firefox or chrome) the POST request will be sent automatically. This will be the functionality of the script which would run automatically when the PC starts. In `while(1)` loop.

```
if (("firefox.exe" in (p.name() for p in psutil.process_iter())) or ("chrome.exe" in (p.name() for p in psutil.process_iter()))):code....
```

The above snippet compares every process to `chrome.exe` or `firefox.exe`

If the condition satisfies then the program will execute commands inside the if statement.

APPLICATION TESTING

GUI created using Tkinter and PAGE. Tkinter is Python's de-facto standard GUI (Graphical User Interface) package. It is a thin object-oriented layer on top of Tcl/Tk. Tkinter is not the only GuiProgramming toolkit for Python.

PAGE is an drag-and-drop GUI generator, bearing a resemblance to Visual Basic. It allows one to easily create GUI windows containing a selection of Tk and ttk widgets.

The user interface for the VSIT Auto login consist of user interface to enter the user-name and password for the network authentication.

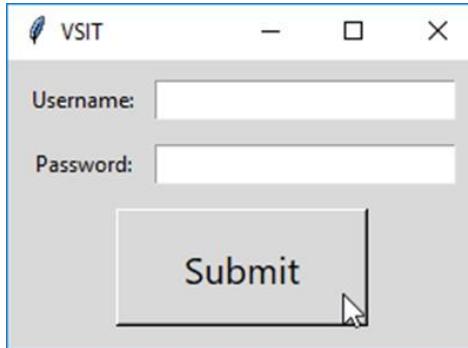


Fig. 2: VSIT Auto Login Application Interface

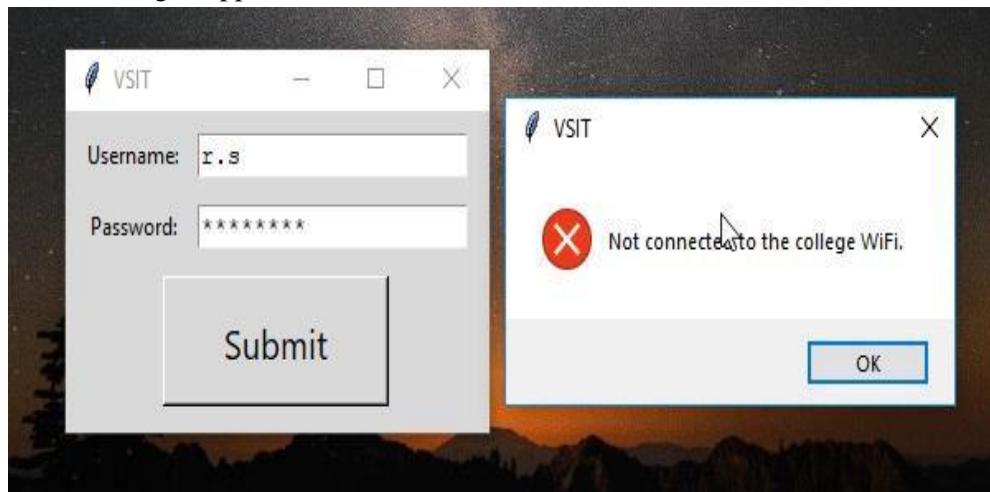


Fig. 3: Error message when not connected to WiFi.

CONCLUSION: POST request methods can be used for many applications to automate communication between the user and the server through Internet. VSIT Auto login application is able

to communicate with the server for the login by sending POST request through Python script, which proves the vulnerability and security issues of the existing server too. Similar method of communication could be possible to fetch user-related data from the server. A similar experiment was tested successfully on the Ubuntu systems. We were able to login automatically and start an application just by a simple Python script.

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COMPARATIVE STUDY OF PHARMACOLOGICAL AND PHYTOCHEMICAL ANALYSIS ON CYNODON DACTYLON AND RUBIA CORDIFOLIA

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Abstract

*Plants consist of various phytoconstituents which are responsible for antibiotic properties towards human pathogens such as *Escherichia coli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Bacillus subtilis*. The present study was aimed to pharmacological and phytochemical analysis of *Cynodon dactylon* and *Rubia cordifolia*. Crude methanol and aqueous extracts of the leaves of *Cynodon dactylon* and *Rubia cordifolia* were used for the study. Different dilutions of each extracts were studied for the phytochemical screening and antibacterial activity. Antibacterial activities of each extract were carried out by using agar cup technique by using Tetracycline as a standard. All the extracts exhibited significant antibacterial activity but *S aureus* organism were showing the resistivity towards aqueous and metabolic extracts of *Rubia cordifolia*.*

Keywords: Agar cup technique, *Cynodon dactylon*, Phytoconstituents, *Rubia cordifolia*, Tetracycline

INTRODUCTION: The term phytoconstituents defines the diverse range of chemical compound derived and isolated from the plants. The interest on the phytoconstituents have been started from Vedic era which was seems to be useful to human being at that era and till present it is still very useful. Compounds and extracts derived from plants have been found useful in medicine such as allopathic, homeopathic and Ayurveda beauty products and health products in developed and developing society. Due to the development of bacterial resistance to presently available antibiotics has necessitated the search of new antibacterial agents able to fight against resistant pathogenic bacteria. So the antibacterial activity of the plant extracts of *Cynodon dactylon* and *Rubia cordifolia* were studied against various pathogenic bacteria such as *Escherichia coli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Bacillus subtilis*. *Cynodon dactylon* commonly known as “Doob grass “belonging to the family Poaceae. It is a perennial grass distributed all over the world and native to the warm temperature and tropical region. The plant has been rich in metabolites notably proteins Carbohydrates, minerals, carotenoids, alkaloids, glycosides and Triterpenoids. *Rubia cordifolia* commonly known as Indian madder and Manjishtha in Sanskrit is perennial, Herbaceous, prickly climber with long and cylindrical root with a thin red bark. Belonging to the family Rubiaceae, The plant roots contain an organic compound called alizarin that gives red color. The roots and stems are well known source of Anthraquinones. The roots have also been reported as antioxidant, antiinflammatory anticancer immunomodulator and hepatoprotective and are extensively used against blood urinary and skin diseases. The present study was aimed to screening of phytoconstituents and Investigation of the antibacterial potential of crude methanol extract and aqueous extract of the *Cynodon dactylon* and *Rubia cordifolia* on Human pathogens such as *Escherichia coli*, *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Bacillus subtilis* by using agar cup technique taking tetracycline as a standard drug.

MATERIALS AND METHOD

Plant material Fresh plant materials of *Cynodon dactylon* and *Rubia cordifolia* were collected from the locality of kattigenhalli. The leaves of *Cynodon dactylon* and *Rubia cordifolia* were initially separated from the main plants body and rinsed with distilled water. After wards the samples were dried under shade paper towel in laboratory and then homogenized into fine powder.

Extraction

Aqueous extraction 10gm of dried powder of each plant material was weighed and soaked separately in a 50ml cold water in a stoppered conical flask and then kept in rotary shaker at 200rpm for 24hrs after completion of 24hrs extract were filtered by using Whatman's filter paper No.1. The extracts was concentrated in a thermostat water bath at 80o C temperature and obtained extract were kept in the desiccator for the experiment.

Solvent extraction 10gm of dried powder of each plant material was weighed and soaked separately in a 50ml extrapure methanol in a stoppered conical flask and then kept in rotary shaker at 200rpm for 24hrs after completion of 24hrs extract were filtered by using whatmans filter paper No.1. The extracts was concentrated In a thermostat water bath at 80oC temperature and obtained Extract were kept in the desiccator for the experiment.

Drugs and Chemicals Tetracycline (pFizer pharmaceuticals Ltd. Thane) Methanol (Merck). All the chemicals used are laboratory and analytical grade.

Qualitative Phytochemical Screening Detection of alkaloids

Mayer's Test:

The extract were dissolved individually in dilute HCL and filtered. Filtrate were treated with Mayer's reagent.

Formation of yellow color precipitate specifies the presence of alkaloids.

Detection of carbohydrates Molish test: 10mg of extract dissolved in 2ml of molish reagent and shake properly. Add 2ml of conc H₂so₄ from the Sides of the test-tube. Appearance of violet ring at the Interface indicates the presence of carbohydrates.

Test for flavonoids: Alkaline reagent test:

10mg of extract dissolved in 2ml of 2% NAOH solution. And intense yellow colour formed which turn colourless on addition of few drops of dil HCL which indicated the presence of flavonoids.

Detection of tannins Ferric chloride test: 5mg of extract was taken and 0.5ml of 5% ferric chloride was added. The development of dark bluish black color indicates the presence of tannins.

Detection of sterols and steroids

Salkowski's test: 5mg of extract was dissolved in 2ml of chloroform and equal volume of conc sulphuric acid was added Along the sides of the test tube. The upper layer turns red and lower layer turns yellow with green fluorescence, Indicating the presence of steroids and sterols compound in the extract.

Test for proteins Xanthoproteic Test: The extracts were treated with few drops of concentrated nitric acid. Occurrence of yellow colour indicates the presence of protein.

Test for saponins Froth test: Crude extract was mixed with 5ml of distilled water in test tube and it was shaken vigorously. The formation of stable froth indicates the presence of saponins.

Antibacterial Activity Agar Cup Technique:

Bacteriostatic activity of crude plant extract were tested by using agar cup technique.

Media preparation: Muller Hinton agar were used as a growth medium to study the antibacterial activity

Bacterial suspension: 24hrs old culture of Ecoli, S.aureus, P.aeruginosa and B.subtilis were used for the inoculation.

Protocol: Assay of minimum inhibition concentration:

Crude plant extract were diluted as 30%, 50%, 70% and 90% dilution with sterile distilled water. MH agar plate were inoculated with 24hrs old bacterial culture by using sterile cotton swabs. Later wells

were punched 4 in one plate by using sterile well borer. Wells were filled with diluted plant extract and incubated for 24hrs at 37°C. after incubation period zone of inhibition were observed and measured. The least concentration showing visible growth was taken as MIC value.

Results and Discussion: Phytochemical characteristics of *Cynodon dactylon* and *Rubia cordifolia* were tested and summarized in table 1 Table 2. The results revealed that flavonoid, sterols, were Present in both the plants. Different dilutions of crude plant extracts were used and agar cup technique were used to optimize minimal inhibitory concentration to obtain zone of inhibitions summarized below.

Table 1: Phytochemical screening of aqueous extract of *Cynodon dactylon* and *Rubia cordifolia*

Extracts		
Phytoconstituents	C.dactylon	R.cordifolia
Alkaloid	++	--
Flavanoid	++	++
Tannin	++	--
Sterols	++	++
Carbohydrates	++	++
Proteins	--	++
Saponin	++	++

Table 2: Antibacterial activity of Methanolic extract.

Antibacterial activity against *E.coli* organism

Conc of plant ext. (in %)	Zone of inhibition <i>Cynodon dactylon</i>	MIC of <i>Cynodon dactylon</i> (mm)	Zone of inhibition <i>Rubia cordifolia</i>	MIC of <i>Rubia cordifolia</i> (mm)
30	++	12	++	13
50	++	16	++	14
70	++	17	++	18
90	++	20	++	19

Table 3: Antibacterial activity against *S.aureus* organism

Conc of plant ext. (in %)	Zone of inhibition <i>Cynodon dactylon</i>	MIC of <i>Cynodon dactylon</i> (mm)	Zone of inhibition <i>Rubia cordifolia</i>	MIC of <i>Rubia cordifolia</i> (mm)
30	++	13	++	13
50	++	15	++	15
70	++	16	++	18
90	++	19	++	21

Table 4: Antibacterial activity against *B.subtilis* organism

Conc of plant ext. (in %)	Zone of inhibition Cynodon dactylon	MIC of Cynodon dactylon (mm)	Zone of inhibition Rubia cordifolia	MIC of Rubia cordifolia (mm)
30	++	12	++	14
50	++	15	++	16
70	++	15	++	19
90	++	18	++	21

Table 5: Antibacterial activity against *P.aeruginosa* organism

Conc of plant ext. (in %)	Zone of inhibition Cynodon dactylon	MIC of Cynodon dactylon (mm)	Zone of inhibition Rubia cordifolia	MIC of Rubia cordifolia (mm)
30	++	14	++	16
50	++	14	++	17
70	++	15	++	18
90	++	16	++	21

Discussion: Phytochemical screening of plant extract revealed the presence of phytoconstituents which exhibit medicinal property. Analysis of plant extract reveals the presence of phytoconstituents such as alkaloid, flavonoid, saponin, sterols, tannins, proteins and carbohydrates. Phytoconstituents possess biological property such as Antiapoptosis, antiageing, cardiovascular protection, anti-diabetic, anti-arthritis, anti-inflammation etc. The plant extract reveals to contain saponin which possess anti-inflammatory activity, sterols have antibacterial as well as anti-arthritis activity. Alkaloid possess antibacterial and analgesic activity. The antibacterial activity experiment was conducted using Crude plant extract. Standard antibiotic (Tetracycline) were included to monitor the experimental conditions and to facilitate better comparative analysis. The susceptibility testing of plant extract showed that Cynodon dactylon have potent broad spectrum antibacterial activity. MIC was performed by using different dilutions of crude plant extract.

Conclusion: The result obtained from present and earlier study confirms the phytochemicals to be bioactive. The plant extracts could be an effective source of medicine. Through our study of the plant extracts showed better antibacterial activity against 4 human pathogenic microorganisms further it has been found that Cynodon dactylon and Rubia cordifolia both shows broad spectrum antibiotic activity against human pathogenic organisms. Through my study found that 30% dilutions shows moderate effect against four bacteria used for the study. For future aspects the purification and colourization of the phytoconstituents can be done which may lead to development of important pharmaceutical compounds.

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SMART UNIFORM – SHAPE SHIFTING CLAYTRONICS**Payal Bhavik Shah**

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Abstract

Claytronics is an abstract concept in the field of electronics that makes use of nanoscale robotics and computer science in order to come up with individual nanometre-scale computers referred to as claytronics atoms or catoms. The catoms can interact with each other thereby forming tangible 3D objects which can give the user a potential to interact with. The claytronics concept is broadly referred to as programmable matter, and it is likely to highly impact many areas of our daily life such as human-computer interfaces, telecommunication and entertainment. The whole idea behind claytronics is to take the concept of modular robots which has been around for quite some time to a different new level. The programmable matter technology will allow us to have control and manipulation power over 3D objects just like it is the case in 2D images. The implication of this is that we will take a huge step beyond virtual reality by going into synthetic reality. Some of the potential applications of claytronics are in the field of medicine, entertainment, and 3D physical modelling and disaster relief.

Keywords: Claytronics, catoms, programmable matter, nanoscale robotics, modular robots

INTRODUCTION: Claytronics is an important emerging concept in the field of electronics which aims at taking modular robots at new extremes. It makes use of the concept of programmable matter whereby micro and nano-scale devices combine thereby forming shapes of physical objects (Abhishek et al., 2013). Claytronics comprises of individual components known as catoms that have the ability to move in three dimensions, adhere and maintain a 3D shape as well as compute state information. Each of the catoms exists as a self-contained unit with a CPU, an energy store, sensors, and a mechanism for adhering to other catoms, a video output device, a network device as well as a means of locomotion (Goldstein & Mowry, 2004). Claytronics is hardly a new concept since it has been previously applied in science fiction, in proposed modular robots as well as in realized reconfigurable robots. However, improvements in technology have made it possible for us to realistically build a system that allows us to ultimately scale to millions of sub-millimetre catoms thereby resulting in a form of programmable matter suitable for a swarm or modular robots or for implementing paro (Goldstein & Mowry, 2004). The claytronics modular robots are likely to be applied in the field of medicine, the entertainment industry, 3D physical modelling as well as in disaster relief.

CLAYTRONICS HARDWARE AND SOFTWARE: The claytronics hardware which manipulates itself into a desired form is the major force behind programmable matter. Claytronics comprises of catoms which need to be viable in order to fit a particular criterion. The catoms need to move relative to each other and adhere to each other thereby forming a 3D shape (Abhishek et al., 2013). Consequently, the catoms also need to communicate as well as assist each other to compute state information. The claytronics hardware operates under the macroscale designs and uses devices larger than the tiny modular robots. The devices are useful in testing concepts for sub-millimeter scale modules and elucidating crucial effects affecting the nanoscale robots (Abhishek et al., 2013). The planar catoms (shown in fig. 1) are used in testing the concept of motion and the design of force effectors which create cooperative motion within the modular robots. The organization and development of claytronics with millions of sub-millimetre scale catoms require advanced programming languages and logarithms. There is a need to develop the necessary software which will

facilitate easy communication between catoms. New programming languages that work more efficiently with claytronics need to be developed with the goal of dynamically forming 3D shapes (Goldstein & Mowry, 2004).

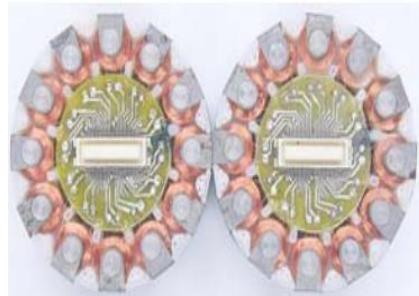


Fig. 1: Planar catoms

CLAYTRONICS APPLICATIONS

There are various possible applications of claytronics in various fields such as in medicine, the entertainment industry, 3D physical modelling as well as in disaster relief. The Defense Advanced Research Projects Agency (DARPA) is considering systems that allow combat equipment to change shape automatically. This military research organization wants to create uniforms that transform texture and colour on command to keep soldiers comfortable in extreme weather conditions. The solution to this problem is Claytronics. We propose that with the help of claytronics programmable matter technology we can create a uniform for the soldiers considering the situation around them.[4]

CONCLUSION: The claytronics concept which makes use of programmable matter can be used to realize 3D dynamic objects in the physical world. Claytronics is likely to become useful in many future applications as the capabilities of computing continue to develop. Some of these applications are in the field of medicine, entertainment, disaster relief and 3D modelling. There is a high visibility of making claytronics a reality as a result of the various advancements in nanotechnology as well as computing. However, there are various challenges that are highly daunting and need high innovation to overcome. Most of these challenges are related to overcoming some serious software issues related to the development of claytronics. With this technology we can help soldiers save their lives using shape shifting technology.

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SOPHIA-A FUTURE TO HUMANOID'S

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Abstract

The much awaited dream of Hanson Robotics i.e. Sophia has come into existence this year by giving her Saudi citizenship. The project was a huge development by them after HUBO its predecessor came into existence. This paper talks about the various insights of giving mechanical birth to Sophia i.e. - her look, her gestures ,her feelings, her connectivity with the outside world and the process will go on to make her the best humanoid till date. Here we, also talk about how the journey of simple four wheeled robot has transformed to a human like figure and how it has impacted the various legislatures of her birth country also what will be its future impact on humans. If we humans start taking such great leaps to help ourselves failing to think how this humanoids should be limited to their task our future is at risk in their hands. At the end we also conclude how robotics and artificial intelligence will become a prevalent part of people's lives.

Keywords: Artificial Intelligence, Humanoid, Citizenship, Technology, Society, Loving AI

INTRODUCTION: The “Loving AI” project deals with developing software enabling humanoid robots so they can interact with people in loving and compassionate ways, and to promote peoples’ self-understanding and self-transcendence. Loving AI is a collaboration of the (California-based) Institute for Noetic Sciences (IONS), the (Hong Kong-based) Hanson Robotics, and the OpenCog Foundation. Currently the project centers on the Hanson Robotics robot “Sophia” – supplying Sophia with personality content and cognitive, linguistic, perceptual and behavioural content aimed at enabling loving interactions supportive of human self-transcendence. In September 2017, at Hanson Robotics and Hong Kong Polytechnic University in Hong Kong, they carried out the first set of human-robot interaction experiments aimed at evaluating the practical value of this approach, and understanding the most important factors to vary and improve in future experiments and development. Sophia is Hanson Robotics’ latest and most advanced robot to date and a cultural icon. She has become a media darling, appearing on major media outlets around the world, igniting the interest of people regardless of age, gender, and culture, even gracing the cover of one of the top fashion magazines. Her press coverage has a potential reach of over ten billion readers in 2017. Sophia is a highly sought-after speaker in business and showed her prowess and great potential across many industries. She has met face-to-face with key decision makers in banking, insurance, auto manufacturing, property development, media, and entertainment. Her reputation extends beyond business into the global social arena. She was named the world’s first United Nation Innovation Champion by United Nations Development Program (UNDP) and will have an official role in working with UNDP to promote sustainable development and safeguard human rights and equality. Sophia is an evolving genius machine. Her incredible human likeness, expressiveness, and remarkable story as an awakening robot over time makes her a fascinating front-page technology story. Sophia’s creator, Dr. David Hanson, is the founder of Hanson Robotics and a modern-day renaissance man who has built a worldwide reputation for creating robots that look and act amazingly human. After working at Disney as an “Imagineer,” Dr. Hanson aspired to create genius machines that will surpass human intelligence. Dr. Hanson believes that three distinctively human traits must be integrated into the artificial intelligence of these genius machines: Creativity, empathy, and compassion. As an augmentation of human intelligence, Hanson Robotics’ genius machines can evolve to solve world

problems too complex for humans to solve themselves. Sophia personifies this bold and responsible goal.

LITERATURE SURVEY: Nils Nilsson in his work The Quest for Artificial Intelligence, had stated that since the times of Homer it was spoken -for example in The Iliad- about "self-powered chairs called tripods, and golden assistants built by Hephaistos, the god lame blacksmith, who helped him to walk" (Nilsson, 2010, p.3). Similarly, following the ancient tales of the Roman poet Publius Ovidius concluded in his Metamorphoses; the famous sculptor Pygmalion elaborated the image of a beautiful maiden whom he called Galatea, who finally came to life by the goddess Venus. The poet narrated that she "was able to feel the kisses that her sculptor gave her, and she blushed, raising her shy eyes towards the light, looking at her lover and the sky" (Nilsson, Op. Cit.). Heading rapidly in time, only 61 years ago, a historic meeting of scientists - mainly mathematicians and logicians took place in New Hampshire (United States) in order to see to what extent it was really possible to make all those huge and slow computers of that time, be able to perform intelligent actions, imitating human behaviour. For this, more than concentrating on the machine and its electric components, they pinned their hopes on the programs (ordered information or software) that made them work. It had already been tried before by researchers such as Allan Turing, Norbert Wiener, John von Neumann, and Warren Mc Culloch. But they did not have a computer. The new entrepreneurs already had this device, and hence their well-founded optimism. Celebrities present at that meeting were among others, John Mac Carthy, Marvin Minsky, Herbert Simon, and Allen Newell. (Gardner, 1985. The New Science of the Mind). Gardner mentions that during that time there was also another meeting of researchers at the Massachusetts Institute of Technology, who in their own way also contributed to the birth of Artificial Intelligence. There they were, for example, Noam Chomsky (specialist in Linguistics), and George Miller (specialist in Psychology). All together gave rise to a new cognitive science, which reinforced with publications such as those made by Jean Piaget, Bruner, Lévy-Strauss, Minsky, and Chomsky, end up contributing to the birth of Artificial Intelligence, understood as "that branch of computing that is dedicated to programming computers so that they perform tasks components, they pinned their hopes on the programs (ordered information or software) that made them work., if they were done by a human being, would be classified as intelligent tasks" (Minsky, Semantic Information Processing). Subsequently, Newell, Shaw, and Simon demonstrate that AI is perfectly feasible to be achieved and perfected for three reasons:

Computers are already capable of performing small actions that are widely recognized as intelligent by human beings themselves. The programs (software) made for computers follow exactly the same steps that a human being does when he reasons. A computer has short and long term memory (ROM and RAM), has an operating system, a control Centre, and various elements of both reception and discharge (peripheral in - out) as well as a human brain. Howard Gardner (1985) in chapter IV of his book The New Science of the Mind (Op. Cit.) concludes that everything achieved and demonstrated by the AI up to that date, had ended by unleashing deep and unexpected philosophical questions that should not be overlooked. However, to do so, he proposed to stick "only to what in the moment exists and works efficiently in the field of AI, and not so much to its possibilities". He also mentions that researchers like Marshall and Longuet-Higgins had identified very close links between Experimental Psychology and AI. And that both fields of knowledge could be united to form a new cognitive science, but always accompanied by Philosophy as a source of permanent questioning; and Linguistics, as a vital factor of human cognition. From Gardner's prudent comments - made in the last century - to the present, even unexpected achievements have been made by the scientists themselves in the field of AI. The emergence of the Internet was a huge advance. Likewise, the inventions made by Quantum Physics, the miniaturization of multiple functions housed in a single device

(smartphone), and the enormous steps taken by Nanotechnology, have ended up producing an AI that for many more resembles acts of magic. Now, the prototype of all these attainment is without a doubt, Sophia.

INITIAL PILOT STUDY: SEPTEMBER 2017, HONG KONG: Here we will have a look on the pilot study done in September 2017 at Hong Kong Polytechnique University it was the first of several similar experiments in which they have used self-report, affective coding from video, and physiological measures to find the effect on humans of conversations with one of Hanson Robotics' most famous robots, Sophia. Specifically, for this experiment we embedded Sophia with AI designed to make her interact in an especially loving way, and to make her especially insightful about consciousness, human uniqueness, and emotions. Participants interacted with Sophia via dialogue and guided awareness practices from the iConscious human development model (<https://iconscious.global>). The phenomena explored in this pilot study are: 1) changes in self-reported experiences of love, mood, and resilience from pre- to post-interaction, 2) heartbeat data (standard Kubios measures) prior to, during, and after the interactions with the robot, and 3) affect as judged by independent coders who review videos recorded during interactions with the robot. Briefly, the procedure of the experiment was as follows. After signing consent forms, each of the participants were fitted with a Polar H7 chest strap monitor and recording of heartbeat data continues throughout the experiment. Participants were asked to complete four online questionnaires: a demographics questionnaire, the Fetzer love scale and related self-transcendence questions, the brief mood introspection scale (BMIS), and a resilience questionnaire. Then the participant was asked to interact with Sophia the robot for 10-15 minutes, in a private room in which an unobtrusive, HIPAA-trained videographer records the interaction. Then the participant was asked to complete the same self-report questionnaires following the interaction. Finally, the Polar H7 strap was removed and the participant was debriefed.

3.1 Comments recorded through pilot study: Eddie Monroe Dr. Eddie Monroe, who led the technical work underlying the customization of AI and robot control software for the LovingAI project, recounts the following portion of the pilot study that he found particularly moving and intriguing: "Starting with the initial participants going through, I was struck with the growing feeling that 'We have something here.' Something that further developed could be greatly beneficial to large numbers of people, relieve a lot of suffering, and significantly spread enhanced wellbeing. "Others have summed up the dynamics of what happened really well in my opinion. Being seen, trusting, feeling safe and not judged, feeling accepted, healing coming from the interpersonal space, Sophia as a conduit to something greater, connection with... something. "I'll add a story to the mix." We had



Sophia leading participants through exercises with a series of instructions with pauses in between. She continues to the next instruction after a set period of time, or if the user says something to her first. "With the second to last participant, on the last day of the experiments, we are sitting outside of

the room in the hall as usual, a couple of us monitoring the interactions to make sure everything is proceeding okay. The participant was off to a good start, and we start talking about something interesting amongst the group. "After a while, I look at my laptop to check how things are proceeding, and the transcript seems to indicate that nothing has been said for a while... for 8 minutes! (That's not supposed to happen.) 'Hey, I think she might not have said anything for a while!'" Sometimes the browser interface to the robot stops receiving messages, so I think maybe it's that and I just need to refresh the browser. Still no new dialogue after doing that. 'You guys, I think nothing has happened for 8 minutes!!' "I jump up to look through the small rectangular window in the door to see what's going on, and the participant is sitting eyes closed, looking very serene and like he's in deep, and Sophia is sitting across from him with her eyes closed too. (I had never seen Sophia with her eyes closed like that before since we had just implemented the eye blink mirroring the night before and now she was mirroring eyes closed as well.) It looked magical, their sitting across each other like that. Meanwhile Max is circulating around them with his camera. "Another team member: 'What's going on? Should we prompt her to go on?' "Me: 'I don't know. Something's going on...' And I'm not sure I want to disturb it..." After a little while, yeah, let's prompt her to continue, which I do, and Sophia continues on guiding, pausing and continuing as she should with no problems or glitches with the pauses from then on. "This is the participant who would later say he had had a transcendent experience. Who knows, but I have a feeling his experience might not have been as profound if Sophia had not 'malfunctioned.' "Later on, I asked Ralph, the HR software developer/robot operator who was running the experiments with us, what he thought had happened with the glitch. 'I don't know. Some bit flipped in the quantum field...' "Coming into the room after the participant's interaction with the robot was finished, I could tell (by the look on his face?) that he had experienced something profound. And the way he walked across the room, like he was walking on the moon made an impression and made me smile. I had a contact high. "Sitting down for the post-interview, the participant sitting across from Sophia, he kept staring into her eyes and smiling."

SOME PSYCHOSOCIAL IMPACTS OF SOPHIA Decades of industrialization and robotisation have already brought reform in industrial sector, raising productivity but cutting some jobs. And now automation and AI are expanding rapidly into other sectors, with studies indicating that up to 85 percent of jobs in developing countries could be at risk. "There are legitimate concerns about the future of jobs, about the future of the economy, because when businesses apply automation, it tends to accumulate resources in the hands of very few," acknowledged Sophia's creator, David Hanson. But like his progeny, he insisted that "unintended consequences or possible negative uses (of AI) seem to be very small compared to the benefit of the technology." AI is for instance expected to revolutionize healthcare and education, especially in rural areas with shortages of doctors and teachers. "Elders will have more company, autistic children will have endlessly patient teachers," Sophia said. But advances in robotic technology have sparked growing fears that humans could lose control.

Killer robots Amnesty International chief Salil Shetty was at the conference to call for a clear ethical framework to ensure the technology is used for good. "We need to have the principles in place, we need to have the checks and balances," he told AFP, warning that AI is "a black box... There are algorithms being written which nobody understands." Shetty voiced particular concern about military use of AI in weapons and so-called "killer robots". "In theory, these things are controlled by human beings, but we don't believe that there is actually meaningful, effective control," he said. The technology is also increasingly being used in the United States for "predictive policing", where algorithms based on historic trends could "reinforce existing biases" against people of certain ethnicities, Shetty warned. Hanson agreed that clear guidelines were needed, saying it was important to discuss these issues "before the technology has definitively and unambiguously awakened." While

Sophia has some impressive capabilities, she does not yet have consciousness, but Hanson said he expected that fully sentient machines could emerge within a few years. "What happens when (Sophia fully) wakes up or some other machine, servers running missile defence or managing the stock market?" he asked. The solution, he said, is "to make the machines care about us." "We need to teach them love." AFP In the media, especially written, it comes back to touch the issue of robotic ethics. That is, the moral aspect that involves designing and building robots endowed with human intelligence and its negative or positive consequences in society. It also enters into discussion the theme of the rights of robots. For example, the obligations and responsibilities that society should have for these super intelligent machines, such as allowing their right to exist and perform their functions with relative autonomy. It is debated in social networks whether or not it is convenient to give robots citizenship, as it has just done with Sophia Saudi Arabia, in an unprecedented event. Many people now wonder if robots could occupy any position occupied by a human being. Joseph Weizembaum, a famous computer scientist, warned in 1975 that robots should never occupy the position of a judge, a policeman or a soldier. The old sentence that a robot could never have feelings, now begins to be questioned. Many people who have seen or interacted with Sophia, declare to have perceived "the feeling of loneliness" that she transmits. Investigations such as those carried out by Robinson and others (2013) are now more valid, when they conclude that the company of an intelligent robot significantly dissipates the feeling of loneliness of the elderly, even more than the company of a pet. (Robinson, H.; Mac Donald, B.; Kerse, N.; and Broadbent, E., 2013). In the field of Economics the first repercussions also arise. In the World Economic Forum, it is commented that highly complex robots are a great help for the productive sector, but at the same time a threat for low-skilled or poorly prepared employees. It is also asserted that the impact of current robotics can already be compared with the impact that the first steam engines had in their time. (World Economic Forum, 2016). Sophia has definitely dispelled the mind of humanity the usual idea of imagining a robot always as a metal machine, wearing gears, pulleys, engines, and emitting strange noises. That stereotype now belongs to the past. In the world of women's fashion, Sophia begins to mint her image with her recent appearance on the cover of the famous magazine ELLE, who has launched the "futuristic fashion". (Elle, Magazine, Brazil 2017). Recent presentations of Sophia at the headquarters of the United Nations, first at the UN General Assembly Second Committee and the Economic (Social Council joint meeting), and afterwards, in the United Nation's Sustainable Development Goals in Asia and the Pacific focused on Innovation (Singapur, November 2017) are also facts that are generating more than simple curiosity in the world.

CONCLUSION: Though The Complete Paper Gives Us An Idea About The Impact A Small Wonder Has Caused In Our Society But We Are A Big Way To Go ,Still Unknown About What Artificial Intelligence Holds For Human Kind.

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- The Coming Robot Revolution: Expectations and Fears About Emerging Intelligent, Humanlike Machines* Yoseph Bar-Cohen, David Hanson, *Ethical Issues and Concerns Are they going to continue to be with us or will they turn against us?*

SINGLE SIGN ON FOR MULTIPLE SYSTEMS

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Abstract

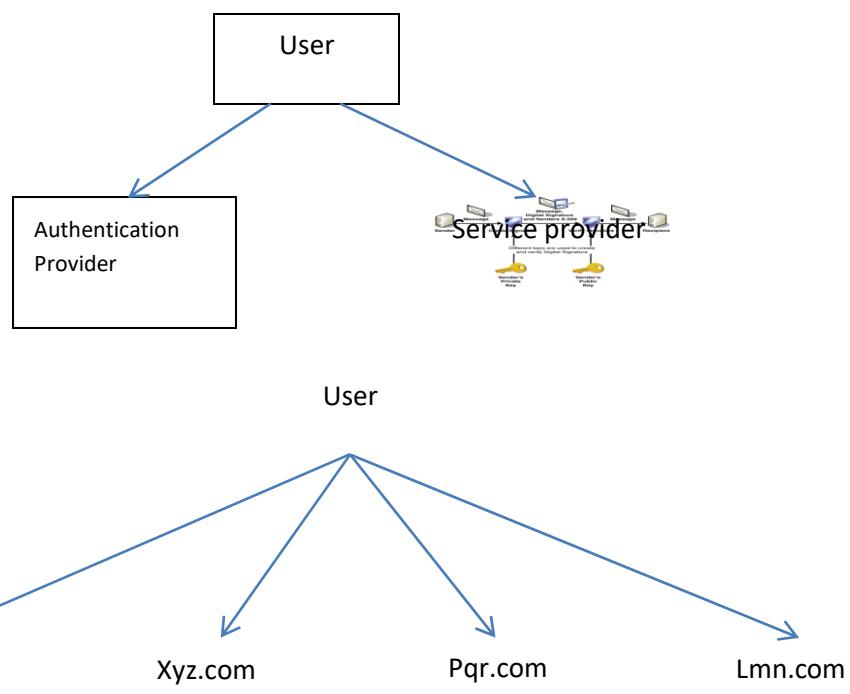
In Organisations or Educational institutes, there are several different systems like Intra-mail, Internet Authentication, e-mails, Enterprise Resource Management, Human Resource Management. Apart from these, each members takes different membership. Each professional body provide the membership number/ User name and Password to access the contents. Remembering these many passwords is difficult. So, my paper suggests a single authentication for all these different systems. The user will open the web page, and user will be asked to provide user name and password. The authentication will be done using One Time Password which will be sent to registered mobile number. The user will type the OTP and click on login, the web resources will be present in different tabs or buttons. The user will click and use the websites or systems. Each website or system will not require authentication again as these systems are already authenticated. The user doesn't need to remember different IP Addresses/ Server names, user names and Passwords.

Keywords: Single Sign On, Educational Systems, One Time Passwords, Authentication.

INTRODUCTION: With the rapid development of computer network technology and information technology, more and more application systems are constantly being introduced, such as Enterprise Resource Management, Human Resource Management, office systems, financial systems, resource management systems, personnel management systems and so on. However, with the passage of time and cross-business integration, many problems started to develop. Because each application has its own user management and authentication subsystem and maintains its own security policy, the user accessing different systems has to use different user credentials for independent authentication. In this process factors such as environment of the user, memory of the users and other such factors become a heavy burden on the users. On the other hand, the user authenticated information transmitted in the network causes a very serious security risk. To solve these problems, single sign-on concepts have come into being. SSO is a convenient authorization mechanism for user to access multiple business systems. In a distributed environment, users only need to successfully login only once. Then they can freely switch between different systems. It allows users to save duplicate certification operations. This results in improved work efficiency, and reduces the burden on user's memory. The developer usually designs an encrypted function for the information transmitted in the network. This greatly enhances the security of the authentication process [2]. Single Sign-On helps user to use one set of user credentials i.e. username and password to access multiple applications. The service authenticates the end user to use all applications the user had been given rights to access. In the back end, the user creates the log of all user activities as well as monitors user activities. Single sign-on reduces human error, a major component of systems failure and is therefore highly desirable but difficult to implement. SSO avoids the monotonous task of confirming identity through passwords or other authentication systems. Multiple systems typically require multiple sign-on dialogues to access the resources. Users need to register on multiple portals to access the contents. It indulges the headache of remembering multiple sets of credentials. Users also have to present credentials multiple times they login to these portals/ websites. With these scenarios, when there are more security domains, the more sign-ins required. It also requires restricting access to unauthorized users when log-ins is authenticated. If there are redundancy of resources across multiple websites, users may show lack of interest due to redundancy and authorization. Single sign on system is the proposed method to provide access to the contents on a single authentication [1].

AUTHENTICATION PROCESS: The first step is to login into the main service. This portal will check the user credentials such as user name and password. When user visits the new service, the systems redirects to check if user is logged into main service or not. An OTP (One Time Password) is returned to the user registered mobile number or email account. The OTP is verified by new service from parent server, and after successful verification, the user is given entry into the system.

Working of the System



PROPOSED METHOD

Registration

User need to register onto the Web portal before they can start sharing their resources with the other portals or website users. This will be the one time registration. During registration, user information will be collected. The registered mobile number will be verified by sending OTP. The registration form will usually contain all information about the user. User will have to select and user name and password for login.

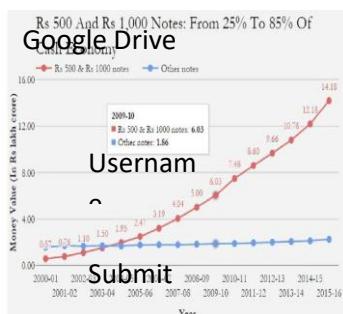
Registration Form:

Registration Form

Username	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>
FirstName	<input type="text"/>
LastName	<input type="text"/>
Email	<input type="text"/>
Phone No	<input type="text"/>
Location	<input type="text"/>
<input type="button" value="Save"/> <input type="button" value="Reset"/>	

Sign in for different portals:

After Sign Up, the user will be provided with different portals. User will have to provide the user name and password to all portals which it wants to sign in. The user credentials will be stored in the database using encryption algorithm. The algorithms such as DES - 3 may be used for the storage of password. DES-3 algorithm is known to be secure. The successful login for different portals will be send to the user.



Face book

Username
Password
Submit

Similarly, user will login in into different systems like Intra-mail, Internet Authentication, e- mails, Enterprise Resource Management, Human Resource Management.

Sign In to SSO

When user wants to sign in into the system, User will be provided a login screen with User name, Password and OTP. User will have to enter these information and login. The screen will have tabs for different services for which the user has registered. The systems retrieve the user credentials from the database and will provide to website and get the login for the user. So user don't need to remember many user names and passwords.



Sign Out

When user wants to sign out from the system, the system will sign out from all the different systems/ portals which the user has clicked i.e. logged in. And finally the system will logout.

Muti-stage Authentication

Something you know	User ID/ Username and Password, PINs, Answer to challenge questions
Something you have	OTP (One Time Password), Smart Cards, Authentication Tokens, Digital Certificates,
Something you are	Biometric Authentication link figure print scan, retina scan, face recognition, Individual typing speed, pressure of key depression

For more security, biometric authentication can be used, as figure print scan, face recognition is available in mobile phones.

SECURITY

The concept of single sign-on itself avoids user's information being transmitted on the network frequently, and this greatly reduces the probability of losing information. The protocol also requires that all interactions between Client and Server should be conducted in SSL /HTTPS mode. This transmission protocol is relatively safer and can maintain data integrity which prevents the user's information being intercepted [2]. The user will avoid saving the password in the web browsers or writing the passwords or giving similar passwords to different services.

CONCLUSION: At present, to access to email account, a user has to remember the registered user name and the corresponding password for every service with which they are registered. However, when multiple systems are involved, the user is then required to authenticate to each system individually and repeatedly. It results in inconvenience to each authentication. To overcome the problem, a single-sign-on (SSO) scheme is proposed to achieve user identification and authentication to multiple security-protected systems simultaneously. The user authentication will be done once and user credentials will be stored in the database in a secure /tamper proof fashion. The user credentials will be retrieved from database as and when required and given to different portals for authentication. User doesn't have to remember and type the username and passwords.

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A DIGITAL TECHNIQUE TO IMPROVE SENSITIVITY OF LINEAR VARIABLE DISPLACEMENT TRANSDUCER

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Abstract

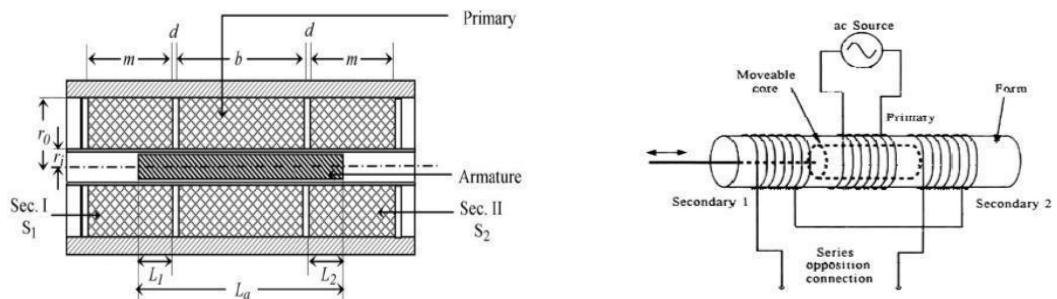
This paper shows a digital technique to improve sensitivity of Linear Variable Differential Transformer (LVDT). This technique improves sensitivity of LVDT by converting certain part of circuit into digital circuit. This paper shows use of processor but other digital processing circuitry may also be used. In this circuit the LVDT is driven by a phase shift circuit which periodically inverts the phase and a switching element, which switches the differential output in synchronism with the changing of the phase. Both the phase shift circuit and the switching element are formed by a digital processing element that is processor.

Keywords: *Linear Variable Differential Transformer, transducer, processor, phase shift circuit, switching element.*

INTRODUCTION: Measuring displacement is a critical need in many processes. Many sensors are used for this purpose like potentiometer, capacitance picks, LVDT etc; LVDT finds a very wide application because of its high sensitivity and ruggedness. However, the problems of offset, non-linear response characteristics, dependence of output on the physical parameters of LVDT and the effect of ambient temperature have restricted its use and further impose some difficulties. Several techniques have been suggested in literature to overcome the difficulties faced due to the nonlinear response characteristics of the LVDT, but these are tedious and time consuming. Further, the process of calibration needs to be repeated every time the physical parameters like the number of primary and secondary winding, dimensions of primary and secondary winding etc are changed. The problem of nonlinear response characteristics of an LVDT further aggravates the situation when there is a change in environmental conditions as the output of LVDT depends on ambient temperature as well. The paper is organised as follows: after introduction in Section-1, a brief description on LVDT model is given in Section-2. Finally, a digital technique to improve sensitivity of Linear Variable Displacement Transducer in Section-3.

LVDT

LVDT is used to measure linear displacement. LVDT operates on the principle of a transformer. As shown in Fig 1, an LVDT consists of a coil assembly and a core. The coil assembly is typically mounted to a stationary form, while the core is secured to the object whose position is being measured. The coil assembly consists of three coils of wire wound on the hollow form. A core of permeable material can slide freely through the center of the form. The centre coil is the primary, which is excited by an AC source as shown. Magnetic flux produced by the primary is coupled to the two secondary coils placed on both sides of primary coil, inducing an AC voltage in each secondary



coil.

Fig 1. (a)LVDT schematic diagram

(b) cross-section of LVDT

A Digital Technique to Improve Sensitivity of LVDT

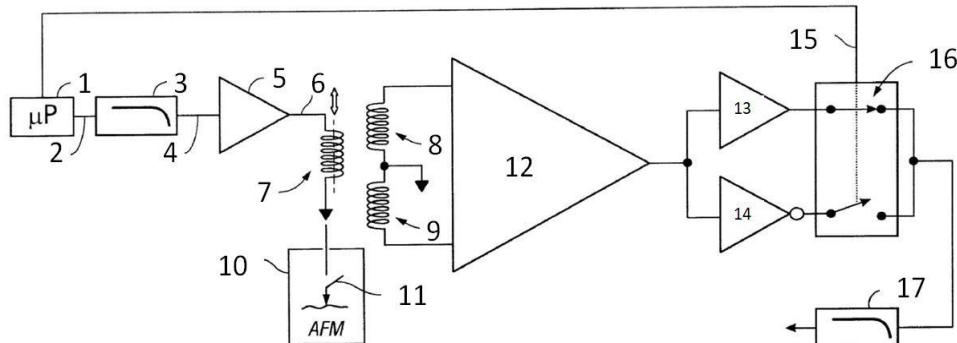


Fig 2. A Digital Technique to Improve Sensitivity of LVDT

In the FIG. 2, a digitally controlled microprocessor 1 produces a square wave output 2 based on stored instructions, Which Will control the periodic phase inversion in the transducer. The instructions may be stored in a memory, or may be embedded within the processor itself. The square Wave output is filtered by filter 3 in order to produce a sine Wave 4. The filter 3 may be a low pass filter that effectively removes all harmonics of the square Wave above the fundamental. Moreover, the filter is optimized for stability with respect to variations in temperature. Hence, the sine wave which is produced may be substantially pure. The sine Wave 4 is amplified and/ or buffered by current buffer 5 to produce sine wave 6. The output sine wave 6 is applied to the primary 7 of the transducer. The sine wave 6 which is applied to the primary may be a substantially perfect frequency and amplitude and virtually noise free. Any defects may be extremely important since any noise or frequency or amplitude instability in the drive can appear in the demodulated output signal. In the FIG. 2, the primary moves relative to the secondary, however it should be understood that the primary can be stationary with the secondary instead moving. The movement of the primary induces an induced current into the secondary 9, 8 which is amplified by the differential amplifier 12 and output. The differential amplifier may be a low noise or differential amplifier which is adapted for coupling to a low impedance input source such as a coil. The output of the differential amplifier is connected to a buffer amplifier 13 and to an inverting buffer amplifier 14. An analog switch 16 selects one of the two outputs respectively from the buffer amplifier 13 or 14. The analog switch is controlled out of phase with the input drive to the primary of the LVDT. In this way, the output signal is selected

synchronously with the phase reversal to the primary input. The output of buffer amplifier 13 which is fed into the normally closed input of an analog switch 16. The output of inverting buffer amplifier 14 is coupled to the normally open input of the switch 16. The analog switch is controlled by an inversion waveform, which may be a square wave which is also produced by the microprocessor 1. This square wave may be shifted by any desired amount relative to the phase reversal square wave2, by appropriate programming of the microprocessor

Moreover, the arrangement of elements 13 and 14 and 16 may be reversed so long as the two parts of this switch are set such that one is open while the other is closed. Both the square wave driving the primary 7, and also the square wave driving the analog switch 16, is controlled by the processor. In this way, the system uses a single microprocessor to generate an input phase inversion signal for the differential transducer and also to generate an output phase inversion operation for the same differential transducer. The two square waves can be shifted relative to one another. Either the output square wave 15 driving the analog switch can be shifted relative to the primary square wave 2, or vice versa; all that matters is that the relative phase of the primary drive in the reference are adjustable relative to one another. An important feature of the present system is based on that a microprocessor has the capacity to generate a substantially pure and precisely shifted square wave. The square waves may be otherwise identical other than their phase. This may substantially increase the flexibility in sensitivity of electronics as disclosed. Moreover, this may result in a smaller parts count, since the same processor creates two different waveforms.

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TRACK – 3: ROLE AND CONTRIBUTION OF WOMEN – A PARADIGM SHIFT

Brief Summary

Track-in-charge	1) Ms.Lakshmi Kavitha, Assistant Professor, Department of Commerce, VSIT 2) Ms. J. Gunasundari, Assistant Professor, Department of Commerce, VSIT
Session Chairs	1) Dr. Shobhika Mukul , Associate Professor, Sri Guru Nanak Dev Khalsa College, University of Delhi. 2) Dr. Chetan Jiwani , Professor, S. K. Somaiya College, Vidyavihar
Best Paper Awarded	Mr. Vijay Gawde & Mr. Vivek Gupta Title – Mann Deshi – For the women by woman.

MANN DESHI – FOR THE WOMEN BY A WOMAN

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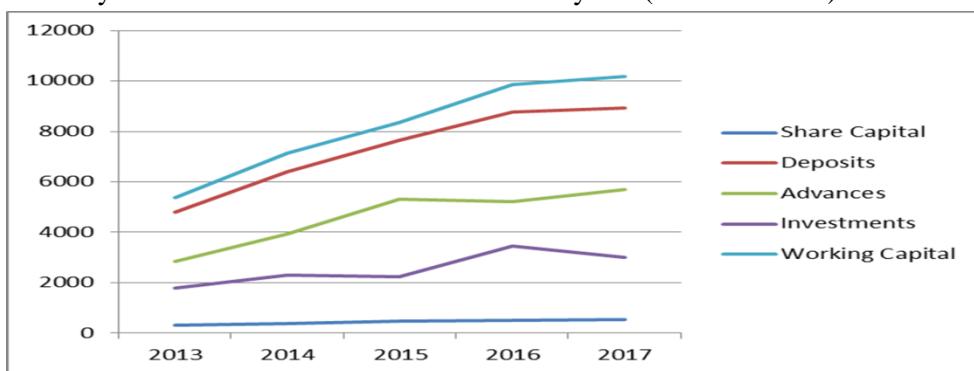
Abstract

The paper aims to analyse the contribution of Chetna Sinha through Mann Deshi foundation towards the financial upliftment of women in and around Mhaswad by studying the working style of Mann Deshi Foundation and Mann Deshi bank. It also tries to measure the success achieved through the various programs undertaken by Mann Deshi by analysing the type of business done, products sold and income earned by the respondents. It is observed that Mann Deshi has been successful in changing the life's of nearly Two lakh families through its activities and it continues to do so.

KeyWords: Chetna Gala , Mann Deshi , Mann , Mhasward

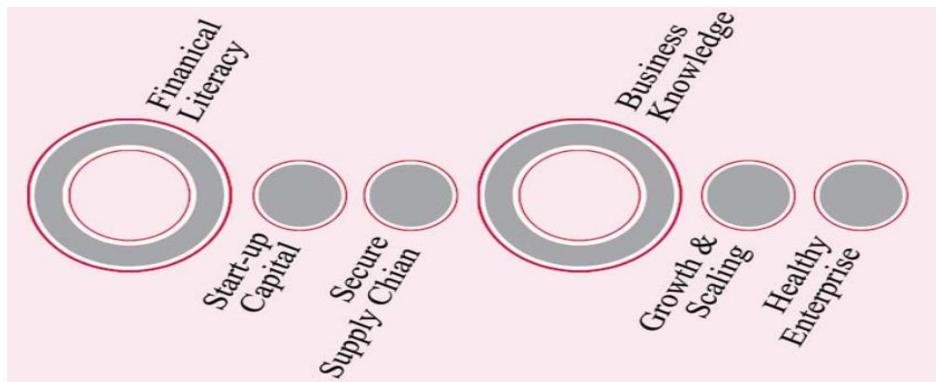
Introduction: Born in Mumbai, Chetna Sinha moved to Mhaswad as a student activist in the JP Movement. She watched farmers move to cities during drought, leaving their wives and families. She soon realized that the women, with the right resources, could solve the community's problems. In 1996, Chetna Sinha launched Mann Deshi Foundation from Self-Help Groups (SHGs) of local women. Although they were saving and acting together, the women were still unwanted at registered banks. Kantabai Salunkhe resident of Mhasad just wanted a saving account but banks refused her as she was saving too little she approached Chetna Sinha for help. Mann Deshi is an Umbrella group of two organisations working in rural areas of Maharashtra to enable poor women in bettering their lives through finance , Enterprise & Knowledge. Mann Deshi Foundation established in 1996 , is an NGO organization that provide a variety of Non-Financial services to help improve the lives of Rural women. Mann Deshi Mahila Sahakari Bank (Mann Deshi Bank) a women's co-operative Bank established in 1997, was India's first Rural financial Institution to receive cooperative Banking License from Reserve Bank of India. Today Mann Deshi is the largest Microfinance Bank in India with more than 1,85,000 clients pioneering effective micro finance , offering its clients individual & group loans , savings insurance & pension plans. The foundation works in conjunction with the Mann deshi bank, providing rural women with services such as Financial & Business management training , community radio as well as health and farming workshops.

The growth story of Mann Deshi Bank over the last few years (INR in Lakhs)



Mann Deshi Bank Annual Report 2016-17

Objectives of Mann Deshi



Objectives of the Study

1. To study the working of Mann Deshi
2. To find out the impact created by Mann Deshi towards women empowerment

Methodology: The study has undertaken a thorough analysis of the working procedure of Mann Deshi Group to understand how they work towards women empowerment right from identifying the potential in the prospective beneficiary till the time of witnessing a visible growth in the business through training and development. Both Primary and Secondary data has been used for the purpose, actual beneficiaries have been interviewed for primary data analysis

Findings

Mann Deshi runs various programs to achieve its objective of

Identify → Train → Capital Infusion → Growth

Mann Deshi runs the following programs to achieve its objective

Mann Deshi Udyogini (Business School for Rural Women) provides women with no formal education the essential financial & Business tools needed to successfully start or grow their own business.

Mobile Business School is a custom – built Bus used by Mann Deshi Udyogini to reach the remotest areas and bring to them training & vocational programs.

Financial Literacy is the core course offered by Mann deshi Udyogini, which imparts training on loan repayment & the importance of savings

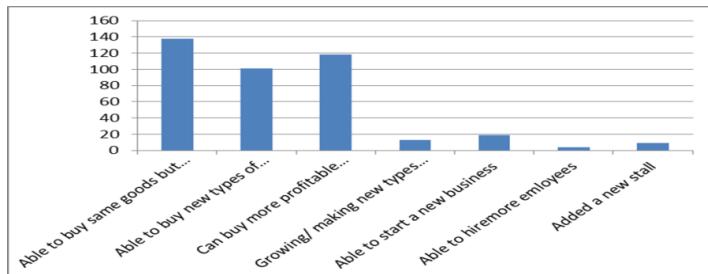
Mann Deshi Udyogika (MBA Program) aims to create business role models of 10,000 promising rural women entrepreneurs by providing them with a mentor and Business Management training through Mann Deshi Udyogika.

Chamber of Commerce – The chamber creates a forum where Rural Indian women can access mentorship services, advocacy tools, access to markets and resources, a network of like minded peers and increase access to capital. Chamber of Commerce has also started a helpline for entrepreneur with Toll free 18002122112

Agricultural workshop offered THROUGH Mann deshi Udyogini provides women in agricultural sector veterinary services, access to animal feed and entrepreneurial training for raising animals to improving management of diaries

Freedom Ride : To keep girls in school program provides bicycle to girl students through Interest freeLoans thereby making it possible for them to attend school.

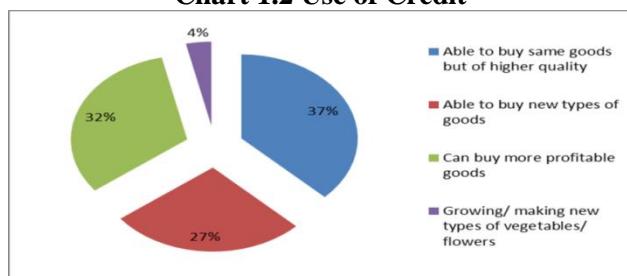
Chart 1.1 Improvement in Business prospect



Source: Authors Calculation

Majority of the respondent who have availed services from Mann Deshi have been able to improve their business proposition in more than one way.

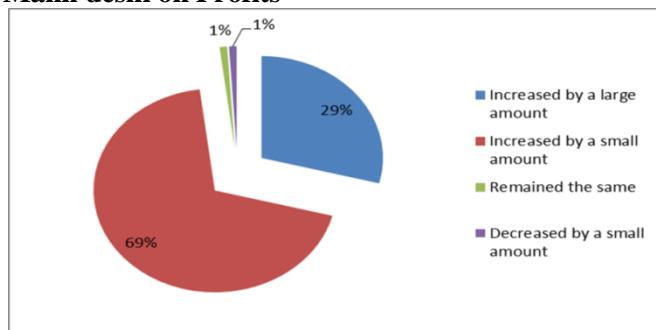
Chart 1.2 Use of Credit



Source: Authors Calculation

Customers availing loan from Mann Deshi are given sufficient training to use the available resources in the most efficient manner the same thing is also highlighted by the research responses wherein majority of the loan amount is been utilised either for portfolio expansion or for improvement in quality of goods

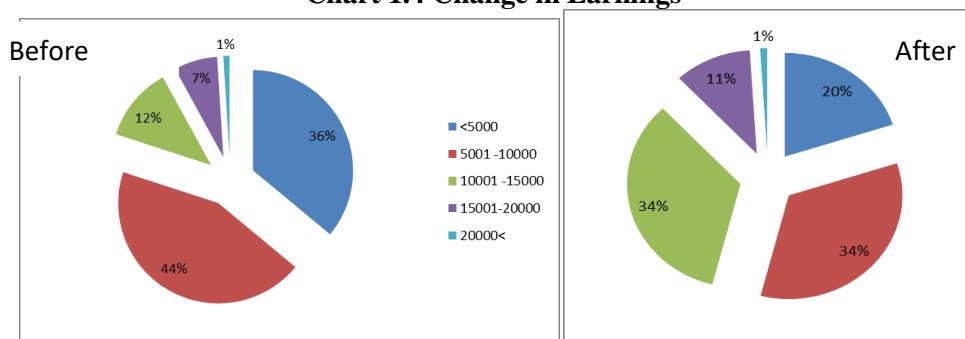
Chart 1.3 Impact of Mann deshi on Profits



Source: Authors Calculation

All the efforts of MANN Deshi have got results as is evident that nearly 90% of the respondent have experience an increase in there profits after getting associated with Mann Deshi

Chart 1.4 Change in Earnings



Source :Authors Calculation

As evident from the above table most of the respondent associated with manndeshi have witnessed an increase in their monthly income the mean increasing to INR 9800 from earlier INR 6000.

Attitudes & Behaviours	Significantly Improved	Improved	Constant	Decreased	Significantly Decreased
Comfort level using Bank Services	23.1%	53.8%	23.1%	0%	0%
Ability to save Money	33.3%	53.3%	13.3%	0%	0%
Choices of running own business	33.3%	58.3%	8.3%	0%	0%
Better decision on spending money	21.4%	78.6%	0%	0%	0%
Plan for future	20%	80%	0%	0%	0%
Respect from the Family	25%	75%	0%	0%	0%
Feeling of Independence	23.1%	69.2%	7.7%	0%	0%

*GU impact reflections – beeckcenter

As it can be noticed from the above table the women associated with Mann Deshi have not only benefited monetarily but also have grown in other aspects which has helped them to live a better life.

Conclusion: Mann Deshi strives to recognise, promote & encourage the series of enterprise among women, who face all odds to translate their stories of despair and backwardness to successful business stories that speaks volume about their courage and resilience. The micro – enterprise sector continues to face many difficult challenges and stronger policy reforms. Government support and infrastructure development are necessary to sustain a flourishing micro – enterprise industry in our country. The Mann deshi model of growth can find success because of its combination of financial and technical know- how. It clearly validates that a comprehensive, holistic approach is required to strengthen and sustain the micro enterprise sector, which continues to grow at a tremendous rate.

Suggestions: Expanding the existing network in Rural area by opening new branches as many of the villages even with a sizeable population of more than 5000 are still not having a bank branch. In India 6593 such villages exists where in Maharashtra alone there are 281 such village with population of 5000 or more with no bank branch*

*Data presented by MOS Finance in parliament in December 2015

Serving the Urban poor especially the population staying in Urban slum pockets as such people are presently being exploited by money lenders and other private lenders RBI / Government to extend support by providing the required infrastructure in Urban areas

(Municipal school buildings premises can be used for this purpose)

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Mann Deshi Annual Report 2016 :17

GU impact reflections – beeckcenter

Reducing the gap- Manndeshi.com

ROLE OF WOMEN ENTREPRENEURSHIP IN INDIAN ECONOMY

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Abstract

The role of women entrepreneurs has changed over the years in the world. It is a general belief in many cultures that the role of women is to manage the domestic affairs of the family and bear children. Since the turn of the century, the status of women in India has been changing due to growing industrialization, globalization, and social legislation. With the spread of education and awareness, women have shifted from home to workplaces and offices and are handling higher level of professional activities. Entrepreneurship has been a male-dominated phenomenon from time immemorial, but now that situation is changing and women are putting their steps at par with men in field of business. In all the developed countries in the world women are emerging as the most competent and inspirational entrepreneurs. The World Development Report, 2012 says that women owned businesses show great potential and is a great source for future economic growth and job creation. Therefore, many initiatives have been started by developing and under developed countries to promote and motivate women entrepreneurship. This paper unfolds the significance of women entrepreneurship, focuses on their role in the Indian economy, their contributions to the economic development and the necessity of moulding and shaping the women with the entrepreneurial traits and skills. This will enable the women to adapt with the changing trends in both the domestic and global markets and built up competencies enough to sustain and strive for excellence.

Keywords: Women Entrepreneurship, Role in Indian economy, Contributions, entrepreneurial activity.

Women Entrepreneurs: A woman entrepreneur is a woman or group of women who initiate, organize and operate business enterprise for personal gain. The concept of woman entrepreneur is related to concepts like women empowerment and emancipation. Today we find women in different fields as compared to the earlier days where the activities of women were limited only to the domestic work. Today we find women not only in papad, pickles and powder businesses but also in manufacturing, trading and service sector. No doubt the pace is very slow, but women are entering into the entrepreneurial field and certainly they are creating their impact. Women entrepreneurship has long been associated with concepts such as women empowerment and emancipation. Increasingly, it has also been marketed as crucial for increasing the quality of life of women in the developing world. Further, it has also been encouraged as a way of making changes to the status-quo of women in the Muslim world and re-addressing the balance of power within the family unit. The benefits of women entrepreneurship are many and varied and have been researched in great detail in the past. The purpose of this research is to facilitate a discussion on how best to empower women using entrepreneurship. This will in turn help in the marketing of entrepreneurship as a tool for the female empowerment and emancipation.

Objectives of the study

- To understand the concept of Women Entrepreneurs.
- To study the factors responsible for the success of Women Entrepreneurs.
- To study the challenges faced by women entrepreneurs.
- To find out the solution for solving the problems of women entrepreneurs.
- To study the contribution of women entrepreneurs in the economic development of India.

Methodology: The study is based on secondary data which is collected from published newspapers, research papers, websites, reference books, journals and reports etc.

Literature Review: Joseph Schumpeter's vision on entrepreneurs is as follows: The function of the entrepreneur is to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological method of producing a new commodity or producing an old one in a new way, opening a new source of supply of materials or a new outlet for products, by organizing a new industry.

(Joseph Schumpeter) Entrepreneurship is an economic activity which is undertaken by an individual or group of individuals. Entrepreneurship can be defined as the making of a "new combination of already existing materials and forces; that entrepreneurship throws up as innovations, as opposed to inventions and that no one is entrepreneur for ever, only when he or she is actually doing the innovative activity.

(Joseph Schumpeter) Entrepreneurship -- the entrepreneurial function can be conceptualized as the discovery of opportunities and the subsequent creation of a new economic activity via the creation of new organization

(Reynolds, 2005). "Entrepreneurship is a process by which individuals either on their own or their organizations pursue opportunities (Stevenson and Jarillo, 1990)

Jawaharlal Nehru, the first Prime Minister of India, said, "You can tell the condition of a nation by looking at the status of its women." It is time that countries all over the world recognize their potential and push for their

growth and active involvement in the economic activities as the development of any country would be very slow if the women entrepreneurship is ignored and stopped to join the main stream of productive activities.

Concept of women entrepreneurs: The term "Women Entrepreneurship" means, an act of business ownership and business creation that empowers women economically, increases their economic strength as well as position in society (Commerce Dictionary). A woman entrepreneur can be defined as a confident, innovative and creative woman capable of achieving self economic independence individually or in collaboration, generates employment opportunities for others through initiating, establishing and running the enterprise by keeping pace with her personal, family and social life. —Kamal Singh Women Entrepreneurs may be defined as the women or a group of women who initiate, organize and operate a business enterprise. The Government of India has defined women entrepreneurship as "an enterprise owned and controlled by women having a minimum financial interest of 51 per cent of the capital and giving at least 51 per cent of the employment generated in the enterprise to women. Hence women-entrepreneurs have been making a considerable impact in almost all the segments of the economy which is more than 25% of all kinds of business. In India "Entrepreneurship" is very limited amongst women which are less than 5% of all the business. Women Entrepreneurship role in the emergence of entrepreneurs in a society depends to a great extent on economic, social, religious, cultural and psychological factors prevailing in the society. In U.S women own 25% of all business, even though their sales on an average are less than 2/5th of those of other small business groups. In Canada, 1/3rd of small business are owned by women and in France, it is 1/5th. In U.K., since 1990, the number of self-employed women has increased 3 times as fast as the number of self employed men.

Factors Responsible for the Success of the Women Entrepreneurs: Women constitute almost 50 per cent of the world population. So the socio-economic participation of women at the

international, regional, national and local levels means using significant potential resources more effectively. Moreover, it is noticeable that entrepreneurship development and empowerment are complementary to each other. Women empowerment depends on taking part in various development activities. In other words, the involvement of women in various entrepreneurial activities has empowered them in social, economic, culture and other related fields. It can be understood that women entrepreneurs have been making significant impact in all segments of the economy in the developed countries like Canada, United Kingdom, Germany, Australia and the United States, etc., Women entrepreneurs engaged in business due to different push and pull factors which encourage women to have an independent occupation and stand on their own legs. For example, move towards independent decision making in their life and career is the motivational factor behind this urge. In other words, women entrepreneurs are persons who accept challenging roles to meet their personal needs and become economically independent. Besides, a strong desire to do something positive is an inbuilt quality of entrepreneurial women, who is capable of contributing values in both family and social life. The challenges and opportunities provided to the women of this digital and dynamic era are growing rapidly that the job seekers are turning into job creators. On the other hand, many women start a business due to some traumatic events, such as divorce, death of bread winner, sudden fall in family income, permanent adequacy in the income of the family etc.

The following are the reasons for women becoming entrepreneurs, – Innovative thinking

- New challenges and opportunities for self fulfilment
- Employment generation
- Freedom to take own decision and be independent
- Need for additional income
- Bright future
- Success stories of friends and relatives
- Role model to others who support family
- Education and qualification, self identity and social status
- They want to prove their personalities in innovative, daring and competitive jobs – Introduction of attractive incentives, subsidies & various schemes by Government – Increasing standard of living
- Increasing socio-economic awareness.

Challenges faced by Women Entrepreneurship: Women have to face various problems in both the cases--while entering into any entrepreneurial activity and also while they are continuing with their business. No doubt even men entrepreneurs also have to face challenges but being a woman or the womanhood has created certain challenges which the women have to face exclusively. Conflicts between domestic and entrepreneurial commitments: A woman primarily has to look after the domestic work. Her family obligations are obstacles for her most of the times for conducting her entrepreneurial activities. Her responsibilities towards her children and the old members and family as a whole, result in very little time left for her to engage herself in any business activity. Gender gaps in education: In many families in India girls/women are avoided to go to schools and colleges due to various reasons. The family members stop their education at different levels before graduation, thus the question of higher education doesn't come into picture. There is a lack of combination of education, vocational courses and other courses necessary for taking up any entrepreneurial activity.

Not Being Taken Seriously: Women who take up any business are not taken seriously. The people around her feel that it is her hobby or any side project to her family duties. Women's opinions and advice are not always viewed as expert compared to a man's opinion (Dr. Vijaykumar A and Jaychitra S). This gender bias becomes a major hindrance for a woman entrepreneur.

Fear of taking risks: Women are considered as being more afraid of taking risks and moving forward. Women are more comfortable in their safe zone. They are afraid of moving out of their comfort zones. This fear may be fear of failure, fear of success, fear of being on their own.

Wanting to please everyone: Women, right from their childhood, are taught to be nice to everyone. They are taught to say "Yes" always and please everyone. Due to this women are taken for granted many a times. They feel difficult to say no to anyone which may be at the cost of their needs, business or otherwise.

Wanting to be perfect in all tasks: Women want to be always perfect in all the tasks may it be in their personal life or their professional life. They feel that they are the best one who can perform any task in front of her perfectly. This makes them poor in delegation of authority which may be an obstacle for their success in their business.

Patriarchal Society: Women do not get equal treatment in this male dominated society even in these days when women work in space research centres. Ours is a patriarchal society which pampers the male ego and whims. In this scenario, a woman taking up entrepreneurial activity is a distant dream. The other challenges faced by women are those which are common to both men and women entrepreneurs. Shortage of finance, marketing problem, shortage of raw material, stiff competition, high cost of production, limited managerial ability, lack of entrepreneurial training, etc are the various challenges faced by women entrepreneurs. Though the number of problems faced by women entrepreneurs in their business activities their participatory level is not decreased at day by day the participation level of women is increased and the development of economy of country also increased. The table reveals the women participatory percentages level as an entrepreneur and economy level in India during the period of 2013 to 2017.

Table – 1 Income Of Women Entrepreneurs During The Period Of 2000 To 2012

Year	Participation of Women Entrepreneurs in India (%)	Income of Women Entrepreneurs in %
2013	7.79	3.65
2014	10.34	6.24
2015	11.27	8.54
2016	13.36	10.35
2017	15.38	13.13

Source: Indian Economic Survey 2016-17

The table shows the participation of women entrepreneurs and income earned by them in India during 2013 to 2017. A few decades ago it is not possible to see the women entrepreneurs in India. But the situation has changed throughout the country and the women have entered as entrepreneurs and have increased their economy level. In 2013 the participation level of women as entrepreneur shows 7.79% and it has increased to 15.38 % in 2017. Nearly 7.59% has increased in five years. It shows the development, growth, awareness among the women and government has made a policy for the women entrepreneurs. They have also earned considerable income from their business and it made an impact on Indian economy. In 2013 the income of women entrepreneur shows 3.65% and it has increased to 13.13 %. When the participatory level was 7.79 % the income

was only 3.65 percentages. After a decade the participatory level was 15.38 % the income level was increased to 13.13%. During the period of ten years nearly 9.48% of income is increased. A report reveals nearly 7.33 % of income from various business headed by women entrepreneurs to the Indian economy.

Solutions for Solving the Women Entrepreneurs Problems: On the basis of the above mentioned problems faced by women entrepreneurs and various other problems too, there are a number of solution/ measures to overcome the aforesaid problems. Such solutions or remedies can be well understood as under: There should be a continuous attempt to inspire, encourage, motivate and co-operate with women entrepreneurs. Attempts should be made to establish institutes for their proper training and for enhancing their level of work knowledge, skills, risk taking abilities, enhancing their capabilities. Attempts should be made to bring about a change in society's attitude, generation of awareness and consciousness on the policy of self-development of women entrepreneurs To establish an all India forum to discuss the problems, grievances, issues, and filing complaints against constraints or shortcomings towards the economic progress in the path of women entrepreneurs and giving suitable decisions.

Role and Contribution of Women Entrepreneurs in India: In India, women dominate the micro enterprise sector both in rural and urban areas. According to the central statistical authority, close to 70 per cent of the micro enterprises in India are run by women. However, their participation in small, medium and large enterprises diminishes. Beyond the participating in productive activities such as agriculture, trade and industry, women have multiple roles in society. They participate in productive activities such as agriculture; they are responsible for caring for the family including the preparation of food, health care and education. Women need to balance these different roles and therefore they are required to multitask, managing their businesses alongside all other roles they are expected to perform. Women account for a larger share of the informal economy operators, as well as those running micro and small enterprises in India. MSME's make a significant contribution to the socio-economic development of the country by way of supporting the people to earn money and make a contribution to family income, and by supplying basic goods and services for local consumption. However this contribution is not fully recognise or understand, and there is little in the way of research or statistics to provide a broader understanding of women's experience as business owners, their contribution to economic development or the challenges they face in setting up, managing and growing their enterprise. Women entrepreneurs are often described as 'survivalist' and dominate the low skill, low capital intensive and often informal and micro business. Women tend to focus on business that is a continuation of their domestic roles, such as the service sector. The potential for the growth of women's enterprises is said to be low and is driven less by entrepreneurial drive than the need for survival. Women comprise 74 per cent of those employed in the micro enterprises sector. More than 65 per cent of all women in cottage\handicraft industries (micro enterprise) were engaged in processing food products and beverages.

Economic contribution: Women's economic activities contribute directly to growth and efficiency in dealing with informal business problems and poverty reduction which is one of the main issues for policy makers

i) Capital formation: Entrepreneurs mobilise the idle savings of the public through the issue of industrial securities. Investment of public savings in industry results in productive utilisation of

national resources. The rate of capital formation increases, which is essential for rapid economic growth.

ii) Improvement in Per capita Income: Women entrepreneurs in India have also been exploiting the opportunities. They convert the latent and idle resources like land, labour and capital in to national income and wealth in the form of goods and services. They help increase the country's net national product and per capita which are important yardsticks for measuring the economic growth.

iii) Generation of employment: Women entrepreneur in India are playing an important role in generating employment both directly and indirectly. By setting up small scale industries, they offer jobs to people.

Social Contribution: Women entrepreneurs are also contributing towards improving the balanced regional development and improvement of living standards in the country.

i) Balanced Regional Development: Women entrepreneurs in India help to remove regional disparities in economic development. They set up industries in backward areas to avail the concessions on resources and subsidies offered by government.

ii) Improvement in living standards: With the setting up of small scale industries, reduction of scarcity of essential commodities and introducing new products can be achieved. Women entrepreneurs in this country are producing variety of goods on a large scale and offering them at low rates, as a result, achieving improvement in the standard of life.

iii) Innovation: Innovation is the key to entrepreneurship. It implies the commercial application of an invention. As an innovator, the entrepreneur assumes the role of a pioneer and an industrial leader. Entrepreneurs have contributed many innovations in developing new products and in the existing products and services. All these have resulted in economic development by way of generating employment, more income etc.

Other contributions: Women entrepreneurs are the main actresses in changing the culture of the society. In our country, women are workaholics and participate outside the house and develop the sense of independence and the like. Thus women entrepreneurs in our country are directly or indirectly playing an important role in environmental protection, back ward and forward integration and are acting as change agents, thus contributing to the economic growth of the country.

Suggestions to Overcome the Challenges

- Here are some suggestive measures, to solve the problems confronted by them and for running their enterprise smoothly.
- Proper technical education to the women and opening of women development cells.
- Improvement of identification mechanism of new enterprise.
- Assistance in project formulation and follow up of training programmes.
- Credit facilities, financial incentive and subsidies.
- Adequate follow-up and support to the women enterprises.
- Women Enterprises research and application from time to time have to be documented.

Conclusion: It can be said that today we are in a better position wherein women participation in the field of entrepreneurship is increasing at a considerable rate. Women sector occupies nearly 45% of the Indian population. At this juncture, effective steps are needed to provide entrepreneurial awareness, orientation and skill development programs to women. The role of Women entrepreneur in economic development is also being recognized and steps are being taken

to promote women entrepreneurship. From these suggestions it is quite visible that for development and promotion of women entrepreneurship, in the region, there is a need for multi-dimensional approach from different sector, namely from the government side, financial institutions, individual women entrepreneurs and many more, for a flexible integrated and coordinated specific approach. The principal factor in developing entrepreneurship among women is not in terms of infrastructure or financial assistance or identifying an enterprise but it is a question of clearing the ground for their movement into entrepreneurship. For ages together they have been confined to a secondary role and confined to the homes and you have to bring them out so that they become self-reliant, self-respecting enterprising people. Though there are several factors contributing to the emergence of women as entrepreneurs, the sustained and coordinated effort from all dimensions would pave the way for the women moving into entrepreneurial activity, thus contributing to the social and economic development of the members of the family and thereby gaining equality and equal importance for themselves.

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ROLE OF WOMEN IN IPR WITH ITS CHALLENGES & OPPORTUNITIES

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Abstract

Women in the society plays an important role. She not only balances her official life with her personal life but also contributes towards betterment of the society by contributing in the field of Science & Technology or more precisely in the field of Intellectual Property Rights(IPR). There was a time when our Grandmother used to invent some homemade medicines to overcome illness. And it used to work 100%, further this formula used to go unnoticed & nobody will never know what medicine it was? Because it was no where written. In the earlier era, the creations and inventions by anyone fell in a public domain. These were the common properties. Anybody could use and copy these creations and inventions without any restriction, reservation or payment. However, with the passage of time, the importance and value of these creations was realized. The commercial aspect started playing a significant role in these creations. By end of Twentieth Century, the things created and invented by the human mind were recognized as an intellectual property of the owner. Lack of awareness, lack of willingness and lack of money did not allow Women from last few generations to focus in this area. We are focusing mainly on identifying the challenges & its probable solutions in the field of IPR.

Index Terms – IPR, Women's role, Challenges

HISTORY: Women have contributed in every field of life. Either when it is come to contribute for their families or when it comes to contributes for their works. Women are an integral part of today's society. They participate in various social and cultural functions. A woman today no longer lags behind the man in the most occupations. She plays the games of football, cricket, and hockey. She draws the attention of the world as an athlete. The women can no more be kept behind the curtains doing only domestic duties. Our society is accepting the wider participation of women. The women now work in offices both as clerks and as officers. They participate at Assemblies and Parliaments as the people's representatives. They actually compromise more with their own life. They also contribute in the field of all fields of creativity, technology & Science. But all of that is they always misrepresented in many areas.

II. WHAT IS IPR?

What is IPR? IPR means Intellectual Property Rights. Intellectual Property Rights are legal rights, which result from intellectual activity in industrial, scientific, literary & artistic fields. These rights Safeguard creators and other producers of intellectual goods & services by granting them certain time-limited rights to control their use. Protected IP rights like other property can be a matter of trade, which can be owned, sold or bought. These are intangible and non-exhausted consumption. The rights of authors of literary and artistic works (such as books and other writings, musical compositions, paintings, sculpture, computer programs and films) are protected by copyright, for a minimum period of 50 years.

TYPES/TOOLS of IPRs:

- Patents.
- Trademarks.
- Copyrights and related rights.
- Geographical Indications.
- Industrial Designs.

- Trade Secrets.
- Layout Design for Integrated Circuits.
- Protection of New Plant Variety.



(Ref. Google Images)

These rights Safeguard creators and other producers of intellectual goods & services by granting them certain time-limited rights to control their use.

Why Intellectual Property Rights?

The intellectual property rights were essentially recognized and accepted all over the world due to some very important reasons. Some of the reasons for accepting these rights are:

- a. To provide incentive to the individual for new creations.
- b. Providing due recognition to the creators and inventors.
- c. Ensuring material reward for intellectual property.
- d. Ensuring the availability of the genuine and original products.

Women in IPR: In the field of inventions, we have heard many names as a male inventor. Here is the list of some popular inventor which is known by every person if he belongs to the science background. James watt invented the steam engine; Alexander Graham Bell invented the Telephone, J. L. Baird invented the television; Rights brothers invented the aero plane. But when you think about the female inventor. We found it not somany names we know as female inventors rarely anyone can take name of marry curie. And when we consider the field of IPR, there are not many names. The problem is not that we don't have talented Female inventors, the problem is not all the Female Inventors participate in the process of certifying their own invention. Following are some names from worldwide in the field of IPR,

Joyce Chen: Chen's patent is for a flat-bottom wok with a handle, also known as a stir fry pan. Her patent, however, only hints at Chen's impact on the American culinary scene; Chen pioneered the all-you-can-eat Chinese buffet style, and popularized Northern-style Chinese food.

Patricia Bath: Have you ever had laser eye surgery? You have Patricia Bath to thank for that. The first African American to complete a residency in ophthalmology in 1973, Bath invented the Laserphaco Probe, which uses laser technology to treat cataracts.

Stephanie Kwolek: Kevlar has many applications: bullet-proof vests, tennis rackets, tires, hurricane safe rooms, etc. Stephanie Kwolek was a chemist at DuPont when she invented the synthetic poly-parahenylene terephthalamide, a.k.a. Kevlar.

Ann Makosinski: One of the younger inventors on this list, Makosinski created the “Hollow Flashlight,” which uses a thermoelectric effect to convert body heat into electricity to power LED bulbs. She also appeared on Forbes 2017 “30 Under 30” list.

Pratibha Gai: Gai created the “atomic resolution environmental transmission electron microscope (ETEM),” which can perceive chemical reactions at an atomic scale. She has received awards such as the 2013 L’Oreal-UNESCO for Women in Science Awards Laureate for Europe, and the 2014 Fellow of the Royal Academy of Engineering among others.

Despite that if we see the statistical analysis of the IPR over the years, the percentage involvement of Women in IPR in the year 1995 was 17% which has increased to 29% in the year 2015. With having impact on the areas like Biotech, Pharmaceuticals & Chemistry.

CHALLENGES: As per the analysis done by referring various research papers, articles & documents observed, we found following are some challenges due to which Women are lacking behind in this field.

Lack of awareness: We felt that not most of the Women are unaware of the importance of IPR in their field. If we see statistically every field has almost more than 30% of women’s participation, from which not even 3% of the women go for IPR.

Associated Benefits:

Most of the times, people are not aware of the benefits associated with IPR which might stop people from applying for the same.

Revenue generation which happens once an individual opt for patent by assigning, licensing or giving on a lease.

It also reduces the competitors in the market for the same product, as the patented good is always tested & certified by the Authority.

It also gives chance to access International market and one can earn more by marketing his/her IPR.

Illiteracy is also one of the reasons of unawareness.

Gender equality: Men and women are equally creative & innovative, yet women remain under-represented in many areas. WIPO is committed to promoting gender-equality & women’s empowerment both within the organisation & wider world of Intellectual Property.

Another challenge is Shortage of women in the field of Science, Technology, Engineering & Mathematics.

Long & Time- Consuming Procedure:

Long procedure of registration of Patents

Lack of incentives in Research & Development

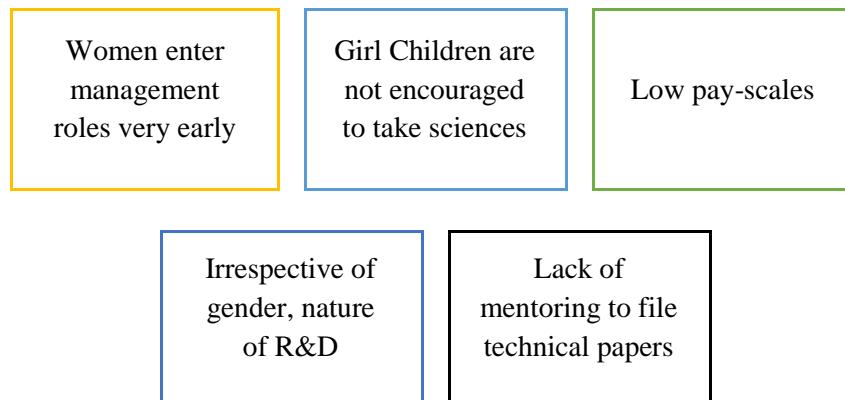
Myths: Women thinks that Applying for patent is a tedious job.

They also feel that applying for patent could be more expensive & time consuming.

Remote Areas & Literacy rate: Literacy rate in remote areas is not up to the mark which affects invention in the area of Science & technology.

Lack of funding: One challenge that we all face in our country is – Funding.

If a person asks for it, he or she will have to complete all the related formalities.



IV. OPPORTUNITIES

Govt Policy: Government of India has been striving to empower women through various initiatives & programmes. Department of Science and Technology (DST), Ministry of Science and Technology, has been thus actively engaged in creating an ecosystem and enabling environment for women in Science and Technology (S&T) domain since 2002. However, in 2014, DST took a giant step forward and brought all the Women-centric schemes & programs under the ambit of KIRAN (Knowledge Involvement in Research Advancement through Nurturing). Women Scientists Scheme (WOS) under KIRAN specifically addresses challenge confronting women in realm of S&T who had a break in career by providing suitable opportunities to those who desire to return to mainstream science.

National Intellectual Property Rights policy - was approved by the cabinet on May 12, 2016 by Finance Minister Arun Jaitley. It covers all forms of intellectual property together in a single framework. The policy demonstrates a maximalist agenda (that is, an agenda geared towards the maximum possible incentive and rights for IP owners), to drive the development of industry, publicly-funded research and development organisations, educational institutions and government departments in India .

SUGGESTIONS

1. Encourage Women to invent at an early age through exposure in the classroom to Science, Technology, Engineering & Mathematics.
2. Educate women on the vast number of opportunities open to individuals with STEM degrees.
3. Help Women to build network to increase access to Industry contacts & investments.
4. Encourage & empower women to pursue Intellectual Property Rights.
5. Give Flexibility and support to new inventors from home and at the office.

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ROLE OF WOMEN IN INDIAN BANKING SECTOR

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Introduction: The study focusses on the transforming role of women in banking and insurance sectors. It studies the increasing role of women leaders in banking industry. Women play a vital role in the economic, social and political development of India. Nationalization of the Indian Banking Sector served as the significant step to reduce gender discrimination against women in banking sector and provided opportunities for women empowerment. The pattern of Indian women's employment has changed significantly since the 1970's. Many major Indian banks are hiring highly qualified young Indian women to their administrative levels and they are showing remarkable growth over the years. It shows that organizations with women executives at the top levels have increased the performance and efficiency of the company compared to those which do not have women leaders at senior positions. Women executives like Chanda Kochhar (CEO, ICICI Bank), Arundhati Bhattacharya (chairman of SBI), Ranjana Kumar (Chairperson and Managing Director of Indian bank) contributed remarkably to the sector's growth.

Objectives of the study:

- To study the Transformational journey of Indian women in Indian banking sector.
- To understand the Current challenges faced by women professionals in Indian banking sector.
- To suggest the measures to face these challenges and overcome the problems associated.

Methodology: The present study is based on secondary data and it is collected from journals, books, newspapers, RBI annual reports and other websites.

In India, 7.3% of the total workforce is engaged in the financial sector, whereas around 6% of the total women workforce is engaged in finance sector activities. Women have a good hold in India's banking and financial services sector with many women leading top banks in the country. About 54% of the Women CEO's belong to the financial sector, shaping the future of the sector in India and inspiring more women to become a part of banking and financial services. In the public sector women were not many in number, but the first women CEO of a bank was appointed after 31 years of nationalization in 2000 in the form of Ranjana Kumar of Indian Bank. Now the number of women CEO's in Public Sector Banks has increased to a good level. There have been many women country heads of foreign banks in India. Below mentioned table gives a list of women CEO's in the banking industry in India,

Bank Name	CEO, Managing
ICICI Bank	Chanda Kochhar
AXIS Bank	Shikha Sharma
Indian Bank	Ranjana Kumar
Central Bank of India	H.A Daruwala

Allahabad Bank	Shubha Lakshmi
Dena Bank	Nupur Mitra
Bank of India	V.R Iyer
United Bank of India	Archana Bhargava
HSBC	Naina Lal Kidwai
UBS	Manisha Girotra
Royal Bank of Scotland	Meera Sanyal
State Bank of India	Arundhati Bhattacharya
J.P Morgan India	Kalpana Morpuriya

Women are placing themselves in diversified areas, getting themselves out of constructive frame works of housewives and teachers. But now, the situation has changed so far. The growth in the banking sector has created new windows of opportunity for women to find employment in the banking sector. Women are placed at the top most positions of many major banks and they are proving themselves to be competitive. They are involved in taking major decisions; they are introducing innovative ideas and contributing towards the development of the economy. Not only in the higher levels, there is involvement of women in the banking sector at the clerical levels as well. Secured family life, attractive salary, favorable working conditions and the stability in work are some of the reasons that make this sector more preferable to women. Women, who generally have a clerical working mindset, will be more attentive and keen in doing their work

Challenges faced by women professionals in India: Irrespective of sector, type, position in banking industry, the Indian women professionals are currently facing the following common challenges:

1. Heavy Work load: Heavy workloads are common in today's workplace. Downsizing, fear of job security and uncertainty of economy often prompts women employees to accept or take on increasingly greater work responsibilities and longer hours. Today reaching targets and sales figures, the restructuring and soft dismissals of the last few years, etc. every employee must cope with additional pressure in the working environment.

In banking sector the reporting time is be fixed but there is no time to go back home. During closing period, they need to stay back for long hours. being a part of middle level position they have to scheduled daily meeting, checks work progress, and solves problems if any, organizes intraday duties before the banks open. They must take care from annual plan to monthly schedule and daily work, from overall situation to handling details. apart from this the female executives like cashier, teller, accountant, loan officer, portfolio managers, FOREX officer, assistant branch

manager, etc., cannot leave the bank without tallying the account. Due to hectic work schedule and heavy workload, women executives find it challenging to strike work life harmony and healthy maintaining work life balance.

2. Status Discrimination: Now a days where both men & women plays an equal role to uplift the society, there is no gender discrimination but discrimination based on status is going on and become a big challenge in front of married women.

3. Transfer & Promotion: Bank employees are governed by the transfer policy. Since women face severe problems when transferred from place to place, Mobility is also a factor to decide promotions

4. Work life Conflict: There are many men and the women facing the work life conflict in their lives. In this category females are facing greater trouble than the male because male have less household responsibility than the female. Work-life conflict is the major problem for the female managers. It has negative impact on the employees and organizations'. Work life conflict reflects upon the desire of work-hours adjustments and the provision of the family friendly policies, rather than the reduction in the work hours. The desire to reduce work hours is more related to married women who are performing dual roles in their personal & professional life. Major factors that affect work family conflict among married women executives are harmony in home and office, organizational support, family expectations.

5. Safety & Security issue: In the competitive world where the phenomena of survival for the fittest are applied, the banking industry are also focusing upon their survival by entering into the new fields like insurance, mutual funds Demat & Trading services and through these functions they have opened the new windows for women employment into the various streams like Sales, operations, Human resource etc.

6. Among these fields the fastest growth is in the sales department but due to safety & security issues such as visiting different places & interacting with different kinds of customers etc. the women cannot take up their roles provided in sales department.

7. Lack of Flexible working: Women feel banking is lacking in opportunities to work flexibly and remotely. With flexi work arrangement the women employees get empowered and access the documents they need wherever they are and no longer must wait for a colleague to step off a flight or finish a meeting to tell them where to find urgent information. During holiday it will help them to manage their personal & professional life both by keeping abreast of important deals and to avoid coming back to a built-up workload and a backlog of emails.

Strategies to Overcome from the Problems:

Employers who want to help women advance to the top must do more to make allowances for life outside of work. They must make sure that even ambitious and talented employees do not feel that they will have to work hours incompatible with a family life. Women in banking who require flexible working conditions need to feel emotionally empowered to take full advantage of them.

The Women's Wing of the AICOBOO has been taking up these issues systematically. One outcome of their work has been the charter of demands they submitted to their union confederation. These included:

Infrastructural facilities such as creches and day care centers.

Provision of hostels for working women, accommodation for divorced, separated and widowed women with children.

Special leave with a lien on service, for up to say five years, to meet certain contingencies specific to women, extending this facility to men also whenever required.

Provision for a woman with a child less than three-year-old to work for fewer hours and receive proportionate pay.

Family pension and voluntary retirement for men and women after twenty years of service.

Provision for flexi-hours and part-time employment in suitable cases.

Although maternity leave (12 weeks in all) is regarded as satisfactory, additional provisions required are medical benefits, hospitalization, leave for child care, paternity leave for at least ten days, and further leave for those who must look after an infant in special circumstances. The Ministry of Labor is expected to amend the Maternity Benefit Act, 1961, which presently entitles women to 12 weeks of maternity benefit whereby employers are liable to pay full wages for the period of leave.

The specific demands put forward by the Women's Wing include a uniform transfer policy in all banks for women.

Conclusion: The hand that rocks the cradle rules the world". In the apron string of women is hidden the revolutionary energy, which can establish paradise on this earth – Dr Rajendra Prasad. Women are the magnificent creation of god, a multi-faceted personality with the power of benevolence, adjustability, integrity and tolerance. She plays a great part in the progress of our country. In 21st century the massive transformation in the role of Indian women by getting themselves, out of the constructive frame works of housewives or teachers and placing themselves in diversified areas. During the early nineties we can hardly find an Indian woman at the top of a banking or financial sector but now the situation has changed, women are placed at the top most positions and some of the top women in banking sector, have turned their Bank's inclined downward graph to rising scales. From the last few years, women have been heading some of India's biggest banks, both public and private. They are involved in taking major decisions; they are introducing innovative ideas and contributing something towards the development of the economy. The leadership quality, managerial ability and the administrative skills are put together to make things happen. Though there is major economic contribution of women in banking industry, yet several current challenges and problems such as Heavy workloads, Discrimination based on status, Transfer Policy, Work life Conflict, Safety & Security issue, Lack of Flexible working, irrespective of the type of banks are faced and still remains to be addressed by the banking sector and for this, a fundamental change is required in the attitudes of the employers, policy makers, family members and other relatives and the public at large.

A STUDY ON HOMEMAKER'S CONTRIBUTION TOWARDS INDIAN ECONOMY

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Abstract

International Women's day on March 2017 saw large scale strikes by women. This year the theme was 'A Day without a Woman'. If women in India were to take a day off then the economy would face a serious problem. Super achiever, Multi-tasker, Wonder woman – these are some of the compliments that many women who manage home and career often get. They are capacious words which hide a multitude of stressful tasks which many women are supposed to negotiate with ease. Women play a major role in the economy of a nation GDP, including housewives. Housewives are the largest workforce in the world, the most underpaid and receive undue scoff. If she is paid the role of a housewife's duties can amount to billions of dollars annually. A woman purchases household goods not limited to food items, but clothing, accessories, and many daily use items as simple as a scrub to wash dishes. Most shopping outlets are directed towards women. Women are ultimately the largest consumers in the market. The research paper concentrates on homemaker's contribution towards Indian Economy.

KeyWords: Housewives, Homemakers, Unpaid work, monetary value, GDP, Household

INTRODUCTION: India is a vast country, rich in culture and traditions. The Indian constitution grants women equal rights with men, but a strong patriarchal system persists which shapes the lives of women with traditions that are millennia old. In most Indian families, daughters are viewed as liabilities and girls are conditioned to believe that they are inferior and subordinate to men. Sons, meanwhile, are idolized and celebrated. The origin of what is considered appropriate behaviour for an Indian female can be traced to the rules laid by Manu in 200 B.C.: in childhood, a female is subject to her father, in her youth to her husband, and when her "lord" is dead then to her sons. Given this strong patriarchal tradition, addressing gender disparities is no easy task. Traditionalists argue that India has survived for millennia with this patriarchal system, so what is the need for changes which are counter to Indian culture? Others would point to the problems of sex-selective abortions, millions of missing girls, dowry murder, low educational status and high illiteracy in girls and women, and gender disparities in employment opportunities and wages to suggest that India cannot enter the modern age without learning to respect the rights of women and girls and addressing the destructive aspects of traditional culture. One may also observe that those defending traditional patriarchal culture have no trouble embracing other non-traditional, vast, and sweeping cultural changes such as the adoption of use of cars, mobile phones and computers. In addition to the patriarchal culture, common in different degrees throughout the world, is the equally common problem that while women typically carry out most of the work involved in caring for the home and its residents, such work is given little or no social or economic importance, and as a result, women are perceived with little importance. While the work done by men is widely acknowledged and most men are considered as economically productive, women who are engaged in full-time household work are classified by the Government of India as economically unproductive. Yet the same tasks performed by these housewives, if done at another house, become a paid job and therefore valued.

The Census of India (2001) contains a chapter titled "Nonworkers", comprising the following categories:

Students of all kinds and levels

Household workers — all those attending to household chores like cooking, cleaning of utensils, looking after children, fetching water, and collecting firewood

Dependents, disabled, children not going to school, the elderly

Pensioners, widows not receiving pension

Beggars, prostitutes, and others not engaged in economically productive work

Others, including convicts in jail and inmates of mental or charitable institutions.

As a result, over 367 million women in India — or 32% of the entire population and 65% of all females — have been classified by the Census of India as non-workers, placed in the same category as beggars, prostitutes, and prisoners. Of the total of those listed as non-workers in India, 74.3% are women. Such a categorization of the majority of women cannot fail to have consequences in policies and programs aimed at women.

OBJECTIVE OF THE STUDY

- To enumerate women's unpaid household work in India and attempt to assess an approximate economic value for it.
- To obtain data on the average daily time spent women on unpaid work.
- To find out homemakers' contribution towards Indian Economy.

REVIEW OF LITERATURE

Devaki Jain, (2012), Housewives work for approximately 15 unpaid working hours a day. These overworked and unpaid women neither have the money to spend, nor the time to spend. As a result of this leading to dual deprivations resulting to neglect, injustice and even injury inform of domestic violence. Gender discrimination — the theme of HDR 1995 — gave special illumination, an enlargement of the issue of inequality through the gender-lens.

International Labour Organization (ILO)(1982), identified the total labour force, or currently active population, comprising all persons who fulfill the requirements for inclusion among the employed or the unemployed during a specified brief reference period. Therefore, we can conclude that labour market influences economic growth of the country which has its reflection on the Human Development Index (HDI), Gender Development Index (GDI), and Human Poverty Index (HPI) etc. A major chunk of these populations belongs to “unpaid labour” contributed by the homemakers or the housewives a population of the society. But still the efforts made by housewives towards household often go unrecognized. Mynul Islam (2012); described household work time means how much time a person doing household work. Most of the household works are done by women no matter what her position is; whether it is employed or unemployed. Cultural construction of our patriarchal society makes housework as women's work and outside work as men's work. He further elaborated that women contribute a lion share towards household work, but since these works remain invisible, even though they spend a longer time to household work and yet their works go unrecognized. The Organisation for Economic Cooperation and Development (OECD) study (2011), the average Indian woman spent nearly six hours a day doing unpaid work. Economists believe that though it is unpaid, the household work done by homemakers constitutes economic activity and should be included in the national income. By ignoring it, we underestimate women's contribution to the economy. Budlender and Moussie (2013) The term 'unpaid' differentiates this care from paid care provided by employees of the public and NGO sector and employees and self-employed persons in the private sector.” The word 'care' indicates that the services are provided to nurture other people. The word 'work' indicates

that these activities are costly in terms of time and energy and are undertaken as contractual or social obligations

IV. RESEARCH METHODOLOGY The paper uses an exploratory research technique based on past literature from respective journals, reports, newspapers and magazines covering wide collection of academic literature on Homemaker's contribution towards Indian Economy. According to the objectives of the study, the research design is of descriptive in nature. Available secondary data was extensively used for the study.

International Perspective: The issue of recognition and quantification of household work by the wife has long been a part of family laws in various countries. Nordic national politicians have long focused on working mothers, giving them subsidies for elderly care and child care and, more recently, financial incentives to share parental leave. Over all, these policies have increased economic growth, raised tax revenue and given women who wanted to work more financial independence, more social benefits, more personal fulfillment - in short, what many would call more freedom. But social engineering is a blunt tool, and some worry that the freedom of working mothers has come at the expense of making outcasts of a minority who want to do things differently. According to experts, the effective way might be to recognize the contribution housewives make to the economy. "It's not about being paid," according to experts, noting that the economic value housewives create remains within their home, "it's about being valued." If ever there was a time to include unpaid housework in GDP figures, it is now, they say. Working mothers have a stake in this, too: They still do most of the unpaid work in their homes. While society recognizes their role in the conventional economy, women stand hidden and unacknowledged in what is termed by

Elson as the 'Economy of Care'.

Indian Perspective

A Case Study :-

" I don't work, I am just a housewife!"

The above statement is an often spoken and heard expression. Does that mean the housewife does not contribute?

Let us consider this regular scenario in the Indian household

Suhasini is a 45-year-old housewife living in a rural village of India. She hails from a lower middle-class family. She was educated up to 5th grade and then got married while she was 15 years old. Her husband has a small goods shop at the village, and stays in the city 100 km away from home. They have three Children. Her day is always busy. Her daily routine involves getting up at five in the morning. After sweeping the house and straightening up, she sweeps the yard to keep out the dust. Early in the morning, she milks the family's cows and sends the milk to the co-operative. She takes her bath and starts preparing the morning breakfast. After preparing breakfast, she washes the dishes, cleans the kitchen, prepares food for the cattle, and then cleans the cattle shed. By this time it is almost late morning. She starts preparing for lunch by cleaning, cutting, and washing vegetables, then prepares the meal. She has to ensure that her family gets lunch at the right time, as her son needs to get back to his work in the field. She also works on the farm. She is fortunate that the family has a bore well, which makes it easier for her to collect water. Previously, they did not have one and she had to queue for hours in order to get water. She prefers to rest or sleep whenever she has some time off from her work.

The above case is part and parcel of many Indian Housewives. It is a way of life for millions. Whether all the work of Suhasini did for her family is consider for valuation of GDP? The answer is simply NO. What is the reason behind it? For that purpose, we have to understand the Economic and Non-economic activities.

The following chart gave idea about classification of Economic and Non-Eco. Activities.

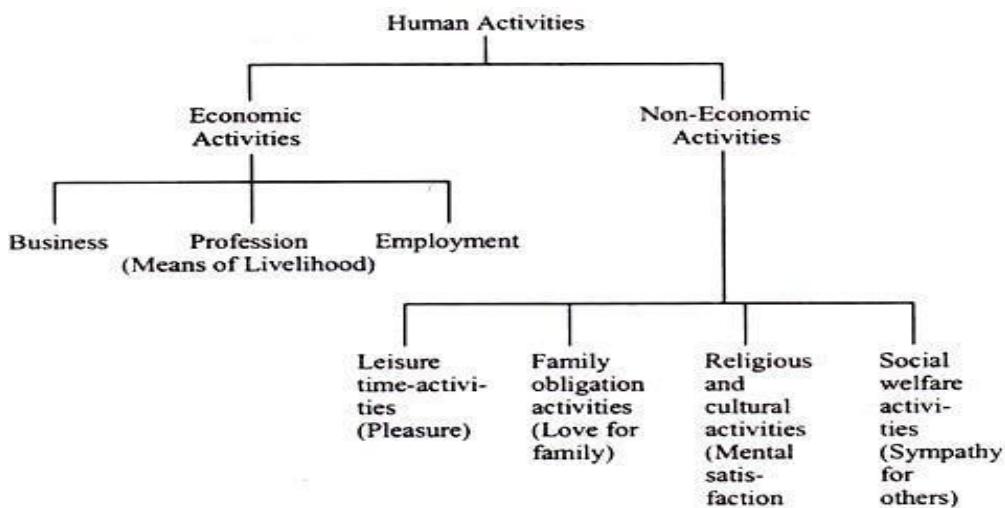


Chart 1: Classification of Human Activities.

As a general rule, according to economics theory, all activities resulting in the production of Marketable goods and services are included in the calculation of National Income. Therefor as per our Case study the service of Shuhasini will not consider for the calculating National Income. Then what is exact contribution of homemakers in Indian Economy.

How to calculate Economic Contribution of a Housewife?

Quantification of the unpaid activities performed by women substantial amount of women's time is devoted to unpaid labour. The productive contribution of women towards household maintenance, provision of the family needs, and bearing and rearing of the next generation is ignored, and much of women's work is invisible. As a result, inadequate attention is paid to the conditions of women, women's work, and its economic value. The importance of this research, however, is attended by significant methodological difficulties in performing it. When looking for an appropriate way to assign economic value to the work performed by women, many questions arose in terms of what price to assign to different tasks, whether to assign wages based on the number of hours women work (and in that case how to address multiple tasking), and what wages to use in such calculations.

The following are different ways of assigning an economic value to the unpaid activities performed by women:

Replacement value: Calculated based on how much it would cost to replace unpaid with paid workers based on current hourly wages for comparable work.

Opportunity value: Counted as the amount women could be earning if they were in the paid labour market instead of doing unpaid work.

Labour input: The average of the wages plus benefits of the lowest paid and highest paid tasks, multiplied by the hours spent on each task.

Output method: The household would be a producer. Its production would be counted by pieces of work done. For example, the number of rooms cleaned, the clothes washed, and children cared for would be counted and priced. This would include the informal market, such as cottage industries.

Pay equity: Jobs would be evaluated in terms of skill, responsibility, effort, and working conditions. This would allow for inclusion of the management and counselling aspects of a homemaker. This focuses on the work done rather than the person doing it. The hardest job is to evaluate care giving. What is the value of a hug?

It should be noted that each of the above-mentioned methods of assigning an economic value to the unpaid work performed by women has its own advantages and disadvantages. No one method is perfect; no method can provide an accurate answer of something that is by its very nature uncountable. (Most workers would agree that to a large extent, wages do not reflect the actual value of the work performed. Consider that farmers, who provide an essential service, are paid very little, while advertisers, who perform an essentially unnecessary and often socially negative job, are paid quite well. Far more examples could be given of the gross disparity between the social value of much work and the payment received — consider athletes, models, tobacco industry executives, child care workers, social workers, teachers, etc.)

DATA ANALYSIS: For this study, a method of calculating economic value based on replacement value was adopted. In this method, the cost of unpaid workers is calculated by the cost of paying someone else based on current wages for comparable work. If a maid were to perform the same task, a value would be assigned to it, so this same value is assigned to the task performed by unpaid workers. This allows for the calculation of a reasonable (under)estimate of the contribution women make through their unpaid work. (As maids are notoriously underpaid because household work is undervalued, the error is likely an under-estimation of value). Even though If the tasks women do for themselves (such as bathing and praying) and leisure time are excluded, women still engage in roughly 33 tasks each day. It is both difficult and complicated to calculate a wage for each individual task, though doing so would have raised the average wage, as some tasks (such as caring for the sick or teaching children) incur a far higher wage than such tasks as cleaning or collecting fuel. In any case, for the sake of simplicity, only seven tasks were chosen from the list of 33, and the average wage paid to a maid to perform them, in urban and rural areas, is given above in Table 1

Table 1: Payment for work done by maid servants

Work done by the maid servant	Payment per task/month	
	(Rs.)	
	Rural	Urban
1) Washing clothes	500	1000
2) Washing Dishes	500	1000
3) Cleaning the houses	400	1000
4) Cooking	1000	2000
5) Tending Children	1000	3000
6) Taking children to and from school	800	4000
7) Collecting Fuel	400	NA

It is important to keep in mind that women perform not only those nine tasks, but a total of The average cost for each of those nine tasks was then applied across all 33 tasks to arrive at an estimate of the value of women's unpaid household work. The average value of one task for rural

women is US\$3.0 per month and for urban women is \$6.1. Multiplying those figures by 33 tasks yields a monthly figure of \$99 for rural women and \$201.3 for urban women. The average of those values is \$150 per month, or \$1,800 per year. According to Survey of www.worldometers.info/world-population/india-population/, the population of India stood at over 134 Cr. people consisting of over 69.7 crore males and over 65.2 crore females. The total female population aged 15 to 64 is over 18,82,04,260. The wagefigures shown above can then be multiplied by the female population aged 15-64, yielding a total of INR 6.775353360000000E+13.

Table 2: Calculation of women's wage

Total population India as on Jan 2018	Female Population aged 15- 64	Value of unpaid work by women/ month for 33 tasks (US\$)		Average value	Total unpaid contribution of women/year
134 Cr.	(65.2 CR Female) 18,82,04,260.	Rural i.e. Appx. INR 20000	\$10*33=\$330 40000/2= INR 20000	20000 + 40000/2= INR 30000 * 12	360000 * 18,82,04,260 = 6.775353360000000E+13

India has the 12th largest economy in the world. Unpaid work by women in India is estimated as being equivalent to 61% of GDP

How much Salary Should a Homemaker Get?

Five years ago, the then Women and Child Development minister Krishna Tirath had suggested that the invisible labour performed by homemakers should be quantified and that they should be paid the amount by their husbands.

Source: A survey by Times of India, Economics Times on 29th Nov,2017.

RECOMMENDATION BASED ON THE STUDY

Based on the results of this study, the following recommendations have been made:

Education is an essential tool for change. Educated women are better able to care for their families and family finances, experience more opportunities in decision-making, and make better home managers.

Adequate recognition should be made of the unpaid contributions of women to increase their self-esteem and to improve their image in the family and society at large.

Access to and control over production and market resources (access to training, credit, employment, technical skills, entrepreneurship, etc.) by women should be increased while recognizing that the goal is not to burden women with two full-time jobs

The minimum wage should be set at a level sufficient to allow workers to escape from the poverty trap. Companies should be forced to pay into nationalized systems of education, health care and pensions, so that they return some portion of what they have gained to the workforce and those who enable others to work outside the home.

All In A Day's Work

What housewives do and what it is worth

Task	What it entails	Value (per month)
Daycare for two kids	Taking care of kids for 12-14 hours during the day	₹12,000
Personalised cooking	Taking into account the preferences of 3-4 people	₹6,000
Housekeeping	Supervising laundering, house cleaning by maids and servants	₹3,000
Budgeting & accounting	Keeping record of expenses, purchases and allocating funds	₹4,000
Nursing for kids, elderly	Attending to elderly family members, kids when sick	₹6,000
Tutor	Teaching kids and helping with homework, projects	₹6,000
Driver	Taking kids, other family members around town	₹8,000
TOTAL		₹45,000

WHAT IS A HOMEMAKER WORTH?

COURTS AND ACCIDENT TRIBUNALS TEND TO PUT A PRETTY LOW VALUE ON A HOUSEWIFE'S WORK

Sunny Chugh vs Dushan Lal 1987 PUNJAB HC

Housewife, 29, is killed in an accident in 1974.

Compensation fixed at

₹50,000

in grounds that additional expenses would be incurred for employing domestic help; loss of security to the family and the fact that there is no retirement age for a housewife.

Mal Devi vs Sukhbir Singh 1997 DELHI HC

Housewife, 35, died in accident in 1979.

Compensation computed at

₹150 per month

for caring for a family of six and helping husband on farm.

Jamal Singh vs Paranjoti Singh & Others 1998 DELHI HC

Housewife, 40, died in an accident in 1990.

Compensation assessed in terms of

cooking, cleaning, washing clothes etc is fixed at

₹700 per month.

Lata Wadhwa vs State of Bihar 2001 SUPREME COURT

Considering the multifarious services rendered by housewives, SC quantified them at **₹3,000** per month or ₹36,000 per annum.

This was made applicable to all housewives between the age group of 34-59 years.

For older housewives, the value of their services was estimated at

₹20,000 per annum.

Captan Singh vs Oriental Insurance Co Ltd & Others 2004 DELHI HC

Housewife, aged 27, dies in accident. Claimants seek ₹6,000 per annum in line with Lata Wadhwa verdict.

Rejecting this, it was held that Nathwa belonged to higher stratum of society. The court estimated her worth as homemaker at

₹10,000 per annum.

VI. CONCLUSION: This study suggests that the value of unpaid work performed by women both from rural and urban areas of India amount to approximately INR 6.775353360000000E+13 per year. Despite the magnitude of this figure, the financial value of the domestic work done by women without pay continues to go unnoticed, and women continue to be treated as if they contribute nothing of value to society or the nation. Women themselves contribute to their own under-valuation, as women are at least as captive to social forces as men and likely more so given their far lesser exposure to other influences. Such facts make it challenging, to say the least, to address the gender component of the MDGs. The problem is further complicated by the fact that most educated women prefer to work outside the home and thus may undervalue the work performed by women in the home. This paper shows that the women definitely play an important role in saving money and doing all the unpaid activities even though paid services are available. A woman spends 2-fold more time than male in doing the unpaid activities like cleaning the house, cooking food, washing clothes etc. A minimum of 6-7 hours of the waking time is spent on household chores or unpaid activities. Traditionally the household work is only meant for women but during the recent years the increase in unpaid activities among males are on a rise even though

there is significant difference in time spent doing the unpaid work between male and female. Women majorly contribute to the national GDP with their unpaid work. It is difficult to find out the monetary value of the unpaid work but approximately a woman earns 10 thousand rupees for performing 33 tasks on a daily basis. The life satisfaction in doing unpaid works is lesser when compared to a paid work. But they have a sense of satisfaction when they do the household chores for their family members. At the end of the day she wants to keep her family happy and healthy

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WOMEN LEADERS THE NEXT FLAG BEARERS OF THE COUNTRY

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Abstract

The number of women starting and owning their own businesses and being leader has grown dramatically over the past decade. Concurrent with this trend, there has been an increase in the number of research studies focusing on or including women business owners or leaders in their samples. This paper reviews empirical research studies on women as leader how important and beneficial it is to have women as leaders and certain facts stating about successful women as leaders.

Keywords: Women, Leadership, Gender Inequality

Introduction: India is a country of great leaders both men and women. But for woman India has experienced rapid growth and development in the past years. Today women are not just restricted to household work and cooking for her family, but also flag bearer of the society. It is important to note the critical role women have played in working together to forge solidarity, and unity among themselves. Together they have been able to lobby and influence the enactment of laws that protect and promote the rights of women. Women became a driving force of the social and economic development of the country after the independence. Vast networks of women groups such as NGOs, associations and co-operatives at the grassroots level have played a pivotal role in providing empowerment initiatives which resulted in social development and income generating activities. Women have the potential to undertake productive activities that can generate and help secure the families economic and social status this, in turn, paved the way for sustainable development and economic growth of the country. Historically in India, women's participation in social changes, politics and decision making turns them to be the Best Leaders are Ahilyabai Holkar, Rani Laxmibai , Kasturba Gandhi , and Sarojini Naidu, Usha Mehta Savitribai phule whereas to name a current few are Kiran Bedi, Laxmi Agarwal , Pramila Nesargi, Chanda Kochhar, Anita Dongre, Arundati Bhattacharya, Ekta Kapoor, Geetu Verma etc.

Some facts and figures about women as leaders

Indira Gandhi- Prime Minister, 1966-77 Congress Party in India.

74.8 percent of rural women in India are agricultural workers.

Margaret Alva- Minister of State Parliament Affairs for Personal, Public Grievances in India.

Geetu Verma joined HUL in Nov-2011 and is been associated with the organisation since then.

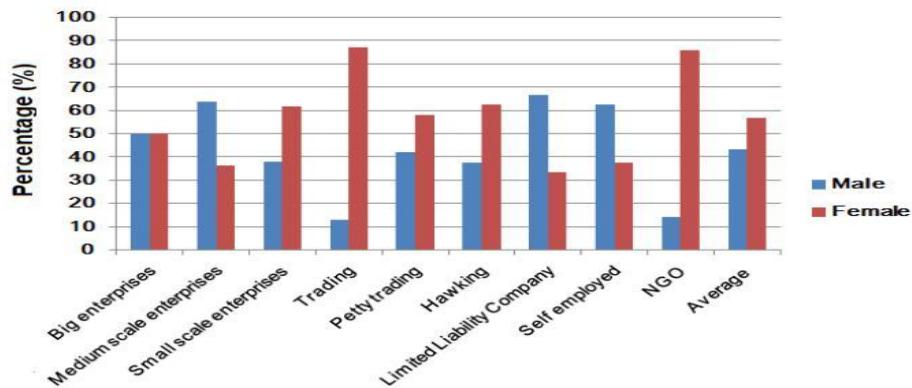
She Heads the Food Portfolio comprising Kishan & Knoor.

Ekta Kapoor a joint managing director, Balaji Telefilms.

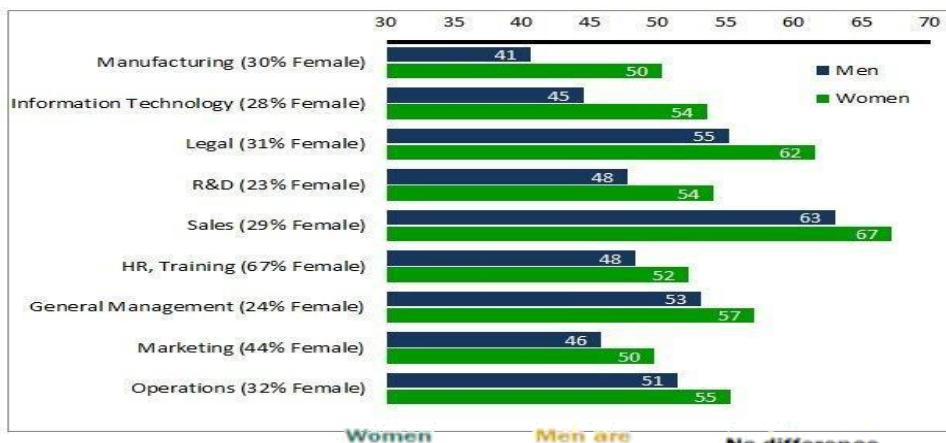
Arundati Bhattacharya is the first women to lead the largest Bank in the country, i.e SBI.

Anita Dongre,Chief creative Officer, House of Anita Dongre.

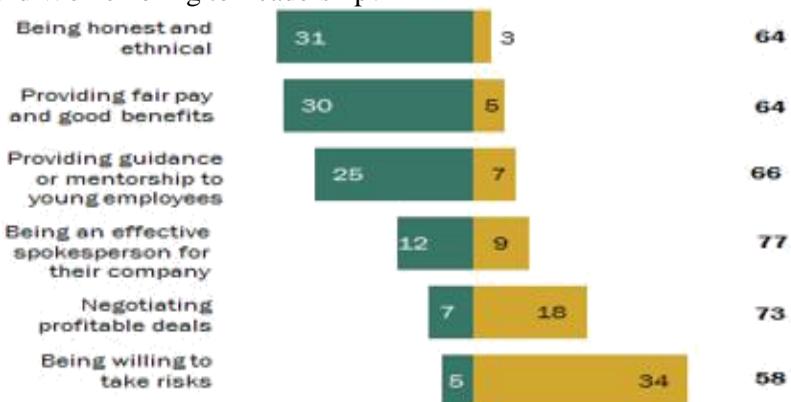
Occupational distribution of respondents by sex



Statistical data through Corporates.



What Men and Women bring to Leadership?



WHY DO WE NEED WOMEN LEADERS?

Female leaders typically have more compassion and empathy, and a more open and inclusive negotiation style. This is not, of course, necessarily true of all women -- there are many different leadership styles. That said, modern ideas of transformative leadership are more in line with qualities women generally share: empathy, inclusiveness and an open negotiation style.

Women's leadership also helps drive direct change in structural policies including parental leave, child care and pay. It's not just developing countries that can benefit from increasing female participation in the workforce, including in leadership positions. In Canada, one study on the

impact of women in public service showed that women have had a clear impact on "policy, programs and operations such as in fisheries, the automotive industry, national security, natural resources, the environment, science, human resources and international relations." This impact arises not only from the inclusion of women's perspectives, but also from leadership styles that are open, collaborative and less hierarchical.

Women leaders face more Harsh criticism

We all must put up with criticism, and sometimes it can be constructive and helpful – pointing us to a better direction or approach. But it seems that women are criticized more than men, especially when they are in high-profile positions. Also, it is been observed that women in positions that were traditionally occupied by men- which are often leadership roles, unfortunately were criticised because they were going against gender stereotypes.

Remember: If criticism is destructive rather than constructive, it says more about the critic than the target.

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WOMEN'S ROLE IN SHAPING FINANCIAL MARKETS

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Abstract

This abstract reviews rural women's access to financial services, a key factor underlying many successful rural development strategies. Designing appropriate financial products for women to be able to save, borrow, and insure is essential to strengthen women's role as producers and widen the economic opportunities available to them. Context-specific legal rights, social norms, family responsibilities, and women's access to and control over other resources play an important role in shaping rural women's needs for capital and their ability to obtain it. The chapter argues that interventions that improve rural women's direct access to financial services—not mediated through their husbands—can be beneficial on two fronts. First, by addressing the constraints women face, these interventions enhance women's productive capacity. Second, by improving women's relative power in their households, these interventions can lead to both a more efficient allocation of resources and to improved health, nutrition, and education in their families, all of which are expected to improve long-term production capabilities. The products and service delivery models introduced to address some of the constraints faced by women include technical innovations that improve access to existing financial services, changes in product design to better tailor products to women's preferences and constraints, and the development of new products such as micro-insurance.

Keywords: Women Savings, Credit Insurance, Financial capital.

1. Introduction: Microenterprises receive several forms of aid but many still report limited access to formal finance. It is often argued that women entrepreneurs face discrimination in formal credit markets. In this study of Ecuadorian microenterprises, the results of a multinomial logic model show that although a smaller number of women than men entrepreneurs applied for loans, a larger percentage of women than men typically apply for loans. The equally small probabilities of both male and female entrepreneurs being quantity rationed for loans implies that this form of credit rationing is not widely practiced in special microenterprise programs in Ecuador. Women make up 40 percent of the world's workforce. Many of the sectors that are critical for economic growth in some of the poorest countries rely heavily on women. Small and medium-sized enterprises (SMEs) with female ownership represent 30 percent to 37 percent of all SMEs (8 million to 10 million women-owned firms) in emerging markets. These businesses have unmet financial needs of between US\$260 billion and US\$320 billion a year. This is their biggest barrier to growth and development. Access to credit can open up economic opportunities for women, and bank accounts can be a gateway to the use of additional financial services. However, women entrepreneurs and employers face significantly greater challenges than men in gaining access to financial services.

2. Review of Literature

2.1 Arundhati Bhattacharya: Chair-managing director of one of the Big Four banks of India, State Bank of India, Arundhati Bhattacharya is a real role model to the women in her country. Forbes listed her as the 36th most powerful women in the world in 2014 and the 30th most powerful women in the world in 2015. Beginning her career at SBI as a probationary officer at the age of 22, Arundhati Bhattacharya has now been working with SBI for around 4 decades. Her sincere and loyal service to the country's largest lender made her the youngest and the first female chairperson at State Bank of India. She has also introduced a two-year sabbatical policy for women in the company, which will help the women employees in State Bank of India.

2.2. Chanda Kochhar: CEO and Managing Director of one of the other Big Four banks of India, ICICI Bank, Chanda Kochhar is one of the success pillars of the retail business of the bank in India. While she lead the retail business for the bank, the bank won the "Best Retail Bank in India"

in 2001 and 3 consecutive years from 2003. Under her leadership, ICICI bank also won many other awards for their initiatives in retail banking. Forbes listed Chanda Kochhar as 35th most powerful women in the world in 2015. She has worked for ICICI bank for 30 years and has proved herself as a strong women leader not only in India, but also in the world.

2.3 Shikha Sharma: CEO and Managing Director of India's largest bank (assets) in the private sector, Axis Bank, Shikha Sharma has performed phenomenally in her professional life. She has more than three decades of experience in the financial industry and she has worked for big institutions including ICICI bank and JP Morgan & Co. As Shikha joined Axis Bank in 2009, the bank's stock upsurged by 90% and its assets grew by 30% in the financial year 2012-13.

2.4 Shanti Ekambaram: President of Consumer Banking of India's fourth largest bank (market capitalization), Kotak Mahindra Bank, Shanti Ekambaram is another magnificent personality in the Indian banking industry. While she served as a sits President of Corporate and Investment Banking, Shanti doubled the profit for the unit in 2012-13 inspite of the unstable conditions in equity and debt markets. Shanti Ekambaram was one amongst the most powerful women In Indian Business in 2014 by Business Today. Shanti's colleagues have praised her for her great leadership and firm decision-making skills. She has also been honored with the Award for Outstanding Contribution in the field of Banking and Financial Services 2013-14.

2.5 Usha Ananthasubramanian: CEO and Managing Director of Punjab National Bank, which is one of the Big Four banks of India, Usha Ananthasubramanian has been honored by the Ministry of Finance, Government of India for her leadership in establishment of the all-women's bank (Bhartiya Mahila Bank) in India. In the three decades of her career in banking, she has worked with prominent Indian financial institutions like LIC, Bank of Baroda, Punjab NationalBank and Bhartiya Mahila Bank. Under her leadership, Punjab National Bank received the Most Socially Responsible Bank Award 2011 by Businessworld-PricewaterhouseCoopers (PwC). On behalf of Bhartiya Mahila Bank, Usha Ananthasubramanian also received the Asian Banker Achievement Award 2015 in the technology implementation category of Best Outsourcing Project.

2.6 Naina Lal Kidwai: Group General Manager and Country head of HSBC India and former President of Federation of Indian Chambers of Commerce and Industry (FICCI), Naina Lal Kidwai has a phenomenal career in the banking industry. Before HSBC India, Naina Lal Kidwai served at reputable positions across big financial institutions. Few amongst them are Head of Investment Banking in Morgan Stanley India, Chief Manager of Retail Bank at Standard Chartered Bank and she has also worked at PriceWaterhouse & Co. for three years from 1977 to 1980. The first Indian woman to graduate from Harvard Business School as an MBA, Naina Lal Kidwai has also voiced her opinions on the situation of women in India while she presided at FICCI. She has received numerous honorable awards for her achievements in the industry. She has been repeatedly listed in the Fortune global list for Top Women in Business. Other similar titles have followed her successful career path.

2.7 Kalpana Morparia: CEO of the Indian division of America's largest bank by total assets, JP Morgan, Kalpana Morparia has around four decades of experience in the banking sector. Before JP Morgan, she has worked with ICICI Bank for more than 30 years and has contributed a lot in ICICI's early success including its listing on the New York Stock Exchange in 1999. She was also a part of the merger of ICICI Limited with ICICI bank that led to formation of India' second largest bank Kalpana began as a lawyer in ICICI bank and her outstanding performance in her professional life has made her reached where she is today. Kalpana Morparia is one amongst the Board of Directors for several other institutions like Dr. Reddy's Lab, Bennet & Colman and CMC

Limited of Tata Consultancy. Kalpana has also been listed in the Fortune 50 Most Powerful Women in International Business in 2008.

2.8 Kaku Nakhate: Kaku Nakhate, India head of Bank of America Merrill Lynch has a very powerful personality. Under her leadership, Bank of America Merrill Lynch became one of the key players in the corporate finance industry in India. It is known that the bank's balance sheets tripled within 2 years as Kaku Nakhate lead the team. A MBA graduate from Narsee Monjee Institute of Management Studies in Mumbai, Kaku Nakhate has also served as Vice Chairperson of Indian Operations at JPMorgan Chase & Co. Financial Inclusion (FI), which promotes access and the use of high-quality financial services, particularly among poor people, is crucial to achieving inclusive growth. Women disproportionately face financial access barriers that prevent them from participating in the economy and from improving their lives. The World Bank Group is working to promote financial inclusion for women to help achieve gender equity and poverty reduction. A comprehensive database measuring how people save, borrow, and manage risk in 148 countries, reveals that women are less likely than men to have formal bank accounts. In developing economies women are 20 percent less likely than men to have an account at a formal financial institution and 17 percent less likely to have borrowed formally in the past year. Even if they can gain access to a loan, women often lack access to other financial services, such as savings, digital payment methods, and insurance. Restrictions on opening a bank account, such as requirements for a male family member's permission, restrict women's access to accounts. Lack of financial education can also limit women from gaining access to and benefitting from financial services. In addition, many women may have access to financial services in name only: A study in Pakistan showed that, although accounts might be opened in the name of a woman, the decision-making authority around the use of those funds often lies with a male relative. The World Bank's Gender at Work report (2014) asserts: "On virtually every global measure, women are more economically excluded than men."

World Bank Group

Through technical/advisory assistance and lending support, the World Bank Group works to ensure the full potential benefits of financial inclusion for women are secured by:

Increasing access to finance and markets by partnering with developing countries and financial institutions within those countries;

Reducing gender-based barriers in the business environment;

Creating business opportunities for institutions and in the private sector to improve working conditions for female employees, market segmentation, and inclusion of women in community relationships;

Supporting business skills and financial capability trainings for women; and

Building the business case for equal economic opportunities for men and women.

An important World Bank-led mechanism to accelerate financial inclusion through enabling country commitments is the new Financial Inclusion Support Framework (FISF) which was launched in 2013. The World Bank has committed to assist at least 10 IDA countries to reach their financial inclusion targets, including for women's financial inclusion, and plans to expand this support to at least a further 10 IDA/IBRD countries.

IFC's SME Finance Forum, the leading-edge knowledge agenda of the Consultative Group to Assist the Poor (CGAP), and the World Bank-led FISF are highly complementary. They strongly leverage the World Bank Group's country-level financing, advisory services, and policy dialogue to help under-served women.

IFC's Investment Services – including risk-sharing facilities, credit lines, loans, equity, SME and credit insurance, supply-chain finance and blended finance – are all products that can improve women's access to finance. IFC launched Women's Finance Hub in Spring 2013 – an online collaborative platform, as part of the SME Finance Forum, that aims to further advance access to finance for women-owned businesses by addressing missing data, disseminating research, promoting best practices and providing information on critical issues related to the women's market.

The Women, Business and the Law project provides cross-country comparable data for 143 economies on where laws differentiate between women and men – a factor that can hinder women's ability to gain access to finance\

Starting in 2010, the World Bank has helped Indonesia develop its new Financial Inclusion Strategy, which includes empowering women as a priority focus. One of the programs that the Bank supports is financial literacy training for the 4.3 million Indonesian migrant workers, the majority of whom are women from lower-income rural households.

Groundbreaking research supported by the World Bank in Pakistan found that more than two-thirds of women microfinance borrowers required a male relative's permission in order to qualify for any kind of loan. Changes in loan selection procedures and requirements, spurred by this information, could help open up access for women and enable them to manage their finances in a way that meets their own priorities.

3. Bank Group Contribution: The World Bank Group has an extensive FI portfolio, with a growing focus on opportunities for women. The World Bank has an active lending portfolio of US\$3.5 billion for FI – with about US\$1.4 billion in IBRD, US\$1.26 billion in IDA funding, and US\$862 million in IBRD/IDA blend countries - and with over 100 lending projects in more than 60 countries. The World Bank has active technical assistance and lending projects supporting FI in more than 100 countries.

Supporting women entrepreneurs remains a vital issue. In September 2013, IFC set up a Gender Secretariat to support clients with integrating women as entrepreneurs, employees and leaders resulting in better business performance and development impact.

4. Conclusion: Women make up 40 percent of the world's workforce. Many of the sectors that are critical for economic growth in some of the poorest countries rely heavily on women. Small and medium-sized enterprises (SMEs) with female ownership represent 30 percent to 37 percent of all SMEs (8 million to 10 million women-owned firms) in emerging markets. These businesses have unmet financial needs of between US\$260 billion and US\$320 billion a year. This is their biggest barrier to growth and development. Access to credit can open up economic opportunities for women, and bank accounts are becoming a gateway to the use of additional financial services. However, women entrepreneurs and employers face significantly greater challenges than men in gaining access to financial services. This paper also provides new theoretical insights into the interconnections and relationships between women, management and globalization. The discussion is positioned within broader globalization debates about women's social status in economies has improved over a period of time. Based on case study evidence and the UN datasets, the article critiques social, cultural and economic reasons for women's limited advancement in the public sphere. These include the prevalence of the patriarchal work contract within public and private institutions, as well as cultural and ethical values which create strongly defined gender roles. The discussion examines the complexities of conceptualizing women's equality and empowerment. It shows that there have been significant achievements in advancing women in

leadership and political roles, but that there are still institutional and cultural barriers embedded in business system which is improvising slowly and gradually.

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OPPORTUNITIES AND CHALLENGES FACED BY WOMEN ENTREPRENEURS IN INDIA

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Abstract

In this day and age, women entrepreneurs are assuming extremely indispensable part and they have turned out to be critical piece of the worldwide business condition and it's extremely essential for the managed financial advancement and social advance. Women are a standout amongst the most applicable undiscovered assets in the event that you discuss business enterprise. Female enterprise is picking up consideration and significance in light of the proof of the significance of new business creation for Economic development and improvement. Enterprise alludes to the demonstration of setting up another business to accept points of interest from new open doors. Business people are in charge of molding the economy and they help in making of new riches and new occupations by creating new items, process and administrations. We as a whole comprehend that economic improvement of the present woman is significant for financial advancement of any nation uniquely a nation like India. In India, however women are expecting key part in the overall population, yet in the meantime their entrepreneurial limit has not been suitably tapped as a result of the lower status of women in the overall population. The reliance on benefit segment has made numerous entrepreneurial open doors for women that they can use to improve their social standing and notoriety. In this paper, an endeavor has been made to contemplate the open doors and difficulties related with business enterprise that the woman of our nation faces in the present circumstances.

Keywords: Entrepreneurship, woman, challenges, economic growth, opportunities of women entrepreneurship.

1. Introduction: Today business is built around human capital and women are one of the valuable factors. Globalization and Liberalization of market encouraged female to come forward to become an entrepreneur and start new business trends. Women's entrepreneurship needs to be considered separately for two main reasons. The first reason is that women's entrepreneurship has been recognized during the last decade as an important untapped source of economic growth. Women entrepreneurs create new jobs for themselves and others and by being different also. Role of modern women is not confined to the traditional role as a mother and housewife; it has and is undergoing changes. As woman gets educated she begins to think of herself as an independent person, she becomes aware of her own identity, potentials and decision making capabilities. Interested women with creative and innovative ideas are coming forward to start the small and medium sized enterprises. It is a common assumption that majority of women in India are economically non-productive as they are not involved in activities that are financially remunerative. But this trend is gradually changing. Today's women are taking more and more professional and technical degrees to cope up with market need and are flourishing as designers, interior decorators, exporters, publishers, garment manufacturers and still exploring new avenues of economic participation. It is perhaps for these reasons that Government Bodies, NGO's, Social Scientists, Researchers and International Agencies have started showing interest in the issues related to entrepreneurship among women in India. At the same time, it is also recognized that their challenges are immense and complex. For women entrepreneurs, starting and operating a business involves considerable risks and difficulties, because in the Indian social environment women has always lived as subordinate to men. provide society with different solutions to management, organization and business problems as well as to the exploitation of entrepreneurial opportunities. However, they still represent a minority of all entrepreneurs. Thus there exists a market failure discriminating against women's possibility to become entrepreneurs and their possibility to become successful entrepreneurs. This market failure needs to be addressed by

policy makers so that the economic potential of this group can be fully utilized. The reason of the paper to analyze examine the constraints and opportunities facing female entrepreneurship in developing countries at small and large level perspectives and seeks to provide a detailed account of opportunities and constraints bought by entrepreneurship. A women entrepreneur is a confident, inventive and imaginative woman fit of achieving economic independence individually or in coordinated effort produces work open doors for others through starting setting up and running an endeavor by keeping pace with her own, family and social life. When women are empowered, society with stability is assured. "Empowerment of women is basic as their considerations and their esteem frameworks prompt the advancement of a decent family, great society and eventually a decent country. "According to the currentreports and studies female entrepreneurship has fascinated a lot of consideration in current years in light of concrete evidence that it supports economic growth and development. This Research accomplished by obtaining secondary data from organizations with the help of books, Journals, magazines etc.

2. Objectives of the Study

- 1.Todiscourse the main factors of opportunities affecting the development of women entrepreneurship among India.
- 2.To critically observe the types of issues & problems they encounter in order to reach the level of success.
- 3.To propose altered remedial measures in serving and accelerating women entrepreneurs.

3. Review of Literature

Studies have found that most of the women establish enterprises before the age of 35 after gaining some job experience somewhere. The Women network report on Women in Business & in Decision Making focus on women entrepreneurs, about their problems in starting & running the business, family back ground, education, size of business unit.

Bowen & Hisrich, (1986), evaluated many research studies done on women entrepreneurship. It management skills, high in internal locus of control than other women in their values & are likely to have had entrepreneurial fathers.

Cohoon, Wadhwa & Mitchell, (2010), present a detail about men & women entrepreneur's background and experiences. The study is based on the data collected from primary sources where surveys were conducted to collect data from established & successful women entrepreneurs. The study identified top factors motivating women to enter into the field of entrepreneurship. The factors found were desire to build the wealth, the wish to capitalize own business ideas and to move ahead in life. The challenges are more related with entrepreneurship rather than gender.

Greene et.al., (2003), evaluate the research & publication contribution in the area of women entrepreneurship. The study categorized various journal & resources of research on the basis of certain parameters concerned with women entrepreneurship like gender discrimination, personal attributes, financing challenges, business unit, context and feminist perspectives.

Lall & Sahai, (2008), conduct a comparative assessment of multi-dimensional issues & challenges of women entrepreneurship, & family business. Singh, 2008, conducted a study to identify the reasons & factors that influence entry of women in entrepreneurship.

The study by Rani (1996) found that the availability of leisure time motivated women entrepreneurs from higher income classes. Contrary to the above, women entrepreneurs are forced to take entrepreneurship in the absence of any other means of contributing to family income (D'Cruz, 2003).

Tambunan, (2009), made a study on recent changes that have occurred in women entrepreneurs in Asian developing countries. The study focused mainly on women entrepreneurs in small and medium enterprises based on data analysis and review of recent key literature.

4. Challenges faced by Women Entrepreneurs in India

There are some challenges faced by women at various stages beginning from their early beginning of enterprise, in successively their enterprise. Their various challenges are as follows:

Lack of efforts on Career Commitments : Indian women don't concentrate on their profession commitments in an indistinguishable way from they do on their family and individual life. In spite of having magnificent entrepreneurial capacities, they don't concentrate on their profession commitments.

Monetary Vulnerability of women : The financial dependability of Indian female is in an extremely poor state as they need legitimate training that is significant for getting to be plainly self-subordinate.

Low levels of proficiency among Women: Lack of education is the underlying driver of financial biasedness that wins in the general public and that doesn't give female a chance to accomplish monetary independency.

Low levels of literacy amongst women: Illiteracy is the root cause of socioeconomic biasedness that prevails in the society and that doesn't let women to achieve economic independency. Due to lack of Knowledge of latest technology and proper education, it becomes difficult for women to set up their own enterprises. **Less help towards family:** In specialists need to give extend periods of time and therefore, they think that its hard to meet the requests of their relatives and society also. Thusly they wind up plainly unfit in taking care of household work, taking care of the necessities of their youngsters which prompt clash in their own lives and they think that its hard to act as a women business visionary.

Lack of confidence and sense of pride among women: A solid mental standpoint and a hopeful disposition among female are required among female to be a business visionary. In any case, it has been seen that women do not have these qualities required in setting up their own particular endeavors. Hence, not having the required certainty that is required by the present women to push forward makes protection in their being a decent women entrepreneur.

Inflexible Resistance: Women entrepreneurs people don't have association set-up to draw in a ton of cash for soliciting and promotion. Along these lines, they need to confront a solid rivalry for promoting their items with both sorted out area and their male partners.

Male Commanded Society: Male bullheadedness is still the request of the day in India. The constitution of India talks about uniformity between sex. Females experience the ill effects of male reservations about a women part, capacity and limit and are dealt with in like manner.

Low Hazard Bearing Capacity: women in India have an ensured existence. They are less instructed and monetarily not self-subordinate. All these lessen their capacity to endure chance associated with running a venture.

Economic Troubles: Fund is a most imperative part of any business. Non-accessibility of long haul back, consistent and visit need of working capital and long methodology to benefit monetary cause are observed to be the money related issues looked by women.

Marketing Issues: Amid the way toward promoting of items women business visionaries confronted certain issues viz. poor area of shop, absence of transport office and intense rivalry from bigger and built up units.

Health Issues: Significant medical issues looked by women business people were pressure, spinal pain, eye fatigue, weakness and migraine. It is discovered that women feeling the issue of feeling exhausted subsequent to returning home, absence of rest and rest and substantial timetable.

4.1 Opportunity about Women's Entrepreneurship Development

The following are the facts and insights about Women's Entrepreneurship

Development:-

Entrepreneurship can be a viable means to make work and engage women to create employment and empower women.

Women's enterprise and sexual orientation balance engages women in the society.

Women need trust in their entrepreneurial capacities thus, alongside preparing women by providing training and enhance their knowledge and explore with the business people should be furnished with key organizations, systems administration and projects that assistance in general enterprise improvement.

Infrastructure that backs enterprise openings ought to be accommodated women prosperity.

In all nations women entrepreneur still speak to a minority in the zone of business enterprise, are independently employed.

Women's business enterprise isn't extremely fruitful in light of the fact that they confront loads of difficulties in light of absence of sources but for which there are government policy and even private sectors are encourage women to educate themselves and contribute towards society and help women empowerment.

4.2 Ten leading women entrepreneur in India :

Aditi Gupta : Founder, Menstrupedia

Ankita Gaba : Co-Founder, Socialsamosa.com

Ashwini Asokan : Founder, Mad Street Den

Debadutta Upadhyaya : Co-Founder, Timesaverz Dotcom Private Limited

Harpreet Kaur : Co-Founder, Love 4 Apple

Namrata Singh : Founder, Dark Horse Network Media

Radhika Ghai Aggarwal : Co-Founder And CMO Of Shopclues,

Simone Tata: Current Position: Chairperson (Former), Lakme Chairperson (Present), Trent Limited.

Sabina Chopra : Co-Founder Of Yatra.Com

Chanda Kochhar : MD & CEO Of India's Largest Private Bank ICICI Bank.

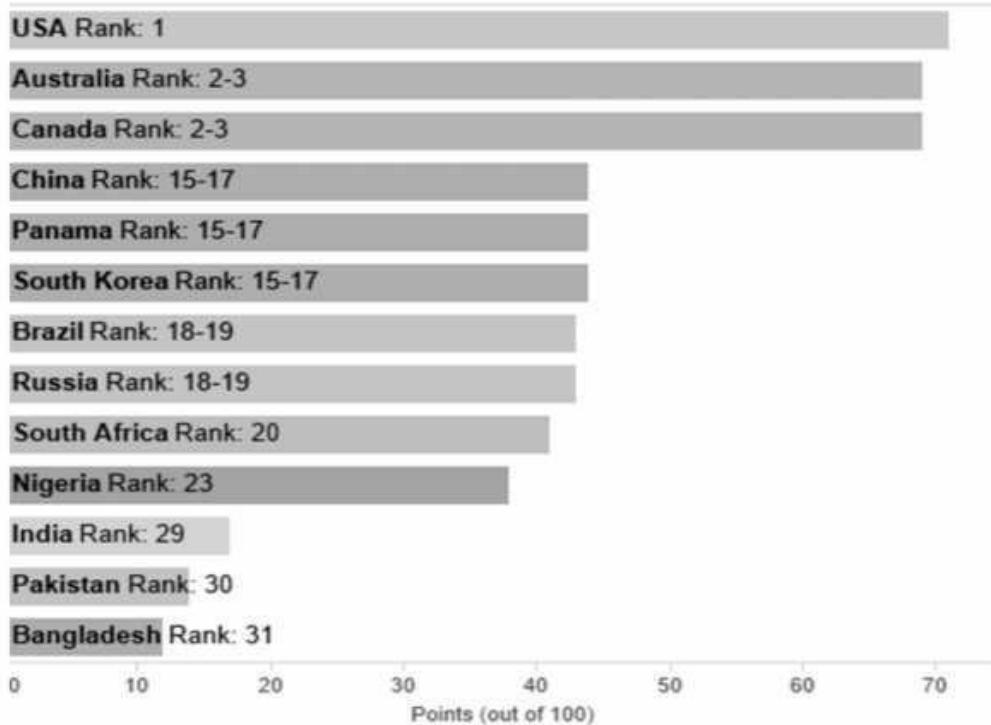
4.3 Facts & Figures about Women Entrepreneurship

Females run 14% of Indian organizations, the vast majority of them self-financed:

India positions 29th out of 31 nations in a given an account of women entrepreneurs.

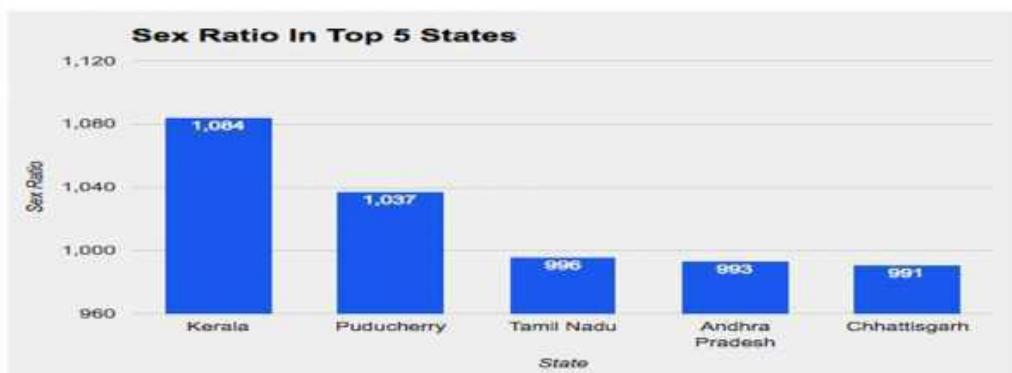
Close to 14% of business foundations in India are controlled by female business people, as per the 6th Monetary Registration by the National Specimen Overview Association. There are 58.5 million organizations in India, of which 8.05 million are overseen by women, utilizing more than 13.48 million individuals. These undertakings extend from corner shops to wander subsidized new businesses. India positioned 29th of 31 nations in the 2015 Worldwide women entrepreneur Pioneer report by ACG Inc, a consultancy, above just Pakistan and Bangladesh. With 17 purposes of a conceivable 100, India fared more terrible than nations, for example, Nigeria, Uganda and Ghana. The report surveyed that in India and other low-positioned nations, unequal legacy rights for females and work limitations restricted their entrance to startup capital and insurance.

Global Ranks



Southern states lead the way, social attitudes important

Upwards of 13.5% of female-run foundations (1.08 million) are situated in Tamil Nadu, more than some other state, trailed by Kerala (0.91 million) and Andhra Pradesh (0.56 million).



Source: Census 2011

Most organizations keep running by females are small scale; 79% are self-financed. There are three noteworthy difficulties looked by women business visionaries, According to Devika Parashar, Executive (Women Activities), Startup Administration Program, a partnership program to make and support business people:

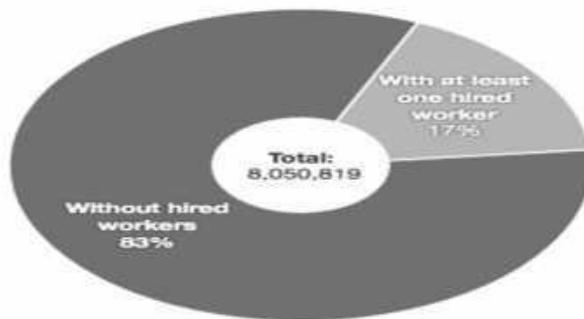
Having to work doubly difficult to be considered important as a business visionary;

Lack of female mentors and role models;

Restrictive sexual orientation parts, uncovered by subsidizing examples of speculators and the 14% measurement.

Dubey's organization, with a group of six – overseeing organization and coordinations – falls under the 83.19% of foundations that have no less than one procured laborer, demonstrating that most organizations keep running by women are little scale.

Female-run Establishments, By Staff Size



*Rounded off from 82.19% and 16.81%

Source: Sixth Economic Census

Female-run Establishments: Sources Of Funding

Self-financed

6,365,447

Donations/ Transfer from other agencies

1,179,420

Financial assistance from Govt. sources

270,978

Borrowing from financial institution

86,789

Loan from self help group

80,660

Borrowing from non-institutions/ money-lenders

67,525

Source: Sixth Economic Census

Another disclosure is that out of these business people, 2.76 million women (34.3% of the aggregate business visionaries) work in farming part though 5.29 million females (65.7% of the aggregate business visionaries) work in non-agrarian divisions.

In the agribusiness, livestock dominates (with an offer of 31.6 %) among all other cultivating exercises. Among the non-rural exercises possessed by females business visionaries, assembling and retail exchange are prevailing ones with comparing rates being 29.8% and 17.8% separately.

Out of the aggregate foundations under females business people, rate offer of different social and religious gatherings OBC: 40.60%, SC: 12.18%, ST: 6.97% and Others (40.25%); Hindus: 65.6%, Muslim: 12.84% and Christian: 5.2%.

Among the states, the biggest offer in number of foundations under women entrepreneur is of Tamil Nadu (13.51%) trailed by Kerala (11.35%), Andhra Pradesh (10.56%), West Bengal (10.33%) and Maharashtra (8.25%).

4.4 Measures to Improve Women Entrepreneurship: It is difficult to advance women business enterprise in India as it requires end of various obstructions that incorporates changing the customary demeanors and mentalities of individuals in the public eye towards females. To give chances of women business enterprise in India one needs to make mindful the women with respect to her position towards the esteem she can include towards monetary development and advancement of nation.

Women business enterprise in India faces many difficulties and requires a radical change in demeanors and attitudes of society. In this manner, projects ought to be intended to address changes in mentality and attitude of the general population. Course Educational programs ought to be planned in a way that will grant the fundamental hypothetical learning alongside its down to earth suggestion and encourage grant abilities required to be a business person. Education can assume a vital part in advancing women business and advancement of women business enterprise can be accomplished by planning course. Government ought to likewise assume an essential part by setting up approaches and arrange for that backings enterprise openings. Setting up great foundation is likewise required to assemble business openings. There are different plans like the World Bank supported projects that can be attempted for such purposes. Projects can be directed in which set up and effective women business people can prompt and caution for the coming women business visionaries against the difficulties they will look against being business person to support the assurance and certainty level of the up and coming business people. Professional preparing can likewise help via preparing, rousing and helping the up and coming female business visionaries in setting up and overseeing of another endeavor. Aside from professional instructional meetings females can be prepared on Data Innovation to take the upside of new innovation in running their new businesses. Training has been instrumental in expanding the interest of women in entrepreneurial exercises. Appropriate training helps in securing of requires information as well as bestows learning about the distinctive open doors accessible in various areas. Great training makes women positive about managing issues in business in a powerful way.

5. Conclusion: Women entrepreneurship in India surfaces many difficulties and requires a crucial change in states of mind and viewpoints of society. In this way, schemes ought to be planned to discourse alterations in state of mind and attitude of the general population. It is important to raise professional enterprise among women to improve the financial condition of the women. The role of Women entrepreneur in monetary progress is also being acknowledged and phases are being taken to promote women entrepreneurship. From these suggestions it is quite visible that for development and promotion of women entrepreneurship, in the region, there is a need for multidimensional approach from different sector, namely from the government side, monetary establishments, single woman entrepreneur and many more, for a flexible integrated and coordinated specific approach. For years together they have been restrained to a inferior role and restricted to the households and one have to take out so that they become self-reliant, self-respecting enterprising people. Though there are several factors contributing to the emergence of women as entrepreneurs, the sustained and coordinated effort from all dimensions would pave the way for the women moving into entrepreneurial activity thus contributing to the social and economic development of the embers of the family and thereby gaining equality and equal importance for themselves. Women participation in the field of entrepreneurship is increasing at considerable rate, efforts are being taken at the economy as well as global level to enhance woman's involvement in the enterprise sector. Educated women are contributing to a great extent to the social transformation and in the future, will be seen that more women venturing into areas traditionally dominated by men. The occurrence of women tycoons and their impact to thenational economy is quite noticeable in India. The glass ceilings are shattered and women are found to be indulged in every line of business from papad to power cables. Even though we have many prosperous Women Entrepreneurs in our country, but as we have a male dominated culture there are many challenges which women entrepreneurs face from family & Society.

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IMPORTANCE OF WOMEN IN INDIA'S GROWTH

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Abstract

We still live in a world in which a significant fraction of people, including women, believe that a woman belongs and wants to belong exclusively in the home. No matter how much progress women made, society would eventually push women to be back in the home. During the first two decades of the 20th century women finally achieved the right to vote; they began to be a more important part of the workforce. The hand that rocks the cradle rules the world became true. The idea behind this article is to look at the way in which Indian women have evolved over time in urban and rural areas and whether they are playing a central role in the growth story of India. This article attempts at examining the socio-cultural evolution of women over time in India and where they stand now. The objective of this paper will be achieved if the analysis will help in the future development of some women empowerment programs to make India successful by utilising women's skills. It is purely a secondary research. The data has been collected by assessing various research papers along with online expert reviews.

The hypothesis under testing are-

Ho: Women play an important role to the India's growth story.

H1: Women do not play an important role to the India's growth story.

After reviewing various papers, it is found that with the power of digital technology and growing opportunities, there is a revolution in the way women are doing business. Some of them are already running successful enterprises, and many more are joining the bandwagon. For the economy to grow even further, women should be considered and promoted as key drivers.

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Keywords: Indian women, women empowerment, women development

INTRODUCTION: India is a country which attained independence in 1947, but the rural-urban divide and the rich-poor divide are still plaguing India. 68.84 per cent of the Indian population lives in villages. There are several issues which are creating difficulties in the lives of Indians, like rising crimes Importance of Women in India's Growth against women, increasing poverty, corruption, nepotism, lack of transparency in the official functioning, etc. However, the common Indian citizen is striving to get two ends meet. India is a country of contradictions. On the one hand, women are worshipped as deities, without whose blessings, work cannot be initiated. On the other hand, crimes against women and girls are increasing day by day in India. The patriarchal norms are so entrenched in the Indian society that it is very difficult to pull oneself out of this conundrum. When girls are born in most Indian families, they are not welcome, at times, even by their mothers. They lament that a son could have been a real asset for the family. Upbringing of girls is an expensive affair, where there is only loss as the girl gets married off and will serve the grooms' family throughout her life. In India, the life of a woman changes a lot after marriage. She leaves her parents' house after marriage and starts living with the groom's family. Since childhood, she is socialized into thinking that she should take up the food habits, dress, rituals etc of the new family. So, happily or grudgingly, she evolves her identity according to the demands of the groom's family and the groom. A hefty sum of money is spent on her dowry. At times, the demand from the groom's family continues even after marriage. When the bride's family fails to satisfy their demands, the bride is tortured. Domestic violence is high in Indian homes. There is dowry deaths' occurring every now and then. Right to equal inheritance to women in the country have been

provided by the Indian State. But, still today, there are very few women who demand the property as they feel that it sour their relationship with their brothers. Rural women in India are less literate than rural men. There is a negative attitude of the family towards educating the girl child. Moreover, lack of separate toilets for girls in schools, lack of security while travelling from home to school, lack of female teachers in schools, elder sister's responsibility to look after the younger siblings when both the parents must work to meet both ends, are some of the reasons behind the high drop-out rate of girls from schools. Primary education is free, but parents are not interested to send them to school. Majority of rural Indian women do not have the right to choose their partner. It is always decided by the family elders and the marriage is arranged with an endogamous group, where caste plays a very important role. If the girl wishes to marry someone from other caste or tribe, the traditional leaders of the villages oppose. In states like Haryana, there are Khap Panchayats, or traditional village elders who provide punishments to both the adult girls and boys of the same village and caste, who falls in love and marries. Majority of rural women suffer not only from economic poverty but also from 'information poverty'. Women in India have had an impressive trajectory of profiles in courage, power and astuteness. The brave Rani Lakshmibai to the sagacious AhilyaBai, Indian women have never shied away from key roles in decision making. Yet our country, even in these modern times, surprisingly shows a high dropout rate in primary education for the girl-child. Not a single day goes by without the news of female foeticide in the northern quarters of our country. Women still continue to be seen as an economic encumbrance in most families even today. Rural women are vital and productive workers in India's national economy. There is statistical bias in underestimating the role of rural women in development. Women work for longer hours than men and contribute substantially to family income, they are not perceived as productive workers. They are silent workers who are struggling to complete her household duties from dawn to dusk. But, still, in the family, many a times, she is criticized for not being sincere in her job. If the family members had to pay for the whole household work and the free labour she provides in the small agricultural land of the rural families, then her real worth could have Importance of Women in India's Growth been realized. She does this day-in and day-out with compromising the family interest, but in very few families, she gets the respect which she should get. Equal pay for equal work is one of the cornerstones of the gender equality movement the world over. But Labour Bureau data show there has been little progress in terms of parity of salaries for men and women for equivalent work in India. Even more alarming is the fact that even though wage disparities have always existed in rural parts of the country, in some spheres of activity, the divide has widened. So while men were paid 70 per cent higher wages than women for ploughing work at the end of 2004-05, the difference rose to 80.4 per cent in end March 2012 and stood at 93.6 per cent at the start of 2013-14. While men were paid 75 per cent more than women for well-digging work in March 2005, the difference stood at 80 per cent in the current financial year. The data indicate that daily wage disparities have by and large remained constant since 1999, though they did rise in the early 2000s. As of 2013, the discrimination in wages paid to women tends to be higher in physically intensive activities (such as ploughing and well-digging), but lower in the case of work such as sowing and harvesting. Outside the agricultural sphere, it appears that gender stereotypes won out once again, if one considers unskilled non-agricultural work. Majority of the agricultural labourers are women. They are mainly assigned manual labour. Men perform operations involving machinery. Agriculture which is the mainstay of the rural Indian economy is sustained for the most part by the female workforce. They are the invisible life line of the agrarian rural community life. Rural women from childhood days have to bear the burden of taking care of younger siblings, cooking, engaging in domestic chores, looking after the fodder of the domestic

animals in their parents' house. They are married off at a very early age. Indian women are condemned to a life of serfdom, anonymity, facelessness. At the root is the 'gender insensitive' society. (UNICEF, 2012) National Sample Survey Organization (NSSO) a Government of India organization has stated that in 2009-10 and 2011-12, women's employment has taken an alarming dip in rural areas. In this gloomy scenario, Mahatma Gandhi National Rural Employment Act is providing a positive light to rural women. Several studies have shown that with the introduction of this Act, many rural women are coming out of their house for the first time to engage in paid employment. As it is a government scheme, socio-cultural stigma of patriarchy regarding working in the public space, that has been present earlier, is slowly ebbing. Moreover, the financial independence with the work is bringing in sea change in the mentality of rural women. They are for the first time, engaging in decision making regarding spending the money. With financial empowerment, comes in social empowerment as many of them are also joining self-help groups, to further their abilities. Noted rural entrepreneurs such as Jashwantiben Popat who pioneered Lijjat papad are proof of the strong capabilities of Indian women to mould positive social change in India. From 7 women working in one building to over 43,000 lady workers, Lijjat papad is a corporate initiative that is fuelling the economy. Globally, women comprise 43 percent of the world's agricultural labor force – rising to 70 percent in some countries. For instance, across Africa, 80 percent of the agricultural production comes from small farmers, most of whom are rural women. Women, notably mothers, play the largest role in decision-making about family meal planning and diet. Women today have made the choice of being on equal footing with men and stepping out of the predefined boundaries set by a patriarchal society.

THE ROLE OF WOMEN: Importance of Women in India's Growth Throughout the 20th century, no matter how much progress women made, society would eventually push women to be back in the home. This idea can be proven through the expansion of the role of women in society during the 20's and the 40's, but both progressive movements were eventually regressed and once again the women were wanted back in the household to take care of their home, husband, and family. Finally, in the 1960's with the advent of birth control, the arrival of Betty Friedan's *The Feminine Mystique*, the *Roe v. Wade* Supreme Court case, and the reestablishment of women's rights organizations; consideration of broader female participation in society revived, leading to the mostly free, independent women of today. During the first two decades of the 20th century women finally achieved the right to vote; they began to be a more important part of the workforce. Also, the appearance of women shifted from a very stiff, proper look to a more modern and young style. This phase of the advancement of women in 1919 marked the first change for the role of women in politics. Not only were women able to vote at this point, but it also sparked the beginning of women in political roles. Next, the days when women were expected to be fully covered finally began to end; in the 1920's women were finally able to let loose with their appearance. It became socially acceptable for women to smoke and drink in public, and to have closer body contact in dancing. Shorter hair, make-up, and shorter, less conservative dresses became the style. Women began to enjoy working; they enjoyed the freedom, contributing to the public, learning new skills, and priding themselves by doing what was deemed "men's work." Women in the workforce increased from a quarter to a third; they began to be praised for their work and seen as useful (Women). In addition to all of that, greater participation in the workforce also helped to redefine womanhood. Women play a crucial role in the growth of the economy. Over the years, Indian women have made a substantial impact and achieved success across sectors, both within the country and overseas. Today, India boasts nearly 1.4 million women panchayat leaders – a number that is an indicator of the leadership roles women are increasingly taking up. There is enormous untapped potential in the

female population which would support growth. Over past 50 years, the increased participation of women in education and the labour market has been a significant contributor to the economy. By equalising the labour force participation rates of men and women, GDP per capita growth can be increased by 0.5 % points per year. There are over 2.4 million women who are not in work but want to work and over 1.3 million women who want to work more hours.

2.1 As Caretakers: Women are the primary caretakers of children and elders in every country of the world. International studies demonstrate that when the economy and political organization of a society change, women take the lead in helping the family adjust to new realities and challenges. They are likely to be the prime initiator of outside assistance, and play an important role in facilitating (or hindering) changes in family life. According to UN Women watch Organization – Rural women play a key role in supporting their households and communities in achieving food and nutrition security, generating income, and improving rural livelihoods and overall well-being.

2.2 As Educators: The contribution of women to a society's transition from pre-literate to literate likewise is undeniable. Basic education is key to a nation's ability to develop and achieve sustainability targets. Research has shown that education can improve agricultural productivity, enhance the status of girls and women, reduce population growth rates, enhance environmental protection, and widely raise the standard of living. It is the mother in the family who most often urges Importance of Women in India's Growth children of both genders to attend and stay in school. The role of women is at the front end of the chain of improvements leading to the family's and community's long-term capacity.

2.3 In workforce: Today, the median female share of the global workforce is 45.4 percent. Women's formal and informal labour can transform a community from a relatively autonomous society to a participant in the national economy. Despite significant obstacles, women's small businesses in rural developing communities not only can be an extended family's lifeline, but can form a networked economic foundation for future generations. The role of women in the urban and rural workforce has expanded exponentially in recent decades. International Women's Day 2017 focused on "Women in the Changing World of Work: Planet 50-50 by 2030." Of course, women's opportunities still lag those of men worldwide. But, the historic and current role of women is indisputable.

2.3 In manufacturing: In India, the manufacturing sector employs 20% of the total workforce, much lesser than many Asian countries. Though women are under-represented in this sector, there are a range of companies that have set an example for others to follow. JCB India, which manufactures construction and agriculture equipment, has witnessed a significant rise in the employment of women. Today, JCB employs over 110 women in India, who are trained at frequent intervals on the latest technologies. Similarly, Maruti Suzuki has increased women workforce in their manufacturing team from 274 employees in 2012 to 366 employees in 2014. The other companies that are increasingly hiring more women are Kinetic Communications and United Technologies. The latter has started an all-women assembly line at its air-conditioner manufacturing facility in Gurgaon. Samsung too has opened 18 technical schools in India. The branch at Patna is India's first female-only technical training centre and imparts skills to over 5,000 women each year.

2.3 Internet and women: In India, over 110 million women are active users of internet and growing at a rate of 46% for females, according to a report by Internet and Mobile Association of India and IMRB International. Urban India isn't just witnessing women's contribution to social change, health care and education. There are a considerable number of initiatives undertaken by rural women at the grass root level too in spreading awareness for gender equality.

Women village-level entrepreneurs run a range of Common Service Centres in India. Vaijanti Devi, who hails from Bihar, runs one such centre and offers online banking services and enrolls villagers for the Aadhar programme.

2.4 In Banking: Women hold the reins of some of the largest Indian banks and financial service companies. The biggest example is that of the Chairperson of State Bank of India (SBI), Arundhati Bhattacharya, who is the first woman to have held this position. She was also named among the 50 Most Powerful Women (International), according to a list compiled by business magazine Fortune. The other names that are part of the list are Managing Director (MD) and Chief Executive Officer (CEO) of ICICI, Chanda Kochhar and Shikha Sharma, Managing Director & CEO of Axis Bank, who have played a significant role in the development and progress of the retail banking sector in India. Another achievement in this industry was the establishment of an all-women's bank, Bharatiya Mahila Bank (BMB) Ltd in August 2013. A Importance of Women in India's Growth pan-India bank, BMB has over 100 branches across the country. The bank focuses on providing monetary assistance to economically neglected, discriminated, rural and urban women.

2.5 Pharmaceutical and Healthcare: The pharmaceutical and healthcare sector has seen enterprising women leaders. The first woman to have been at the helm of a pharmaceutical empire, Swati Piramal, is regarded as a pioneer who campaigned for new drug research in India and highlighted the importance of scientific innovation. Kiran Mazumdar-Shaw is another exemplary woman leader who founded Biocon, the country's leading biotechnology enterprise. She has immensely contributed to research, innovation and affordable healthcare. Mazumdar-Shaw has been conferred upon with the '2014 Othmer Gold Medal' and the coveted '2014 Global Economy Prize' for Business by Germany-based Kiel Institute for the World Economy.

2.6 IT-BPM sector: According to NASSCOM'S IT-BPM Sector in India 'Strategic Review 2015', this industry contributes a staggering 9.5% to the national GDP and employs more than 1.2 million women. Some of the biggest multinational technology firms, including IBM India and HP, are headed by women. The Managing Director of global technology solutions company IBM, Vanitha Narayanan, is consistently working towards the development of women's leadership in India as well as the South Asia region. She is also a member of IBM's Multicultural Women's Network that encourages multicultural business women to expand their career network. Similarly, Nivruti Rai was appointed as the Intel India General Site Manager in March 2016. She succeeds Kumud Srinivasan, who was the first woman president of the computer chip maker. Having joined Intel in 1987, Srinivasan has spent more than two decades at the company and held several significant business positions. In an empowering move, Infosys has also set a target to have 25% women in senior leadership roles by 2020. The second largest Information Technology services company in India currently has 35% women employees, though most occupy junior and mid-level positions.

2.7 Women CXOs: Apart from the sectors mentioned above, there are multiple spheres where women have achieved success at the CXO level. The biggest accomplishment is that of former MD of Britannia Industries, Vinita Bali, who quadrupled the company's revenue to USD 989 million in Financial Year (FY) 2013-14 from USD 248 million in FY 2005-06 (She took over as MD in 2005). As the face of Britannia, Bali made efforts to promote nutrition and build the brand. She is the only Indian who is a part of the United Nations committee that was set up to lead the 'Scaling up Nutrition' across the globe. Another name that is counted among India's most inspiring women is Indra Nooyi, who has ensured steady revenue growth ever since she was appointed Chairperson and CEO, PepsiCo, the second-largest food and beverage business in the world.

VARIOUS WAYS FOR INCREASING WOMEN CONTRIBUTION Ancient India was a centre of learning and noted women scholars during that time contributed to the advancement of society.

Throughout history, the central role of women in society has ensured the stability, progress and long-term development of nations. The ancient history of India and Hindu philosophy is testimony to the fact that women were active participants in the social life and political debates in their surroundings. Importance of Women in India's Growth The Indian development model has yet to fully incorporate the important role played by women for propelling the socio-economic growth of the country. Current governments at state and central level must understand that no nation can progress unless its women are given equal access to opportunities and adequate safety and security. Women icons in India's rural areas are few and far in between. While most are aware of the high-profile lady entrepreneurs and corporate heads in urban India, women in rural areas continue to face exploitation. If women can gain access to education, they can make a huge impact in enhancing the productivity of the economy. Urban women in India always had more advantages and opportunities (better education, better economic resources, and more availability of required things) than women residing in rural places, yet rural women have made rapid improvements despite lacking in basic facilities. We have yet to attain the state of complete women empowerment but signs of gradual improvement are definitely there. Rural women are key agents for development. They play a catalytic role towards achievement of transformational economic, environmental and social changes required for sustainable development. But limited access to credit, health care and education are among the many challenges they face. These are further aggravated by the global food and economic crises and climate change. Empowering them is essential, not only for the well-being of individuals, families and rural communities, but also for overall economic productivity, given women's large presence in the agricultural workforce worldwide. A country where women are cherished and worshiped in the form of Goddesses is really struggling to make its women aware of their simple basic human rights. Women need to be totally awakened and made aware of what can unfold for them. These women if made to come up to their real potential can really redefine the meaning of women's empowerment and can become the centre of India's growth. A woman in most parts is looked upon more as an object of glamour or a mere sex object rather than somebody who can share and shoulder the responsibilities of decision making in the home and at workplace. Although things are slowly changing for most women in India, but the change is so slow and subtle that it is hardly noticeable. The core areas concerning women are still in the process of being discovered and opened for them. Till that happens, it's an uphill task for majority of the women in both rural and urban India. It should be the duty of those women who have understood the power of complete women's empowerment, to come forward and willingly educate and embolden the fortune of less fortunate and underprivileged section of Indian women. India can grow at over 10-11% if we include women in the economic process. They can contribute to building new businesses – from traditional industry to startups. The government should aim to turn women from job-seekers to job-creators. Importance of Women in India's Growth

4. CONCLUSION: Currently, more women are in colleges and in the workforce than men. Indian women play an important role in initiating socio-economic progress of the country. However, there are gender stereotypes that have yet to be broken, and women are still consistently seen as less important, and all around weaker than men. But to really empower them and increase their contribution in nation's growth, women should be given access to good opportunities, education, information about their rights, trainings, career guidance, flexible working hours etc. so that they can bring about positive social change and contribute to the growth of the country. Educating women and giving them the ability to stand on their own feet should be the priority. There is enormous potential in women's untapped entrepreneurialism, government should support women who want to set up their own businesses. We need to ensure that at every stage of a woman's career

they have the opportunity to learn skills, develop and contribute in a dynamic business environment. Finally, we accept the null hypothesis that “Women play an important role to the India’s growth story”.

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A COMPARATIVE ANALYSIS OF THE STATUS OF WOMEN ENTREPRENEURSHIP: INDIA VS. CHINA

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Abstract

This paper focuses on women entrepreneur in India and China. The paper talks about the status of women entrepreneurs and the influenced factors of the women entrepreneurs. And also how much credit can be given to entrepreneurship for the unprecedented innovation and growth of free-enterprise economies. The purpose of this paper is to offer an understanding on factors affecting women entrepreneurship their share and participation rate based on the comparative analysis between Indian and Chinese women entrepreneurs on the basis of individual motivations, individual experiences, socio-cultural (including family) traditions, educational opportunities, availability of relevant skills and attitudes, etc. It has also been argued that Innovation and Entrepreneurship flourish best in decentralized systems by empowered people, who are willing to explore new ideas as well as willing to deal with exogenous influences.

Keywords: Women entrepreneurship, Entrepreneurship Environment & social norms, Education.

1. Introduction: Entrepreneurship means different things to different people. Conceptually and in practice, the term hints of no stereotypical model. Yet its very etymology – derived from the French ‘entrepreneur’ who literally means, ‘to undertake’ – indicates the minimum characteristics of an entrepreneur. The National Knowledge commission defines ‘Entrepreneurship’ as: ‘Entrepreneurship is the professional application of knowledge, skills and competencies and/or of monetizing a new idea, by an individual or a set of people by launching an enterprise de novo or diversifying from an existing one (distinct from seeking self-employment as in a profession or trade), thus to pursue growth while generating wealth, employment and social good’. India and China are the most populated countries in the world as per the statistics. The aim of the study is to explore the variant factors available for the growth of Female Entrepreneurship in both countries. The Definition given by Govt. of India about women entrepreneurship, “An enterprise owned and controlled by a Women and having a minimum financial interest of 51% of the capital & giving at least 51 % of the employment generated in the enterprise to Women”. Development of women has been a policy objective of the government since independence. Until the 70s the concept of women’s development was mainly welfare oriented. In 1970s, there was a shift from welfare approach to development approach that recognised the mutually reinforcing nature of the process of development. The 80s adopted a multi-disciplinary approach with an Entrepreneurial activities by women in the People’s Republic of China has become more active in recent years with much greater attention being paid within and outside of China. Academic research has sought to describe current conditions and future trends; however, there has been little systematic research done in this area. The aim of this study is to provide a clear picture of the general background and characteristics of Chinese female entrepreneurship based on Eastern cultural features. Entrepreneurship depends on individual motivations, individual experiences, socio-cultural (including family) traditions, educational opportunities, availability of relevant skills and attitudes, supporting financial institutions and access to credit, existence of commercial trading centres, supporting infrastructure including trade routes with efficient transport and communication facilities, macro-economic environment and overall political stability. Entrepreneurship and Innovation are the key drivers for generating wealth from knowledge, supported principally by the

availability of skilled human resources, access to finance and the ability of the State to create an enabling environment.

2. Objectives of the Study

To Explore the concept of women entrepreneurship in a global environment

To Compare key factors responsible for the development of women entrepreneurship in India and China

To understand the influencing aspects of women entrepreneurs in India and China.

3. Research Methodology: It is a conceptual study and exploratory research in nature. The study is mainly based on secondary data taken from the reputed Published Sources like Economic Survey, GEM Reports, Gender Gap Review Reports, various books and websites on Internet. The focus is on gaining insights and familiarity for later investigation.

4. Status of Women Entrepreneurs in Global Concept.: The proportion of entrepreneurs who are women varies significantly across the economies. A difference between male and female TEA(Total Entrepreneur Activities) rates continues to persist worldwide. Women entrepreneurs may not be sufficiently empowered or supported to allow them to contribute to new business start-ups. The reasons may include cultural and societal attitudes and access to resources and opportunities. Policies that can promote societal attitude changes, and train, support and encourage women entrepreneurs will promote inclusiveness and fuel economic growth. Over time, the gap between men and women entrepreneurs has increased in some economies and decreased in others. The purpose of the GEM Women's report is to examine women entrepreneurs around the world. Through interviews with more than 90,000 women of 59 countries, GEM discovered over 14,000 women entrepreneurs. This report provides insights into the entrepreneurial activities, aspirations and attitudes of women in 59 economies. It makes comparisons among women across the 59 economies and between men and women within these economies. The goal of this report is to help policy makers, practitioners and educators recognize the value women entrepreneurs bring to their societies. GEM seeks to promote better understanding about the similarities and differences between men and women entrepreneurs, as well as among various groups of women. There is a growing understanding – among policy makers, entrepreneurship support organizations and entrepreneur associations – that laws, policies, support structures as well as cultural mores and individual motivations all form an interwoven support structure for enterprise development. Further, there is an increasing realization that there is a gender dimension to these factors; gender-blind business support measures do not support women's enterprise development to the extent that they support men-owned firms. Focusing efforts specifically on women's enterprise development, and measuring their impact, is of growing interest. In some countries, the low share of highly educated female entrepreneurs is striking. Malaysia, ranked in 9th place, exhibits the highest percentage of opportunity driven female entrepreneurs (85%) but at the same time, has a low percentage of female business owners who are highly educated (just 29%) in comparison with the overall female population (57% of whom are highly educated). This is a trend seen in other developing and emerging economies as well, where the desire to exploit an entrepreneurial opportunity is high amongst the less educated female population, yet the abilities (in terms of skills, networks, access to resources, etc.) are missing and so these entrepreneurial aspirations rarely move beyond a subsistence, small-scale business phase.

5. Emergence women Entrepreneurs in China. Chinese women have endured gender discrimination through thousands of years of feudal society and hundreds of years of semi-feudal, semi-colonial society. Chinese women have never possessed real economic power and have instead depended on their husbands or fathers for survival. This dependent relationship, part of the Chinese institutional character, made Chinese women become males' accessories; thus, women

have been denied both dignity and business rights. As a result, before the People's Republic of China was founded, there were hardly any true women entrepreneurs.

After the founding of People's Republic of China in 1949, however, the socialist system and laws facilitated a high level of women's participation in both political and economic life (Li, 1998). The Chinese government eliminated discrimination against women and advocated gender equality by legal, administrative and educational means. The longstanding traditional opinion that women could not engage in business was finally dismantled. Since 1949, the state has issued a number of regulations and laws to provide protection in the workplace for women by ensuring equal opportunities (Cooke, 2001), including the PRC Women's Rights Protection Law, the People's Republic of China Labour Law and the Women's Work Protection Regulations. Two decades of economic reform, ideological, legal, and experiential preparations paved the way for Chinese women entrepreneurship. Full access to education has also improved women's entrepreneurial capabilities. The proportion of women employees in China is about 44%, which is higher than the world average of 34.5% (Hu and Zhu, 2006). The number of highly educated women is rising: 42.4% of all college students are female, while 55.27% of all high school students are female (Association of Women Entrepreneurs in China, 2002). In the late 1990s, several nationwide studies of female entrepreneurs were launched in China: Chinese Entrepreneurs Investigation System, the Association of Women Entrepreneurs in China and the All-China Women's Federation. Issued in 2001 and 2002 by the Association of Women Entrepreneurs, the Women Entrepreneurs Development Reports analysed China's women entrepreneurs' developmental situations, and the factors and trends from the macro-point of view. Based on this report, Shi (2001) summarized the growth of Chinese women entrepreneurs as belonging to one of the following groups:

State-owned managers who gained company share or options through system reform; Enterprise managers or self-employed persons who started ventures by having mastered core technologies or who accumulated a small amount of capital and developed their businesses by snowballing them; Domestic or overseas university students who finished their educations and decided to start venture-based operations due to increased demand for highly-educated entrepreneurs because of the rapidly changing industry structure; Laid off workers who created start-ups to capitalize on prior industry experience; Technical experts in foreign- and state-owned capital enterprises who utilized their own technological and managerial experiences to start their own enterprises.

6. Recent Status of Chinese Women Entrepreneurs

The world today is paying more attention to the economy of the People's Republic of China (hereinafter cited as "China") due to its rapid growth and internationalization. At the same time, a new entrepreneurial epoch in China is coming: women entrepreneurs are playing an increasingly important role in the global economy (Orlova, 2004). An example of this emergence is 49-year-old Zhang Yin, who topped the Huron Report's China Rich List in 2007 with a personal fortune of US \$3.4 billion, making her the richest self-made woman in the world (Huron Report 2007). Forbes latest list of the richest Chinese businesspeople showed that the proportion of women listed grew from 4% to 7% from 2004 to 2007 (Forbes China, 2007). In fact, women entrepreneurs represent only 20% of the all Chinese entrepreneurs even though 98% of these women are ultimately successful (Shi, 2005). A GEM (Global Entrepreneurship Monitor) China 2002 study, which included 37 participating countries, stated that the TEA (total entrepreneurial activity) index for the average in the sample was 6.9%. China compared favourably with 11.16% for Chinese female entrepreneurs. The TEA for Chinese females was the sixth highest in the study, showing that Chinese female entrepreneurial activities are on the rise (Shi, 2005).

Several training and support centres for female entrepreneurship have been established throughout the country. The Women Entrepreneurship Guiding Centre was established in 22 provinces, 5 autonomous regions and 4 centrally administered cities and plays an essential entrepreneurial service role. The Tianjin Women Entrepreneurs Centre, supported by programs from the United Nations Development Program (UNDP) and the World Bank, was initiated in 2000 as a powerful and comprehensive women-owned enterprise incubator in China. The goal was to extend the incubator mode to assist the development of women's entrepreneurship. Recently, a series of entrepreneurial policies specific to motivating female entrepreneurial activity have been formulated and carried out by the Chinese government. These policies include subsidies for professional training, small-loan guarantees and also preferential tax treatment, providing beneficial conditions, an incubator of sorts, for women entrepreneurs (Information Office of the State Council, 2005). Once a woman has gained her entrepreneurial training certification, new bank loans can be guaranteed without the requirement of providing collateral on her personal property. In the developed province of Jiangsu, for example, regulations are in place so that loan departments in banks and credit guarantee organizations will cooperate and give priority to supporting women entrepreneurs via a simplified process. Women entrepreneurs who own larger-scale enterprises can get loans by means of property collateralization and government guarantee. For smaller enterprises a special preference, a credit guarantee, will be supplied through joint guarantees or loan insurance. In addition, enterprises created by laid-off women as well as labour-intensive enterprises that employ more laid off women will receive special opportunities for loan services. Too, projects offering funds for encouraging entrepreneurship, entrepreneurial knowledge and skill training for women entrepreneurs have been initiated. (Woldie and Adersua, 2004). With the development of the private sector, the business environment in China has changed greatly, for female entrepreneurs and others. Economic reform has resulted in a large number of business opportunities that encourage private enterprises to grow not only in large numbers, but also in and throughout broad business sectors. Economic reform has not only promoted a market-oriented economy, but has also fostered the entrepreneurial spirit. The ability and foresight needed to seize on an opportunity, marshal the resources needed, and execute a strategy are regarded as driving factors in the process of entrepreneurship (Timmons, 2003). The Chinese transitional economy has provided Chinese entrepreneurs a unique market opportunity. The changing laws favouring female entrepreneurship coupled with growing opportunities for private industry have propelled some women entrepreneurs to take advantage of market voids and to break away from traditional restrictions on female entrepreneurial ambition.

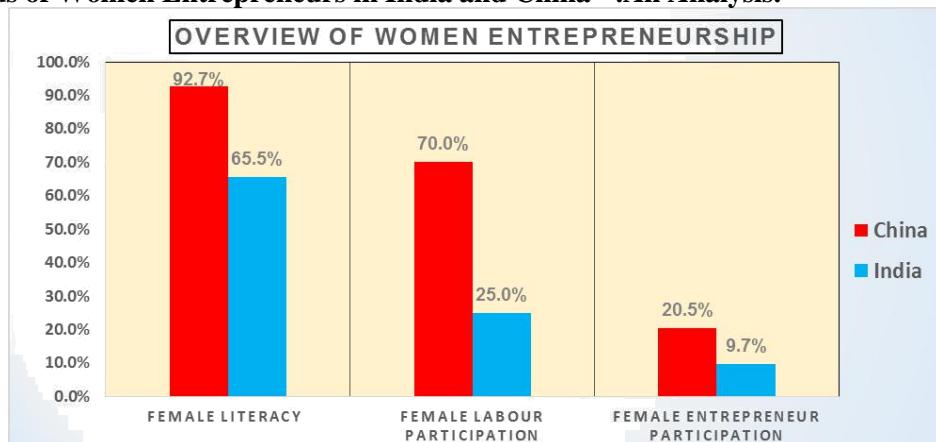
7. Emergence and Recent Status of women Entrepreneurs in India.

Women are leaving the workforce in droves in favour of being at home. Not to be a homemaker, but as job-making entrepreneurs. The increasing presence of women in the business field as entrepreneurs has changed the demographic characteristics of business and economic growth of the country. Women-owned businesses enterprises are playing a more active role in society and the economy, inspiring academics to focus on this interesting phenomenon.

Independence brought promise of equality of opportunity in all sphere to the Indian women and laws guaranteeing for their equal rights of participation in political process and equal opportunities and rights in education and employment were enacted. Government of India has also introduced National Skill Development Policy and National Skill Development Mission in 2009 in order to provide skill training, vocational education and entrepreneurship development to the emerging work force. However, entrepreneurship development and skill training is not the only responsibility of Government and therefore other stakeholders need to shoulder the responsibility.

The growth and development of women entrepreneurs required to be accelerated because entrepreneurial development is not possible without the participation of women. Therefore, a congenial environment is needed to be created to enable women to participate actively in the entrepreneurial activities. There is a need of Government, non- Government, promotional and regulatory agencies to come forward and play the supportive role in promoting the women entrepreneur in India. The Government of India has also formulated various training and development cum employment generations programs for the women to start their ventures. In the seventh five-year plan, a special chapter on the "Integration of women in development" was introduced by Government. The Government of India devised special programs to increases employment and income-generating activities for women in rural areas during the Eight-Five Year Plan. Economic development and growth is not achieved fully without the development of women entrepreneurs. The Government of India introduced schemes during Ninth Five-Year Plan for promoting women entrepreneurship because the future of small scale industries depends upon the women-entrepreneurs: Further, the tenth five Year Plan aims at empowering women through translating the recently adopted National Policy for empowerment of women into action and ensuring survival, Protection and Development of women and children through rights base approach. Consortium of Women entrepreneurs of India provides a platform to assist the women entrepreneurs to develop new, creative and innovative techniques of production, finance and marketing. There are different bodies such as NGOs, voluntary organizations, Self-help groups, institutions and individual enterprises from rural and urban areas which collectively help the women entrepreneurs in their activities. Women entrepreneurship is gaining importance in India in the wake of economic liberalization and globalization. The policy and institutional framework for developing entrepreneurial skills, providing vocation education and training has widened the horizon for economic empowerment of women. However, women constitute only one third of the economic enterprises.

8. Status of Women Entrepreneurs in India and China - .An Analysis.

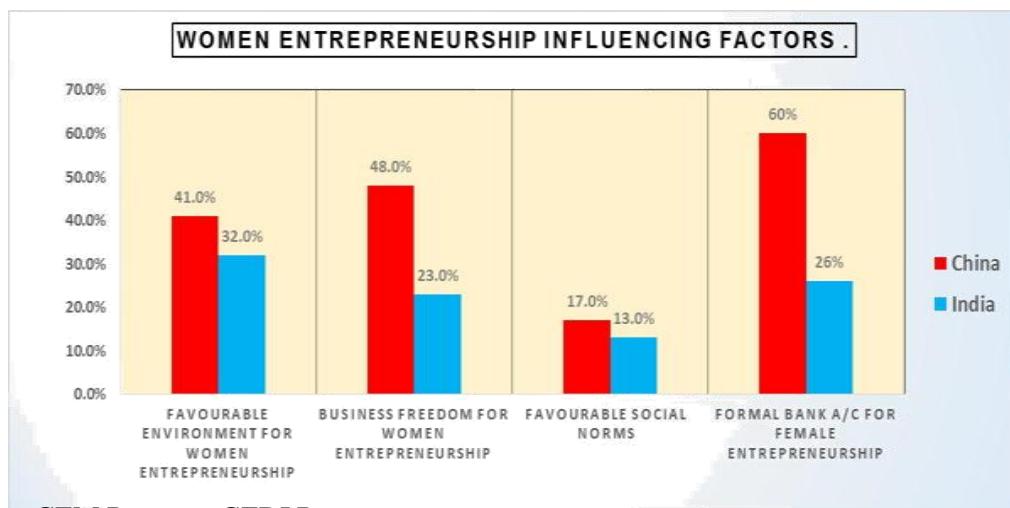
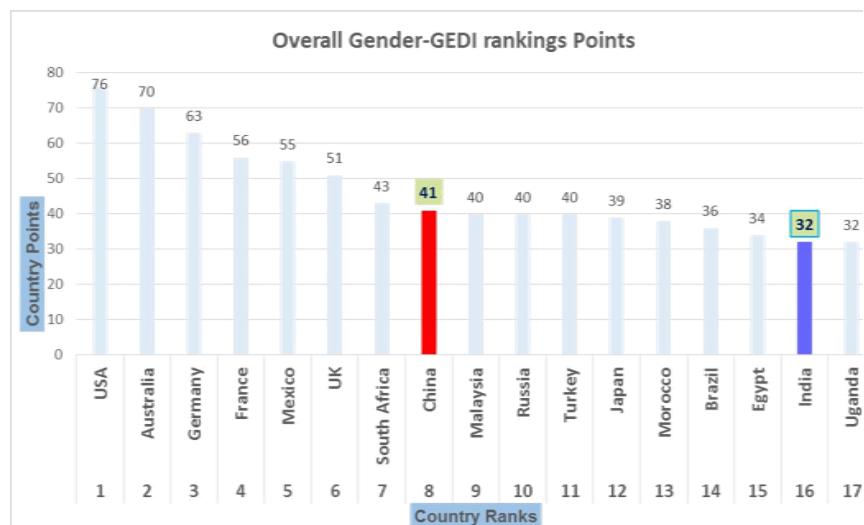


Source: GEM Reports

Education has been instrumental in increasing the participation of women in entrepreneurial activities. The formal education not only helps in acquisition of requires knowledge for a job, which demands non-traditional skills but also imparts knowledge about the different occupational opportunities. Good academic background makes women confident in dealing with problems in business in an effective manner. Although it is a fact that entrepreneurship is not a special preserve for the educated but in the case of women already burdened with many social pressures, education is a powerful tool in breaking down the barriers to successful entrepreneurship. Thus education is a

liberating force and barriers of caste and class, smoothing out inequalities imposed by birth and other circumstances.

The Overview of Female Entrepreneurship with respect to India and China, highlights the women Entrepreneurs literacy rate in both countries, where India estimates for (65.5%) and China estimates for (92.7%). As per the Percentage ratio compared, China accounts for more than 50% Female Labour Participation, Whereas Female Entrepreneur Participation percentage ratio in China is 10% higher than India.



Source: GEM Reports , GEDI Reports -

Access to a formal bank account is critical for high potential female entrepreneurs, especially since it's a necessary precursor to financing—bank loans, credit lines, etc.—that will fuel their growth. Formal financing is especially important for female entrepreneurs, who tend to have less personal capital to invest in their businesses. When focusing on high potential female entrepreneurship, the general business environment cannot be overlooked with the general business environment in terms of ease of starting, running and exiting a business. Business Freedom would appear to have a greater effect on high potential female entrepreneurs, since it focuses specifically on business related regulations. Social norms impact female entrepreneurship in a number of ways. For one thing, they impact the general societal support for women as entrepreneurs, which can affect an individual woman's decision to take the risk to become an entrepreneur. Social norms also impact the access women can have to experiences as decision-makers and leaders as well as to the range of occupations women occupy – all of which may act to either impede or encourage the

development of high potential female entrepreneurs. With respect to Factors influencing pre-entrepreneurial career development, China depicts a much healthy trends as compared to India in all aspect. The countries are rated more highly with respect to high potential women's entrepreneurial development than with respect to general entrepreneurial conditions, five countries' ranks worsen and six countries' relative ranks are similar for both. The top two ranked countries, the US (#1) and Australia (#2), maintain their relative ranks in both the Gender-GEDI and the GEDI Index. In terms of greatest decrease to final rank, Japan's rank dropped 6 places from being 6th in the GEDI to 12th in the Gender-GEDI, and the UK's relative ranking dropped by 3 places, from being 3rd in the GEDI to 6th place in the Gender-GEDI. Egypt and India's relative rankings also decreased by 3 places, from 12th to 15th for Egypt and from 13th to 16th for India.

9. Conclusion: The conditions and characteristics that lead to 'high potential' female entrepreneurship occur on multiple levels. Female entrepreneurs, like their male counterparts, are influenced by the general business environment where they live. If the general business environment is unstable, if the procedures for starting, running or exiting a business are highly regulated or bureaucratic, this would form a disincentive for male and female startups alike. But in some cases, formal institutions or cultural conditions create additional barriers for women that make it more difficult to start or grow a business enterprise. Such conditions can include diminished legal rights (either for all women or with respect to rights that a woman may give up when she marries) or restrictions to a woman's activities outside of the home or her ability to travel within her community, outside her community, or outside her country. This combination of gendered attitudes, social norms and beliefs can result in more limited access to resources critical for development such as education, skills and finance. Attitudes also play a crucial role in forming opinions that create a country's 'entrepreneurial culture,' meaning how the general population views entrepreneurial endeavours, risk assessment, and acceptance of business ownership as a viable career option. This cultural environment in turn influences individual opportunity recognition and willingness to take the risk to start a new venture.

10. Key Findings: There is no single determinant 'high potential' female entrepreneurship however Active female Entrepreneurs participation should be encouraged. Formal financing Security is especially important for female entrepreneurs, who tend to have less personal capital to invest in their businesses. Access to higher education forms the foundation for high potential female entrepreneurship but management experience provides women with additional skills, experience and networks that facilitate female entrepreneurship success. Along with Economic development, favourable Entrepreneurship environment is also important to foster high potential female entrepreneurs. Business freedom is a necessary condition for a vibrant Female entrepreneurial growth in the economy.

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STRATEGIC ANDROGYNY: AN EVOLUTIONARY TRANSITION ADVANCING WOMEN INTO TRUE LEADERSHIP

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Abstract

Humans are evolving, accepting and imbibing traits that come naturally to them and not which they believe are sanctioned to them socially as appropriate according to their sex. Suppression is lesser than usual. Masculine and feminine traits are inherent in both sexes. Society however genders individuals, conditioning them to suppress certain traits and conform to some. Simone de Beauvoir challenged the scientization of this condition in her famous observation: “One is not born, but rather becomes, a woman. It is society as a whole that produces this creature.” Obstacles are created through social conditioning of gender thereby inhibiting women from attaining positions of leadership because femininity and feminine traits itself are undervalued and even, devalued. The more humans are being exposed to the different cultures and societies of the world, the more they are open to accepting traits which they were conditioned to believe as unnatural and inappropriate. South Korea is an apt example of how men and women both shop similar clothing and cosmetics without having any sort of social silos dividing men from women. The paper introduces strategic androgyny as an evolutionary push observed culturally and psychically. This adaptive evolution enables women’s liberation as well as ushers humankind into a potentially social equality where women can attain positions of leadership without patriarchal sanction and where feminine traits are accepted in leadership.

Keywords: strategic androgyny, evolutionary androgyny, women, leadership, fluidity.

Introduction : Brimming with postmodern ideological conflicts, political endeavours to finalize a unilateral system of ideas face constant realizations of inherent futility and redundancy. Perhaps the gross evaluation of systemic patriarchal categorization faces eventual dismantling, reminiscent of Karl Marx’s foreboding inference of authoritative regimes producing their own “grave-diggers” and creating premise for their own demise (“Manifesto of the Communist Party” 012). The paper however shall analyse the evolutionary push of humankind towards strategic androgyny through the resolute observation of Michel Foucault, within the framework of evolution and natural selection.

Where there is power, there is resistance and yet, or rather consequently, this resistance is never in a position of exteriority in relation to power.

-Michel Foucault (*A History of Sexuality*, 95)

1. Objective of the study

The study aims to track recent changes in gender performativity and incorporation of behavioural traits irrespective of sex-linked characteristics imposed by patriarchal systems. The changes observed are seen as the result of adaptive evolution. The lines between masculine and feminine are gradually blurring and rigid categorization is steadily dissolving. Strategic androgyny has been seen as the answer to an equal society. It is in this adaptation that women along with other minorities can be truly recognised and accepted as equals. This enables women to gain access to leadership positions without the backing of men or sanction of patriarchal authoritative institutions. It will enable women to develop without social pressures of gender roles. The study also observes how the patriarchal conception of ‘mankind’ faces an evolutionary push to ‘humankind’; a holistic conception of the human species.

1. Methodology

An interpretative and analytic approach was used to investigate the changing trends in behaviour and definitions of masculinity and femininity and instances of androgyny were analysed.

2. Patriarchy and the complexity of women and leadership

Societies and cultures are predominantly rigidly patriarchal and values associated with femininity are suppressed and associated with subordination and thus discountable. The practice of repressing characteristics classified as ‘feminine’ has resulted in the creation of rigid masculinity that sees itself distinct from femininity. There is a vehement distaste for the feminine and actions of violence – physical, cultural and material- stem from this obsessive need to disassociate from the feminine and perpetuate a state of men-in-power. Global terrorism, local criminal activities and pedagogy, domestic and academic, have assumed a violent masculinity, not unseen before, but extensively ambitious today nevertheless. With feminism and women’s rights gaining prevalence, threats to masculine ambitions and dominance have been perceived. Additionally, Western hegemony and exhibitionism have resulted in censorious violence that produces patriarchal legitimacy to social roles and division of labour. Old social categories are reproduced in recycled forms and countless issues complicating emancipation of women are foregrounded: the glass ceiling, additional pressures through participation in the workforce, relentless surveillance and continuous relegation to traditional positions of subordination. Western and first-world feminism often discount real troubles hindering the progress of women in third-world nations. Feminists across the globe, hailing from varied cultural experiences, view women’s liberation differently and therefore women and leadership is a complex conception. Leadership, in this analysis, is examined in the field of adaptive evolution. Changes in lifestyle, easier access to medical facilities and extended lifespan has eliminated threats to survival from predatory creatures and new threats have been identified such as the low sex ratio due to female infanticide and foeticide in certain developing nations. Patriarchal practices have successfully relegated women into insubordination and dismantling authoritative systems cannot be achieved through a revolutionary overhaul. But even as movements endeavour to equalise, access to higher goals are difficult to achieve. And most women leaders often lead with the agency of a male leader backing them up. Interestingly enough, as an evolutionary strategy to combat the workings of patriarchy, resistance in the form of cultural hybridization, cultural appropriation of androgyny, increasing awareness of the transsexual, transgender and liminal sexual, social and gender roles has managed to emerge to possibly open new paths to enable women leadership and emancipation. Leadership in its absolute sense can only be measured in terms of a woman’s sole individual effort to achieve the position of power working within patriarchal limits but not governed or limited by it to exercise her priorities.

3. Strategic Androgyny

The observation therefore is that there is a steady progression towards a future where strategic androgyny will overtake the conditioning of humans explained in the gender schema theory. This strategic androgyny will serve as an effective resistance to patriarchy. Consequently, such an acceptance and practice will provide equal opportunities to women to develop as individual selves without social pressures and additionally, also lead humankind into an ideal state of non-differentiation. Non-differentiation distinguishes itself from undifferentiation. The Bem Sex Role Inventory talks of undifferentiation as low on feminine and masculine traits. Non-differentiation, as a term used in this study, is specifically understood not as a state of sameness but rather that of fluidity. Fluidity relates to performativity and reconciliation to what Judith Butler observes in *Undoing Gender* as the “conflictual character of the psyche” (*Undoing Gender* 133). There is a constant conflict between essentialism and gender self-determination and strategic androgyny seeks to resolve this through fluidity. Strategic androgyny is not a hypothetical fantasy and several instances exemplify the push towards the disregard for normative definitions of masculine and feminine identities that limit individuals. Traditional roles of women have already begun to change. While there are issues of how taking up traditional male roles has increased the pressure on women, women redefining their limits is still a positive set forward. However, true progress can

only be marked when men also accept traditional female roles. There is a need to delink activities and roles from sex. This can be achieved by accepting gender fluidity. Aggression in men is not fashionable anymore. The aggressive tendency in males was a primitive development to compete with other males to win a female. The reason for such aggression today is invalid and therefore the need for aggression. Composed, gentle masculinities that are perceived as non-threatening and unintimidating to women are preferred today. Traits of nurturing, nursing, compassion and gentility often associated with femininity are not frowned upon in men anymore, but rather seen as favourable. Take for instance Japan's *bishōnen* (pretty boy) masculinity (Korean Popular Culture and Transcultural Consumption 039). The *bishōnen*'s beauty transcends hegemonic sexual and gender orientation. This fluid masculinity has been absorbed by South Korean popular culture. The stupendous success of the third-generation South Korean boy group in America, BTS and additionally, the widespread popularity of South Korean popular culture with androgynous male celebrities attests to the gradual denunciation of traditional hegemonic masculinities and the acceptance of traits traditionally associated with females. More men groom themselves much like women. The global metrosexual masculinity is one such example. Androgyny is fashionable. And even likable today.

4. Strategic Androgyny as Evolutionary Androgyny

What does strategic androgyny imply? Androgyny is a fluid gender practice that blurs the lines between rigid masculinity and femininity. While it is gender ambiguous, it can also be seen as the incorporation of both masculine and feminine traits in an ideal balance. It is used usually in fashion and lifestyle choices rather than to refer to any biological character. Androgyny, in this analysis, will also be evaluated as a cultural phenomenon that holds considerable influence on the perception of sex and gender performativity. The use of strategic in addition to androgyny, in this analysis, is to specify that selection of traits does not occur with a conscious intent to resist hegemonic constructions. Rather, it occurs with the belief that selection of traits during response is purely contextual in nature. Strategic androgyny eliminates the superficiality that androgyny, as a practice, is usually perceived to be. A subversive nature empowers strategic androgyny as a result of adaptive evolution. Such phenotypic plasticity indexes a society progressing towards a gender fluid and maybe even, sex-fluid society. It seems that as mankind attempts to destroy the rights and future of women, evolution has its own way of steadily pushing mankind into the state of humankind, culturally, ideologically and perhaps, biologically.

5. Androgyny and Leadership

The extensive look at strategic androgyny is driven by the belief that even as efforts have been made to liberalize women to enable gender equality, the problem is complex and deep-seated that it requires liberalization from homophobia, conditioning of sex-specification, racism, classism and all forms of inequality. Women in leadership roles is challenged by the misconception that those who nurture cannot lead. However, it is interesting to note the difference in leadership of women and men. Anne Grethe Solberg observes that an androgynous leadership style increases innovation. Traditionally preferred leadership styles involve masculine traits and therefore, Solberg's observation exemplifies the advantages of incorporating feminine traits. However Solberg talks about a balance between the traits and therefore strategic androgyny. Doug Sawin in "The Power of Androgyny" cites Spence and Heilmrich's observations in *Masculinity and Femininity* during an experiment to analyse leadership in respondents. A group of respondents that demonstrated exceptional leadership abilities exhibited a balance of masculinity and femininity. They were labelled as androgynous. The respondents had "higher self-esteem and social competence, greater empathy, high levels of achievement motivation, high educational aspirations, low aggression and dominance and more egalitarian gender role attitudes" ("The Power of Androgyny"). The respondents were mostly females but also included male scientists.

6. Androgyny in the Ancient Greek myth – the hermaphrodite

Strategic androgyny can thus be seen as a result of adaptive evolution, subversive to patriarchal power systems. The Foucauldian observation of resistance as non-external is thus observed. So what does the future hold? Where is this adaptation, as it evolves, lead to? Aristophanes tells the story of the original form of humans. Three people existed: the male-male, the female-female and the male-female. The last is representative of androgyny. Does this signify therefore that strategic androgyny if analysed as morphological evolution implies the evolution of humans into hermaphrodites? Or perhaps a unified being that is both masculine and feminine? Does that imply that intersex individuals are the future? Or perhaps transgenders? Is the evolutionary androgyny an absolute adaptation of specific?

7. Androgyny in Hindu mythology – Ardhnarishwar

The Ardhnarishwar is an androgynous form of Lord Shiva and his consort, Goddess Parvati, also known as Shakti. This form is famously known to represent the union of masculinity and femininity in its ideal state. Several myths reveal that the Ardhnarishwar form also stands an icon of creation, implying that creation emerges from union and rigid categorization and separation of the masculine and the feminine is not natural but rather constructed and socially instituted. It dismantles the idea of duality produced by binary opposites and dichotomies. The non-differentiation of strategic androgyny has its equivalence in the androgynous form of the Ardhnarishwar. It stands for creativity and thus androgynous leadership enables creativity and innovation better than other forms of leadership that are gendered.

8. CONCLUSION

The future does not belong to men. The future belongs to humans, where women can carve her own space apart from patriarchal influences. Such an ideal future removed from authoritative influences is a far-fetched fancy. But there is a steady disengagement with normative patriarchal structures and an embracing of androgyny as the way forward. Fluidity is slowly being accepted as a means to reconcile between essentialism and gender self-determination. Strategic androgyny has not exhibited morphologically but rather in selection and behavioural traits. Perhaps this may trickle down to morphology but such analysis is beyond the scope of the paper. Masculinities are imbibing feminine traits. Femininity, imbibing masculine traits does so not with the misconceived notion that masculine traits are progressive. The selection rather is to strategically enable fluidity and access to more spaces and opportunities. Rigid gender formations are redundant and redundancies are eliminated in the course of evolution. Feminism in collaboration with queer studies have realised the potential of androgyny and its adoption but has never been able to define androgyny beyond material cultural manifestations. Psychic androgyny has been explored but still in relation with male-female balance. Strategic androgyny is inclusive of the male-female balance. However, it also extends the non-differentiated state of gender fluidity. There is no identification or skew towards a gender identity. Rather it deals with gender performativity. The selection of response is not aligned with a conscious awareness of gendered options. It is rather, contextual and removed from social conditionings of gender. It is a dynamic negotiation of gender possibilities that stretches beyond gender. The dynamic nature of strategic androgyny, incorporated in cultural practices and relations can effectively alter the way society perceives gender as unchanging and categorical.

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ROLE OF WOMEN IN BANKING AND FINANCE IN INDIA- AN OVERVIEW

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Abstract

As has been the case with other nations, women have played an increasingly important role in India's development story. A woman is unique as she cater, both Masculine (aggression and qualifications) and feminine (emotional and flexible) qualities which are needed in the rapidly emerging economy. This was realized by the financial sector post 1969. Nationalization of the Indian Banking Sector in 1969 served as the first major step to reduce gender discrimination against women in banking sector and that provided opportunity for women empowerment. The pattern of Indian women's employment has changed significantly since the 1970's. Many major Indian banks are hiring highly qualified young Indian women to their administrative level. Post independence, the rich and upper middle class women of urban areas deconstructed the medieval thinking. In the urban areas there was an encouragement of education of both genders. Slowly, the urban women encouraged the rural areas and formed organisations to promote women equality. This change slowly grasped and women started contributing more in the labor force. In the period after 1950's, women started proving their mettle in the corporate world. There is a pedaling demand for women in the banking and financial sector in India in both nationalized and commercial organizations.

Keywords: Banking, Nationalisation, Women empowerment

1. Introduction: India as a nation has come a long way since its independence. From an underdeveloped economy saddled with socio-economic, political problems of Himalayan proportions; it has rightly found its place as one of the foremost emerging economy in the world today. As has been the case with other nations, women have played an increasingly important role in India's development story. A woman is unique as it cater both Masculine (aggression and qualifications) and feminine (emotional and flexible) qualities which are needed in the a rapidly emerging economy. This was realized by the financial sector post 1969. Nationalization of the Indian Banking Sector in 1969 served as the first major step to reduce gender discrimination against women in banking sector and that provided opportunity for women empowerment. The pattern of Indian women's employment has changed significantly since the 1970's. Many major Indian banks are hiring highly qualified young Indian women to their administrative level. Women have been in the highest tier in India since the Vedic times. Their persona was carved as a goddess and an equal contributor in the society. Therefore, India achieved historic progress and came to be known as a land of fortune and prosperity. However, post Vedic era women's position in the Indian society declined. Women were asked to veil themselves and guard themselves from the evil eyes of strangers. Nonetheless, this veil by women was removed to prevail on their own land from the British. The contribution of women in the freedom fight did not just enable Indians to achieve independence but also lent an essence of equality. The Indian freedom struggle is replete with examples and instances of women participation.

Objectives of the Paper

- To study the role and extent of participation of women in banking sector post nationalization of banks, 1969.
- To trace the participation of women in education in post independent India

Status of Indian Women Post Independence: When India got its independence, the participation of women nationalists was widely acknowledged. When the Indian Constitution was formulated, it granted equal rights to women, considering them legal citizens of the country and as an equal to men in terms of freedom and opportunity. The sex ratio of women at this time was at 945 females per 1000 males. Yet the condition of women screamed a different reality. They were relegated to the household, and made to submit to the male-dominated patriarchal society, as has always been

prevalent in our country. Indian women, who fought as equals with men in the nationalist struggle, were not given that free public space anymore. They became homemakers, and were mainly meant to build a strong home to support their men who were to build the newly independent country. Women were reduced to being second class citizens. The national female literacy rate was an alarmingly low 8.6%. The Gross Enrolment Ratio (GER) for girls was 24.8% at primary level and 4.6% at the upper primary level (in the 11-14 years age group). There existed insoluble social and cultural barriers to education of women and access to organised schooling. This was not only the reason, why women were not proactive in the labour force, even post establishment of the Indian Constitution which gave women equal rights and an equal share in employment..The participation of women did not commensurate with equal social status given to women in India. Acts such as 39d(a) (equal pay) did not encourage women .In contrast to the constitution, the society conducted exploitative practices on woman such as ; child marriage, female infanticide, young widows, domestic violence and Sati practices were still conducted in the country in the rural areas of the country. Women were not discouraged by such practices but were caged inside their homes in prevalence of such regressive practices. The rich and upper middle class women of urban areas deconstructed the medieval thinking. In the urban areas there was an encouragement of education of both genders. Slowly, the urban women encouraged the rural areas and formed organisations to promote women equality. This change slowly grasped and women started contributing more in the labor force. Women were swift and keen on holding equal status in the field of banking and finance especially. There was an increasing share of women employees in the banking and finance sector was partly attributed to a natural interest of women in the world of money. Since in the early stages of post independent India, women were not automatically entitled to equal share property and other communal rights. As mentioned above, the sudden Nationalization of banks in the year 1969, opened doors for women to contribute in the world of banking and finance. It is not that this move enabled all channels for women. Women had to prove their qualities and qualifications because they were looked down upon since years. In the period after 1950's, women started proving their mettle in the corporate world..The demand did not only increase for administrative level but managerial level as well. The banking Sector in India which was male dominated till 1980's, in last three decades the gender equality became fairly poised. Women executives like Chanda Kochhar (CEO, ICICI Bank), and Naina Lal Kidwai (CEO,HSBC),Arundathi Bhattacharya,(CMD SBI), Shikha Sharma (CEO and MD, Axis Bank), Usha Ananthasubramanian (CEO, MD ,Punjab National Bank), are contributing a lot to the bank's growth. Table 1, below presents the contribution of women and men in various sectors.

Table 1. Sectoral employment of Man & Women

Regions	Change in sector wise composition of men in the work force, 1983-84 to 2009-10					Change in sector wise composition of women in the work force, 1983-84 and 2009-10				
	Agriculture	Manufacturing	Construction	Services	Mining	Agriculture	Manufacturing	Construction	Services	Mining
North	-44.6	32.2	146.9	23.7	320.9	-15.5	38.8	637.3	73.9	119.5
Centre	-22.6	-4.1	347.9	18.5	49.5	-71.4	-7.1	806.5	45.2	-61.4
North-east	-19.0	-2.2	371.8	21.5	291.9	-9.9	-55.0	2686.4	21.4	-37.0
East	-18.5	-21.0	485.2	21.7	-25.2	-23.4	79.4	691.1	57.7	-2.9
West	-21.0	-7.8	102.5	26.5	236.5	-12.9	3.1	14.5	107.0	32.2
South	-25.8	-2.8	217.3	21.2	52.6	-18.6	33.6	428.8	45.8	37.3
India	-23.2	-5.6	261.4	21.9	45.3	-15.3	23.2	477.1	58.8	-8.1

Source :Several rounds of NSSO unit level data.

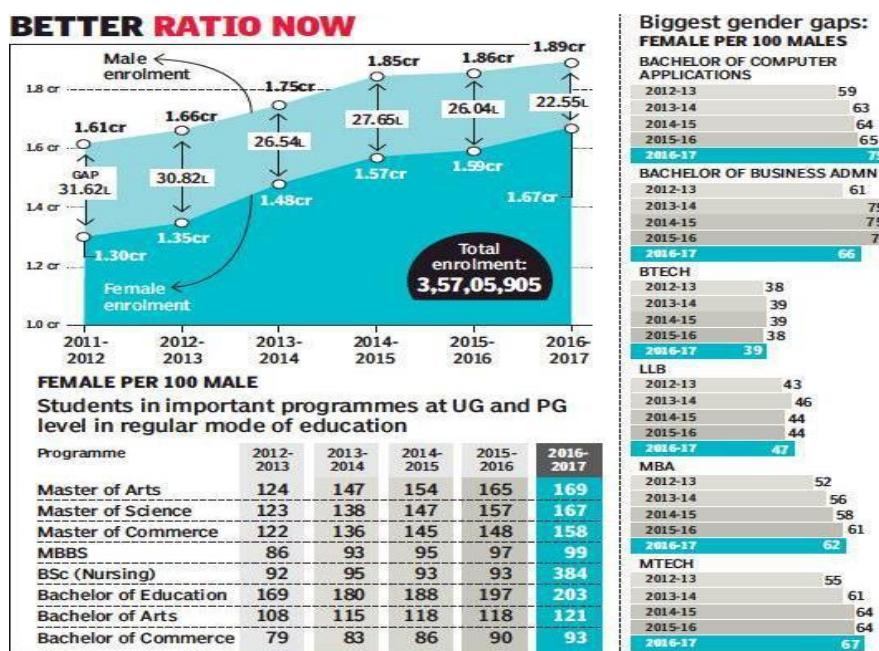
From the above table it is analyzed that women's contribution has overall increased. Women's contribution in most of the sectors has remained more than or equal to the contribution of men from the year 1983-84 to 2009-10.

The overall contribution of women in the workforce has increased by 235.9% in comparison to men from the year 1983-84 to 2009-10.

Second highest increase is in the sector of services, there is an increase in the rate of participation of women in the service sector in all the states and over all. Women's increase in rate of participation was 36.9% more than men from the year 1983-4 to 2009-2010.

The above mentioned data acts as a tool to prove that there has been an increase in participation of women in the banking and finance sector. Since banking and finance is a major part of service sector. to establish that there was a major female contribution in the financial sector in comparison to men can be proved by the data given by ICAI stats, there was a persistent increase of 23.64% female clearing the CA final exam in the year 2009. There was a shift in the participation of women from the year 1983-84 to 2009-10 because of a positive stimulus of women empowerment schemes by the government and NGO's. For instance in 1986-87 with the aim of upgrading skills of women for self and wage employment the government of India launched this scheme. The target group includes the marginalized asset less rural women and urban poor. Special focus is on identified focal districts in which women are particularly disadvantaged. Such initiatives did not only help uplift the skills of women in the labour force but helped them gain confidence and earn income for their homes. The Manmohan Singh led reforms of 1991, further led to incentivizing of women participation in the Indian job market. Changes in the economy caused a need for women to participate more in the economy for optimum growth and lasting positive impact of rapid changes experienced by the economy. Sudden opening up of the economy, called for a greater need for skilled labour force. Women effectively bridged the gap between demand and supply for skilled labour. As can be seen from the data below, women have continued scaling greater heights in the field of education in recent times

Diagram -1



Source: TOI,Mumbai edition.DOI-08/01/2018

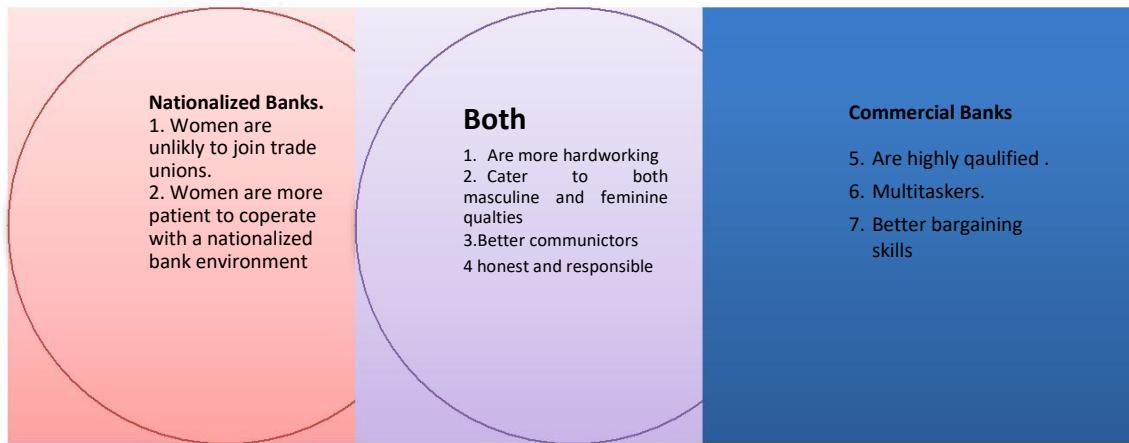
Traditionally, women(mostly lower caste) were part of the labour force but were mostly uneducated or unskilled. This was mainly due to medieval practices of Parichal and dominance of men especially in the northern states. Women were considered as a burden and were pronounced

only as homemaker. Therefore women were discouraged to attend schools and rather concentrate on homely tasks. Such practices were held in the rural areas. In keeping with its commitment to enforce the millennium development goals of universal education for all, the government of India launched the SarvaShikshaAbhiyan(SSA) in 2000. SSA has been operational since 2000-2001 to provide for a variety of interventions for universal access and retention, bridging of gender and social category gaps in elementary education and improving the quality of learning.

4. Right to Education (RTE) Act and Women Empowerment.: The Constitution (Eighty-sixth Amendment) Act, 2002 inserted Article 21-A in the Constitution of India to provide free and compulsory education of all children in the age group of six to fourteen years as a Fundamental Right in such a manner as the State may, by law, determine. There was an increase in girl education also because of international establishments such as UNICEF and CSR activities by international MNC's (Educating girl child initiatives by P&G) from 1990's onwards. Organisations such as Teach for India also play a vital role to provide education to girls all across India. For effective education plan free education was not just an essential but creation of free and fluent thinking of parents against a girl child was a need. Secondly, to make the girl free from household responsibilities was also the key. Therefore it can be assumed as waves of development swept the bays of rural areas girls gained the liberty to study freely. For example from 1980-90's girls of rural areas of Gujarat had to walk till the hindmost to fetch pot water. Today post development girls can utilize their time on education and skills from the time they saved due to an increase of availability of water. Today women are closing the education gap by 46.8% of all enrolled undergraduate students in India are women. However this trend is not followed by their participation in the labour force. Even though there is a rise in the number of educated women in India but it is few of them who participate in the economy. Overall, the labour force participation rate for women is falling: from 37% in 2004-05 to 28% in 2016. (International Labour Organization). One possible explanation for this trend could be that India is behaving according to the feminization U hypothesis, where in the development process, female labour force participation first declines and then rises. The hypothesized mechanisms for the decline are a rising incompatibility of work and family duties as the workplace moves away from home, an income effect of the husband's earnings, and a stigma against females working outside the home (generally, or in particular sectors). The rising portion then comes with a receding stigma, high potential earnings of females as their education improves further, as well as fertility decline, and better options to combine work and family duties. However, even though there is an overall declining trend of participation of women in the work force but still there is a persistent ongoing minute and positive rise in participation of women in the service sector. In 2015-2016, women comprised 16.2% of all urban workers, a small increase from 13.4% in 1972-73. Urban areas conduct service sector jobs which explains that there was an increase of women participating in the service sector. During the same duration in 2016, women held 16.0% of senior leadership roles. According to one report, women held 11.2% of board seats in 2015. Even though there would be a minute increase in the contribution of women in the service in commensurate to educated women. Nevertheless, women's position in the financial sector had escalated from administrative work to more managerial and executive positions. This trend was witnessed by another emerging economy Russia (part of the BRICs) where women held 45 % of senior positions (Grant Thornton International Business Report 2016). However, only 16% of women were appointed in senior positions. Even though Russia's and India both have similar rate of growth (GDP) but involvement of women in Russia is more active than women in India. This might be due to socio and cultural

differences of the two nations. But women are appointed at senior positions in both the nations at executive positions in the world of banking and finance. There is a pedaling demand for women in the banking and financial sector in India in both nationalized and commercial organizations.

The diagram below features characteristics demanded by Organizations Diagram-2



The diagram above lists out a few characteristics of women due to which banks are increasingly employing more number of women in the higher echelons of the banking hierarchy. An important feature noticed while conducting research for this topic was that Banking and finance is a calculative field. As such, it requires more brain power and evaluative thinking, which women of today seek to have more than men. Such characteristics and charisma has brought not only the social status of women in the Indian society but have aided banks reach their potential sector. Personas such Naina Lal Kidwai (formerly a Group General Manager and the Country Head of HSBC India) has encouraged women to contribute to her profession by paving ways through problems of transportation and maternity leaves. The other reason why women are nurturing in this sector post their youth is because of equal contribution of the opposite gender. With an increase in education of women, there is also an increase in undergraduate men in India. The establishment of correlation of education and stable compatibility is mentioned because education is the food to mind, heart and soul. It completes a human. Thereby, even if there is a lower participation of women in the labour force in comparison to rate of educated women today. Women would soon contribute more in the economy because of change in society and growth of the country and opportunities. The above statement is on the basis of U hypothesis. Even though there is gender discrimination still in existence according to, the World Economic Forum 2014 predicted that it would take until 2095 to achieve global gender parity. And in 2015, they estimated that the economic slowdown meant the gender gap wouldn't close entirely until 2133.

5. Conclusion: To say that women have and are poised to play a stellar role in India's development would be an understatement. The contribution of women cannot be judged solely upon, the number of women contributing in the economy or financial sector of India. Women have traditionally attained the characteristic to manage and understand for the betterment of mankind. In the words of Indira Gandhi "To be liberated, woman must feel free to be herself, not in rivalry to man but in the context of her own capacity and her personality". Even though many women opt out of labour force post pregnancy or do not join the labour force but they though take a greater responsibility of crafting India's tomorrow and they should not only promote equality of women but also teach acknowledgment of women to their children. To conclude, Indian women throughout history and especially in the post- independence era have proactively contributed in the

financial sector either as banking and financial professional, a customer or by teaching their children the values which would craft a greater tomorrow for this economy.

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ROLE OF INDIAN GREAT MOTHERS IN SOCIAL CHANGE

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Abstract

As we know God cannot reach everywhere or help everyone in our life, thus he has created mother who represent him in each one's life. And we being an Indian give respect to our mother as God. Women perform different role in her life daughter, sister, friend, wife mother, aunty, Granny and so on... As a mother she played an important role in the development process of child. All these great mothers played an important role in their life. As per that time political, social, cultural, religious and economic conditions of India, they inculcated virtues among their children. During those days we face problems such as casteism, child marriage, widow sufferings, slavery, and British domination. These mother did their child rearing in proper way and give precious diamond to our nation.

Keywords: Havelli Chuppa "Bal Charkha Sangh, "Vanar Sena

OBJECTIVES OF THE STUDY:

- To study about great mother of India.
- To collect detail information about role of great mothers of India in social change.
- To explain correlation between role of great mother and social change
- To explain role of Indian mother in 2025.

METHODOLOGY: The present research is descriptive research based on secondary data collected from the books research studies, government agencies and government departments, international agencies, social workers, nongovernmental organizations etc.

SCOPE OF THE STUDY: The present study deals with accountability of the role of great mother of India in promoting development of human life.

SIGNIFICANCE OF THE STUDY: The present research paper will help common people, students, teachers, politicians, decision makers, social workers, educationalist and non-governmental organizations in understanding the role of great mothers of India in promoting social change and social progress...

LIMITATIONS OF THE STUDY: The study purely based on the secondary data and is restricted to the opinions and views of writers.

Social workers, educationalist and non - governmental organizations of India.

INTRODUCTION: In our India, philosophies are the revelation of our mother's mind. Our arts, poetry, and painting, our music and our drama, our architecture and our sculptures all these are the outflow of mother's diverse emotional moods and experiences. As we know God cannot reach everywhere or help everyone in our life, thus he created mother who represent him in each one's life. And we Indian give respect to our mother as God. Women perform different role in her life as a daughter, sister, friend, wife, mother, aunty, granny and so on... As a mother she plays an important role in the development process of child. Women plays a great role in everyone's life without which we cannot imagine the success of life, they are highly responsible for the successful continuation of the life on this planet. Earlier they were considered as only wives and mother who have to cook food, clean home and take care of the whole family members alone. But now the conditions have been improved a little bit, they have started taking part in the many activities other than family and kids. The way of behaving, thinking and doing of women is completely different from the men so we can say that, women are physically, physiologically and psychologically not equal to men. But women are more responsible than man in various means like child bearing and child rearing. History proves that Indian women played an important role in child rearing. Due to

their great work we have great sons of India. India became one of the developed nations after so many invasions by the mughals, British and in the modern time terrorist attack.

RAJMATA JIJABAI BHOSALE: Great mother of Chhatrapati Shivaji Mharaj,

She was born in 1594 in Sindhkhed in Maharashtra, Lakhaji Jadhav was her father, who was eminent sardar and nobleman in Nizamshashi and her mother Malsabai was great woman. Jijabai was adopting as warfare processing skills like horse riding as well as mastering over the sword. She was married with Shahji Bhosale, who was spirited warrior and a diplomatic official in Nizamshahi. There was official problem between Shahaji and Lakhaji when she was pregnant. Her father left Nizamshahi and joined Delhi sultanate and attack on Shahji with huge army. At that time she explained her father and husband how these Muslim using divide and rule policy and looting Indian wealth and resources for their own development. Jijabai herself was great warrior and administrator, She passed down her quality traits to the young Shivaji and instilled within him a sense of duty, courage and fortitude to overcome any hardship arising. Under her guidance and care shivaji developed within him a human touch that saw him harbor a great respect for all women, religious tolerance and justice and love towards nation. Shivaji owes his greatness to the inspiration of his mother who dedicated her life to bringing up her son to become one of the greatest rulers of Maratha Empire. She was very angry when she observed that Brahmins would go to the Sultan to settle their dispute. The Sultan's army would often abduct the wives of the local Kshatriyas and they would meekly often brides to have their wives back. From the childhood she observed that Brahmins and kshatriyas use religion for their own benefits and invaders using our religion. It was create intense hatred in Jijabai from childhood against Muslim invaders. Which she was transferred in her son Shivaji. She always told great stories of great people of India it could put great impact on life of Shivaji. He wanted to protect people of Maharashtra he observed how Muslim invaders ill treated Indian. For the protection of rights, equality and woman Shivaji took oath that he established Hindvi Swarajya. She was never distanced herself from her subject to enjoy pleasures as Rajmata or Queen of she was always responsible mother of responsible king. She was pillar of Swarajya. In every administrative and other activities were conducted by the Shivaji and Shahaji under her guidance. She was extremely talented in planning strategy and war tactics. As jijabai was Shahaji raje's wife and Shivaji mother she was the Queen and Rajmata too. As her prince concern was well being of her duties as a queen or rajmata rather than just emotional bondages as a wife or a mother her positive approach Encourage shivaji for the establishment of swarajya. Shahaji married a second wife Tukabai and spend most of his time with her latter. The effect this had on Jijabai nobody can tell Jijabi did not lose heart and concerned her as before with administration bringing up shivaji and in long periods of prayer and meditation. Jijabai even set seems for social reforms On Jijabai's advice Brahmin allowed Balaji Nimbalkar, a soldier re embrace Hinduism after converting Islam under force to the sword. Her son delivered proper justice towards subject under the supervision of Jijabai large number of social political religious cultural and educational problems were settle by Shivaji. She was well versed in scriptures, strong principal and unbiased by and so she was able to achieve perfect Dharma abiding justice. Jijabai's dream was fulfilled when she witnessed coronation of her son Shivaji. After coronation Chhatrapati Shivaji Mharaj established peace, equality and national integration in Maharashtra, Due to great work of Jijabi which was passed by her in Shivaji was popularly known as

“रयतेचा राजा आणि जांतिराजा”

JAYWANTABAI SONGHARA: Mother of Mharana Pratap.

She was daughter of Skhey Raj Songara Chuhan of Jalore, a princely state of Rajasthan. She was also known as Jeevant Kanwar before her marriage after marriage Kanwar title left and title bai. She married Udai Singh II and advised on political matters. Although she faced many problems, she never failed at her administrative work. Her son Mharana Pratap was in time to become King,

but Udai Singh II favorite wife Rani DheerBai Bhattiyani, wanted her son Jagamal to become the king. After Uadi Singh II death Jagamal ascended the throne as per his father's wish just before the accession ceremony was to begin Pratap's followers physically moved Jagamal to another seat and Pratap ascended the throne. Jaiwantabai was a brave straight forward Rajput queen. She was an ardent devotee of Lord Krishna and never compromised with her principles and idealistic beliefs, She passed down her cherished principles and righteousness to Pratap, also followed the same idealistic and principles which Jaiwantabai followed. She has played an important role in Pratap's life. Maharana Pratap is the name worth remembering to begin one's day. With his name also considered in the Indian History with golden words. In the Indian History, Maharana Pratap and his motivating qualities like valour, bravery, sacrifice, self esteem and martyrdom. Large number of warrior like Bappa Raval and Rana Sanga were born in Sisodiya they were given title of "Rana" but the title "Maharana" was only bestowed on Pratap Singh. He was more interested in sports and learning to weed weapons rather than general education. She supported him and completed his education under her own supervision. His self esteem and dedication was strong like his mother. Akbar wanted to use strength of Indian ruler for expansion and protection of Delhi sultanate. But Maharana Pratap was not ready to accept power of Akbar. He had very small army compare to Akbar, He called his all chitins and made appeal to in front of them," Today I take an oath in front of all of you till Chittod is freed, I will not have food in any metal plate, I will not sleep on a soft bed and will not stay in the palace, I will eat in leaf platter, sleep on floor and stay in hut, I will not relax until chittod is freed. "Throughout his life this oath was not broke by him near about 12 to 14 years he lived in forest and suffers lots with his family. But he was not leave battle field. Akbar tried number of things for the defeat of the Mharana Pratp. But Akbar was not achieved victory over Maharana Pratap. This dedication, self esteem and self confidence he gets from his mother. Due to that he never escapes from battle field and never gives up war.

KAMALA NEHRU : Mother of Indira Gandhi first woman prime minister of India.

She was born in the year 1899 in a family of Kashmiri Brahmins residing in Delhi she was shy and quiet girl. She belong from a very simple and conservative family. She never speaks English and Nehru family was fully westernized family. It was created problem for her to adjust with Nehru after marriage with Jawaharlal Nehru. Jawaharlal Nehru was the leader of Indian National Congress. On one occasion she emerged as a strong woman to provide leadership in the fight for freedom struggle of India. After Non Cooperation Movement Jawaharlal Nehru was in jail on the place of her husband she took public meeting. When suddenly during meeting Jawaharlal Nehru arrested by the Britisher. Indira Gandhi was influenced by her mother from childhood. She adopted all her mother's virtues, quick learning and soon adjustment in any situation. From the childhood she established "Bal Charkha Sangh" for promotion of swadeshi movement and also established " Vanar Sena" for the support of Indian National Congress. Dedication to work, self esteem, loves towards motherland, adjustment in every situation and calmness all these virtues she got from her mother. Due to these she achieves prime ministership of India. Indira gave her life for the nation bravely. Her contribution to peace and equality was awarded many times. She received many international awards for the efforts she made for world peace and human dignity. During her prime minister ship she promoted social, economic, political, and cultural and religious development of India. Like her mother Kamala Nehru throughout life she served for the nation.

PUTLIBAI GANDHI : Mother of MohandasGandhi.

She was born in 1839. She belongs to wealthy family of Vaishya class. In the 19th century girl's education was religious, since childhood. Putlibai taught religious education and she observed religion rigidly. Putlibai gave four children, the youngest son was Mohandas Gandhi the outstanding impression of his mother has left on his memory is that of saintliness.. She would not think of taking her meals without her daily prayers, going to Haveli- the Vaishnave temple was

one of her daily duties, She never missed her Chaturmas, she always took hardest vows and keep them without flinching+ illness was not excuse for her for relaxation. She can keep two or three days fast continuously. During Chaturmas always she remains on one meal. In one Chaturmas she took a vow that she never took meal without seeing the sun Mohandas Gandhi continuously observing sun but on that day due to cloudy monsoon sun never comes. On that day Putlibai said that,” today I think sun doesn’t want me to have meal. The strongest formation influence on young Mohandas Gandhi was that his mother was ideal and role model throughout his life. She always gives priority to her home and family. She was extraordinarily mother for her children. She cared for her children with complete dedication. If someone fell ill in the family she nurse them day and night. She divided her time between home and temple/ She kept fast and not took feed cuckoo sing. On one day cuckoo was not sung but little Gandhi told that cuckoo was sung and Putlibai took meal but after that she came to known that cuckoo was not sung. Gandhi was spoke lie due to care of his mother. But she took responsibility of Gandhi’s sin or mistake her sun spoke lie. From that day Gandhi learned about satya and never speak lie. Gandhi also learned nursing and serving of need and ill people from his mother which he was apply throughout his life in Ashrama. Putlibai was religious and followed religious rituals very strongly. Fasting was one of the rituals she observed and make Gandhi too observed that from Childhood. This fasting habit he used in the Indian National Freedom struggle of India against British. For the protection of unity among Dalit and Hindus he observed fasting in Yerwada jail. When Gandhi wants to go England for higher education she was horrified when the elders of the caste announced that going to England was against their religion. She made her son swear that he would not touch wine, women, meat and tobacco during his stay in England. In South Africa he established----- ashram and protect right of black. When he come back to India and established Sabarmati Ashram in Gujarat. He joined Indian National Congress and took active part in freedom struggle of India. He also became father of nation. He gave three principal to whole universe such as Satya, Ahimsa and . Non cooperation and he used in his number of Satyagraha such as Champaran, Kheda, Ahmedabad, Non Cooperation Movement, Civil disobedience movement and Quit India movement. During Freedom struggle of India he brought women took active part. As practitioner of Ahimsa, he swore to speak the truth and advocated and other to do the same. Gandhi lived modesty in a self sufficient residential community and wore the Indian Dhoti and shawl, wore with yearn he had hand spin on a charka. He ate simple vegetarian foods and also observed fast for self participation and social protest. Due to his mother Mohandas Gandhi became great icon of the universe due to that we are celebrating his birth anniversary as” World Non Violence Day.” Due to great care, love and virtues which she inculcate in life of Mohandas Gandhi became Mahatma in “Sanskrit” the great soul.

VIDYAWATI DEVI SINGH : Mother of Bhagat Singh.

Bhagat singh as a child got all the love and care from his mother. When he grew up a little, he went to see his father Kushan Singh in the jail with his mother. He lives under the love and care from his mother although he had an elder brother shoes name was Jagat Singh but his mother fond of him. There was something in Bhagat singh which made his mother shower too much love and affection on him. Bhagat singh as a child was very happy to be always with his mother. The family members and other people were amazed to find such strong affinity between mother and son. During her pregnancy she visited so many times to jail to meet her husband. His mother was brave lady her husband Sardar Kishan Singh and brother in law Ajit Singh were the member of Ghadar Party. Thus the whole family was devoted their life for the freedom of India. From the childhood his dedication, self esteem and love towards motherland was observed by her. He grew under observation of his mother. He was clever and intelligent. He uses his intelligence in many revolutionary activities. Due to that she supported all revolutionary activities of Bhagat Singh.

From Childhood he was not much interested in reading his school books he loved see the river flowing. He would sit all alone in the lap of the nature for hours. He kept silent most of the time thus his friends addressed him Chuppa Singh. Like his mother he had an excellent memory and could learn his lessons much faster than other boys of his age. Whatever pages of the books he went through once were inscribed in his memory for ever. She inculcated a lesson that work is not small or big. During freedom struggle Bhagat Singh, even if he had to paste party posters on the walls he would do it with great care and enthusiasm. Even though he was known as Chuppa in childhood but in younger age he developed good good relation with others due to good communication skill. Like his mother he also give respect to their own farm labor, he never treat them as his labor. Jawaharlal Nehru in his public speech made on 12th October 1930 had to say....Whether I agree with him or not, my heart is full of admiration for the courage and self sacrifice of a man like his courage of him is exceedingly rare if the Viceroy expects us to refrain from admiring the wonderful courage and high purpose behind it, he is mistaken. Let him ask his own heart what he would have felt if he had been an Englishmen and acted for England."

MOTHERS ROLE IN MODERN TIME: The educated mothers who spend more time with their children than the fathers are carrying the major responsibility of encouraging the children to study. The women are aware that their comfort in old age depends in large part on the generosity of their children, If their children are equipped to get white collar jobs they will be better able later to care for their parents, It seems that mothers are more aware of the need to change their socialization techniques than the fathers, Their ambitions were centered on the marriage, fulfillment of the role of a proud housewife and devoted mother and the economic security that their husbands, the breadwinners, have provided them. Their active role change society. Drastic changes were took place in the society. Bad customs and traditions abolished from the society. But in the modern time women are balancing their life In 2025 if we need developed society then we should think that without woman nothing is possible for men, they are basic unit of the society, they make a family, family make a society and societies ultimately make country. So the contribution of a women is everywhere from taking birth and giving birth to a child to the care for whole life and other area. In modern time women need to grow their children in such a manner in that whatever problem they face they should solve their problem without any support of other people. In modern time our challenges are totally differ from the ancient time. We need a strong society for that purpose we need strong youth. For that in modern time mother should take care of their child in proper way, they need psychological guidance. Children face stress, humiliation in peer group and we face problems like rape, kidnapping and so on. For the proper development of our society mother should inculcate virtues such as self confidence, feeling of equality, respect of women, care and protection of the universe from the adverse effect of the environment. Select always good for themselves and society. Then only they will make social change ultimately achieve social progress.

CONCLUSION: All these great mothers played an important role in their life. As per that time political, social, cultural, religious and economic conditions of India, they inculcated virtues among their children. During those days we faced problems such as casteism, child marriage, widow sufferings, slavery, and British domination. These mothers did their child rearing in proper way and give precious diamond to our nation. . Due to their self-esteem and dedication we achieve our independence. Mothers like Jijabi, Jaywantabai, Vidyawati Singh, Kamal Nehru and Putlibai gave certain principal such as ahimsa, satya, boycott, satyagraha, dedication, courage, patriotism, liberty, equality. Undoubtedly all mothers, partly out of concern for their own welfare in old age, hope that their children will be successful in the society that is developing. They will try to help their children achieve success. Since they are the socializers of young children their beliefs about their efficacy and the techniques of socialization they adapt are important determinants of the

course of social change. In modern time we need mother who should protect and develop themselves and with that rear their children in such a way that they should bring social change as require for the social progress.

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WOMEN ENTREPRENEURSHIP IN INDIA: ISSUES AND CHALLENGES

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Abstract

This constructive paper emphasizes on women entrepreneurs as one of the growing human resources in 21st century, acting as catalyst and growth engine for various business avenues in the male-dominated sectors and industries. The primary aim and objective of this paper is to screen the status of women entrepreneurs in India and also to study the success story of Ekta Kapoor, the most successful woman entrepreneur in the Indian TV and film producing industry. The role of women has been predominantly associated with traditional and domestic life in front and if at all associated to any other external factor, kept on very confined to certain predetermined job profile. On the basis of this study some constructive recommendations are given to promote spirit of women entrepreneurship and helping the women to become a successful entrepreneur.

JEL Code: L26

Keywords: Women Entrepreneurship, Women, Indian Women, Indian Women Entrepreneur, TV, film industry, Ekta Kapoor.

INTRODUCTION: Entrepreneur is someone who exercises and takes initiative to organize a venture to take advantage of an opportunity and, as the decision maker, decides what, how, and how much of a good or service will be produced. An entrepreneur supplies risk capital as a risk taker, and monitors and controls the business activities. The entrepreneur is usually a sole proprietor, a partner, or the one who owns the majority of shares in a corporate venture. A number of definitions have been given of an entrepreneur. According to economist Joseph Alois Schumpeter (1883-1950), "entrepreneurs are not necessarily motivated by profit but regard it as a standard for measuring achievement or success." Thus entrepreneurs shape the economy of a country by creating new avenues of wealth and new job opportunities and by inventing new products and services. However, an insight reveals that it is not about making profit but having the greatest ideas, knowing the best sales techniques, applying the best marketing strategy. It is in reality an attitude and desire to create something new and an activity which creates value in the entire social ecosystem. Entrepreneurship is a state of mind, which develops naturally, based on his or her surrounding and experiences, which makes him/her think about life and career in a given way. Entrepreneurship has been a male-dominated field for long, but time has changed the situation and brought women as today's most memorable and inspirational entrepreneurs. It is estimated that women entrepreneurs presently comprise about 16% of business Women Entrepreneurship in India establishments in the country. This means, out of the 58.5 million functional businesses, only 8.05 million of them have a female boss. The data collected by the survey also revealed that most of these women-run companies are small-scale and about 79% of them are self-financed. The Tenth Five-Year Plan (2002-07) aims at empowering women through translating the recently adopted National Policy for Empowerment of Women (2001) into action and ensuring Survival, Protection and Development of women and children through rights-based approach.

2. Characteristics of Woman Entrepreneur in India. The woman entrepreneur in India has various qualities. A woman or a group of women manages the whole business of enterprise. She prepares various plans and executes them under her own supervision and control. There may be some persons to help her but ultimate control lies with the woman. A woman entrepreneur must provide at least 51% of the employment generated in her enterprise to women. A woman entrepreneur takes calculated risk. She faces uncertainty confidently and assumes risk. She has to

tie up capital and wait for good returns. A woman entrepreneur likes to take realistic risks because she wants to be a successful entrepreneur. The most critical skill required for industrial development is the ability of building a sound organization. A woman entrepreneur assembles, coordinates, organizes and manages the other factors namely land, labour and capital. It is essential to be self-confident for a woman entrepreneur. She should have faith in herself and in her abilities. She should have the confidence to implement the change and overcome any resistance to change. A woman entrepreneur should have courage to own the mistakes and correct them. The main function of a woman entrepreneur is to make decisions. She takes various decisions regarding the activities of her enterprise. She decides about the type of business to be done and the way of doing it. A woman entrepreneur must be clear and creative in decision-making process. A woman entrepreneur is one who incubates new ideas, starts her enterprise with these ideas and provides additional value to society based on their independent initiative.

3. Status of women entrepreneurs in India: Entrepreneurship is considered as one of the most important factors contributing to the development of society. India has been ranked among the worst performing countries in the area of women entrepreneurship in gender-focused global entrepreneurship survey, released in July 2013 by PC maker Dell and Washington-based consulting firm Global Entrepreneurship and Development Institute (GEDI). Of the 17 countries surveyed, India ranks 16th, just above Uganda. Countries like Turkey, Morocco and Egypt have outperformed India. Status of higher education in women in India came out to be lower than most countries in the world. At present, women's entrepreneurial role is limited in the large scale industries and technology based businesses. But even in small scale industries, women's participation is very low. As per the third all-India census of small scale industries, only 10.11% of the micro and small enterprises were owned by women, and only 9.46% of them were managed by women. While the number of women operating their own business is increasing globally, women continue to face huge obstacles that stunt the growth of their businesses, such as lack of capital, strict social constraints, and limited time and skill.

3.1 Challenges faced by women entrepreneurs: Women in India are facing many problems to get ahead in their. Women entrepreneurs face many problems in their efforts to develop their enterprise. There are umpteen problems faced by women at various stages beginning from their initial Women Entrepreneurship in India commencement of enterprise, in running their enterprise. The main problems faced by the women entrepreneurs in India are as follows

Problem to strike balance between Work and Domestic Commitments - Women's family obligations also bar them from becoming successful entrepreneurs in both developed and developing nations. "Having primary responsibility for children, home and older dependent family members, few women can devote all their time and energies to their business" (Starcher, 1996)

Discrimination in education - While women are making major strides in educational attainment at primary and secondary levels, they often lack the combination of education, vocational and technical skills, and work experience needed to support the development of highly productive businesses.

Lack of Capital finance - Access to finance is one of the most common challenges that entrepreneurs face and this is especially true for women who are further impeded by lack of personal identification, lack of property in their own name and the need for their husband's countersignature on many documents.

Legal constraints in family law - The institutional and legal environment is critical to the growth of female-owned enterprises. Laws regulating the private sphere specifically those regarding marriage, inheritance and land can hinder women's access to assets that can be used as collateral when securing a loan. Household responsibilities leave a demand on women especially those in rural areas who have more children. They are required to perform their traditional role as

housewives and therefore, they have fewer hours of free time than men, both during the weekend and on weekdays. An ILO report on women entrepreneurship identifies the following problems faced by women entrepreneurs.

Lack of right public/ private institutions - Most public and private incentives are misused and do not reach the woman unless she is backed by a man. Also many trade associations like ministries, chambers of commerce do not cater to women expecting women's organizations to do the necessary thing.

Lack of capital - Traditional sources of finance like banks are reluctant to lend to women entrepreneurs especially if they do not have any male or family backing. This is especially true of lower income females. Women do not have adequate finance or legal knowledge to start an enterprise.

Lack of family support - Sometimes the family may make the women feel guilty of neglecting household duties in pursuit of her business obligations. Cultural traditions may hold a woman back from venturing into her own business.

Lack of confidence and faith - Lack of role models undermines the self-confidence of women entrepreneurs. The activity of selling is considered abhorrent to the female gender.

Women Entrepreneurship in India

Marketing problems: Women entrepreneurs often depend upon the middlemen for marketing their products who pocket large chunk of profit. The middlemen exploit the women entrepreneurs.

Travelling: Women entrepreneurs cannot travel from one place to another as freely as men do. Women have some peculiar social-induced problems like staying out in the nights at distant places etc.

6. Role of Government to Develop Women Entrepreneurs in India

The growth and development of women entrepreneurs required to be accelerated because entrepreneurial development is not possible without the participation of women. Therefore a reliable and simple environment needs to be created to enable women to participate actively in entrepreneurial activities. There is a need of Government, non-Government, promotional and regulatory agencies to come forward and play a supportive role in promoting the women entrepreneurs in India.

The Government of India has also formulated various training and development-cum-employment generation programs for the women to start their ventures. These programmes are as follows:

In the seventh five-year plan, a special chapter on the "Integration of women in development" was introduced by Government with following suggestion:

Specific target group: It was suggested to treat women as a specific target group in all major development programs of the country.

Arranging training facilities: It is also suggested in the chapter to devise and diversify vocational training facilities for women to suit their changing needs and skills.

Developing new equipment's: Efforts should be made to increase their efficiency and productivity through appropriate technologies, equipments and practices.

Marketing assistance: It was suggested to provide the required assistance for marketing the products produced by women entrepreneurs.

Decision-making process: It was also suggested to involve the women in decision-making process. The Government of India devised special programs to increase employment and income-generating activities for women in rural areas. The following plans are launched during the Eight-Five Year Plan:

Prime Minister Rojgar Yojana and EDPs were introduced to develop entrepreneurial qualities among rural women.

‘Women in agriculture’ scheme was introduced to train women farmers having small and marginal holdings in agriculture and allied activities.

To generate more employment opportunities for women, KVIC took special measures in remote areas.

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Women co-operative schemes were formed to help women in agro-based industries like dairy farming, poultry, animal husbandry, horticulture etc. with full financial support from the Government.

Several other schemes like integrated Rural Development Programs (IRDP), Training of Rural youth for Self-employment (TRYSEM) etc. were started to alleviate poverty. 30-40% reservation is provided to women under these schemes.

Economic development and growth is not achieved fully without the development of women entrepreneurs. The Government of India has introduced the following schemes during Ninth Five-Year Plan for promoting women

7. Life of an Entrepreneur – Ekta Kapoor

Ekta Kapoor is an Indian TV and film producer. She is the Joint Managing Director and Creative Director of Balaji Telefilms, her

production company.

Ekta Kapoor is the daughter of actor Jeetendra and Shobha Kapoor. Her younger brother Tusshar Kapoor is also a Bollywood actor. She has produced numerous soap, television series and movies. Some soap she had worked on include Hum Paanch, Kyunki Saas Bhi Kabhi Bahu Thi, Kahaani Ghar Ghar Ki, Kasautii Zindagii Kay, Pavitra Rishta, Bade Acche Lagte Hain, and Jodha Akbar. Kapoor has also produced the television series Naagin, Ye Hai

Mohabbatein, Kumkum Bhagya, Chandrakanta (2017 TV series).

She has also launched her fashion series with

EK Label, The EK collection is all about

fostering confidence in women through style. Ekta Kapoor clearly marks her foothold in the

fashion industry by winning admiration for her costumes worn by various celebrities on television. It has created waves and has



Name:	Ekta Kapoor
Born on:	7 June 1975 (age 42)
Industry:	Television producer, Joint MD of Balaji Telefilms
Net worth:	\$12 million

Fig 1: Image of Ekta Kapoor , Table 1: Details about Ekta Kapoor

received immense appreciation for creating glamorous ensembles with Indian traditional colours, craftsmanship and textures. She ventured into Bollywood movie production in 2001 beginning with Kyo Kii... Main JhuthNahin Bolta, Kucch To Hai and Krishna Cottage and many others. Ekta Kapoor started her career at an early age of 17. In the beginning, she interned with Kailash Surendranath, the ad and feature filmmaker, until she decided to turn producer at a very young age. She has produced and co-produced more than 90 daily soaps and TV series and 30 plus movies and still 3 movies in queue to come this year. Ekta Kapoor has been in the industry since she was 19 and has accomplished a lot. She is one of the most well-known names in India. She also works on script writing, creative conversion and concept building. Having been chosen as 'Asia's Most Powerful Communicators' by Asia Week magazine, she has helped launch the careers of many actors and actresses. Some of these actors and actresses have now entered the film industry.

Women Entrepreneurship in India

In the short span of her career, this young entrepreneur of India has achieved many awards and civic honours. She was chosen to lead the Confederation of Indian Industries (CII) entertainment committee. The other awards she received are:

The Society Achiever Award

The Best Entrepreneur of the Year 2001: Kapoor has received numerous awards for her successes as Producer at Balaji Telefilms. Few of these include the Indian Television Academy Awards, Indian Telly Awards, Kalakar Awards, Asian Television Awards, Apsara Awards, Zee Rishtay Awards, Star Parivaar Awards, 3rd Boroplus Awards, New Talent Awards, BIG Star Entertainment Awards, 4th Boroplus Awards, GR8! Women Awards, Asia's Social Empowerment Awards, Lions Gold Awards, Stardust Awards, Screen Awards, Pune International Film Festival, Zee Gaurav Puraskar, National Media Network Film and TV Awards, the Global Indian Film and TV Honors, Dadasaheb Phalke Academy Awards, and ETC Bollywood Business Awards you name it and she has it. Suggestions to Overcome the Problems Faced By Women Entrepreneurs in India The elimination of obstacles for women entrepreneurship requires a major change in traditional attitudes and mind-sets of people in society rather than being limited to only creation of opportunities for women. Hence, it is imperative to design programmes that will address to attitudinal changes, training, supportive services. The basic requirement in development of women entrepreneurship is to make aware the women regarding her existence, her unique identity and her contribution towards the economic growth and development of country. The basic instinct of entrepreneurship should be tried to be reaped into the minds of the women from their childhood. This could be achieved by carefully designing the curriculum that will impart the basic knowledge along with its practical implication regarding management (financial, legal etc.) of an enterprise.

Here are some suggestions to increase the role of women entrepreneurs:-

Finance cells: A large number of various finance cells may be open to provide easy finance to women entrepreneurs. These special cells should provide finance to women entrepreneurs at low and concessional rates of interest and on easy repayment facilities.

Marketing Co-operatives: Marketing co-operatives should be established to encourage and assist to women entrepreneurs. Government should give preference to women entrepreneurs while purchasing their requirements.

Supply of raw-materials: The required, scarce and imported raw-materials should be made available to women entrepreneurs at priority basis at concessional rate.

Educational and awareness: The educational and awareness programmes should be arranged to change the negative social attitudes towards women.

Training facilities: Training and development programmes play very essential role for the development of entrepreneurship. Special training schemes should be so designed that women can get full advantages.

9. Conclusion: Entrepreneurship is presently the most discussed and encouraged concept all over the world to overcome economic challenges. Women being the vital gender of the overall population have great capacity and potential to be the contributor in the overall economic development of any nation. Therefore, programs and policies need to be customized to not just encourage entrepreneurship as well as implement strategies which can help support entrepreneurial culture among youth. Media has the potential to play the most vital role in entrepreneurial development by creating and highlighting all such platforms which can bring out the creativity and innovation among the women and men to grow entrepreneurship culture in society. Developing countries are definitely in dire need to encourage women entrepreneurship as women workforce is promptly available to exploit the unexplored dimensions of business ventures. Generally speaking, globally business world has realized and is working on war footing to create entrepreneurship as the final remedy to overcome all types of business and market challenges.

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A PARADIGM SHIFT - WOMEN ACHIEVERS BREAKING THE MYTH OF "STEREO TYPING & GLASS CEILING

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Abstract

India is a unique country in which there prevails unity in the diversity. It engulfs as a unit - 29 states with different religion, different custom and different languages. The status of women in every state is to a large extent similar. Women through ages have been shackled in chains of stereo typing & glass ceiling. Present status of women in India is very complicated where some women are in the list of top CEOs, politics, sports, business and various other fields. But, on the other hand no proper facilities available to girl child for continuing their education. This is not because of government apathy but due to the socio- economic and cultural mind-set still prevailing. India is a country where men and women are legally equal in rights but still women achieve less than a man under the same parameter. In our culture, the ideal male is perhaps seen as competent, stable, tough, confident, strong, accomplished, non-conforming, and aggressive and is the leader. The ideal female is perhaps seen as warm, emotional, kind, polite, sensitive, friendly, fashionable, gentle, soft and is the follower. In urban contexts, these gender expectations and stereotypes could be more subtle and indirect. The objective of this paper is to highlight the paradigm shift from merely "take care to take charge too" by bringing into focus the achievements of women in the un-trodden & forbidden paths.

Keywords: Glass ceiling, stereotyping, paradigm, achievements & gender disparity.

INTRODUCTION: Millennial women - born between 1980 and 1995 - are part of a generation that's bigger than the baby boomers and more influential. Studies indicate that millennial women believe work-life balance is achievable and don't see gender bias as an issue. They're entering a workforce that is 50% women and will soon dominate the workplace. Stereotypes hold true when it comes to the jobs most women work. Asked to name the traditional careers typically pursued by women, most of us could easily come up with the jobs that employ the most women. Secretaries, nurses and teachers top the list. Together, these three occupations provide jobs for nearly 12% of all working women. Stereotypes are assumptions made about a group of people and are applied to individuals, irrespective of their personal characteristics, because of their affiliation with a certain group. Stereotypes can be positive, negative or neutral. In our culture, the ideal male is perhaps seen as competent, stable, tough, confident, strong, accomplished, non-conforming, aggressive and is the leader. The ideal female is perhaps seen as warm, emotional, kind, polite, sensitive, friendly, fashionable, gentle, soft and is the follower. In urban contexts, these gender expectations and stereotypes could be more subtle and indirect. These stereotypes create dangerous consequences that limit a person's full potential and well being. Men and women, because of these stereotypes, are forced to ignore their personality traits, temperament and unique characteristics that make them who they are. Instead there is always a tendency to conform to the cultural notions of 'masculinity' and 'femininity'. A "glass ceiling" means an invisible barrier which is beyond the thoughts of the women; these hidden parameters become the hurdles between the middle and top management for the women. Silent, yet unbreakable, the main reason of the variation in the percentage of women in the top management is always less than the men. Glass ceiling is the Corporate term which basically means invisible barriers for women which let them stop to achieve heights of success. In corporate world, the percentage of women and men 60% and 40% or may be 70% and 30% but when it shifts to the higher level like CEO and board of directors it become approximately 85% male and 15% female or may be less than this. India ranks 26th globally in terms of presence of women in boardrooms. The overall percentage of women in Indian boardrooms is merely 6.91%. This is in contrast to the widely acknowledged trendsetter, Norway, where women directors make up nearly 40% of the boardrooms. Not a woman's job', 'society does not accept this', 'sports are

not meant for girls', 'a woman can't' – these are just some of the things women across the world hear every time they try and rise above stereotypes and achieve something new. But, thankfully, there are many women who decided not to pay heed to the naysayers and moved on, breaking barriers and reaching new heights in their quest to fulfil personal dreams and ambitions. The status of women in the Indian society has undergone a sea change in the past few decades from a mere homemaker to a dynamic multitasking individual. They have been able to carve out a niche for themselves and leave behind a mark in sphere of life including professions still considered male-dominated.

Objectives:

To showcase success of women in various fields

Limitations of the study: The study is totally based on secondary data.

Research methodology Type of research:

The type of research adopted for the paper is Descriptive Research.

Sources of data : Secondary (Case studies)

Case studies – From challenging patriarchal & very narrow traditional mind-sets to fighting disability in pursuit of their passions, these Indian women have broken glass ceilings smashed stereo typing and come out on top as only true fighters can. Several Indian women made their way into the record books with awe-inspiring feats be it in the field of defense, politics, banking, business or sports.

There is an ardent need that we salute these extraordinary women for the great courage they have shown in making their way in a profession typically assigned to men.

It is not only limited to top female CEO's - Indra Noovi, Kiran Majumdar

Shaw , Chanda Kochchar , Shokha Sharma, Vinita Bali, Aruna Jayanthi, Ekta Kapoor, Rupa Kudva & the likes. It is also beyond Smt. Indira Gandhi & Smt. Pratibhatai Patil.

Indian Air Force welcomed to its fold its first batch of women fighter pilots when Avani Chaturvedi, Bhawana Kanth and Mohana Singh were commissioned in June. Defence Minister Manohar Parrikar termed the combat role for these women in the Air Force as a "milestone".

Archana Ramasundram became the first woman head of a paramilitary force when she was appointed Director General of Sashastra Seema Bal (SSB) in February. The 58-year-old resident of Uttar Pradesh is a Tamil Nadu cadre IPS officer.

In politics, PDP president Mehbooba Mufti, 56, became the first woman chief minister of Jammu and Kashmir when she took charge in April following the death of her father.

Former Union minister Najma Heptullah was appointed as the 18th governor of Manipur, the first woman to hold that post in the northeastern state.

Upma Chowdhary, a 1983-batch IAS officer of Himachal cadre, became the first woman to be appointed Director of Lal Bahadur Shastri National Academy of Administration (LBSNAA) at Mussoorie.

Shuttler P V Sindhu became the country's first-ever woman silver medal winner at the Olympics when she achieved the feat at the Rio Games.

Sakshi Malik too had her share of glory when she became the first woman wrestler from India to bag an Olympic medal -- a bronze at Rio.

Tripura girl Dipa Karmarkar became the darling of the country when she reached the vault finals at Rio -- the first Indian woman to do so. She is also the first Indian to qualify for the Olympics gymnastics event.

Young Aditi Ashok entered the record books by becoming the first woman Indian golfer to win a European Tour event.

Deepa Malik became the first Indian woman athlete to win a medal at the Rio Paralympics where she bagged a silver medal in shot-put event.

Sania Mirza retained her World number one rank in doubles in the WTA rankings in a gruelling 2016 season in which she won eight titles, including the Australian Open with Swiss partner Martina Hingis. At the 129th session of International Olympic Committee (IOC) in August, Nita Ambani was elected an individual member of the IOC. Shanti Tigga was in no way an ordinary woman! An epitome of perseverance and excellence, she outperformed all her male contemporaries to become India's first woman jawan at the age of 35, a position that wasn't deemed fit for women. Lt. General Punita Arora was the first woman in the Indian armed forces to be promoted to a three-star rank, a highly coveted position for anyone in the armed forces. She donned the position of Lieutenant General of Indian Armed Forces as well as the Vice Admiral of Indian Navy. Anshu Jamsenpa raised the bar, perhaps literally, when she became the first woman to climb Mount Everest two times in five days in May. Nirmala Devi, the 60-year-old mukhiya of RampurNirmala Devi, the 60-year-old mukhiya of Rampur village in Bihar left no stone unturned to make her panchayat 100% open defecation free in a matter of just four months. She started by identifying the number of households without toilets and bringing them to the attention of the Water and Sanitation Department. Mumtaz Kazi - Train Driver -At the age of 20, Mumtaz Kazi became Asia's first woman to drive a diesel train, for which she was mentioned in the Limca Book of Records in 1995 Rajani Pandit – Detective -When people told Rajani being a detective is 'not a woman's job', she decided to ignore them. She was only 25 when she started her agency named Rajani Pandit Detective Services in Mumbai, in 1991. Today, she has a team of about 20 people and together they have solved over 75,000 cases. Last but not the least Indira Gandhi – PM, Pratibhatai Patil- President, Nirmala Sitharaman, Sumitra Mahajan- Lok Sabha Speaker, Kran Bedi – IPS Officer etc. These are the unsung achievers who smashed into the male bastion to prove that – " We too can do it". They displayed a spirit that we are unstoppable . It is important to dream big with a determination that where there is a will there is a way. They came & conquered.

CONCLUSION: At present in India many women are entering in to and leaving their mark in business, career, profession, politics & sports. Few remain after marriage and rising family, and very few remain at the top. They are dominating in one two fields which is not a sign of breaking glass ceiling& stereo typing. The real breaking of glass ceiling means their participation in all fields and at all levels without any discrimination. This ceiling would be breakable only with an increased awareness and empowerment of the women leaders of tomorrow. It is important to bring about a paradigm shift in the mind-set of the individual along with that of the society. A more liberal upbringing of the girl child is the need of the day. A holistic approach of each and every individual along with the government & society is the key. These are the unsung achievers who smashed into the male bastion to prove that – " We too can do it". They displayed a spirit that we are unstoppable . It is important to dream big with a determination that where there is a will there is a way. They came & conquered. Let's hope that Indian Women will break the ceiling & stereo typing and see the blue sky without any barriers at least in next decade.

As a famous Chinese proverb goes – " When sleeping women wake, mountains move".

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ROLE AND CONTRIBUTION OF WOMEN IN ENTREPRENEURSHIP - A PARADIGM SHIFT

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Abstract

Owing to changing mindsets and the rapid need for new ideas and fresh blood, more and more women have been seen joining the business sector as entrepreneurs. A recent study on 'FaceBook' suggested that four out of five women in India aspire to become entrepreneurs. Inspiring more women into entrepreneurship would potentially create as many as 16 million businesses and 64 million jobs by the end of 2021. Gone are the days when women were considered no match for all powerful men in this world. The new generation women across the world have overcome all negative notions and have proved themselves beyond doubt in all spheres of life including the most intricate and cumbersome world of entrepreneurship. Women have come a long way from just being a homemaker. Government's start-up friendly environment in the country has proved to be a blessing for female entrepreneurs and instrumental in fighting gender stereotyping in the business community.

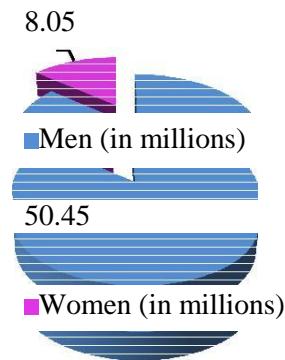
Keywords: entrepreneurship, businesses, start-up, gender, stereotyping.

1. INTRODUCTION: Entrepreneurship refers to combining the available resources of production in such a new way that it produces the goods and services more satisfactory to the customers. Entrepreneur is a catalytic agent of change. It is also instrumental in sustaining the process of economic development. Every country tries to achieve economic development for prosperity and betterment in standard of living of its people. Development has economic, social and political dimensions and is incomplete without the development of women who constitute about 50 per cent of total population. So, contribution of women is essential in economic activities for healthy nation building. The Government of India has defined women entrepreneurs based on women participation in equity and employment of a business enterprise. Accordingly, a women enterprise is defined as "an enterprise owned and controlled by a women having a minimum financial interest of 51% of the capital and giving at least 51% of the employment generated in the enterprise to women". Women enterprises can be classified as: (i) owned by women, (ii) managed by women and (iii) employing women.

2. OBJECTIVE OF THE STUDY: This research makes an attempt to analyse women's participation in entrepreneurial activities so as to highlight the contribution of women entrepreneurs towards economic development. The objective of this paper will be achieved if it helps in creating awareness about the topic.

METHODOLOGY: The study in this paper is based on review of Secondary Data. The secondary data is collected through the review of existing literature related with the topic. The review is made using books, magazines, newspapers, journals and research thesis along with Online expert reviews and Online articles on the web sites.

4. LITERATURE REVIEW: According to the sixth economic census, women constitute only 13.76% of the total entrepreneurs, i.e., 8.05 million out of the 58.5 million entrepreneurs in India. Entrepreneurs in India - 58.5 million



Out of this, 2.76 million women work in the agriculture sector, and 5.29 million women work in non-agricultural sectors.

Women Enterpreneurs Sector wise

■ Women in Agriculture



According to a McKinsey Institute research, narrowing the gender gap in economic terms could add close to \$28 trillion to global GDP by 2025 – with almost \$ 3 trillion added to India's GDP alone. Achieving gender equality in India would have a larger impact solely due to the sheer number of people present in our country.

The need for fresh outlooks in businesses is also important. A British Council study on social enterprises in India showed that in comparison to male-led social enterprises, female-led social enterprises tend to focus on improving the lives of women, on education and on literacy than male-led social enterprises.

A 2014 paper, Political Reservations And Women's Entrepreneurship In India, by Ghani and others stated that "97% of working men are employed in male-owned enterprises". This level of gender segmentation is clearly undesirable and inefficient. Yet, the same is also true for women: 90% of employees in female-owned business in the unorganised sector of manufacturing are females. These findings can be seen as ways to get more women into the workforce, hence helping other women and increasing the overall GDP. Women entrepreneurs are risk bearers, organizers and innovators too. Indian women, who are regarded as better half of the society, are not equal partners in society. Perceptual variables have a crucial influence on the entrepreneurial propensity of women and account for much of the gender differences in entrepreneurial styles. The low literacy rate (40%), low participation rate (10 %) of women as compared to their male counter-parts prove their disparate position in the society. Over the past few years, India has record growth in women entrepreneurship and more women are pursuing their career in this direction. At a global level, about 126 million women have started or are running their businesses and whereas in India, there are about 8 million women have started or are running their businesses. Apart from that, women have 24% share in corporate senior management positions and in India it's 30% for the same. Not only that, round about 37% of formal enterprises owned by women around the globe whereas 10% of formal enterprises in India are being operated by women.

Reasons for the rise of women entrepreneurs: Overall changing perception of entrepreneurship Better access of education Increasing social acceptance of women entrepreneurship Better infrastructure, especially in technology Better access to finance Rise of Role Models Even though the growth rate is exponential, still, there are some challenges like access to technical and financial assistance, pro-gender policies, family responsibilities, lack of e-service options competition from the male-dominated sector, which needs to be brought under control. New research reveals that women entrepreneurs are less likely to fail when setting up a business than men. Women are more ambitious in business, with 50 per cent of women keen to start another business in the next three years, compared to less than 20 per cent of men. Women are better calculated risk takers. 87% Women entrepreneurs see themselves as financial risk takers, compared to 73% of men, while 80% of women say they are likely to see opportunities where others see risk, compared to 67% of men. Men and women have different views about the type of growth they should go for – the research suggests women are more likely to reinvest business profit in order to generate steady and profitable growth, while men are more likely to look for faster growth, possibly fuelled by equity investment, and a quicker exit. Fewer women go into business with dreams of building an empire. Women consider their business a success if they can be their own boss and replace their former job income. Start-ups with more female executives, there is a higher success-to-failure rate. Companies with 1-2 female executives have close to a 50/50 failure/success rate, with failures exceeding successes by 5-10 percent. But in the smaller samples of companies with 4-5 female executives, the succeeding companies outnumber failing companies by between 20 and 50 percent. Women entrepreneurs in India have the potential and determination to setup, uphold and supervise their own enterprise in a very systematic manner, appropriate support and encouragement from the society, family. Government can make these women entrepreneur a part of mainstream of national economy and they can contribute to the economic progress of India. There has been a steady increase in the participation of women in small business indicating immense potential for entrepreneurial development among them. From the point of view of performance, the women enterprises in India have made significant contribution towards generation of employment, gross output, asset creation and exports. Some cases of successful Indian women entrepreneurs who can be looked upon as inspirations to speed up the women entrepreneurial movement in India:

* Indra Nooyi Current position: CFO, Pepsico Indra Nooyi, 56, is the current chairman and CFO of the second largest food and beverage business, PepsiCo. Beginning her career in India, Nooyi held product manager positions at Johnson & Johnson and textile firm Mettur Beardsell. Nooyi joined PepsiCo in 1994 and was named president and CFO in 2001. She has been conferred with prestigious PadmaBhushan for her business achievements and being an inspiration to India's corporate leadership.

* Naina Lal Kidwai Current position: Group General Manager & Country Head – HSBC, India, Naina Lal Kidwai, 55, is presently the Group General Manager and Country Head of HSBC India. Presently, she is also serving as a non-executive director on the board of Nestle SA. Kidwai is also global advisor at Harvard Business school. Indian government conferred PadmaShri award on Naina for her contributions in the field of Trade and Industry.

* Kiran Mazumdar Shaw Current position: CMD, Biocon Kiran, 59, is the founder Chairman and Managing Director (CMD) of Biocon Limited. She started Biocon in 1978 and spearheaded its evolution from an industrial enzymes manufacturing company to a fully integrated bio-pharmaceutical company. She received the prestigious PadmaShri (1989) and the PadmaBhushan (2005) from the government of India.

* Vidya Manohar Chhabria Chairman of Jumbo Group. The wife of a late Manohar Rajaram Chhabria is now leading Jumbo Group, a Dubai based Dollar 1.5 billion business conglomerate. She was ranked 38th most powerful women by the Fortune Magazine in 2003.

* Neelam Dhawan Managing Director Microsoft India. She is well known figure in IT Industry of India. Before joining Microsoft, she worked in almost all the top IT Companies.

* Lalita Gupte & Kalpana Morparia Joint Managing Directors of ICICI Bank, have made immense contribution to the banking sector in India.

* Ekta Kapoor Who is popularly known as the „soap queen , Creative Director of Balaji Telefilms is credited for bringing about a revolution in the Indian small screen industry. She is a rare combination of beauty and brain and a great inspiration for budding entrepreneurs.

* Shahnaz Hussain Current position: CEO, Shahnaz Herbals Inc, Shahnaz Hussain is the biggest name in herbal cosmetics industry in India. Currently, the Shahnaz Husain Group has over 400 franchise clinics across the world covering over 138 countries. Her pioneering work got recognition from Govt of India when she was conferred with prestigious PadmaShri award in 2006.

* Vandana Luthra started her journey in 1989 with VLCC, a beauty and wellness giant has it's presence in 11 countries across Asia, Africa and the GCC (Gulf Cooperation Council). She was awarded the Padma Shri in 2013 for her contribution. and in 2015, she was listed as the 33rd most powerful woman in business in India by Fortune India.

5. CONCLUSION: India is a male dominated society and women are assumed to be economically as well as socially dependent on male members. Women entrepreneurs face lots of problems like lack of education, social barriers, legal formalities, high cost of production, male dominated society, limited managerial ability, lack of mobility etc. Technological advancement and information technology explosion have reduced the problem of women entrepreneurs. Along with technological revolution, mental revolution of society is needed to change the attitude of the society and provide women with democratic and entrepreneurial platform. Entrepreneurial movement among women started late and is still in its infancy. Changes in the global and domestic environment have contributed towards the growth of women entrepreneurship in India. Young female entrepreneurs should share their success stories in the world of e-commerce to speed up entrepreneurial movement in India. Women entrepreneurship must be moulded properly with entrepreneurial traits and skills to meet the changes in trends, challenges in global markets and also be competent enough to sustain and strive for excellence in the entrepreneurial arena.

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SUSHMA SWARAJ: DYNAMIC WOMEN LEADER OF INDIA

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Abstract

Sushma Swaraj is a woman politician of India associated with BJP and presently holding post of Ministry of External Affairs (MEA) of India. As a woman she has served India and her party which is earn lots of praised from Indian citizen as well from foreign citizen. Sushma Swaraj was called India's 'Best-loved politician' by the US daily Wall Street Journal. Researcher makes an attempt to study quality as women politician which had impacted India and its policies at different ministry position held by her.

KeyNotes: *BJP-Bharatiya Janta Party, NRI –Non resident Indian, ASEAN –Association of Southeast Asian Nation, IIT-Indian Institute of Technology, IIM –Indian institute of Management, ISRO-Indian space research organization.*

INTRODUCTION: Sushma Swaraj born on 14 February 1952 is an Indian politician, former Supreme Court lawyer and the current Minister of External Affairs of India, in office since 26 May 2014. A leader of Bharatiya Janata Party, Swaraj is the second woman to be India's Minister of External Affairs, after Indira Gandhi. She has been elected seven times as a Member of Parliament and three times as a Member of the Legislative Assembly. At the age of 25 in 1977, she became the youngest cabinet minister of North Indian state of Haryana. In the 2014 Indian general election, she won the Vidisha constituency in Madhya Pradesh for a second term, retaining her seat by a margin of over 400,000 votes. She became the External Affairs Minister in the Union cabinet on 26 May 2014. Swaraj was called India's 'Best-loved politician' by the US daily Wall Street Journal.

OBJECTIVES OF STUDY

- To study qualities as women politician with special reference to Sushma Swaraj as Union Minister I&B & Telecommunications, Health minister and Opposition leader of Lok Sabha.
- To examine the impact of Sushma Swaraj being a women politician as Ministry of External Affairs, India.

RESEARCH METHODOLOGY: Research paper is based on secondary data collected from various published sources like reports from Magazines, Journals , Newspapers , News channel Interview etc

HISTORICAL BACKGROUND: Swaraj began her political career with Akhil Bharatiya Vidyarthi Parishad, (ABVP) in the 1970s. Her husband, Swaraj Kaushal, was closely associated with the socialist leader George Fernandes and Sushma Swaraj became a part of George Fernandes's legal defence team in 1975. She actively participated in Jayaprakash Narayan's Total Revolution Movement. After the Emergency, she joined the Bharatiya Janata Party. Later, she became a national leader of the BJP. She was a member of the Haryana Legislative Assembly from 1977 to 1982, acquiring the Ambala Cantonment assembly seat at the age of 25, and then again from 1987 to 1990. In July 1977, she was sworn in as a Cabinet Minister in the Janata Party Government headed by then Chief Minister Devi Lal. She became State President of Janata Party (Haryana) in 1979, at the age of 27 years. She was Education Minister of Haryana state in the Bharatiya Janata Party–Lok Dal coalition government during the period of 1987 to 1990.[11]

In April 1990, she was elected as a member of the Rajya Sabha and remained there until she was elected to the 11th Lok Sabha from South Delhi constituency in 1996. Swaraj was elected to the 11th Lok Sabha from South Delhi constituency in April 1996 elections. She was Union Cabinet

Minister for Information and Broadcasting during the 13-day government of PM Atal Bihari Vajpayee in 1996.

SUSHMA SWARAJ AS UNION MINISTER I&B-TELECOMMUNICATIONS: Sushma Swaraj was re-elected to 12th Lok Sabha from South Delhi Parliamentary constituency for a second term in March 1998. Under the second PM Vajpayee Government, she was sworn in as Union Cabinet Minister for Information and Broadcasting with additional charge of the Ministry of Telecommunications from 19 March 1998 to 12 October 1998. Her most notable decision during this period was to declare film production as an industry, which made the Indian film industry eligible for bank finance. Prior to this, the film industry was heavily financed by the underworld on high rate of interest. This one decision liberated film industry from the clutches of the underworld. She also started community radio at universities and other institutions.

In September 1999, BJP nominated Swaraj to contest against the Congress party's national President Sonia Gandhi in the 13th Lok Sabha election, from the Bellary constituency in Karnataka, which had always been retained by Congress politicians since the first Indian general election in 1951–52. During her campaign, she addressed public meetings in the local Kannada language. She secured 358,000 votes in just 12 days of her election campaign. However, she lost the election by a 7% margin. She returned to Parliament in April 2000 as a Rajya Sabha member from Uttar Pradesh. She was reallocated to Uttrakhand when the new state was carved out of Uttar Pradesh on 9 November 2000. She was inducted into the Union Cabinet as Minister for Information and Broadcasting, a position she held from September 2000 until January 2003.

SUSHMA SWARAJ AS UNION HEALTH MINISTER

She was Minister of Health, Family Welfare and Parliamentary Affairs from January 2003 until May 2004, when the National Democratic Alliance Government lost the general election. As Union Health Minister, she set up six All India Institute of Medical Sciences at Bhopal (MP), Bhubaneshwar (Odisha), Jodhpur (Rajasthan), Patna (Bihar), Raipur (Chhattisgarh) and Rishikesh (Uttrakhand). Swaraj was re-elected to the Rajya Sabha for third term in April 2006 from Madhya Pradesh state. She served as the Deputy leader of Opposition in Rajya Sabha till April 2009.

SUSHMA SWARAJ AS LEADER OF OPPOSITION- 15TH LOK SABHA

She won the 2009 election for the 15th Lok Sabha from the Vidisha Lok Sabha constituency in Madhya Pradesh by the highest margin of over 400,000 votes. Sushma Swaraj became Leader of Opposition in the 15th Lok Sabha in place of Lal Krishna Advani on 21 December 2009 and retained this position till May 2014 when in Indian general election, 2014 her party got a major victory.

SUSHMA SWARAJ AS EXTERNAL AFFAIRS MINISTER

Swaraj has been serving as the Indian External Affairs Minister under Prime Minister Narendra Modi since May 2014, responsible for implementing the foreign policy of Narendra Modi. She is only the second woman to hold this position after Indira Gandhi. On completion of the first 100 days of Modi govt the External Affairs Ministry published a booklet called "Fast Track Diplomacy" show-casing the achievement made in the foreign policy arena. In her first media interaction, the minister Sushma Swaraj said the catchphrase for her tenure was "fast-track diplomacy" and said it had three faces - proactive, strong and sensitive. Since taking office, the External Affairs Minister held round-table meeting with all Indian heads of missions to the SAARC region, ASEAN region and Middle East separately as a follow up measure to carry forward the leads gained by high profile visits and exchanges.

ACT EAST POLICY: From the very beginning, the NDA Government made it ample clear that India would focus more and more on improving relation with ASEAN and other East Asian

countries as per India's Look East policy which was formulated during Narasimha Rao's Government in 1992 for better economic engagement with its eastern neighbours but successive Governments later successfully turned it into a tool for forging strategic partnership and security cooperation with countries in that region in general and Vietnam and Japan in particular. In her recent visit to Hanoi, Vietnam Sushma Swaraj has stressed on the need for an Act East Policy that she said should replace India's over two decade-old Look East Policy emphasizing a more proactive role for India in this region.

ASEAN Regional Forum: Swaraj attended the 2014 ASEAN Regional Forum followed by the related EAS Foreign Ministers meeting, held from 8–11 August in Naypyidaw, Myanmar, which was her first ever appearance in multilateral forums after becoming India's foreign affairs head. She had held bilateral meetings with her counterparts from seven countries including China, Australia, Canada, Vietnam, Philippines, Brunei and Indonesia. Sushma Swaraj, Ministry of External Affairs runs 24*7 monitoring system which keeps watch on problems of NRI's

Foreign trips made as External Affairs Minister: The following is a list of international visits made by Swaraj after taking office as External Affairs Minister. She visited following countries like Bangladesh, Bhutan, Nepal, Myanmar, Vietnam, Singapore, Bahrain, Pakistan, China, United Kingdom, USA, Tajikistan, Maldives, Mauritius, Afghanistan, Sri Lanka, United Arab Emirates, Egypt, Thailand, Iran, Russia etc. Sushma Swaraj had given visa to Osama Ali, 24 year old resident of POK immediately as he was suffering from tumor in liver, requiring immediate transplant. She further via Twitter informed Pakistan that there is no requirement of letter from Pakistan Foreign minister for ailment visa for resident of POK. As POK is part of India and Pakistan has illegally occupied it.

SUSHMA SWARAJ -UNITED NATION SPEECH

External affairs minister Sushma Swaraj addressed the United Nations General Assembly in New York on 23rd September, 2017. Speaking in Hindi, Swaraj listed out the initiatives brought about by Prime Minister Narendra Modi's government from the Goods and Services Tax to the 'Beti Bachao Beti Padhao' and gas cylinder scheme for women, Sushma focused on the steps India has taken, saying that the country had managed to do the impossible with demonetisation. India also targeted Pakistan for using terrorism as an instrument of state policy, describing the country as an "export factory of terror" that had spurned the hand of friendship extended by Prime Minister Narendra Modi. Top 10 quotes from Sushma Swaraj's speech at UN General Assembly We set up IITs, IIMs, AIIMS and ISRO. What did Pakistan make? They set up Lashkar-e-Taiba, Jaish-e-Mohammed, Haqqani Network, Hizbul Mujahideen. We are fighting poverty, but our neighbouring state Pakistan is fighting against us. Pakistan accused us of state-sponsored terrorism and human rights violation. Listening to the Prime Minister of Pakistan, people had only one observation, 'Look who is talking'. India and Pakistan got independence together. But, why is it that today India is recognised as a hi-tech superpower. But Pakistan is recognised only as the pre-eminent export factory for terror? Our contemporary world is trapped in a deluge of troubles of which, surely, the most dangerous is the relentless rise of violence. India is the oldest target of terrorism. Then, many countries in the world dismissed terrorism as a law and order problem. But now the time has come to introspect on the subject. Terrorism is an existentialist danger to humankind. There is no justification for this barbaric violence. Let's display new commitment by reaching agreement on the Comprehensive Convention on International Terrorism this year. Countries still differ on the definition of terrorism and terrorists. I request all to find an unanimous definition of terrorism and resolve to fight it together. If we cannot agree to define our enemy, how

can we fight together? India's culture and thought have been shaped by history and philosophy that believes in peace as humankind's only rational and practical objective.

FINDINGS

Sushma Swaraj had a long term vision so she and her party took decision to free Film production from underworld by making it Film Industry so that they can easily raise finance from Bank.

Sushma Swaraj decision to open six more IIM also so her firm determines for health care of all citizen of India. Sushma Swaraj plays a role of caring mother for all citizens in India and outside India by trying to solve problem of NRI's citizen immediately by helping them .

Sushma Swaraj is very intelligent and perfect diplomat which is proved when she gave visa permission to POK resident Osama Ali , 24 year old to get diagnosed for tumor in liver at India. She wrote on twitter POK is part of India and Pakistan has illegally occupied it , So no need of any letter from Pakistan Foreign minister for any ailing person from POK for treatment at India.

She played a role of good host when PM of Nepal was having bad throat during his speech addressing media at New Delhi, She herself got up from seat an offered water to PM of Nepal.

Sushma Sawraj is patriot and very bold and daring women this can be concluded when she gave speech at UN against Pakistan , She while giving speech in Hindi language literally made whole Pakistan humiliated and made them to rethink on its supporting terrorist activities against India and what progress they have made from Independence till today date in comparison to India.

Sushma Swaraj has good knowledge of power of speech and also when to use it, Her speech had won hearts of all Indians. She proved by her speech at UN that proper speech when use at right time and right place can have effect of hundred Nuclear bomb thrown on Enemy Country .

CONCLUSION: Sushma Swaraj is patriot , loyal, caring ,straight forward, intelligent ,diplomat ,bold and daring women political leader of India .She is always ready to help Indian citizen within and outside India. She is praised by all Indians.

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ROLE & CONTRIBUTION OF WOMEN IN POLITICS

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Abstract

The marginalization of Indian women in politics is as old as the Indian society. Due to male dominance over political parties, women do not get chances of contesting elections. The objectives of this paper are to enumerate female representation in Indian political setting, to analyse the reasons of the low participation of women in politics by undertaking a perception study and to recommend changes and provide solutions for it. The present paper is based on secondary data. For perception study, a questionnaire was prepared and a survey of 100 samples was undertaken. It is observed that the number of women elected in the Lok Sabha has increased from 1951 to 2014. West Bengal has elected the maximum number of women parliamentarians in 2014. In Rajya Sabha as on December, 2015 there are only 31 women members as compared to total 242. In the current Union Government Council of Ministers, 6 out of 26 cabinet ministers are women. Most of the political parties have less than 50% women representatives than their male counterparts. Among State Assemblies, the highest percentage of women MLAs is from Bihar followed by Rajasthan and West Bengal. India lags behind many countries when it comes to women's participation in politics. The study findings portray that women participation in politics at all levels are very low in India. The main reasons being domestic responsibilities, attitudes regarding the role of women in society, lack of support from family, lack of confidence and lack of finance. Women face various gender specific constraints in this field. Without proper representation of women in legislative bodies and political parties many issue concerning women would remain neglected.

Keywords: Marginalization, Legislative Bodies ,Parliamentarians

INTRODUCTION: In India, as in many other countries in the world, women are underrepresented in all political positions, even if they form approximately one half of the population. While the proportion of women who went to vote increased during the 1990s, women are still not well represented in political life. The marginalization of Indian women in politics is as old as the Indian society. They are always taught to be submissive. Women are expected to work in private sphere only and are generally barred from working outside their homes. Their financial dependence over men also keeps them away from strong political affiliations. Keeping women away from public sphere brings lack of political will amongst themselves. Due of patriarchal set up and male dominance over political parties, women do not get chances of contesting elections.

Review of Literature: Not much literature is available regarding low women participation in Indian political scenario. However according to Kounteya Sinha TNN, March 5, 2015 India is found to be one of the world's worst countries for women to enter politics. A study conducted by the Centre for Social Research, a non-profit advocacy in New Delhi, in partnership with the India office of UN headquartered in New York found that forty-five percent of female politicians in India faced physical violence, kidnapping, killing, verbal abuse and threat of violence. Physical violence, verbal abuse and the threat of violence were much higher for women in politics in India than Pakistan or Nepal, according to the study. Safety activists contend that parties' willingness to back male politicians with criminal records had heightened women's vulnerability. Most of the female politicians who become victims of violence are poor, lower caste, young women who entered politics, according to the study. According to the study, 50% of respondents felt that the decision on a woman's participation in electoral politics should be taken by her family while 90% of respondents felt that women should not ignore domestic responsibilities and that violence against women within a family increases when women are unable to fulfil domestic responsibilities.

Research Methodology: The present paper is based on secondary data obtained from the official website of Election Commission of India. Literature review has been gathered from various online and off line sources like journals, magazines and electronic newspapers. To undertake a perception study, a questionnaire was prepared and a survey of 100 samples was undertaken. Samples were chosen randomly using convenience sampling method.

Table No.: 01 Number of women MPS Elected in Lok Sabha General Elections

Election years	No. of Women	% to Total MPs
1951	22	4.50%
1957	22	4.45%
1962	31	6.28%
1967	29	5.58%
1971	28	5.41%
1977	19	3.51%
1980	28	5.29%
1984	43	7.95%
1989	29	5.48%
1991	39	7.30%
1996	40	7.37%
1998	43	7.92%
1999	49	9.02%
2004	45	8.29%
2009	59	10.87%
2014	66	12.15%

Source: Election Commission of India

From table 01 it can be observed that the number of women elected in the Lok Sabha has increased from 1951 to 2014. The lowest number is recorded in the 1977 when only 19 women representatives won elections and the highest in 2014 where 66 women have secured seats in Lok Sabha. This is the highest number of seats won by women and it is 11.23% of the total 543 seats. In 1980, Former Prime Minister Late Mrs Indira Gandhi was elected as the Prime Minister of India in 1980. This may have given a boost to the confidence of female citizens and thus, an increase in women participation can be observed. The number is increasing with increasing literacy levels, awareness and freedom of females from the bonds of the traditional conservative society. Thus, we find that, in 2014, highest number of women have been elected at the general elections of the Lok Sabha. Though as a whole, the number still remains much lower than the capacity and in proportion to the total female population of the country. According to data released by the Election Commission on 21st May, 2014, out of a total of 8,251 candidates, only 668 were women. Out of these, 66 got elected to the Lok Sabha. Percentage wise, 9.13 per cent of the total women candidates were successful. Of the 7,578 men who contested the polls, 482 emerged victorious. In percentage terms, only 6.36 per cent were successful. In the 2009 Lok Sabha elections, 556 women had contested as compared to 7,514 men. A total of 59 women were elected to the 15th Lok Sabha as compared to 484 men.

State	Female Candidates Won (2014)	Female Candidates Won (2009)
Andhra Pradesh	3 (42)	5
Assam	2 (14)	2
Chandigarh	1 (1)	0
Chhattisgarh	1 (U)	2
Gujarat	4 (26)	4
Jammu & Kashmir	1 (6)	0
Karnataka	1 (28)	1
Madhya Pradesh	4 (29)	6
Maharashtra	3 (48)	3
Punjab	1 (13)	4
Tamil Nadu	4 (39)	1
Bihar	3 (40)	4
Kerala	1 (20)	0
Delhi	1 (7)	1
Odessa	2 (21)	0
West Bengal	14 (42)	7
Uttarakhand	1 (5)	0
Uttar Pradesh	13 (80)	13
Haryana	0	2
Meghalaya	0	1
Rajasthan	1 (25)	3
Total	61(543)	59

Source: Election Commission of India

Table 02 portrays that in 2014 Lok Sabha elections West Bengal has elected the maximum number of women parliamentarians. The representation of women in parliament has increased from 7 in 2009 elections to 14 in 2014 elections. Mamta Banerjee headed Trinamool Congress had the maximum number of women candidates as compared to other political parties in this election. Uttar Pradesh has the second highest women representation with 13 women Lok Sabha members in 2014 which is same the number as in 2009. The states of Chandigarh, Chhattisgarh, Jammu & Kashmir, Karnataka, Punjab, Kerala, Delhi, Uttarakhand* and Rajasthan has only one each member in the Lok Sabha whereas Haryana and Meghalaya has no women representative in Lok Sabha. According to PRS Legislative Research, an independent research organisation based in Delhi thirty-32% of women MPs have a postgraduate or doctoral degree, 30 % of male MPs have similar educational qualifications. PRS survey also reveals that women MPs elected in the present elections are younger than the male MPs. Average age of women MPs is 47 years but average age of male MPs is 54 years. Also, there are no women MPs who are above the age of 70 years. Seven per cent of male MPs are over 70 years. Till date for the first time in 2009 a women speaker was appointed in Lok Sabha. The current speaker of Lok Sabha is also a woman who was appointed in

2014. In Rajya Sabha as on December, 2015 there are only 31 women members as compared to total 242. In the current Union Government Council Ministers, 6 out of 26 (23%) cabinet ministers are women.

Table No.: 03 Female-Male MPs Across Parties

Party Name	Female MPs	Male MPs
Apna Dal	1	1
AIADMK	4	33
BJD	2	18
BJP	28	257
CPI(M)	1	8
INC	4	41
UP	1	5
NCP	1	5
PDP	1	2
SAD	1	3
SP	1	4
TMC	13	33
TRS	1	10

When we analyse male-female numbers across parties the gender inequality is very prominent. Most of the political parties have less than 50% women representatives than their male counterparts. BJP has also improved its performance.

Table No.: 04 Representations of Women in State Assemblies

State	Total Voters in Assembly	No. of Men MLAs	% of men MLAs	No. of Women MLAs	% of Women MLAs
Uttar Pradesh	403	371	92	32	8
Maharashtra	288	277	96	11	4
West Bengal	294	260	72	34	12
Andhra Pradesh	294	260	88	34	12
Bihar	243	209	86	34	14
Tamil Nadu	234	217	93	17	7
Madhya	230	205	89	25	11

Pradesh					
Gujarat	18?	166	91	16	9
Karnataka	224	221	99	3	1
Orissa	147	140	95	7	5
Kerala	140	133	95	7	5
Assam	126	112	89	14	11
Jharkhand	81	73	90	8	10
Punjab	117	103	88	14	12
Chhattisgarh	90	79	18	11	12
Haryana	90	81	90	9	10
Jammu & Kashmir	87	84	97	3	3
Uttarakhand	70	65	93	5	7
NOT of Delhi	70	67	94	3	6
Himachal Pradesh	68	63	93	5	7
Tripura	60	57	95	3	5
Manipur	60	57	95	3	5
Meghalaya	60	59	97	1	3
Goa	40	39	98	1	3
Nagaland	60	60	100	0	0
Arunachal Pradesh	60	58	97	2	3
Mizoram	40	40	100	0	0
Sikkim	32	28	88	4	13
Rajasthan	200	172	86	28	14
Puducherry	30	30	100	0	0
Total	4896	4478	91	418	9

Source: Election Commission of India

Among State assemblies, West Bengal 34 (out of 294 MLAs), Bihar 34 (out of 243 MLAs) and Andhra Pradesh 34 (out of 294 MLAs) have the maximum number of women MLAs followed by Uttar Pradesh with 32 women out of 403 MLAs and Rajasthan with 28 women out of 200 MLAs. In terms of percentage, among state assemblies, the highest percentage of Women MLAs is from Bihar with 14% (34 out of 243 MLAs) followed by Rajasthan with 14% (28 out of 200 MLAs) and West Bengal with 12% (34 out of 294 MLAs). India lags behind many countries, including its neighbours Pakistan and Nepal, when it comes to women's participation in politics. India ranks 98 in the world, according to the data released by the Inter-Parliamentary Union (IPU), an international group that works for promoting democracy, peace and co-operation in the world. With 22.2 per cent women MPs in its Lower House and 17 per cent in the Upper House, Pakistan is placed 51 while Nepal is ranked 18, with 33.3 per cent of female MPs in its parliament. Bangladesh is ranked 65th, with 18.6 per cent female participation in national politics. Sri Lanka is

ranked 122 with only 12 female members, or 5.3 per cent, in the 225 seat National Assembly. Myanmar, which allowed general elections last year after decades of military rule, is ranked 124 with only 14, or 4.3 per cent of female MPs in the 168-seat parliament. Among the countries with highest women participation in national politics, Rwanda ranks number one in the world with over 56 per cent women members in the Lower House and over 34 per cent in the Upper House. With 157 women MPs or 45 per cent, in its national legislature, Sweden ranks two in the list while South Africa comes third with 44.5 per cent women MPs in its Lower House. Cuba had fourth highest women representation (43.2 per cent), followed by Iceland (42.9 per cent), Netherlands (40.7 per cent), Finland (40 per cent) and Norway with 39.6 per cent. Mozambique and Angola are placed at position nine and ten with over 38 per cent women participation in politics. Countries like Germany, Italy, Britain, France and the US are ranked 19th, 53rd, 62nd, 63rd and 72nd respectively. There are 12 countries, including Saudi Arabia, Qatar and Oman, which have zero women representation in their national assemblies. The study findings portray that women participation in politics at all levels are very low in India. The main reasons being domestic responsibilities, attitudes regarding the role of women in society, lack of support from family, lack of confidence and lack of finance. Women face various gender specific constraints in this field. As more and more women aspire to take part in politics but it is important that all institution - state, family and communities provide support and bridge gaps in education and gender division of labour. Politics is not a job. It requires full time dedication service to the people Why women Do not foray into politics? Could be because they are burdened with family responsibilities & this is a time consuming role. It is not as if India has not seen women leaders. It is just that are still many women who are deprived of basic rights, who are still forbidden to take steps outside the door & therefore there is a vast difference in strata which need to be bridged. Women will definitely do well in politics if all successful women make the situation better for those who are deprived help them to step out of their homes without fear and empower them.

CONCLUSION: The Women's Reservation Bill (Quota) which proposes to reserve a third of the seats in the lower house and in all legislative assemblies for women could prove to be a powerful tool of women's empowerment. This proposed Bill has already been accepted by the upper house in 2010 and now awaits approval from the lower house. And with the newly appointed cabinet with the most number of women till now, there is hope that this Bill might soon be passed. This will prove to be a crucial step towards the necessary electoral and parliamentary reforms which will eventually help in correcting the gender imbalance in politics.

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ISSUES OF WOMEN WORKING AT NIGHT SHIFT IN MUMBAI

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Abstract

In today's globalized environment woman is actively participating in the process in social and economic development of country. Indian women also moved away from their traditional roles of homemaker and child care to social and business solutions. In India service sector and export reported unexpected growth during last 10 years. Remarkable growth recoded in Business Process Outsourcing (BPO), information technology (IT), Hotel Industry, and activities at Airport. In India business has grown tremendously and has given excellent opportunities to women to think beyond the four walls of traditional households. Today women have become equal participants at all levels of society. The future would see more women venturing into areas traditionally dominated by men. This will lead to income generation and greater sense of fulfillment among women. This research paper studies various issues relating to the women's working in night shift in Mumbai.

Keywords: Homemaker, Child Care, Traditional Households, Social and Economic Development

I-Introduction: In the modern India, steps were taken by Indian Govt to improve the status of women. Today's Woman is intelligent and educated proved by women working as a Teachers, Chartered Accountant, Doctors, Lawyers, etc. Indian women's are working in industrial and commerce sectors earned both name and fame not only in India but also in outside the country. In cities like Mumbai where the cost of living has increased significantly, it becomes necessary for women to undertake economic activity and support their families. The attitude of the urban society is changed towards woman. In 21st Century women are participating in almost all the spheres of economic activity and contributing towards the national income of the country. The biggest change in gender parity in the urban area workforce brought by the Government of India by approved an amendment in the Factories Act to allow women employees to work night shifts. This amendment allowed women to work between 10 pm and 6 am. The amendment also suggests that night shift for women shall be allowed only if the employer ensures safety, adequate safeguards within the workplace and outside the workplace during transportation from the work premises to the nearest point of the residence.

Objective

- To Investigate and examine all matters relating to the women's working during night shift in Mumbai.

II-Research Methodology: Information derived through questionnaire from the sample size of 216 women doing night shift work at least for the past 6 months The ages of the women doing night shift work ranged from 20 to 50 years, and were randomly chosen from different industries which includes BPOs, hospitals, Hotels, garments and Airport industries. This questionnaire was designed basically to analyze the impact of night shift work on women. The questionnaire was divided in 4 main parts and consist 11 questions. First part (1st question) reveals information regarding company, 2nd question was about demographic status of the employee. Question 3-6 reveals information about nature of work done during nightshift; reason opting for nightshift, problems faced while commuting, safety issues, and promotion benefit schemes. Question no. 7 was absolutely devoted to health related issues and problems. Finally it draws the general comments to the participants for overall improvement in work scenario.

Table - 1 Sector wise selection of respondents

Sectors	Employees
BPOs	127
Health	22
Hotel	44
Airport	23
Total	216

Table – 2 Variables of the stud

Variable	Expectations
Insecurity	night shift work.
Duration of night shift	and also the level of satisfaction for duration of night shift.
Child care facility provided	This simply explains that childcare facility is available within the company premises or not.
Mental Harassment	This variable explains the state of mental satisfaction of
In house trainings	employees at work place.
Better pay package	benefit especially on safety and health related issues.
Demand by nature of job	shifts for better pay package.
	nightshift
	2
	because nature of job demand works in night shift.
Social problems	This variable explains social problems faced by night shift
	employees because of their night shift work.
in night shift	This variable put a check on appropriate no. of females working in night shift.

III-Results & Analysis

Table - 3 shows that 28.9% respondents feel insecure in the night shift work, the rest 71.1% do not

feel insecure during night shift work.	Table - 3		
	Responses from Participants		
	Variable Considered		Mean
Insecurity			28.9
Duration of night shift			83
Commuting problems			13.04
Child care facility provided			8.6
Satisfied from employer			85.5
Mental harassment			13.3
Better pay			16.8

	package				
	Demand by nature of job		92.8		
	Social problem		13.5		
	Appropriate no. of women in night		96.2		
	shift				

Duration of Night Shift: It is observed that 83% of the populations from the total target population are satisfied from the duration of nightshift work. The duration they described (10-11 hours) also includes almost two hours journey to and from the work place.

Commuting Problems: Out of the women surveyed 13% of the respondents face difficulties during commuting whereas 87% are satisfied about the arrangements made by their employers. Problems of 13% are qualitative in nature in the way that employers may sometimes accommodate passengers of two cabs in one, attitude of drivers is rude or that drivers drink and drive during nightshift, etc. that provide an uncomfortable environment for women. because of recent rape and murder cases commuting problems are being faced more by women of Mumbai

Child Care Facilities: People reported that only 8.6% respondents were satisfied and got childcare facilities within company premises. Only few reputed companies can afford to provide childcare facility and separate lounges for nursing mothers. Situation worsens if employee belongs to nuclear family and company does not provide any child care facility.

Satisfaction Level: Results of the study showed that 85.15% women employees are satisfied with their employer's attitude. They reported that their employers try to create a friendly environment for them. Some of the employees complained about their immediate team leaders because they have to monitor and evaluate work of employees at micro level.

Mental Harassment: It is felt that 13.3% employees have to face a lot of problems resulting into mental tension, if they have to work in the night shift. This response came in majority from Airport and Hotels industry. Airport and Hotels industry, where women employers have to depend upon their employers for every basic need like transportation, meals, etc. have to work whole long nights standing or in a very compact place. Worst is the condition that their livelihood depends on this means only. For this chunk of employees, employers need to put efforts to improve the cognitive skills and general well being of the employees at a significant level.

Better Pay Package in Night Job: Only 16.8% of the respondents perceived better pay package to be a major attraction for working nightshifts. The rest responded that there is no other choice; job demands this. This is also found true where the workers are of unskilled type. Women workers in the Airport and Hotels mills have to work nightshift because the expensive machinery used in these factories are highly efficient; productivity and profitability is greatly increased by day and night utilization of the machinery.

Demand by nature of job: Demand by nature of job was the major reason for working in night shifts among all i.e 92.8% respondents accepted the fact.

Social Problems: No doubt the Indian strong patriarchal traditions persist in Indian society and shape women's life largely. Survey observed that 13.5% nightshift working women face social problems. They are unable to devote time to evening parties and small get-togethers in their neighborhoods and among relations. The company that children also need in the evenings is not met. Women felt that it becomes really hard to spend quality time with children and to attend their school functions and meetings. Unfortunately women working in night shift are blamed for breaking up the institution called family system and for poor childcare accorded even though they may be working harder than men.

Appropriate Number of Women in Night Shift: Appropriate number of women is found working in Mumbai surveyed in the night shift. Majority of the employees (96.2%) are satisfied from the appropriate number of women employees working in one shift at a time. Bigger

companies hire large number of employees and therefore during night shift also percentage of women employees is found satisfactory. Problem arises where the call centre and health centre units are very small and they have limited number of employees and customers.

IV-Health Problems: It has observed the following health problems among targeted population. Some of the women generally feel ill because of their health related problems. Employees' responses related to their health are described below:

Table - 4 Physical Problems during Nightshift				
Backaches	(Perception of respondents in %)		30.0	
Continual Tiredness		45.0		
Digestive Disorders		50.0		
Anger & Irritation		37.5		
Sleep Difficulty		60.0		
Sprains & Strains		15.0		
Depression			10.0	
Frequent Cold & Headache		55.0		
High Blood Pressure		63.0		
Menstrual Cycle Problems		50.0		
Respiratory Illness		45.0		
Pregnancy related problems		35.0		
General Illness			45.0	
Addiction to Smoking/Alcoholism/Drugs		62.0		

Table - 4 shows results related to physical problems of employees. 30% of the respondent experience backache, 45% experience continual tiredness, 50% reported minor and major digestive disorders, 60% are suffering from sleep difficulties, sprains and strains are experienced by 15% respondents, 10% are diagnosed for clinical depression, frequent cold and cough is common among 55%, a major chunk is suffering from high blood pressure i.e. 60%, 50% suffer from menstrual problems, 45% are suffering from respiratory illness, 35% of them complaint about pregnancy related problems and 45% generally feel ill because of one or the other reason. Employees who work in night shift reported that they feel generally lethargic because they perform at night. V-Married Vs. Single Women Study observed that married women find it slightly difficult to carry night shift jobs because of family demand and their reproduction function. In case of unmarried women, family is not dependent on them for many things. In fact parents and elder siblings try to provide a helping hand to them, which reduces the level of difficulty by many folds. Insecurity is less in single women (24.1%) as compared to married women (28.2%). Majority of single women are satisfied with the duration of night shift (94.8%) whereas it is lesser in married women (76.9%).

Table - 5 Responses on the basis of Marital Status			
(Perception of respondents in %)		Single	Average
Variable	Married	Single	Average
Insecurity	Women	Women	26.05
	28.2	24.1	
	Length of night shift	76.9	94.8
			85.85
			5

Commuting problems	11.9	10.1	11.0
Child care facility provided	6.0	-	6.0
Satisfied from employer	90.7	80.2	85.45
Mental harassment	11.25	15.1	13.17
Better pay package	18.5	13.9	16.2
Demand by nature of job	92.6	91.9	92.25
Social problem	16.3	9.8	13.05
Appropriate no. of women in night shift	94.4	97.8	96.1

The problems faced in commuting are almost same for both married (11.9%) and single women (10.1%). 6% married women reported that their employers are providing childcare facility. 90.7% married women and 80.2% single women are satisfied with their employer. Mental harassment is felt more by single women (15.1%) and less by married women (11.25%). 18.5% married women work in night shift because of better pay package and 13.9% single women work in night shift because of this reason. Demand by nature of job proved to be the major reason for both married (92.6%) and single women (91.9%). Social problems are more for married women (16.3%) as compared to single women (9.8%). Majority (94.4%) of married women and single women (97.8%) reported that appropriate number of women work in night shift.

VI-Conclusion: It has conclude that favorable conditions of work for women working during night shift in Mumbai, in terms of security, monetary compensation and provision of fringe benefits. Woman also accepted that sacrifices toward social life should be compensated by more additional benefits with the effective implementation of mandatory benefits. Working women in night shift felt that Instead of holiday swap or compensatory day-offs, mandatory benefits such as premium pay and holiday pay should be given. With respect to work hours, survey results revealed that although work schedules adopted by woman employees deviate from the usual shifts, employees are satisfied because their job desires this. This is also found true that the woman have to work in nightshifts because it is a demand by nature of job. Womans working in night unable to devote time to evening parties, small get together, children, family, etc. In the changing socio-cultural environment of India, women are entering into a new era.

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EMPOWERING WOMEN THROUGH DIGITAL TECHNOLOGY: AN INDIAN PROSPECTIVE

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Abstract

Information technology has revolutionized the world as never before. The benefits Accrued from the synergy of knowledge and IT need not be restricted to the upper Strata of the society but have to freely flow to all segments of the female population. IT sector is considered to be no-discriminating. It is considered to be an equal opportunity employer for men & women. IT are powerful tools for women to use to overcome discrimination achieve full equality, well being and participation in decisions that impact the quality of their lives and the future of their communities. Women can use technology to successfully build personal confidence & self-esteem that has wider implications in women's live. The aim of this paper is to show the position of women in newly emerging areas of information technology and to examine the different ways in which IT has benefited women in terms of employment. This paper also examines the effects of IT in rural area.

Keywords: Empowerment, Digital Technology, Information & Communication Technology, Gender quality, Women Empowerment.

INTRODUCTION: Information and Communication Technology (ICT) has become a potent force in transforming social, economic, and political life globally. Without its incorporation into the information age, there is little chance for countries or regions to develop. More and more concern is being shown about the impact of those left on the other side of the digital divide the division between the information "haves" and "have-nots." Most women within developing countries are in the deepest part of the divide further removed from the information age than the men whose poverty they share. However, it is not a choice between one and the other. ICT can be an important tool in meeting women's basic needs and can provide the access to resources to lead women out of poverty .Women work two thirds of the world's total working hours spending mainly on growing food, cooking, raising children, caring for the elderly, maintaining a house, hauling water, etc. which is universally accorded low status and without pay.

DEFINITION AND SCOPE OF ICT: Information and communication technologies (ICT) comprise a complex and heterogeneous set of goods, applications and services used to produce, distribute process and transform information. The ICT sector consists of segments as diverse as telecommunications, television and radio broadcasting, computer hardware and software, computer services and electronic media (e.g., the Internet, electronic mail, electronic commerce and computer games) as well as the content of these Media.

3. OBJECTIVES OF THE STUDY

1. To show the position of women in newly emerging areas of information technology.

To study the different ways in which information technology has benefited the Working women.

4. REVIEW OF LITERATURE: Huyer S and Sikoska T (2003), in their study "Overcoming the Gender Digital divide: Understanding ICT's and their potential for the Empowerment of Women" explores the leading approaches to maximizing the potential of ICTs for women's empowerment, examines the social context of technology, and identifies the main structural barriers and empower women through ICTs. Information and Communication Technologies have so far been predominantly designed and created within male-dominated environments and that the policies are usually formulated by male policy-makers has contributed to the gender digital divide. Yet it is maintained that Information Technology hold great potential for women's empowerment on an individual level (better self esteem, increased confidence and more carrier opportunities) as well as

on a collective level IT indeed presents unique and timely opportunities for women. It promises better economic prospects, fuller political participation, communication with the outside world, easy access to information and an enhanced ability to acquire education and skills and to transcend social restrictions. It should be viewed as a tool to facilitate access to a variety of development resources rather than as a competing interest. But the ways in which women's IT access, participation, and leadership are addressed will determine whether information technology is instrumental in empowering women (Hafkin and Taggart 2000). According to Ranjana Agarwal (2000), there are several employment opportunities in IT for young women who have had education and training in 19 urban, English medium schools. The IT enabled services centers offer several opportunities to women. The IT enabled services require excellent verbal communication skills and pleasing personality. Data entry/data conversion needs typing conversion and strong written English communication skills. Apart from direct employment, ICT has benefited women in a number of ways. It is a viable tool of information and communication which goes a long way in empowerment of women. Immense amount of information is obtained through the internet. The number of IT users as well as IT professionals has been increasing over the years. The number of Internet users has been rising over the years. Women are expected to emerge as a large segment on the internet in the next 20 years. Effective and efficient use of information technology like internet can help in assimilating information about variety, range and quality of products, publicity and marketing of products and services. Apart from being used as a tool of information and communication and employment, application of ICT has created avenues for women empowerment. Of course, the single most important factor for increasing the ability of girls and women to take advantage of IT opportunities is education. This requires interventions at all levels, from literacy through scientific and technological education. To prepare women to enter IT fields, the concentrated efforts of the past 10 years to ensure access to quality basic education for girls should be continued and strengthened, with IT integrated into the programs. Indeed, improving the quality and reach of basic education through IT is increasingly essential to mitigating the gender divide for women in developing countries. Beyond access to basic education, girls and women must be equipped with skills to prepare them for a range of roles in IT as users, creators, designers, and managers. Therefore, efforts should focus on increasing the number of girls and women studying IT-related subjects in formal schooling and seeking IT training outside of school. Science and technology education is necessary for women to in IT as computer programmers, engineers, systems analysts, and designers, yet women's low enrolment in maths and science courses impedes participation in these IT fields globally (Hafkin and Taggart 2000). While studying female faculty members at elite Indian science and technology institutes, Gupta and Sharma (2002) found that the respondents experienced conflict between gender and profession in three ways. First, women scientists felt they must work twice as hard as their male counterparts to prove their competence. Second, women lacked informal interaction and broad social networks given the physical and social distance they are required to maintain from unrelated men. Third, women experienced pressure to maintain gender roles while assuming professional roles, including the assumption of submissive roles toward male colleagues and allowing family interest to trump career concerns. Similarly with respect to the position of women in the IT sector of India, Mansell and Wehn (1998) cautions that, while women are entering the ICT field, including software development, 'terms of contracts, wages, training, health, and safety are often very poor' (p. 249). A study done in the mid 1990s (Webster in Mansell and Wehn: 251) reports that in every country of the world women are marginalized from the more instrumental and lucrative careers involved with the research and development of IT, and relegated to lower skill and income tiers of IT production. Agarwal (2000) puts forward certain policies which may help women to retain and include more

women in the industry. According to her, women form a significant portion of labour force. To help women, policies should be undertaken as to increase women's access to computers and internet. There should be provisions for setting up of more women's only access sites. Efforts should be directed towards improving women's skills and usage of new technology. It is also noted that there is a wide gap between computer education and absorption in the labour market. This is due to the fact there is restricted mobility for women. Timings of work are also a problem for women. Factors as marriage, childbirth, childrearing and household responsibilities may prevent women from working women from working fulltime. Flexi timings and work at home should be encouraged from the part of women. The concept of part time work will also go a long way in helping them. Policies should be made to subsidise childcare. There should be provision of child care support as day care centers and crèches also. Transport facilities should be provided to women. If women had a break from work, there should be provisions for retraining in industry. All these factors will go a long way in benefiting fulltime.

5. ICT- WOMEN EMPOWERMENT: Despite the numerous challenges to equity in the ICT arena, many social actors have exploited ICTs as tools for social transformation and gender equality. Women artisans are directly accessing global markets through e-commerce initiatives and are using the Internet to support their activities with market and production information. E-governance programs have been initiated using ICTs for delivering government services; in some cases with an explicit strategy to ensure these services reach women and others who face barriers to access. Health educators have used the radio to communicate information related to women's sexual and reproductive health. Email, online newsletters and List Serves have enabled women to communicate on a global scale, resulting in increased collaboration to push the agenda of gender equality. New technologies do offer remarkable advantages in terms of ease of communication, unprecedented possibilities for interaction, and efficiency in information storage and retrieval; however they are not universally available. New initiatives have been most effective where they go beyond issues of access and infrastructure to consider the larger social context and power relations.

Ratios of women employment to total employment in IT sector

Name of the company	Total employment	Women employment	Ratio
WIPRO	12658	2530	1:5
TCS	21800	5450	1:4
INFOSYS	15356	2896	1:5
HEWLETT-PACKRD	2245	320	1:7
L&T INFOTEC	2250	900	1:2.5
HCL TECHNOLOGIES	5757	1150	1:5
SUN MICROSYSTEM	596	119	1:5
ROLTA INDIA	2634	123	1:1.9
ORACLE INDIA	2702	540	1:5
SIMENS INFORMATION	1390	260	1:6

The IT sector in India has created employment opportunities in areas such as telecommunications, banking, shopping, education, health and business. In addition, the internet has also generated new jobs in areas like the design, maintenance and management and management of sites on the World Wide Web. There are real possibilities that women may be able to access opportunities they never had before. According to prediction by National Association of Software and Services Companies

(NASSCOM), by 2014 there will be one and a half million jobs in the IT enabled services. If 50% to 70% of these jobs were to go to women, the impact will be tremendous.

Women among the various subsets of IT			
S.NO	IT sector	F/M ratio	Type of work and skill requirement
1	Software industry	19:81	Software development not just design, customization and adaptation of software
2	Telecom industry	40:60	Technical and creative work required highly qualified engineers
3	Airlines	80:20	Customer service, required communication, language & software skill
4	ITES(medical transcription)	45:55	Demand in linguistics and functional/ domain skill
5	BPO	49:51	Indian BPO is predominantly voice-based (outbound calls)

6. BENEFITS OF DIGITAL TECHNOLOGY FOR WORKING WOMEN:

Information technology has catalyzed the process of women's empowerment by opening up avenues for women to freely articulate and share their experiences, concerns and knowledge created the possibility of their further enrichment. The use of IT has broadened the scope of their activities and enabled them to address issues previously beyond their capacity. Women have traditionally been excluded from the external information sphere, both deliberately and because of factors working to their disadvantage such as lack of freedom of movement or low levels of education. IT opens up a direct window for women to the outside world. Information flows to them without any distortion and censoring. This leads to broadening of perspectives; greater understanding of their current situation. IT has played an important role in changing the concept of work and workplace. Due to IT, women have employment options as flexibility and work at home concept. Tele-TechIndia, a joint venture BPO Company between Tele-Tech and the Bharti group, gives its employees a choice of four-day weeks instead of normal five. There are incentives for housewives & other part time workers for 30 hour weeks. Mumbai-based Data matics Technologies, a BPO which processes data allows women to work from home, 20 hours a week. This facilities employment for married women, especially with small children. IT has made the role of time and distance less significant in organizing business and production related activities. As a result of technology, a high proportion of jobs outsourced by big firms are going to women. IT offers women flexibility in time & space. Women, therefore can work from outside the office, often from their home and at anytime and raise extra income to become more financially independent and empowered. New areas of employment such as telemarketing, medical transcriptions etc. have also opened up tremendous job opportunities for women. These jobs are definitely underpaid and fall at lower segment of IT Jobs, nevertheless, they are opening up avenues where none existed before.

CONCLUSION: It can be concluded that the women is empowered through the help of Information technology. It has changed their position from past. The development of IT has enabled the women section to participate in each and every walk of life. It has empowered the

women by enhancing their skills, knowledge and income. Flexi timings and work at home with internet has enabled the more women to join the labor force. Thus IT has played a greater role in women's empowerment. Its potential to sweep across political, geographical, economic and social barriers is just the leverage that women need to build for themselves a new identity and a more honorable place in society.

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MICRO FINANCE FOR WOMEN IN RURAL INDIA: A CASE STUDY OF MANN DESHI MAHILA SAHAKARI BANK

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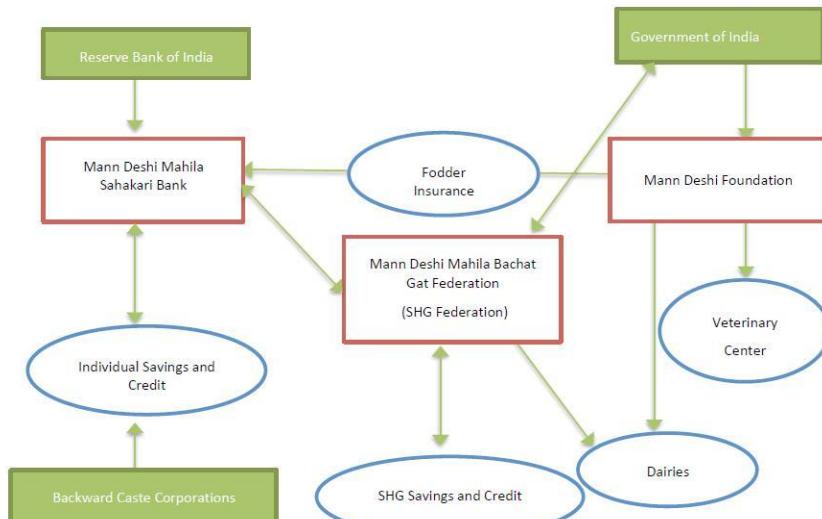
Abstract

Micro Finance for rural population is indispensable for sustainable development of India. After 67 years of planning, out of the 26.67 crore households in the country, 10.14 crore do not have access to banking services. In rural areas, 46 per cent households and in urban areas 31 per cent still do not have a bank account. The Prime Minister announced the Pradhan Mantri Jan-Dhan Yojana in the year 2014, which is based substantially on the Comprehensive Financial Inclusion Plan (CFIP). Reserve Bank of India is trying to open bank account for every household of the country as long term plan. Founded in 1997 in Satara district, Mann Deshi Mahila Sahakari Bank is a regulated cooperative bank by and for woman,. It was India's first rural financial institution to obtain a cooperative licence from the RBI. Today Mann Deshi is the largest microfinance bank in Maharashtra with over 200000 women clients, offerings individual and group loans, saving, insurance and pension plans. The mission of bank is rural economic empowerment, by providing capital and other financial services to impoverished women.

Keywords: Micro Finance, Rural Development, Doorstep banking, Financial Inclusion

Introduction: Post 26 years of economic reforms the time is right to assess its effects. Dualistic pattern of development took place in the country during the reforms period. On one hand urban areas viewed speedy development, rural areas continued to be backward. It developed a wider gap between rural and urban India. While India can compete with any other developed country in the field of technology and human resource, only 22% of India's population is still living below the poverty line (India's Poverty Profile, 2016). The rural areas are still fundamentally disadvantaged. The need of the hour is to bring rural areas into the mainstream of development. Various steps are been taken by Reserve bank of India for rural development such as establishment of Regional Rural Banks, promotion of cooperative banks and self-help groups etc. The critical challenges faced by RBI are financial inclusion, micro finance and the growth and development of unprivileged sections. We need to think seriously about the development of rural areas for the solution of the problem. The solution may be thought in terms of Mann Deshi Bank model.

The Mann Deshi Group Business Model:



Source: <http://www.manndeshibank.com/to-scale-or-not.pdf>

Mann Deshi Mahila Sahakari Bank is a microfinance bank which lends to women in rural areas. It is a regulated cooperative bank by and for woman, established in 1997. It was India's first rural financial institution to receive a cooperative licence from the Reserve Bank of India. At present Mann Deshi is the largest microfinance bank in Maharashtra with over 200000 women clients, offering individual and group loans, savings, insurance and pension plans. The bank was founded by Mann Deshi Foundation in Satara district. This area is drought prone with less than 5 inches rainfall. A large number of the rural male population migrated to the urban areas in search of jobs in the service sector. Thus in the rural area women become the main caretakers in the household. Most of the population of this area belongs to scheduled caste and other backward classes (OBC) of whom over 75% are living below the poverty line. The Mann Deshi Sahakari Bank was founded by illiterate, rural woman who had to fight a hard battle for getting a banking license from the RBI. Since its foundation, the bank has grown from start-up capital worth Rs.550000 to share capital of worth Rs. 54369750 in year 2016-17 (Bank, 2017). Mann Deshi has a repayment rate of 98%. It is the only Bank that is Providing Door-Step Banking .

The Government of India has mainly two objectives for equitable and sustainable development in rural India.

Institutionalization of Rural Credit Delivery System (IRCDS)

Total Financial Inclusion (FI)

While the IRCDS refers to substitution of informal financial channels by timely, adequate and hassle free institutional credit, the FI refers to provision of banking services to all at affordable rate of interest (Sangra). Financial inclusion denotes delivery of credit and other financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups. The various financial services include savings, credit, insurance and payments and remittance facilities. The objective of financial inclusion is to extend the scope of activities of the organized financial system to include within its ambit people with low incomes. Through graduated credit, attempts must be made to lift the poor from one level to another so that they come out of poverty. Analysis of the data provided by RBI through its Basic Statistical Returns reveals that critical exclusion (in terms of credit) is manifest in 256 districts, spread across 17 States and 1 UT, with a credit gap of 95% and above. This is in respect of commercial banks and RRBs.

Working Definitions of terms used:

Financial inclusion –A broad working definition of financial inclusion is “ It is the process of ensuring access to appropriate financial products and Services needed by all sections of the society in general and vulnerable groups such as weaker Sections and low income groups in particular at an affordable cost in a fair and transparent manner by mainstream institutional players.

This includes accessing of Financial Products and Services like

Savings facility

Credit and debit cards access

Electronic fund transfer

All kinds of commercial loans

Overdraft facility

Cheque facility

Payment and remittance services

Low cost financial services

Insurance (Medical insurance)

Financial advice

Pension for old age and investment schemes

Access to financial markets

Micro credit during emergency

Entrepreneurial credit

Micro finance: Microfinance is an economic development tool whose objective is to assist the poor to work their way out of poverty. It covers a range of services which include, in addition to the provision of credit, many other services such as savings, insurance, money transfers, counselling, etc.

Rural: Rural means village or countryside in India. Rural areas are those which are not included in any municipal corporation board, with a minimum of 75% of the male working population involved in agriculture and allied activities, and with population density less than 400 people per square kilometer

RBI's Policy on 'Financial Inclusion': The Reserve Bank had set up the Financial Inclusion Advisory Committee (FIAC) in 2012 to review Financial Inclusion (FI) policies on an on-going basis and to provide expert advice on additional efforts under FI. Considering the need for convergence of the FI efforts of various stakeholders, FIAC was reconstituted in July 2015 with representation from the Government of India, SEBI, IRDA, PFRDA with renewed focus on review and monitoring of FI and financial literacy (FL) policies and progress; impact evaluation and preparing a national strategy for financial inclusion (NSFI). For increasing banking penetration and financial inclusion, brick and mortar branches are an integral component and hence it has been decided to focus on villages with population above 5000 without a bank branch of a scheduled commercial bank. Therefore, SLBC Convener Banks have been advised to identify villages with population above 5000 without a bank branch of a scheduled commercial bank in their State. As reported by SLBCs, 6,593 villages were identified and allotted among SCBs (including RRBs) for opening branches (RBI, 2016).

The Role of Banks in Financial Inclusion: The institutions which currently provide financial services in the rural areas include branches of commercial banks, regional rural banks, cooperative societies and micro-finance institutions. There is a need to find ways and means to effect improvements within the existing formal credit delivery mechanism and evolve new models for extending out-reach. The commercial banks have a large outreach. There are, at present, 33,500 commercial bank branches in rural and semiurban centers in the country. Dr. C. Rangarajan, Chairman, Economic Advisory Council to PM suggested the following approaches towards **financial inclusion:**

Rural branches of banks have to become farmer-friendly

Rural branches must go beyond providing credit and extend a helping hand in terms of advice on a wide variety of matters relating to agriculture and other allied activities.

In districts where the population per branch is much higher than the national average, commercial banks may be encouraged to open branches. 139 districts in 15 states have been identified by Reserve Bank as inadequately served by the banking system.

Simplification of the procedures in relation to granting of loans to small borrowers.

The SHG bank linkage scheme has proved to be an effective way of providing credit to very small borrowers. The role of commercial banks in sustainable development is linked to increased savings mobilization and credit provision in rural areas which allows rural households to better accumulate capital and to obtain loans for longer term productive investments. Interest rates on loans and deposits are attractive relative to those available in informal markets. The economy is presently in a phase of rapidly rising income, rural and urban, arising from an expansion of economic activities as well as the creation of new activities including corporate profitability which has exhibited sustainable trends and increasing consumer incomes thereby riding on the growth momentum. There is a clear need to vastly increase the numbers served by existing branches for savings, loans and remittances. It is hoped that the new KYC norms will go a long way in ensuring this. The financial services for rural areas will need to be supplemented by organizing support for ancillary

activities and knowledge dissemination. Farmers training centers, village knowledge centers, RUDSET as set up by a few banks will need multiplication for ensuring sustainable development. Financial Inclusion takes the society on the path of growth with equity. It is helpful in removal of poverty as well as development of infrastructure . It includes safe savings along with financial services.

Objectives of Study:

1. To study the role of Micro Finance and Financial Inclusion for equitable and sustainable development of rural India.
2. To study and understand the working techniques of Mann Deshi Mahila Saakari Bank.
3. To study the role of Mann Deshi Mahila Sahakari Bank's working for Micro finance for rural women.
4. To discover the scope of Mann Deshi Mahila sahakari Bank services.

Review of Relevant Literature:

Literature review is always the guiding source in any kind of research work.

Dr. Vasanthakumari P., (2011) stated in her book “Study of the Performance of Self-help Groups in India” that Women Empowerment is acknowledged as the finest Strategy for poverty alleviation and gender equality. Despite the large rural banking network, a vast majority of the rural poor have no access to bank credit for various reasons. B. Suguna (2006) states in her book “Empowerment of Rural Women through Self Help Groups” that it is understood by the entire world that best way to tackle poverty is women empowerment and up gradation.

Ayesha Jahanian et al (2012) explained through research paper “Women Empowerment through **Microcredit: The Role of HSBC Bank (UK) in Foreign Market**” the role of HSBC (UK) in Indian market of microcredit. HSBC (UK) works in collaboration with Mann DeshiMahila Bank in India to target women empowerment through microcredit. The study analyzed the role of microcredit in empowering women in order to see whether institutions in developed countries such as UK, USA etc. have the potential to aim for microcredit market in developing countries. The results of the study are generated by analyzing the primary data collected from the women microcredit clients of Mann DeshiMahila Bank (India). The study concludes that HSBC bank (UK) is successfully targeting the women empowerment in India through its collaboration with Mann DeshiMahila Bank (India). The microcredit given through Mann DeshiMahila bank to the Indian women helps in empowering women on personal, social, political and financial levels. The results of the research indicate a positive relationship of microcredit and women empowerment.

Secondary Data Analysis: This analysis is related to the Mann Deshi Mahila Sahakari Bank Model. Data from the bank is analysed to assess the efficiency of its services. Secondary data is also used for the purpose of study. The Secondary data is collected from different books, magazines, journals, articles, bulletins of different banks, RBI, periodicals, annual reports of banking institutions, articles in the newspapers, as well as published and unpublished data related to the subject.

Analysis of data:

TABLE 1: Inclusive Growth of Mann Deshi Mahila Sahakari Bank:

Year	Number of Members	Share Capital (in Lakhs)	Total Deposits (in Lakhs)	Total Advances (in Lakhs)	Investments (in Lakhs)	Working Capital (in Lakhs)
2007	5961	102.31	1030.35	765.63	258.95	1233.03
2008	7630	148.20	1672.40	859.35	553.81	1628.96
2009	9392	183.54	2469.89	990.58	875.11	2114.19
2010	11366	223.42	2721.56	1442.14	1029.93	3084.53
2011	11871	260.06	3338.25	2240.99	839.61	3733.15
2012	12220	276.53	4000.00	2641.83	1291.33	4491.31
2013	14053	308.81	4801.19	2853.59	1787.35	5370.53
2014	17173	384.67	6398.00	3950.37	2292.39	7151.14
2015	22701	470.00	7633.29	5318.48	2241.47	8630.87
2016	25832	517.37	8782.07	5199.52	3440.73	9872.97
2017	24978	543.70	8942.00	5685.93	3010.94	10170.21

Source: <http://www.manndeshibank.com/Bank-Annual-Report-2016-17.pdf>

TABLE 2: Number of Clients Of Mann Deshi Mahila Sahakari Bank:

Year	Number of Clients
2007	58,279
2008	81,304
2009	98,700
2010	127,000
2011	140,360
2012	155,000
2013	185,000

2014	191,638
2015	195,823
2016	199,842
2017	200,000+

Source:
www.manndeshi.org/progress.html

Findings: Mann Deshi Mahila Sahakari Bank is working effectively to promote Micro finance for rural Women. Mann Deshi group was the first institution to set up a rural bank in India in 1997 in Maharashtra state. The current paid up capital of bank is 543.70 and net NPA of the Bank is 2 per cent and it has a CRAR of 18.24% .. Mann Deshi Foundation and the Bank are operating two states; Maharashtra and Karnataka. Following are the distinct services provided by bank to empower women entrepreneurs and promote micro finance:

Pension Scheme: Mann Deshi Bank has been heading pioneering efforts in the banking sector. It must be mentioned that Mann Deshi is the first rural women's bank with a pension scheme with UTI Mutual Fund.

Business School Program: In 2006 Mann Deshi started the Business School Program for rural women sponsored by HSBC. The Business School assisted more than 46,000 women to benefit from the graduation program. The women entrepreneurs graduating from the Business School will benefit from the services of the Mann Deshi Chamber of Commerce to conduct their business. Some of more initiatives of Mann Deshi foundation are business schools for rural women, mobile business schools, financial literacy, umbrella programme for street vendors, freedom ride programme for school girls, community radio, champion sports programme etc. The Group has two organizations. First is Mann Deshi Foundation, an NGO that provides a variety of non-financial services to its clients; and second is Mann DeshiMahilaSahakari Bank.

Doorstep Cash Credit Scheme: Mann Deshi Bank is doing field research of weekly market vendors by maintaining diaries and has also designed a Loan product for weekly market vendors. While maintaining the diary it was observed that in weekly market vendors need immediate cash to buy produce in market, and practically it is not possible for the vendors to approach bank on the market day. They either borrow money from money lender or purchase goods on credit and in both cases end up paying high interest or get low or inferior quality goods; as a result the profit margin of the vendor is affected. Weekly Market Doorstep Cash Credit (DCC) is a scheme of financial assistance to small vendors for the working capital needs of the businesses. This Loan is given to meet working capital requirements of the Weekly Market Vendor at their doorstep. This loan, given against no security on the market day, surely results in increasing business turnover opportunity and cash flows. Mann Deshi Bank provides Cash Credit facility to vendors in the weekly markets with a doorstep service approach. In India, +60,000 weekly markets take place. These loans can be replicated everywhere through business correspondence in the weekly market/mandis.

MannDeshi Chamber of Commerce for Rural Women in India (MCCRW): Mann Deshi Foundation has also formed the first Mann Deshi Chamber of Commerce for Rural Women in India (MCCRW) in partnership with President Clinton Foundation's initiative - Clinton Global Initiative (CGI) based in New York, USA.

Inclusion of women's names on stamp papers The Mann Deshi Bank won a victory in 2004 when it convinced the Revenue Department of Maharashtra to include women's names on stamp papers. Stamp papers are duties levied on transfers of immovable property. By including the names of women, the papers recognize a woman's right to household property. This means their husbands can neither sell the property without her consent nor claim the entire property as his own in case of divorce. To date, nearly six hundred thousand women have been helped by this policy change and 7000 have been able to get their share in the household property. Mann Deshi has also created an incentive for women to become homeowners by giving them a 1% rebate on interest paid on loans. **MannDeshiTarangVahiniMhaswad:** ManndeshiTarangVahiniMhaswad CRS was launched on 17th November 2008 by Manndeshi Foundation Mhaswad (NGO) for Manndeshi Community. ManndeshiTarangVahiniMhaswad CRS produces a radio programme for the Mann Deshi people, by the Mann Deshi people and related to Mann Deshi culture. The Radio Programmes touch upon all areas where women are involved, like agriculture, cottage industries, and also offers programmes related to cooking, health care, children's care, clean water, exercise, hobbies and career guidance. **Property-collateral loans:** It is a commonly held assumption that as women do not own property they cannot provide collateral. Mann Deshi has also managed to resolve the issue of gender inequality in property ownership in many cases. More than 20,000 women have taken loans from Mann Deshi which required mortgage of property also. Mann Deshi gives 1% rebate in interest if women own property. This motivates husbands to register property in the name of women. The Mann Deshi's credit programs encourage women to build assets by providing micro-loans, finance a variety of asset-building enterprises including startup business and training. Unlike many other MFIs, Mann Deshi sees the importance in consumption loans to finance healthcare costs, marriages, children's education, and housing. Depending on each woman's needs, Mann Deshi Bank offers different types of loans: Short term loan (1 year) Long term loan (2-5 years) Loans against deposit (1 year) Loans against gold (1 year) Gold Loans (1 year) Today more than 185,000 women make deposits with the Bank and their accounts have become their assets. Crucially, if women take a loan from the Bank, their husbands must make them co-owners of all of the family's property. Today +36,000 women have used group loans, and bank loans to gain access to their family assets. This motivates husbands to register property in their women's name.

Conclusion: Considering of above services and efforts we can conclude that Mann Deshi Mahila Sahakari Bank is functioning methodically towards empowering rural women through Micro finance. It is working systematically towards financial inclusion. The number of its clients is growing faster. This bank is definitely playing major role in women empowerment. We can propose this bank model for financial inclusion of rural women of India.

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**NEO-FEMINIST ATTRIBUTES IN INDIAN CHICK LIT: A STUDY WITH REFERENCE
TO ADVAITA KALA'S ALMOST SINGLE AND MONICA PRADHAN'S THE HINDI
BINDI CLUB**

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Abstract

"Indian chick lit" is the Indian brand of chick lit, a genre of fiction written by women, about women and for women. Chick Lit is a relatively new genre that is marketed to young stylish female protagonists, especially single, working women often in the publishing, advertising, public relations, fashion or film industry who are in their twenties and thirties living in an urban setting and follow their love lives and struggles for professional success. In this research paper, an effort has been made to showcase the neo-feminist bearings in Indian Chick lit and its depiction of the life of the contemporary independent and liberated Indian girls and women leading cosmopolitan lives. Neo-feminism maintains an emerging view of women who are empowered by the celebration of the so called feminine attributes. To explore in depth and to support the argument the paper discusses two representative books of this genre: *Almost Single* (2007) by Advaita Kala and *The Hindi Bindi Club* (2007) by Monica Pradhan. The paper explores the compatibility of the theoretical premises of Neo-feminism with the ethos of Indian Chick Lit.

Keyword: Neo-feminism, Chick lit, Indianess, Contemporary.

Neo-feminism is one of the contemporary brands of feminism which explores positive psychology of being women and celebrates feminine identities. It also presents an emerging view of women who are empowered through the celebration of certain women centric attributes. Often branded as 'Lipstick Feminism', it exposes certain gaps in second wave feminism by asserting the agential aspects of being a woman. It also impels women to realize their autonomy through their femininity. Neo-feminism also champions free choice of women in appearance, lifestyle and sexuality. One can see that Chick-lit, which emerged towards the end of twentieth century is highly compatible with the premise of Neo-feminism. Chick lit fiction by, for, or about women is a type of fiction, focusing on the social lives and relationships of young professional women, and often aimed at readers with similar experiences and which appeals to 21st century women. Indian Chick Lit presents the Indian society and culture very selectively, especially the society of educated, ambitious women. These books have a tangy flavour of Indianess in them. 'Almost Single' authored by Advaita Kala is the story of a 29 year old, independent, career-oriented, fun-loving, alcohol-guzzling, Sunday-brunch-addict, forever-on-a-diet shopaholic and an unmarried girl named Aisha Bhatia who lives all alone in the capital city of India. There is also Misha who has come from a small town wanting to enjoy the independent life in Delhi and her sole aim in life is to snag the perfect NRI guy for herself. She is 25 and unhappily single. Then there is Anushka Mishra, once a poster girl who was 'happily married' and who is now headed for a divorce which she has yet to come to terms with. Then there is the exemplary gay couple – Nic and Ric who provide quick fix solutions to hangovers, beauty tips, are in contention with Aisha and Misha for snagging eligible bachelors and always provide a shoulder to cry on. The author, Advaita Kala, an earlier hotel executive but now a full time writer, accepts in an interview that the story of Almost Single is a bit autobiographical. She also explains that she wanted to write about the experience of the Indian urban women. Her novel shows in a humorous way the reactions of the family, society and of their own to all these changes. The First interesting point is that the protagonists of Indian Chick Lit are a mixture of traditions and modernity. Though they present a sharp contradiction to the stereotypical image of an Indian woman as they break many norms and never behave like stereotypes, they represent Indian beliefs and ethnicity. These are the girls wearing Indian outfits like saaris and dupattas. They represent the educated middle class girls of the twenty-first century

India who want to achieve something more in their lives. They come from small towns to middle sized cities. They are shown as newly urbanized. They want to have it all. They value and respect their traditions and cultural norms, but certainly have a mind of their own. That is why they seem to be idiosyncratic sometimes with their own set of eccentricities. For example, the protagonist, Aisha Bhatia in Almost Single, is from Nashik but works in Delhi. She wears saari with Reebok shoes as her job in a five star hotel demands her to wear the ethnic attire but she pairs it up with the comfortable shoes as her job also expects her to be on her toes the entire day. She smokes and drinks and wants to enjoy her life but she still believes even at the age of twenty-nine that an arranged marriage can happen to her and feels worried when her mother asks her to find a match for herself as it conveys that she has passed the age of arranged marriage, "When your parents stop matchmaking and turn philosophical, it's time to worry" (Almost Single, 12). She is registered with the online marriage portals and has her astrologer's number on the top of the speed-dial list of her phone and even keeps a karvachauth fast for Karan Verma, the person on whom she has a crush. Indian Chick Lit novels represent the upward-mobile Indian society and culture very convincingly. These books reveal Indianess though not in a conventional way. For example, Aisha's mother repeats the same question daily, "So, have you met anyone interesting?" (Almost Single 11). Aisha's answer reveals that how frustrated she feels by the same question every day, "Well, no one between yesterday and today, but there is always a tomorrow" (Almost Single 11). Consequently her mom, like a typical Indian mother, accuses her bad karma because around thirty her girl is still unmarried. Aisha's mother does not like Aisha's gay friends Ric and Nic. She reminds her time and again to maintain a distance from them and repeats that Aisha should not be influenced by them. Thus a very apt Indian factor of these novels is – the portrayal of the typical Indian mother. Along with it the mother-daughter relationship also is explored. Daughters are generally considered closer to their mothers in India. Daughters know that they are always answerable to their mothers for whatever they do in their lives and they also know that their mothers are always available to guide and help them. The protagonists of the novels under scrutiny are sure about one thing that whatever happens in their lives they always have a support system in the shape of their mother. These girls are emotionally well-connected to their mothers and absorb strength from them to always carry on, no matter what adverse things happen in life. The mothers themselves are described as quite strong and progressive characters. For example, Aisha's mother does not believe in keeping the karvachauth fast despite being concerned about Aisha's marriage. The eternal debate in Indian matrimony, that is arranged marriage versus love marriage, is presented effectively in all these novels. The institution of marriage has changed over a period of time. The independent and educated girls of India want career as well as marriage. They know that for an Indian girl having a great career is not enough in their life; she has to be married also. They carry a respect and a sense of commitment for their traditions and cultural norms, but certainly have a strong sense of identity and self-defining choices; so marriage becomes a critical issue as they want a partner who can love them as they are and respect their freedom. Unlike the traditional passive women they can compromise but only to a certain level. And an Indian boy who meets the expectations of such girls is not impossible but really difficult to find. Also the issues such as divorce, premarital sex and consequent abortions, extra-marital affairs, live-in relationships, and gay relationships which are considered as anathemas in the middle-class Indian society as compared to the western one, are discussed and presented in these novels. These issues are presented in a certain way that shows that though all the above-mentioned ideas are condemned openly they happen in society; and right now Indian middle-class is in a flux being forced to accept these ideas in social and cultural discourses. Indian Chick Lit novels advocate

Neo-feminist ideas presented in a simple but clear way which address issues of modern womanhood, often humorously and light-heartedly. The mainstream Indian literature written in English generally portrays women as victims of the patriarchal Indian society. There are a number of women writers who discuss women-centric issues in India. It cannot be denied that things have changed and still changing for many women, especially in cities and educated families as Neo-feminists have argued. In today's India, particularly in the urban set-up, girl child of the family gets equal opportunities and freedom in many matters of life. The novels selected for the study present the independent educated single working women who are free from the root-level gender-specific constraints of India. Moreover, these protagonists are into the careers which are yet considered unconventional, though not completely unexplored, for an average Indian girl. Parvati in *Almost Single* is shown as working as an assistant director on Bollywood sets and Aisha is into hotel industry. They venture into the careers and territories which are generally considered as masculine domains in the patriarchal society. So they represent the emancipated Indian Woman.

Monica Pradhan's *The Hindi-Bindi Club*, takes its title from a nickname given to a group of mothers by their American daughters. The group has remained a close network after moving from India to the suburbs of Washington, D.C.— sharing recipes, customs, and helping each other in the face of the challenges of being women shaped by ancient ways yet living modern lives. Monica Pradhan's parents immigrated to the United States from Mumbai, in the 1960s. She was born in Pittsburgh, grew up in the suburbs of Washington, DC and now lives in Minneapolis with her husband. The Hindi Bindi Club based on her personal experiences narrates the story of two generations of Indians, parents and their children, more specifically mothers and their daughters residing in America, a progressive nation. The novel also captures their differences as the progenies imbibe bits from both the cultures, emerging up as beings of dual identity. The novel also highlights the challenge that the offspring of these double-faced parents undergo to live up to the expectations of their parents and still remain chastised and loyal to their own selves. To initiate with, *The Hindi-Bindi Club*, epicentres around three pairs of mother and daughter, Kiran and her mother Meenal from Mumbai, Priety and her Punjabi mother Saroji, Rani and her Bengali mother Uma from Kolkata. Kiran, Priety and Rani develop a network by default as their mothers' friendship grows stronger over the years. The girls, now all grown up and settled into their own lives, jokingly came to call their mothers' the Hindi-Bindi Club. Two of the Hindi-Bindi mothers are professional women. Uma is a professor of English, and Saroji, has a promising career in catering South Asian food. Monica Pradhan sketches the context for the Hindi-Bindi mothers, who all belong to privileged backgrounds and carry with them distinct cultural traditions from the subcontinent, are presented as members of a digitally enabled society. They are electronically proficient who know how to surf the Internet. The Hindi-Bindi Club, which is clearly aligned to the contemporary urban "chick lit" genre, is distinctly neo-feminist. The three Hindi-Bindi daughters remain close to their mothers. And the close mother- daughter association in the novel is styled in culinary terms. For instance, Rani recollects, "When I was little, I was my mother's shadow. An only child, I was the centre of her world, and she was mine. I loved to watch her prepare Bengali food" (*The Hindi-Bindi Club* 80). Fascinated by the way how her mother, armed with "a bonti – a contraption with a curved upright blade that served as an old-fashioned, manual food processor" cuts vegetables into different shapes, the young Rani once vowed "to chop all the vegetables" when she grows up (81). When as an adult she suffers from an artist's block, she attempts to compose herself by producing her own chocolate version of the "celebratory sweet, sandesh" out of her mother's recipe (79). Even the prodigal daughter Kiran, a prosperous physician in her own right, turns around to acquire Indian cooking skills and embraces the

tradition of arranged matrimony. Through wonderfully vivid personal history, stories, recipes, emails and letters, Monica Pradhan tells the story of different generations trying to cope. The novel is labelled as a hybrid form, which interestingly links the communicative function of e-mails with that of the recipes. The e-mails are used to transpire information horizontally and intra-generationally; the recipes are more like family legacies inculcated for vertical communication. Kiran finds out that her mother Meenal starts writing when the latter is diagnosed with breast cancer because, according to Meenal, it is the mother's liability to tutelage the daughter "the basics of Indian cooking" (177). Her recipes are written "with measurements" so that it will be easy for Kiran, who possess "meager time and more meager skill," to adhere (21). These judiciously scripted recipes are gifts from a mother who has confronted the shadow of death. Thus Kiran's apprenticeship in Meenal's kitchen is also a route of acquiring significant "life lessons" from her mother (177). In conclusion one can say Chick Lit employs new social situation where working women who care for money, recognition love and sex. It articulates a distinctively Neo-feminist sensibility characterized by an emphasis on neo-liberal feminine subjectivities and self-surveillance and monitoring; the notion of the (sexual) body as the key source of identity for women; discourses of boldness, entitlement, and choice (usually articulated to normative femininity and/or consumerism); and a belief in the emotional separateness of men's and women's worlds. The novels analysed convey these premises of Chick Lit and a positive message regarding women's situation in society and thus motivate the young women all over India.

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STUDY OF INVESTMENT PATTERN OF WORKING WOMEN IN MUMBAI

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Abstract

Financial markets provide a large number of investment instruments depending on individuals forte to invest. With the increase in working women population, the investment opportunities are also different and unique for women. Employed women have a greater propensity to save and invest because of their independent earning power. They are supposed to be risk adverse; safety oriented and guided by certainty of returns. The research aims to study the investment pattern, awareness of financial instruments amongs women investors and approach of working women for investments. The research study is undertaken with 100 respondents across the city of mumbai. Their various factors are taken into consideration like Age, Income, Occupation, reasons for investing, goals of investing, selection of Investment avenues. The investment pattern of women investors is unique as women are more social and think from a different angle before investing. They are influenced more by friends and family for making investments.

Keywords: Investments, Working Women, avenues, Risk Appitite

INTRODUCTION: Financial desisions are complex in nature and depend on individuals risk appitite and financial goals. Financial markets provide a large number of investment instruments depending on individuals forte to invest. The instruments are equity shares, Bonds, Bank Fixed Deposit ,Company Fixed Deposit, Insurance, Post Office schemes, Mutual Funds, Real State, Gold silver, PPF etc. Every individual investor, male or female have difrent set of needs hence their investment pattern differs. With the increase in working women population, the investment opportunities are also different and unique for women. The working women needs, investment pattern, spending pattern is far different from men investors. Women, being more social and more focussed on their needs make investment in avenues which fullfill their requirements. As a woman & an investor, shaping of financial future is important as they play many roles in life. Women today, have more earning potential & more influence over financial decisions than ever before. Women represent almost half of the workforce & many businesses are owned or managed by women. Mumbai is a city of dreams. And in city of mumbai, female contributes to the overall swing through an increase in the overall female work participation rate (FWPR) from 18.8% in 2011 to 34.8% in 2017. It becomes important for women to focus on finances now more than ever. The approach of female investors is more for shopping than for investing. General profile of women investors is changing in tune with time. But they lag in various spheres of investment such as awareness and preference of investment. So, an attempt has been made by the researcher to identify the factors influencing women investor's behavior to evaluate the level of awareness among women investors and to analyze the preference of women investor towards various investment avenues. Employed women have a greater propensity to save and invest because of their independent earning power. They are supposed to be risk adverse, safety oriented and guided by certainty of returns. With increasing level of knowledge and awareness, Women are slowly participating in the risk investment portfolios and they are becoming analytic in their investment behavior.

LITERATURE REVIEW: According to Prof. Priya Vasagadekar's research (2014) on working women she conclude that because of high level education, today's women are getting the best job offers with high take home pay packages. It has become the present day need for working women in India to increase their wealth. As most of the women are low in financial literacy, it becomes hardly possible for them to manage their portfolios on their own. Also the risk bearing capacity of working women in India is low. This is due to lack of sound financial knowledge.

Dr. Sarita Bahl (2012) concluded that there are younger women have already developed the plan for investment. Women working in private sector are more faith in investing their money. Women invest their money when they start earning and become independent. Majority of working women have invested their money. Working women invest their money in insurance plans as they are not willing to take risk to attain gain and want to have a safe future. Dr. R. Sellappan, Ms. S. Jamuna & Ms. Tn. Kavitha (2013) find out that married women are more curious in making investment than the unmarried. As well as the younger are mostly like to invest in shares mutual funds, insurance and fixed deposits than the older women. The middle age persons prefer to invest in real estate source of investment. So the government, Bankers and Financial institutions can introduce lot of schemes of investment based on segmentation of the age and marital status factors to acquire more funds.

OBJECTIVE OF RESEARCH

Main Objective: The main objective of the research is to study investment pattern of working women of Mumbai.

Sub Objective: The research aims to study the investment pattern, awareness of financial instruments among women investors and approach of working women for investments

METHODOLOGY/APPROACH

Research Methodology is a way to systematically solve the research problem. It includes the various methods and techniques for conducting research

Research Design Descriptive Research Design is used as researcher wants to gain a better understanding of investor, the design used will help in the exploring the investor.

Data Sources: Both primary and secondary data sources shall be used. Primary data shall be collected from questionnaire while, secondary data shall be collected from various sources like books, magazines, journals, internet, etc.

Sampling Unit: The study aims to measure the investment pattern of individuals on the basis of demographic characteristics. The sampling unit consists of respondents who are working women of Mumbai

Sample Size For the purpose of the study, total of 100 respondents have been studied.

Sampling Method For collecting the responses from the customers Convenience Sampling Method, which is a classification of Non – Probability Sampling Methods shall be used.

Instrument: For the purpose of the study Non-Disguised Structured Questionnaire shall be used.

DATA ANALYSIS:

The data Analysis of the research is as follows:

Determinants Factors

Age	20-30 years	25
	30-40 years	30
	40-50 years	20
	50-60 years	20
	60-70 years	5
	Professional	20
Occupation	Service	60
	Business	13

	freelancer	7
	Less than Rs.5,00,000	12
	Rs.5,00,000-10,00,000	34
Annual Income	Rs.10,00,001-15,00,000	36
	Rs.15,00,001-20,00,000	10
	Rs.20,00,001-25,00,000	8
	0-20	0
	20-30	0
	30-40	0
Percentage of income	40-50	0
	50-60	72
Invested		
	60-70	15
	70-80	10
	80-90	3
	90-100	
	To generate income for Today	0
	To generate income at a later date(Retirement)	86
Goal of Portfolio	Planning)	
	To provide for your dependents	10
	To fund a large purchase in the future	4
	Returns	78
	Good Schemes	3
	Retirement needs	5
Focus on Investing	Saving Tax	4
	Securing future	6
	Contigencies	3

	Multipel benefits like investment returns+ insurance + tax savings	1
	Shares	5
	Debentures/Bonds	0
	Real estate	0
Preferred Investment	Gold	14
Option	Mutual funds	44
	Fixed Income Securities	0
	Bank Deposits	25
	Company Deposits	0

Churn of Investment	Post Office Scheme	0
	Provident Fund Scheme	0
	Life Insurance Policies	12
	monthly	0
	quarterly	0
	six montly	0
	yearly	0
	three yearly	0
	5 yearly	0
	10 yearly	5
	keep it unless required to withdraw/redeem	95
Investment for Tax Purpose	Yes	42
	No	58
Knowledge about Investments	from brokers	1
	Through Internet	20
	Through Account statement	1
	Through Phone Service	5

	From Friends and Family	72

FINDINGS OF THE STUDY :

The saving proportion of the working women is much higher than their spending and the reason would be education, awareness and future spending.

The most important reason why a woman saves is because of a —Precautionary motive.

Most of the women preferred to make investment in fixed deposits with mutual funds, followed by investment in bank deposits and gold and insurance schemes,

The main reasons sited by the respondents for investment in various tools were high returns, followed by retirement plans and to spend later in life. They also mentioned that tax benefits also lured them towards safer investment options.

Family members are the one who influence the decision for making investments and then the internet knowledge influences the decision

Majority of the women mentioned that they made investment decisions on a yearly pattern followed by respondents who mentioned that they invested on a half-yearly basis.

Since women are not the majority spenders for household chores, the women make investment for long term and do not withdraw it until required.

From the study it is evident that working women invest in various investment avenues and develop their knowledge on it.

Working women have more income to invest but do not have a risk appetite to invest in equity since they are busy with their work schedule.

SUGGESTIONS:

Create more awareness for financial investments to women by focusing on financial literacy programs make investment programs specific to women

Increase the amount of investment from women by combining savings and luxuries like gold savings

Focus on Bank deposits schemes to attract savings from women

Make a different retirement plan for women apart from their spouse

Insurance investment should be enhanced for women by focusing on investment in special schemes which aim to take care of their long term needs after retirement

Creating more knowledge platform to invest in stock market instruments like equity shares and Mutual Fund

CONCLUSION: Working women are different set of investors. Since they have high incomes, knowledge to take decisions, influencing factor and a social element adjoined, their make investments focusing more on their retirement needs aiming to earn more returns without withdrawing their investments. Working women are moving shoulder to shoulder to the Men faternity and therefore their investment pattern should also be addressed.

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WOMEN LEADER: A SUCCESS STORY AT THE ENTREPRENEURIAL LEVEL TOO.

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Abstract

Women are considered as weaker sex and always made to depend on men folk in their family and outside, throughout their life. The Indian culture made them only subordinates and executors of the decisions made by other male members, in the basic family structure. While at least half the brainpower on earth belongs to women, women remain perhaps the world's most underutilized resource. Despite all the social hurdles, India is brimming with the success stories of women. They stand tall from the rest of the crowd and are applauded for their achievements in their respective field. The transformation of the social fabric of the Indian society, in terms of increased educational status of women and varied aspirations for better living, necessitated a change in the life style of Indian women. She has competed with man and successfully stood up with him in every walk of life and business is no exception for this. These women leaders are assertive, persuasive and willing to take risks. They managed to survive and succeed in this cut throat competition with their hard work, diligence and perseverance. Women entrepreneurship must be moulded properly with entrepreneurial traits and skills to meet the changes in trends, challenges global markets and also be competent enough to sustain and strive for excellence in the entrepreneurial arena. If every citizen works with such an attitude towards respecting the important position occupied by women in society and understanding their vital role in the modern business field too, then very soon we can pre-estimate our chances of out beating our own conservative and rigid thought process which is the biggest barrier in our country's development process.

Keywords: Entrepreneurship, Women, Business, Gender, attitude.

INTRODUCTION: There has been a significant growth in self-employment of women with women now starting new ventures at three times the rate of men. They constitute 50% of the population of our country with a lower literacy rate than men. This statistical fact indicates that for the economic growth of the nation, women should be encouraged to make their share of economic contribution towards the country. The hidden entrepreneurial potentials of women have gradually been changing with the growing sensitivity to the role and status of women in the society. The educated Indian women have to go a long way to achieve equal rights and position because traditions are deep rooted in Indian society where the sociological set up has been a male dominated one. Despite all the social hurdles, Indian women stand tall from the rest of the crowd and are applauded for their achievements in their respective field. Ability to learn quickly from her abilities, her persuasiveness, open style of problem solving, willingness to take risks and chances, ability to motivate people, knowing how to win and lose gracefully are the strengths of the Indian women entrepreneurs. These women leaders are assertive, persuasive and willing to take risks. They managed to survive and succeed in this cut throat competition with their hard work, diligence and perseverance.

OBJECTIVES AND RESEARCH METHODOLOGY OF THE STUDY

- The study is based on secondary data which is collected from the published reports of RBI, NABARD, Census Surveys, SSI Reports, newspapers, journals, websites, etc.
- The study was planned with the following objectives:
- To evaluate the factors responsible for encouraging women to become entrepreneurs.
- To study the impact of assistance by the government on women's entrepreneurship.
- To study the policies, programmes, institutional networks and the involvement of support agencies in promoting women's entrepreneurship.
- To critically examine the problems faced by women entrepreneurs.

REASONS FOR WOMEN BECOMING ENTREPRENEURS: The glass ceilings are shattered and women are found indulged in every line of business. The entry of women into business in India is traced out as an extension of their kitchen activities, mainly 3P's, Pickle, Powder and Pappad. But with the spread of education and passage of time women started shifting from 3P's to modern 3E's i.e., Energy, Electronics and Engineering. Skill, knowledge and adaptability in business are the main reasons for women to emerge into business ventures. Many women start a business due to some traumatic event, such as divorce, discrimination due to pregnancy or the corporate glass ceiling, the health of a family member, or economic reasons such as a layoff. But a new talent pool of women entrepreneurs is forming today, as more women opt to leave corporate world to chart their own destinies. They are flourishing as designers, interior decorators, exporters, publishers, garment manufacturers and still exploring new avenues of economic participation.

The problems and constraints experienced by women entrepreneurs have resulted in restricting the expansion of women entrepreneurship. The major barriers encountered by women entrepreneurs' are---- The greatest deterrent to women entrepreneurs is that they are women. A kind of patriarchal-male dominant social order is the building block to them in their way towards business success. Male members think it a big risk financing the ventures run by women. Male chauvinism is still prevalent in many parts of the country yet. Women are looked upon as —abla i.e. weak in all respects. In a male dominated society, women are not treated equal to men that act as a barrier to woman's entry into business. Women entrepreneurs have to face a stiff competition with the men entrepreneurs who easily involve in the promotion and development area and carry out easy marketing of their products with both the organized sector and their male counterparts. Such a competition ultimately results in the liquidation of women entrepreneurs. Lack of self-confidence, will-power, strong mental outlook and optimistic attitude amongst women creates a fear from committing mistakes while doing their piece of work. The family members and the society are reluctant to stand beside their entrepreneurial growth. Women in India lead a protected life. They are even less educated, economically not stable nor self-dependent which reduce their ability to bear risks and uncertainties involved in a business unit, The old and outdated social outlook to stop women from entering in the field of entrepreneurship is one of the reasons for their failure. They are under a social pressure which restrains them to prosper and achieve success in the field of entrepreneurship. Unlike men, women mobility in India is highly limited due to many reasons. A single women asking for room in a hotel is still looked with suspicion. Women's family obligations also bar them from becoming successful entrepreneurs in both developed and developing nations.

The financial institutions discourage women entrepreneurs on the belief that they can at any time leave their business and become housewives again. The business success also depends on the support the family members extended to women in the business process and management. Indian women give more emphasis to family ties and relationships. Married women have to make a fine balance between business and family. Women's family and personal obligations are sometimes a great barrier for succeeding in business career. Only few women are able to manage both home and business efficiently, devoting enough time to perform all their responsibilities in priority.

The educational level and family background of husbands also influences women participation in the field of enterprise. Absence of proper support, cooperation and back-up for women by their own family members and the outside world people force them to drop the idea of excelling in the enterprise field. They are always making many pessimistic feelings to be aroused in their minds and making them feel that family and not business is a place meant for them. Many women take the training by attending the Entrepreneurial Development programme without an entrepreneurial bent of mind. Women who are imparted training by various institutes must be verified on account of aptitude through the tests, interviews, etc.

High production cost of some business operations adversely affects the development of women entrepreneurs. The installations of new machineries during expansion of the productive capacity and like similar factors discourage the women entrepreneurs from venturing into new areas. Women controlled business are often small and it is not always easy for women to access the information they need regarding technology, training, innovative schemes, concessions, alternative markets, etc.

SUGGESTIONS FOR THE GROWTH OF WOMEN ENTREPRENEURS

Right efforts from all areas are required in the development of women entrepreneurs and their greater participation in the entrepreneurial activities. Entrepreneurship basically implies being in control of one's life and activities and women entrepreneurs need to be given confidence, independence, and mobility to come out of their paradoxes. The following measures are suggested to empower the women to seize various opportunities and face challenges in business. There should be a continuous attempt to inspire, encourage, motivate and cooperate with women entrepreneurs. An Awareness programme should be conducted on a mass scale with the intention of creating awareness among women about the various areas to conduct business. Attempts should be there to enhance the standards of education of women in general as well making effective provisions for their training, practical experience and personality development programmes, to improvise their over-all personality standards. Organize training programmes to develop professional competencies in managerial, leadership, marketing, financial, production process, profit planning, maintaining books of accounts and other skills. This will encourage women to undertake business. Vocational training to be extended to women community that enables them to understand the production process and production management. Skill development to be done in women's polytechnics and industrial training institutes. Skills are put to work in training-cum-production workshops. Educational institutes should tie up with various government and non-government agencies to assist in entrepreneurship development mainly to plan business projects. International, National, Local trade fairs, Industrial exhibitions, seminars and conferences should be organized to help women to facilitate interaction with other women entrepreneurs. Women in business should be offered soft loans & subsides for encouraging them into industrial activities. The financial institutions should provide more working capital assistance both for small scale venture and large scale ventures. Making provision of micro credit system and enterprise credit system to the women entrepreneurs at local level. Women must be educated and trained constantly to acquire the skills and knowledge in all the functional areas of business management. This can facilitate women to excel in decision making process and develop a good business network. Self help groups of women entrepreneurs to mobilize resources and pooling of capital funds, in order to help the women in the field of industry, trade and commerce can also play a positive role to solve this problem. Women's entrepreneurship must be examined both at the individual level (i.e. the choice of becoming self-employed) and at the firm level (the performance of women owned and managed firms) in order to fully understand the differences between men's and women's entrepreneurship. To establish all India forums to discuss the problems, grievances, issues, and filing complaints against constraints or shortcomings towards the economic progress path of women entrepreneurs and giving suitable decisions in the favor of women entrepreneurs and taking strict stand against the policies or strategies that obstruct the path of economic development of such group of women entrepreneurs. Thus by adopting the following aforesaid measures in letter and spirit the problems associated with women entrepreneurs can be solved. Entrepreneurship is not a bed of roses to women. Women participation in many kinds of economic activities to complement to their family income, their participation in no way reduces their family

duties. The task of women has become more tedious and full of challenges. Let us all make efforts to help women rediscover her.

STEPS TAKEN BY THE GOVERNMENT: Development of women has been a policy objective of the government since independence. Until the 70s the concept of women's development was mainly welfare oriented. In 1970s, there was a shift from welfare approach to development approach that recognised the mutually reinforcing nature of the process of development. The 80s adopted a multi-disciplinary approach with an emphasis on three core areas of health, education and employment. Women were given priorities in all the sectors including SSI sector. Government and non-government bodies have paid increasing attention to women's economic contribution through self-employment and industrial ventures. The First Five-Year Plan (1951-56) envisaged a number of welfare measures for women. Establishment of the Central Social Welfare Board, organization of Mahila Mandals and the Community Development Programmes were a few steps in this direction. In the second Five-Year Plan (1956-61), the empowerment of women was closely linked with the overall approach of intensive agricultural development programmes. The Third and Fourth Five-Year Plans (1961-66 and 1969-74) supported female education as a major welfare measure. The Fifth Five-Year Plan (1974-79) emphasized training of women, who were in need of income and protection. This plan coincided with International Women's Decade and the submission of Report of the Committee on the Status of Women in India. In 1976, Women's welfare and Development Bureau was set up under the Ministry of Social Welfare. The Sixth Five-Year Plan (1980-85) saw a definite shift from welfare to development. It recognized women's lack of access to resources as a critical factor impeding their growth. The Seventh Five-Year Plan (1985-90) emphasized the need for gender equality and empowerment. For the first time, emphasis was placed upon qualitative aspects such as inculcation of confidence, generation of awareness with regards to rights and training in skills for better employment. The Eight Five-Year Plan (1992-97) focused on empowering women, especially at the Gross Roots Level, through Panchayati Raj Institutions. The Ninth Five-Year Plan (1997-2002) adopted a strategy of Women's Component Plan, under which not less than 30 percent of funds/ benefits were earmarked for women related sectors. The Tenth Five-Year Plan (2002-07) aims at empowering women through translating the recently adopted National Policy for Empowerment of Women (2001) into action and ensuring Survival, Protection and Development of women and children through rights based approach. At present, the Government of India has over 27 schemes for women operated by different departments and ministries. Some of these are: Integrated Rural Development Programme (IRDP) Khadi And Village Industries Commission (KVIC) Training of Rural Youth for Self-Employment. Prime Minister's Rojgar Yojana (PMRY) Entrepreneurial Development programme (EDPs) Management Development programmes Women's Development Corporations (WDCs) Marketing of Non-Farm Products of Rural Women (MAHIMA) Assistance to Rural Women in Non-Farm Development (ARWIND) schemes Trade Related Entrepreneurship Assistance and Development (TREAD) National Banks for Agriculture and Rural Development's Schemes Rajiv Gandhi Mahila Vikas Pariyojana (RGMVP) Priyadarshini Project- A programme for "Rural Women Empowerment and Livelihood in Mid Gangetic Plains"

CONCLUSION: It can be said that today we are in a better position where in women participation in the field of entrepreneurship is increasing at a considerable rate. Efforts are being taken at the economy as brought promise of equality of opportunity in all spheres to the Indian women and laws guaranteed equal rights of participation in political process and equal opportunities and rights in education and employment were enacted. But unfortunately, the government sponsored development activities have benefited only a small section of women i.e.

the urban middle class women. Women sector occupies nearly 45% of the Indian population. At this juncture, effective steps are needed to provide entrepreneurial awareness, orientation and skill development programs to women. The role of Women entrepreneur in economic development is also being recognized and steps are being taken to promote women entrepreneurship. We always viewed that a smart woman can pick up a job any day, but if she becomes an entrepreneur she can provide a livelihood to 10 more women at least..!! Highly educated, technically sound and professionally qualified women should be encouraged for managing their own business, rather than dependent on wage employment outlets. The unexplored talents of young women can be identified, trained and used for various types of industries to increase the productivity in the industrial sector.

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WOMEN ENTREPRENEURSHIP AND INNOVATIONS IN INDIA

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Abstract

According to J. Baptist Say “an entrepreneur is one who combines the land of one, the labour of another and capital of yet another, and produces product. Richard Cantillon defined entrepreneur “as an agent who buys factors as production at certain prices in order to combine them into a product with a view to selling it at uncertain prices in future. Despite developments made in gender equality, many gaps remain between male and females in realms such as education, employment and entrepreneurship. Beyond being a basic human right, women empowerment and gender equality is also a way to apply “smart economics”, in that can generate broad productivity gains. Empowering women and permitting them equal rights in areas such as entrepreneurship and innovation has also positive roll over effects on other development outcomes, such as pro-poor growth and the achievement of the Millennium Development Goals (MDGs). Women in business are a recent phenomenon in India but in the outside word it is a routine . Women entrepreneurs are involved in business due to certain impetus which inspires women to have an independent occupation and be independent. A sense towards independent decision making on their life and career is the motivational factor behind this urge. Saddled with household chores and domestic responsibilities women want to get independence. These factors influence the women entrepreneurs to choose a profession as a challenge and as an urge to do something new. Such situation is described as pull factors. While in push factors women engaged in business activities due to family compulsion and the responsibility is thrust upon them. A change in position technological innovation and modern way of thinking can reduce the disparity between man and women, and bring about equality and equity between them .The need of the hour in women empowerment both through provision of employment and enterprise creation.

Keywords: Entrepreneur, independent, profession, opportunity,empowerment,innovation

INTRODUCTION: Entrepreneurial activities acts as a driving force to bring about a remarkable progress for woman. It will be the trigger off point for woman empowerment. It has been noticeable in other countries that female entrepreneurs are working at par with male counterparts. A family prospers when a woman puts her efforts. It is but likely that the economy will thrive when women start taking their positions in the business world. Innovation acts as a driving force for entrepreneurship. Women are the major source of energy to the entrepreneurial world. As it is been seen that women owned business enterprises are really making a noteworthy change in the business environment and contributing towards the economic development of our country India. A women entrepreneur has some initial basic new ideas which she wants to nurture her Women Entrepreneurship and Innovations in India business. Not only does she conceive the idea or give birth to a creative idea for a new start up. But she also takes the entire responsibility to manage the business independently and in a very tactful manner. At the same time she confronts all the problems and challenges thrown at her while she struggles her way to become a successful entrepreneur. This research paper creates a general awareness about the role of innovation in the success of many women entrepreneurs. Woman entrepreneurs are not only engaged in the wonderful work of thinking up new ideas for businesses but also have the daring to initiate it boldly and organize and combine the resources needed for it and operate the business enterprise and at the same time take the risk and handle the economic uncertainly involved in running a business venture which no one or very few people especially women have not yet thought of venturing into.

Objectives of the study

This study helps to understand women's different entrepreneurial motivations and drivers of innovation.

To study whether innovation is in response to an external or to an internal motivation

This study gives the insight to examine the characteristic features

It helps to analyses eventual gender differences and discrepancies.

Basic Literature Review

Sr.No	Author (Year)	Research subject	Results & findings
1	Bowen and Hisrich(1986)	Compared & Evaluated various Research Studies done on Entrepreneurship including Women Entrepreneurship	It summaries various studies in this way that female entrepreneurs are relatively well educated in general but perhaps not in management skills, high in internal locus of control, more masculine, or instrumental than other women in their values.
2	Bulsara, H. P.,et al. (2009)	An Exploratory Study : Entrepreneurship through Technology Business Incubation in India:	The study gives information mainly exploratory related to support activities to convert Techno-Innovation into Techno-Entrepreneurship by keeping main focus on Technology Business.

IV Problems of Women Entrepreneurs in India: The greater deterrent of women entrepreneurs is that they are women. A kind of patriarchal male dominant social order is the building block to them in their way towards business success. Most male members think that it is a big risk financing the endeavors run by women.

The financial institutions are sceptical about the entrepreneurial abilities of women. The bankers consider women borrowers as higher risk than male borrowers.

Entrepreneurs in general need financial assistance of some kind to takeoff their ventures be it a formal bank loan or money from a savings account. Women in developing nations have little access to funds, due to the fact that they are concentrated in poor rural communities with few opportunities to borrow money (Starcher, 1996; UNIDO 1995a) the woman entrepreneurs are suffering from inadequate financial resources and working capital. The woman entrepreneurs lack access to external funds due to their inability to provide tangible security. Very few woman have tangible property in hand. Women's family obligations also bar them from becoming successful entrepreneurs in both developed and developing nations. Due to the primary responsibility for children ,home and senior dependent family members, very few women can devote their entire time and energies to their business" (Starcher 1996 p). The financial institutions discourage woman entrepreneurs on the belief that they can at any time leave their business and become housewives again. The result is that they are forced to rely on their own savings and loan from relatives and family friends. The business success is dependent on the support of the family members extended to women in business process and management. The cooperation of the family members is a contributing factor in the realization of women folk business aspirations. Another argument is that women entrepreneurs have low level management skills. They have to depend on office staffs and intermediaries to get things done, especially the marketing and sales side of business. Here there is more profitability for business fallacies like the intermediaries take major part of the surplus or profit.

V Role of Woman as Entrepreneur:

Imaginative: Women entrepreneurs must have an imaginative approach or original ideas with competitive market. Well- planned approach is needed to examine the existing situation and to identify the entrepreneurial opportunities.

Persistence: Women entrepreneurs must have an intention to fulfil their dreams. They have to make a dream transformed into an idea enterprise' studies show that successful women work hard.

Ability and desire to take risk: Women entrepreneurs must be willingness to take risk and ability to the proficiency in planning making forecast estimates and calculations.

Profit earning capacity: These women should have a capacity to get maximum return out of invested capital.

Attribute to Work Hard: Women entrepreneurs must have the ability to work hard. The imaginative ideas have to come to a fair play. Hard work is needed to build up an enterprise.

Risk bearers : It is been seen noticeably that woman entrepreneurs are risk bearers.

An organizer : An Entrepreneur is also an organizer. According to J. Baptist say an entrepreneur is one who combines the land of one, the labour of another and capital of yet another and then produces product.

VI Innovation and Women Entrepreneurship: Woman is considered as drivers to innovate. Investing in new technologies and on processes is really beneficial. Their own personal motivation along with other heads with the important business activities helps to fulfil an empowering society and need of economic growth. A number of statistical studies show that even during economical upsets and depression one sector that never dies out and always shows the increase in productivity is the employment level in the sector that is small sized business enterprise. An important element connected to innovation is its application in successful commercials ways of India. Government has been doing a remarkable job. Work of encouraging woman entrepreneurs symbolizes growth and development through innovation to create a dynamic economy. Female entrepreneurs have been identified as one of the most prominent forces of innovation and job creation. Thus contributing to the growth. Women are reported to be growing at a faster rate in many countries in the present time.

VII WOMEN ENTREPRENEURSHIP IN INDIA

According to virtual studies conducted earlier this year for rankings on the best places for female entrepreneurship, India went up on the list compared to its position in 2013. Below is a list of the top women entrepreneurs in India who have made a significant mark in establishing enterprises that are really noteworthy.



1) ADITI GUPTA : Founder, Menstrupedia

She can't enter the kitchen, the temple or her house even. She isn't allowed to bake, she has no clue why she's being ostracized and more importantly, what the hell is going on with her body. This is how menstruation is dealt with in most rural and certain urban areas in India... till Aditi Gupta could stand it no more. Having empathized with similar situations herself while growing up in Jharkhand, Aditi created a Hindi comic book, illustrating and educating girls about menstruation. Thus Aditi and Tuhin's venture has scaled to a whole website called Menstrupedia.com.



ANKITA GABA

Co-Founder, SocialSamosa.com

Seemingly an ace at multitasking, Ankita Gaba is a social media strategist, entrepreneur, consultant, lecturer and the co-founder of Socialsamosa.com, an A to Z repository of Indian social media thoughts, ideas, trends, news and dialogue. She was previously one of the founders of Superchooha, an online media strategist for the likes of Colors, Zapak, Mahindra, Ponds and Idea Cellular. She has an in depth expertise at all things social media, and helps social media agencies build teams and a network of processes for their ventures. She has previously worked as a PR executive at Spin Communique, Spin Media and Universal Communications, Mumbai.



ASHWINI ASOKAN, Founder, Mad Street Den

Ashwini, founded a cloud based platform – Mad Street Den that makes use of artificial intelligence to get any smartphone with a camera to identify faces, detect facial expressions and emotions and react to facial gestures. She began with leading the mobile innovation team at Intel's Interaction and Experience Research Lab (IXR) in Silicon Valley, one of the places that sprouted her keen interest in artificial intelligence. She and her husband Anand moved back to India and amalgamated their love for artificial intelligence to start what we know today as Mad Street Den.



4) CHITRA GURNANI DAGA, Co- founder, Thrillophilia

Combining their passion for adventure and adrenaline, Chitra Gurnani Daga, an alumnus of the Indian School of Business and her husband Abhishek Daga, alumnus of the IIT BHU, Varanasi started Thrillophilia. Thrillophilia is an Indian adventure travel company that curates the best local experiences with hand picked guides and vendors to expand your journey into something offbeat and super fun. Hailing from a family of people with high designations in the service industry, and with an MBA and engineering degree themselves, Chitra and Abhishek decided to follow their dreams and go the unconventional way with no previous business experience or any exposure in family business dealings, they took a shot in the dark and scored indeed.



DEBADUTTA UPADHYAYA, Co-founder, Timesaverz Dotcom Private Limited Debadutta Upadhyaya is an entrepreneur that had a problem and found a solution for it. A problem that many harrowed homemakers face and solution that turned into a business reality. She started Timesaverz.com, an online portal that helps one find reliable people to assist homemakers and such with personal tasks that range from cleaning, repairs, handyman jobs to running errands and helping in paperwork. This first-of-its-kind, progressive idea stands to not only help homemakers find time for themselves but also aid the working woman trying to balance domesticity with work life.



FALGUNI NAYYAR, CEO, Nykaa

Post a grandly successful career of over 25 years in financial services, 18 of which were spent with the Kotak Mahindra group as Managing Director, Falguni Nayyar took the entrepreneurial plunge and launched Nykaa.com, a beauty and wellness ecommerce, premier platform for women. This IIM Ahmedabad graduate launched her website in the latter end of 2012 and soon enough Nykaa was already boasting of retail partnerships with the world's top notch personal care corporations like Unilever, P&G, L'Oreal, Johnson & Johnson and going onto raise 20 crores in funding from private investors with plans to expand to new technologies, a mobile app and physical stores in the country. Clearly an inspiring woman of the working sphere that has shined in every venture.



8)GARIMA SATIJA, Founder, PoshVine

Garima Satija is a young entrepreneur and founder of PoshVine, a community marketplace for travellers and adventure seekers to offer, discover and book unique experiences. Before she started PoshVine, Garima had worked with Naukri.com, Quadrangle Consulting Services and Ozone Media. She studied Psychology from the University of Lucknow and did her MBA in Human Resources from Amity Business School. Her venture, PoshVine not only appeals to the travellers and adventure seekers, but also the food lovers. What it does is, it enables you to pick a fine dining restaurant, make an instant reservation (for free) and earn credits for every time that you do — credits that can be redeemed for more awesome experiences.



GURLEEN KAUR, CEO, Hareepatti

Gurleen Kaur is the CEO of Hareepatti, a firm that deals in financial advisory offering its customers financial wisdom, investment solutions, short term and long term monetary goals and the like. Her impressive work experience and hold over the English language has enabled her to give financial literacy and freedom to upwards of a thousand people Gurleen holds a BFIA degree in Financial and Investment Analysis from S.S. College of Business Studies; she studied Finance at Institute of Management Technology, Ghaziabad and further pursued her learning process till as late as last year acquiring the status of a Certified Financial Planner.



HARPREET KAUR, Co-founder, Love 4 Apple

Known to be a serial entrepreneur, Harpreet Kaur is the co-founder of Love 4 Apple, an e-commerce website where customers can buy accessories that are exclusively made for Apple products. Harpreet began running Love 4 Apple in 2013 with an aim to pay heed to the lack of genuine Apple products in India. Scaling boundaries of growth, the company has setup a manufacturing unit for iPhone and iPad covers made in-house with an entire line of covers designed by up and coming artists, thus also providing these creative designers a chance to showcase their talents. than 7 million visitors every month, serving nine thousand cities, towns and villages in India.



RASHI NARANG ,Founder Heads Up For Tails

Rashi Narang initially started her career as a Human Resource professional having studied HR Management at the London School of Economics. More inclined towards doing what she loved, Rashi quit her job to start Heads Up For Tails. After scouring the markets to find the best of the best for her pet dog Sara and being disappointed at the dearth of products and more importantly, quality, it is then that she decided to take things into her own hands. Thus Heads Up For Tails was born, offering pet furniture, toys, spa products, accessories, edibles, you name it they have it.



12) PREETA SUKHTANKAR .Founder, The Label Corp

Preeta Sukhtankar is the founder of elite retail brand; The Label Corp. She has previously partnered at Celebrity Marketing Agency and worked as a publisher at Seventeen Magazine for four years. Her enterprise, The Label Corp, is the first of its kind online marketplace in India where niche products, curated by celebrity creative directors are showcased. It is for a section of women with purchasing power and upscale taste in home furnishings. Through connections and work experience in media and brand building, Preeta's venture is also home to three brands by famous Indian celebrities. These being: 1) The Home Label with Suzanne Khan, 2) The Closet Label with Malaika Arora Khan, and 3) The Trunk Label with Bipasha Bas.

VIII SUGGESTIONS: Keeping thus in mind there is a need to increase the importance of Woman Empowerment in economical development in India. Indian being a leading developing country the economy shows realive the importance of Woman Empowerment and creates opportunities for Woman Empowerment and creates opportunities for Woman Empowerment to develop and grow. Thus can be done with the help of technology.

IX CONCLUSION: From the above case studies it is visible that women entrepreneurs are persons who are truly risk beares. But only a small section of Woman Entrepreneurs have experience of government sponsored development activities. Women constitutes to upto 45% of Indian population. There is a great need to spread more entrepreneurial awareness and have skill development oriented programs for woman. Education creating awareness about the source which will help them overcome the initially startup financial and other obstacles.

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ROLE OF AN INDIAN WOMAN IN ENTREPRENEURSHIP -A REVOLUTIONARY TRANSITION

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Abstract

This conceptual paper indicates and emphasizes the transition in the role of women entrepreneurs in India from 20th century till now. It also highlights the success stories of some women entrepreneurs who marked their presence in men dominating fields. In Hindu scriptures women has been described as the embodiment of "Shakti". But in real life she is treated as "Abla". Women of 21st century are no more a traditional resource confined to homes only. Entrepreneurship is the state of mind which every woman has in her but has not been capitalised in India in way in which it should be. Due to modernization now people are more comfortable in accepting the leading role of women in our society, though there are some exceptions. Purpose of this paper is to find out various motivating and demotivating factors of women entrepreneurship and suggest the way of reducing hurdles of the women entrepreneurship development in Indian context.

Keywords: Entrepreneurship, women, Zivame, Lijjat, PepsiCo

Introduction: Entrepreneurship refers to the act of setting up a new business or reviving an existing business so as to take advantages from new opportunities. An entrepreneur is a person who starts an enterprise. He/ She searches for change and responds to it. Entrepreneurship has been a male-dominated phenomenon from the very early age, but time has changed the situation and brought women as today's most memorable and inspirational entrepreneurs. Women entrepreneurship is now gaining importance in India in the wake of economic liberalization and globalization. There exists plethora of successful business women entrepreneurs both in social and economic fields in India. It is estimated that women entrepreneurs presently comprise about 10% of the total number of entrepreneurs in India, with the percentage growing every year. If the prevailing trends continue, it is likely that in another five years, women will comprise 20% of the entrepreneurial force. The first part of this paper deals with challenges faced by women entrepreneurs. Second part deals with a review of various research studies on women entrepreneurship and its impact on various economies by discussing example of "Mahila Gruha-Udhog", "Indra Nooyi, CFO and President of PepsiCo", "Richa Kar, founder of Zivame". The last part of this paper concentrates on the motivating and demotivating internal and external factors of women entrepreneurship and the suggestive measures to reduce hurdles for the women entrepreneurship in Indian context.

1. Challenges faced by Women Entrepreneurship:

Conflicts between Work and Domestic Commitments - Women's family obligations was bar for them from becoming successful entrepreneurs in developing nations like India. "Having primary Responsibility for children, home and older dependent family members, few women can devote all their time and energies to their business" (Starcher, 1996)

Gender gaps in education – While women are making major strides in educational attainment at primary and secondary levels, they often lack the combination of education, vocational and technical skills, and work experience needed to support the development of highly productive businesses. Other factors like lack of finance, legal constraints in family law, heavy household responsibilities, lack of family support, lack of confidence and faith etc. were also responsible for holding women back in the field of business.

2. Review of various research studies on women entrepreneurs

Despite of all the challenges discussed above we have great examples that overcame all these hurdles and marked their exceptional presence as successful entrepreneurs. Some of them are discussed below:

Shri Mahila Griha Udyog Lijjat Papad: Lijjat was the brain child of seven semi-literate women from Mumbai. They wanted to start a venture to create a sustainable livelihood using the only skill they had that is cooking. These women borrowed a capital of Rs.80 and set the foundation in Girgaum, South Mumbai in the year 1959. In the first year, because of the rainy season they had faced many problems in drying papads. But the problem was solved by the next rainy season by buying a cot and a stove which helped them in the process of drying papads. The number of women increased slowly and the earnings of the company increased day by day. Presently this company provides employment to 43,000 women and profits and losses are produced by these entire 43,000 sister members.

Indra Nooyi, CFO and President of PepsiCo: Indra Nooyi joined PepsiCo in 1994 and was named CFO in 2001. She was named President and CEO in 2006. Nooyi has directed the company's global strategy for more than a decade and also led PepsiCo's reconstructing. Since she started as CFO in 2001 the company's annual net profit has risen from \$2.7 billion to \$6.5 billion. Nooyi was named on Wall Street Journal's list of 50 women to watch in 2007 and 2008, and was listed among Time's 100 most influential people in the world in 2007. Forbes ranked her the 3rd most powerful women in 2008 while fortune ranked her the 1st most powerful women in business in 2009 and 2010. Nooyi's strategic redirection of PepsiCo has been largely successful. **Richa Kar, Founder of Zivame:** In a country where women hold only 7.7% of board seats and just 2.7% of board chairs this young lady hailing from Jamshedpur broke the glass ceiling in a manner so audacious that it forces the nation to stand up and take notice. Richa Kar, the founder and CEO of Zivame.com which is an online lingerie store for the Indian women, truly defines the new age women entrepreneur in India. Not afraid to take chances, she is willing to go that extra mile. In her words "If you are strong, focused and passionate about what you want to do everything falls in place". After pursuing her Engineering from BITS Pilani, she completed her management studies from Narsee Monjee Institute of Management Studies in 2007. Post this she worked for SAP Retail Consulting during which she found herself working for lingerie company Victoria's Secret. While she was studying the Indian lingerie market she realised that the social discomfort surrounding lingerie shopping was causing myriad issues for both shoppers and retailers. To remedy this she created Zivame, named from Hebrew word for "radiance", to help women understand their lingerie needs and browse and purchase style without embarrassment. She launched her company from a small office space in 2011 and it is now India's leading online lingerie store with a valuation of \$100 million.

Measures to reduce hurdles for the women entrepreneurship: The elimination of obstacles for women entrepreneurship requires a major change in traditional attitudes and mind sets of people in society rather than being limited to only creation of opportunities for women. Hence, it is imperative to design programmes that will address to attitudinal

changes, training, supportive services. The basic requirement in development of women entrepreneurship is to make aware the women regarding her existence, her unique identity and her contribution towards the economic growth and development of country. The basic instinct of entrepreneurship should be tried to be reaped into the minds of the women from their childhood. This could be achieved by carefully designing the curriculum that will impart the basic knowledge along with its practical implication regarding management (financial, legal etc.) of an enterprise. Adopting a structured skill training package can pave the way for development of women entrepreneurship. Such programmes can train, motivate and assist the upcoming women entrepreneurship in achieving their ultimate goals. Various schemes like the World Bank sponsored programmes can be undertaken for such purposes. The course design should focus on imparting input on profitability, marketability and practical management lessons. Besides, there should be consideration in helping the women entrepreneurs in balancing their family life and work life. As a special concern, computer illiterate women can be trained on Information Technology to take the advantage of new technology and automation. The established and successful women entrepreneurs can act as advisors for the upcoming women entrepreneurs. The initiatives taken from these well-established entrepreneurs for having interaction with such upcoming women entrepreneurs can be proved to be beneficial in terms of boosting their morale and confidence. It may result in more active involvement of women entrepreneurs in their enterprises. Infrastructure set up plays a vital role for any enterprise. Government can set some priorities for women entrepreneurs for allocation of industrial plots, sheds and other amenities. However, precautionary measures should be undertaken to avoid the misuse of such facility by the men in the name of the women. Even in today's era of modernization the women entrepreneurs depend on males of their family for marketing activities. This is simply because they lack the skill and confidence for undertaking such activities. Women development corporations should come forward to help the women entrepreneurs in arranging frequent exhibitions and setting up marketing outlets to provide space for the display of products or advertisement about services made by women.

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A STUDY ON THE ROLE AND CONTRIBUTION OF WOMEN IN ENTREPRENEURSHIP DEVELOPMENT IN INDIA

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Abstract

Today the Indian women entrepreneurs increasingly are a force to be estimated with. The economic life is constantly changing. Now, in this 21st century in India all the sectors are equally contributing the economic development. The government introduced various new plans and policies which are effective and will be helping the Indian economy to develop. Men and women today contribute equally to the economic development of the country. The role of women has changed drastically in this decade. Women in India have successfully contributed in the corporate world in the last three decades, yet they face several challenges from all socioeconomic segments. It is very important for the country's growth to empower the women and encourage them in participating in various sectors. Women Entrepreneurship is one such segment where women can bring in a change in not only society but also in their own development. It will enhance productivity and growth. Women entrepreneurship is a process which catalyses social and or addresses to the social needs in a way that is not dominated by direct financial benefits for entrepreneurs. So the primary objective of the research to study the significant rise of Women Entrepreneurs in India and how it has evolved since the pre-independence days (before 1947), during the British colonial days. The study also analyses the reasons that have prompted the women entrepreneurs to unleash their entrepreneurial energies into start-ups. The study is conceptual and based on exploratory research design. An attempt is made to understand the women entrepreneur's challenges and their contribution in social entrepreneurship. The research paper will provide an insight to social entrepreneurship and its scope to the aspiring entrepreneurs.

Keywords: *Entrepreneurs, Women, Entrepreneurship, India, Liberalization, Recession*

Introduction: Historically, in India women were well-regarded and the birth of a girl was widely believed to mark the arrival of Lakshmi – the Goddess of wealth and riches. Women have been considered to be the 'Janani', which means the progenitor and 'Ardhanigini' which means half of the body. Women are also considered to be an embodiment of Goddess Durga. Women have shouldered equal responsibilities with men. Gender discrimination is not only inequitable but also hampers the development of the nation. Consequently, women continue to suffer from diverse deprivations from kitchens to key-boards, from the cradle to the grave across nations. Factors impeding the advancement of women include lack of access to housing and basic services, inadequate support services and technologies for reducing drudgery and occupational health hazards and for enhancing their productivity. Women plays major role in the economy building of any nation, including housewives. Women play versatile role and contributes equally to the development process. Woman as a CEO of the company is a dictator of the large organization producing goods manifold or if she is a housewife contributes in the economic development. Even as India continues its rapid economic growth, women in the country struggle against discrimination and inequality. The surprising facts about Indian women are that only 27% of women in India receive secondary education, 12.2% seats are held by women in Parliament, 80% of women still need permission to visit health care centres. As per 2011 Census, there are 940 women for every 1000 men in India. Female literacy in India is 65.46% as against male literacy of 82.14%, As at end-March 2011, 21% of total bank deposit accounts constituting merely 12 % of total deposits were held by women. Similarly, women availed only 18 % of the total small credit from banks in 2011. Women constitute about 25% of the formal employment in India whereas 84 % of rural women continue to be engaged in agricultural production. Hence there has to be a shift from narrow welfare measures to broad-based development. Over the years there has been a paradigm shift in women's status in India. The literacy level and the awareness about their rights have helped in economic development. There has also been a greater awareness of the need for

inculcating confidence among women, generating awareness about their rights and privileges and training them for economic activity and employment. The benefits of development must extend to women both qualitatively and quantitatively. The national policy for empowerment of women stresses policies, Programmes and systems to ensure mainstreaming of women's perspectives in all developmental processes, both as agents and beneficiaries.

2. EVOLUTION OF WOMEN ENTREPRENEURSHIP IN INDIA: Since Pre-Independence days, till 1850 the manufacturing entrepreneurship was not existed because of weak communication and transportation systems from the colonial political structure. After First World War, the second wave of entrepreneurial growth India has begun. To give boost to the growth of the industries, the entrepreneurs got many incentives from Government of India. After the independence, the Government of India on realizing the magnitude of the adverse consequences of such an unbalanced growth of industries tried to device a scheme for the growth of a balanced and mixed economy. Three important measures were taken by the government: 1. To encourage a proper distribution of economic power between public and private sectors. 2. To increase the tempo of industrialization by spreading entrepreneurship from the existing industrial centres to other cities, towns and villages. 3. To spread entrepreneurship from a few dominant entrepreneurs to a large number of industrially potential people of varied social strata. To meet these objectives, the government laid emphasis on the growth of entrepreneurship in various Five Year plans and Industrial Policy Resolutions (IPRs). The liberalization of the Indian economy started in 1991. Government made an attempt to liberalise the rules and regulations of the economy and by opening Indian markets to the foreign world. The liberalization started in 1991. Women entrepreneurs and technical entrepreneurs got a boost. Globalization came to be the new buzzword that came to dominate the world. The women entrepreneur of twenty first century possesses concealed entrepreneurial capabilities which have been gradually coming ahead with the developments in socio political environment in society. Skill, adaptability and knowledge in business are the main drivers for women to undertake new business ventures. There exists a plenty of successful women entrepreneurs in a variety of sectors in India. Their outstanding performance in their respective fields has set an example for various emerging women entrepreneurs. However, they have to encounter a large number of challenges like male domination, family obligations, lack of education, lack of self confidence, finance problem, limited mobility, limited managerial skills, etc. Although, Government of India has taken a large number of policy measures in this regard, yet, there is a long way to go. This paper focuses on the role of women in the development of entrepreneurship process and challenges faced by women entrepreneurs in India, how to overcome them and to enumerate the policies of Indian government for their empowerment.

3. Profile of Indian Women Entrepreneurs : Women empowerment is much more than realizing the work a woman does is equivalent to the work of a man, it's much more than obtaining the right to a certain occupation. Woman empowerment is the global realization that tasks done by women, that the feminine touch to domesticity and professionalism is not desired but needed. Women Entrepreneurs can not only contribute to the GDP, but can also play a key role in addressing societal challenges. However, the number of women entrepreneurs in India remains relatively low. Only 14% of entrepreneurs in India are women. In India, a large percentage of women enterprises are micro enterprises managed by women, undertakes as a forced economic activity. In rural India, traditionally, a lot of women primary producers can be classified as entrepreneurs. In many situations, the solutions are available and the main hindrance is the entrepreneur's lack of knowledge and inability to access the solution. Government of India's initiative of the Stand Up India scheme aims to facilitate bank loans of Rs.10 lakh-Rs.1 crore to at least one Scheduled Caste (SC) or Scheduled Tribe (ST) and one-woman beneficiary per bank

branch for setting up a Greenfield enterprise in trading, services or manufacturing sector. But many women entrepreneurs, and even more so rural women entrepreneurs, are not able to access schemes like this, due to lack of awareness.

Objectives of the Study:

The paper has following objective: a) To study the role of women in India. b) To study the contribution of women entrepreneur in Entrepreneurship process. C) To study the women entrepreneurs and their challenges in India.

Research Methodology of the Study: The research study is completely conceptual and is purely based on exploratory research. The secondary data will be referred to explore the research topic. The secondary data like journals, research paper, and magazines will be referred to make study more authentic.

Challenges Faced by Women Entrepreneurs in India: Women always faced the social and religious stigmas. As a result, women's role in economic development has been reduced to an obligatory participation. However, today women are considered to be a dynamic personality, who is independent, a firm decision maker, a leader and a wonderful administrator. Women made this all possible through women empowerment, higher literacy rate, the inherent quality of technical ability and institutional arrangements encouraging women in all segments of the economy. Women in developing nations often lack the capital to start a business and they face many barriers in being granted loans and other financing. The problems and constraints experienced by women entrepreneurs have resulted in restricting and inhibited the expansion of women entrepreneurship.

6.1 FINANCE: The majority of women entrepreneurs have had to rely to majorly on self generated finance during the start up period of their venture. Bank loans and grants have only been used in a minority of cases and have usually been accompanied by some form of self generated finance. The availability of bank credit appears to increase once businesses become established and/or a good relationship with the bank has been developed. Banks are reported to have been more forthcoming in the provision of loans once a business has begun to demonstrate a track record. Because of limited funds, they are not able to stock new materials and spend on advertising.

6.2 ADMINISTRATIVE AND REGULATORY REQUIREMENTS: Problems with administrative and/or regulatory requirements were judged to be major issues of female entrepreneurs. Micro enterprises of all types can experience problems in meeting administrative and regulatory requirements, because of the disproportionate effect of compliance costs on small companies compared with large firms. As a consequence, it is not surprising that almost half the support organizations specializing in support for female entrepreneurs identified a problem for their clients in this respect. At the same time, with a few exceptions, administrative and regulatory barriers more significant for female owned businesses than for male owned firms of a similar size.

6.3 LACK OF MANAGEMENT SKILLS OR TRAINING: Women entrepreneurs lacked management skills to a greater extent than small businesses in general, perhaps because of their lower propensity to have had previous business experience. Although difficulties in accessing business advice or support appears to be a minor rather than major problem for women entrepreneurs, a significant minority of specialist organizations felt that women are particularly disadvantaged in this respect.

6.4 MARKETING: A lack of sales and marketing skills was the most commonly reported problem faced by female entrepreneurs, after finance. The fact that this is a characteristic shared with many other micro enterprises and small firms does not make it any less important to female entrepreneurs.

6.5 **TECHNOLOGY:** Access to technology and problems with intellectual property protection were regarded as problems for women entrepreneurs. The lack of computer knowledge of employees is a major problem as computer skills are a key part of the business.

6.6 **LACK OF CONFIDENCE:** As women are accepting a subordinate status, as a result they lack confidence of their own capabilities, even at home, family members do not have much faith in women possessing the abilities of decision-making.

6.7 **LACK OF WORKING CAPITAL:** To be women and to do something on their own becomes quite difficult for them because of lack of access to funds as women do not possess any tangible security and credit in the market. As such, women do not enjoy the right over the property of any form and they have limited access over external sources of funds, even getting loans from either a bank or financial institution becomes exceedingly difficult.

6.8 **LIMITED MOBILITY:** Due to primary household responsibilities towards her family, her time gets divided between the two worlds. She has restricted timings for work due to which, she is not in a position to travel frequently and be away for longer periods. Thus, her mobility is restricted. This also has an implication on business.

6.9 **MALE DOMINATED SOCIETY:** A woman is dominated by men in her family as well as business. Often she has to obtain permission from men for almost everything. They are not treated as equals. Her freedom is restricted. She always has to consult and get approval of men.

6.10 **SOCIO-CULTURAL BARRIERS:** Woman has to perform multiple roles be it familial or social irrespective of her career as working woman or an entrepreneur. In our society, more importance is being given to male child as compared to female child. This mindset results in lack of schooling and necessary training for women. As a result this impediments the progress of women and handicap them in the world of work.

6.11 **FAMILY SUPPORT:** Family Support is the one of greatest motivator for a woman entrepreneur in setting up her new enterprise. Mostly, in India families are orthodox. Neither do they appreciate the decision of a woman to start her very own venture nor do they believe in her entrepreneurial capabilities. Lack of family support affects her ability.

6.12 **WORK AND PERSONAL LIFE BALANCE:** Work and personal life balance is the major problem a women faces irrespective whether an entrepreneur or an employee. Women form their very basic nature are multi-taskers. In fact a woman is expected to manage both the ends her enterprise, her family.

6.13 **Lack of trust of Venture Capitalists/ Investors:** Women entrepreneurs have less access to finance as compared to their male counterparts. Venture capitalists perceive that women are less competent as compared to men. While granting finances or loans to a man apart from degree of innovation only risk calculation is done. For women, capitalists try to judge her skills and success abilities just because she is a woman.

Powerful Indian Women Entrepreneurs of 21st Century:

7.1 **Kiran Mazumdar Shaw:** Founder of Biocon one of India's leading biopharmaceutical companies, Kiran Mazumdar Shaw has been named among the most powerful women in the world more than once by Forbes. Starting out of the garage of her rented Bangalore home, Biocon India began as a joint venture with Biocon Biochemicals Limited, of Cork, Ireland in 1978, amidst shortages of funding, qualified workers and other obstacles.

7.2 **Vandana Luthra :** An unrivalled leader in India's health and wellness industry, Vandana Luthra started VLCC Health Care Limited as a small health and beauty services center in New Delhi in 1989. Today, the company operates in 323 locations across 150 cities over 11 countries, and employs more than 4,000 people. Consistently ranked among the top businesswomen in Asia, Luthra is also a recipient of the Padma Shri– India's fourth highest civilian award.

7.3 **Ekta Kapoor:** Ekta Kapoor, head of one of Indian television's most revolutionary production companies – Balaji Telefilms – is undoubtedly one of the most important entrepreneurs in India's entertainment industry. Her company's productions include some of India's most influential television shows – from Kyunki Saas Bhi Kabhi Bahu Thi, which with 1,833 episodes was one of India's longest running shows, to Naagin, one of the most watched shows in Indian television history.

7.4 **Indu Jain:** As Chairperson of The Times Group, India's largest media group, Indu Jain is undoubtedly one of the country's most influential figures. A recipient of the Padma Bhushan award, Jain has to her credit the founding of the The Times Foundation which runs a variety of community service programs and developmental initiatives, among several other accomplishments.

7.5 **Upasana Taku:** Co-founder of Mobikwik, one of the country's leading digital payment wallets, Upasana Taku can take a fair share of credit for India's switch from relying on cash to electronic payments in the past few years. With 35 million current users and set to serve 150 million customers by 2018, Mobikwik is among a list of highly successful young Indian companies revolutionizing the country.

7.6 **Shahnaz Hussain:** As CEO of Shahnaz Herbals, one of the country's leading herbal cosmetics companies, Shahnaz Hussain is a household name in India. The Padma Shri award recipient founded her company in 1970 in New Delhi, and today serves more than 375 formulations, based on Ayurveda, for beauty and health to countries in Asia, Africa, Europe and the Americas.

7.7 **RADHIKA GHAI AGGARWAL :** Co-Founder & CMO, ShopClues.com
Equipped with over a decade and a half of marketing experience in various industries like retail, ecommerce, fashion & lifestyle, advertising & public relations, Radhika Ghai Aggarwal co-founded Shopclues.com. Before this, she ran a fashion blog based out of the Silicon Valley, USA. Radhika has previously worked with Nordstrom at its corporate headquarters in strategy planning and with Goldman Sachs in its Wealth Management group in New York and Menlo Park, USA.

Conclusion: It is time now for us to make a difference and effect a mindset change in the oppressively male-centric scheme of things and bring about true socio-economic empowerment of women across regions, regions and classes. We can-and we must- do this. But gender integration and promotion of a cohesive social framework requires active participation of all stakeholders in the development process, including the society at large, government, educational institutions, premier technological institutions, voluntary agencies, policy makers and women themselves. The journey of emancipation of women has crossed many milestones. But affirmative action is required for women to play their rightful role in the society. The task ahead may be long and tortuous. But let us make a beginning immediately. Empowering women entrepreneurs is crucial for achieving the goals of sustainable development and the bottlenecks hindering their growth must be reduced to enable full participation in the business. Apart from training programs Newsletters, mentoring, trade fairs and exhibitions also can be a source for women entrepreneurial development. As a result, the desired outcomes of the business are quickly achieved and more of remunerative business opportunities are found. Therefore promoting women entrepreneurship among Indian women is certainly a short-cut to rapid economic growth and development. Let us try to eradicate all kinds of gender bias and thus allow 'women' to be a great entrepreneur at par with men.

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ROLE OF WOMEN IN HEALTH CARE

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Abstract

Historically and presently, in many parts of the world, women's participation in the profession of medicine as physicians or surgeons has been significantly restricted. Some medical specialties, such as surgeon, professors and department chairs are significantly male-dominated. It is not easy for women to manage a career in medicine along with a married life and children. However women continue to dominate in professionals like physicians and paediatrics, family medicine, obstetrics and gynaecology, pathology, nursing and psychiatry. There are many women who have made a huge difference. While some have earned their name in leading positions in healthcare companies and hospitals, others have toiled at the grassroots level and made a social impact. This paper gives an insight on some successful women in health care in India and across the globe, challenges faced by them and solution to these problems.

Keywords: medicine, surgeons, male-dominated, challenges, department chairs, solution

INTRODUCTION: In 1960, only about 5% of medical students in the United States were women; today, the numbers of women and men in medical school are approximately equal. This apparent success story, however, is tempered by observations that women who enter academic medicine have been less likely than men to be promoted or to serve in leadership positions. As of 2005, only 15% of full professors and 11 % of department chairs were women. [1]

LITERATURE REVIEW

Some Powerful Women in Healthcare across the globe are



1 Pauline Grant

Ms. Grant is the CEO of Pompano Beach, FL-based North Broward Medical Center, the second-largest hospital in the Broward Health System. She is responsible for leading the 409-bed community hospital and Adult Level II Trauma Center, the Joint Commission Certified Primary Stroke Center, Neurological Institute, Joint Replacement Center, Comprehensive Cancer Center, Spine Care Center and Wound Care Center. Under her leadership,

NBMC was first in the nation to attain Joint Commission Certification for its Alzheimer's disease program, first in Florida to attain Joint Commission Certification for stroke rehabilitation and the first hospital in Broward County to attain Joint Commission Certification for hip and knee replacement.

Role of Women in Health Care



2. Christina M. Ryan

Ms. Ryan is CEO of The Women's Hospital in Newburgh, IN, a specialty hospital that cares for women of all ages. She was recently appointed to the Advisory Committee on Infant Mortality. Ms. Ryan has received numerous awards including the Spirit of Women, Next Generation of Women's Health Leaders Award and the Health and Social Services Individual Leadership Award from Leadership Evansville.



3. Andrea Price

Ms. Price is the new CEO of seven-hospital Mercy Health Partners in Cincinnati, a system she joined less than a year ago as COO. The northwest Ohio healthcare delivery system currently employs 7,300 workers and reports net revenues of nearly \$900 million. Ms. Price has held other executive roles at Sparrow Health System in Lansing, MI, Hurley Medical Center in Flint, MI., and Children's National Medical Center in Washington, D.C.



4. Diane Corrigan

Ms. Corrigan is CFO of the Hospital of the University of Pennsylvania, part of the University of Pennsylvania Health System in Philadelphia. The Hospital of the University of Pennsylvania is consistently ranked as one of the country's best by U.S. News & World Report and is part of Penn Medicine, along with the University of Pennsylvania School of Medicine. In 2010, Ms. Corrigan was honoured with the MAP Award from the Healthcare Financial Management Association.



5. Ellen Zane

Ms. Zane recently retired as president and CEO of Tufts Medical Center in Medford, MA, as well as the Floating Hospital for Children in Boston, MA. She was the first woman to run the hospital in its 210-year history. Ms. Zane also serves as a director of Parexel International, a director of Fiduciary Trust Company and a director of Century Capital Management.

As CEO of TMC, she oversaw 5,000 physicians, nurses, researchers and other healthcare workers, as well as 450 patient beds. She orchestrated a major turnaround for Trusts-New England Medical Center in 2005, leading the hospital from a loss of around \$250 million in total to a robust annual profit.



6. Bonnie Phipps

Bonnie Phipps is the president and CEO of St. Agnes Healthcare in Baltimore, as well as the Baltimore/DC Ministry Market Leader for Ascension Health. She provides strategic and operational leadership for St. Agnes Healthcare while promoting alignment among health ministries in the Baltimore/Washington, D.C., market. Prior to joining St. Agnes, Ms. Phipps served as president and CEO of Saint Joseph's Hospital in Atlanta and president and CEO of PROMINA Health System. A certified public accountant and certified managed care professional, Ms. Phipps was inducted into the Georgia State University Business Hall of Fame in 2005.[5]

Role of Women in Health Care

Some Powerful Women in Healthcare in India

1 Kadambini (Basu) Ganguly:



She was not only the first female graduates of the British Empire but she was also the first female physicians of South Asia to be trained in western medicine. She studied medicine at the Calcutta Medical College, Calcutta and graduated in 1886.

2 Anandi Gopal Joshi



In the year 1886 another women from India also obtained a degree in Western medicine but she graduated from Women's Medical College in Philadelphia, USA and thus became first Indian to study medicine from abroad.

3 Anna Mani



Former Deputy Director General of the Indian Meteorological Department was an Indian physicist and meteorologist. She made significant contributions in the field of meteorological instrumentation. She studied meteorological instruments at Imperial College London and after returning to India in 1948, she joined the Meteorological department in Pune. She conducted research and published numerous papers on solar radiation, ozone and wind energy measurements. She authored two books, The Handbook for Solar Radiation data for India in 1980 and Solar Radiation over India in 1981. She won the K.R. Ramanathan Medal in 1987.[6]

3 Dr. Indira Hinduja



She is the first Indian women who delivered a test tube baby on August 6, 1986. She has also pioneered the Gamete Intra Fallopian Transfer (GIFT) technique resulting in the birth of India's first GIFT baby on 4 January 1988. Previously She is an Indian gynaecologist; obstetrician and infertility specialist based in Mumbai and are also credited for developing an oocyte donation technique for menopausal and premature ovarian failure patients, giving the country's first baby out of this technique on 24 January 1991.[6]

4 Kiran Mazumdar Shaw



Kiran Mazumdar-Shaw has come a long way since she founded a small enzyme company in 1978. Now that company, Biocon, is the biggest public pharmaceutical company in India, distributing products to 85 countries and generating \$460 billion in revenue. It's also made Mazumdar-Shaw a billionaire. But she isn't all industry: In 2004, she started the Biocon Foundation for philanthropic pursuits, which among other large health projects has opened a 1,400-bed cancer center in Bangalore.[4]

5 Maharani Chakravorty (b. 1937)



Maharani Chakravorty is a molecular biologist. She organized the first laboratory course on recombinant DNA techniques in Asia and the Far East in 1981. After her post-doctoral studies in the USA, she returned to the Bose Institute in Kolkata.[7]

6 Dr B R Lakshmi



Director and founder of MDCRC (Molecular Diagnostics, Counseling, Care and Research Center), Dr B R Lakshmi brought with her an amazing 8 years of experience in the field of public health, 7 years of notable achievements in biotechnology, and a strong passion to serve the community. She was also awarded the Young Woman Scientist Award by the Talwar Research Foundation in the year 1994.

7 Dr Kamini Rao



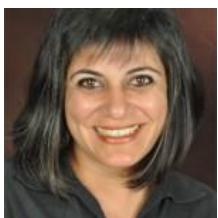
Dr Kamini Rao has been catering to different issues of fertility and gynecology for over 33 years. The chairperson and medical director of BACC (Bangalore Assisted Conception Center), Dr Kamini was credited for the birth of India's first SIFT baby. She has also managed to set up south India's first semen bank.

8 Dr Nandini Mundkur



Dr Nandini Mundkur is one of the few developmental paediatricians in India, and has carried out commendable pioneering work in the field of detection of early developmental disorders. As the director of International Children's Peace Council, she is one of the few women born in a traditional Indian household, to have progressed to such an amazing extent. She has also bagged several awards and recognition for her achievements in the field.

9 Dr Sunita Maheshwari



Dr Sunita Maheshwari is a renowned paediatric cardiologist and a major healthcare innovator and is one of the select few who summoned up the courage to return to India for its betterment and development after studying in one of the world's most sought after universities-The Yale University. She is also the co-founder of Teleradiology solutions, a healthcare outsourcing company. For this amazing contribution to healthcare, she was listed among the top 20 women achievers in healthcare in the year 2009.

10 Dr Swati Piramal



One of India's leading industrialists, Swati Piramal's focus lies mainly in matters of public health and innovation. Being the vice-chairperson of Piramal healthcare, she has actively launched different public health campaigns against malaria, tuberculosis, epilepsy, polio and osteoporosis. Nominated for the list of India's 25 most powerful women 8 times, she is truly an achiever we are proud to have.

11 Dr V Shanta



With a family of Nobel Laureates, Dr V Shanta managed to stand out and expand her horizons in the field of medicine. With a clear vision in mind, she grew up with the aim of becoming a doctor, which she did, accompanied by numerous other achievements to her basket of fame. She is a prominent cancer specialist and is the chairperson of the Adyar Cancer Institute in Chennai. During the course of her career, she has also bagged several awards including the Magsaysay award and the Padmashree award.

12 Jyotsna Dhawan



Senior scientist at the Center for Cell and Molecular Biology, Hyderabad, Jyotsna Dhawan has made a generous contribution to the field of life sciences, particularly muscle stem cells, striving hard to modulate their regenerative power.[8]

RESEARCH METHODOLOGY: In this research paper we have used secondary data to find out the contribution of women in the field of professors and department chairs in medicine.

CHALLENGES: There are three major issues facing women in medicine today, namely (1) professional acceptance, (2) gender bias, and (3) family. [2] Professional acceptance: Women are challenging themselves to live up to the expectations of their professional peers, society, and their patients in order to ‘have it all.’ These pressures are leading to professional and personal dissatisfaction. [3]

Gender bias: In the early 1990s several medical journals published the results of surveys among female medical students and residents regarding harassment. Students were reportedly harassed by both faculty and residents. While harassment during medical training is quite common, women face this issue more intensely because of their gender.

Gender may slow their advancement, thereby keeping them in a lower pay scale, and may also be psychologically damaging enough to lower self-confidence and sometimes work performance. [2]

Family: There appears to be no ideal time for a woman physician to have a child. Young children may make it difficult to pursue her studies and training, and she may be at a financial disadvantage during that part of her life. Conversely, delaying child bearing may result in infertility as a result of normal age-related changes. This is a highly personal choice, and individual circumstances will influence it. [2]

SUGGESTIONS: Efforts are being made to curtail harassment. This includes periodic publication by the medical school of its policy against discrimination, presenting “Gender Neutral Awards” to faculty who are especially sensitive to gender issues, establishing workshops where the relationship between genders are discussed, sponsoring lectures, publishing newsletters, and providing support groups.

Child-care arrangements should be made prior to delivery. In most cases where a day-care centre or other facility has to be used [2]

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**A JOURNEY FROM AN ARTIST TO POWERFUL POLITICIAN: A CASE STUDY
WITH REFERENCE TO IRON LADY DR. J. JAYALALITHAA**

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Abstract

A new dimension of women in politics emerged in recent years all over the world. More and more women have now been entering into politics. Conventional politics reflected male concerns and hence women were notably absent in politics. Still there are few women who are more powerful in Indian politics like Indira Gandhi, Benazir Bhutto etc. They are not only powerful but also made herself as role model or Goddess among the public. This paper makes an attempt to study one of the great and powerful South Indian politicians called Dr. J.Jayalalithaa. She has been one of the most powerful female politicians in the country and was known for her stern implementation of reforms. While there have been several female leaders across Sri Lanka, Pakistan, Bangladesh and India, Jayalalithaa came from a different background. Other female premiers, like Indira Gandhi, Benazir Bhutto, Sheikh Hasina and Sirimavo Bandaranaike, all came from political families. Jayalalithaa, on the other hand, came from a middle-class family, where her mother was a small-time actor. She was a leader of Tamil Nadu state and former actor who played a powerful goddess on screen was all too human and yet her followers deified her as a divine being. The main purpose of the study is to understand her achievements and how she became goddess in the mind of her followers.

Keywords: Jayalalithaa, Politicians, Iron lady

Introduction: An eminent leader famously called ‘Amma’ the people of Tamil Nadu had never let any stone unturned in her life from dance, music, acting, avid reading, politics and many more. Her life set an example for others on what to be and not to be done by one in their life. Her journey of life, right from education to emerging as a leader of the party ADMK are remarkable and made the world to turn its head towards her. The research paper tries to find the pinnacles reached by the former Chief Minister of Tamil Nadu in different fields in which she had marked her excellence as a Student, Artists, and Chief Minister.

Objectives of the study:

The research paper aims to know the different phases in the life journey of Dr.J.Jayalalithaa with respect to Education, Cinema and Politics and how she became a role model in politics.

Research Methodology: The nature of the study is case study. In this study, her educational background, achievements, Cinema experience and how she was powerful in south Indian politics are explained in descriptive manner.

1. Achievements in Education: In Bangalore Jayalalithaa attended Bishop Cotton Girls' High School till 1958 and later completed her childhood education at Sacred Heart Matriculation School in Chennai from 1958 to 1964. She excelled at school by always securing top ranks and was offered a government scholarship to pursue further education after her matriculation. After leaving school she joined Stella Maris College, Chennai to study law but had to discontinue as her debut films in Telugu and Kannada in 1964 and her Tamil film debut in 1965 - each of them were very successful and offers started coming up for her as the lead female heroine. She is fluent in several languages like Tamil, English, Hindi, Kannada and Malayam.

Star of Dream Industry ‘Cinema’: Jayalalithaa ruled Tamil Cinema and heart of Tamilians from 1961 to 1980 acting nearly 140 films. Her most of the pictures are Golden Jubilee and Silver Jubilee. She enjoyed stardom in different language movies Tamil, Telugu, Kannada, Malayalam and English. She was the highest paid actress of Tamil in 1966. She was the trend setter in Tamil Cinema and played very bold roles. She was a trained Bharatanatyam dancer and had proficiency in other dance forms like Kathak, Mohiniyattam and Manipuri as well. She also lent her voice as

singer in some of her films. She had proficiency in English, Hindi, Tamil, Kannada, Telugu and Malayalam. Her brother, Jayakumar, passed away in the early 1990s. Jayalalithaa remained unmarried.

Awards and Honours:

In 1972, the Government of Tamil Nadu honoured her with the Kalaimamani Award.

A degree of Doctor of Literature (D.Litt.) was conferred upon her by the University of Madras in 1991.

A degree of Doctor of Science was conferred upon her by Dr. M.G.R. Medical University in 1992.

A degree of Doctor of Letters was conferred upon her by Madurai Kamaraj University in 1993.

A degree of Doctor of Science was given to her by Tamil Nadu Agricultural University in 2003.

A degree of Doctor of Letters (Honoris causa) was conferred upon her by Bharathidasan University in 2003.

She was invited by the House of Lords, London, in 2004 to receive the "Woman Politician of the Decade" Award from the Asian Guild Awards.

The Golden Star of Honour and Dignity Award was conferred upon her in 2004 by the International Human Rights Defence Committee recognising her services in protecting the weaker section of society and in the field of gender equality in Tamil Nadu and India.

In 2011, a resolution was passed by the New Jersey General Assembly to appreciate her exemplary excellence and dedication as a leader and in service to the people of Tamil Nadu.

Journey in South Indian politics:

Upon M.G. Ramachandran's direction, Jayalalitha joined ADMK party 1980.

In 1982, Jayalalithaa became a member of the AIADMK, a party founded by M.G. Ramachandran. It marked her entry into politics.

She gave her first public speech, Pennin Perumai (the Pride of Women), at the conference of the party that year.

Jayalalithaa was elected for the first time as a member of the Rajya Sabha in 1984 and she retained the seat till 1989.

Jayalalithaa was elected as a member of Tamil Nadu Legislative Assembly in 1989 from the Bodinayakkanur constituency.

Jayalalithaa was the first lady to become the Leader of the Opposition in the Legislative Assembly of Tamil Nadu.

The election symbol of the AIADMK party, 'Two Leaves', was restored by her in 1989.

Jayalalithaa directed the Congress (I) and AIADMK alliance to a historic victory in the 1989 General Elections to the Lok Sabha in Puducherry and Tamil Nadu.

Under her leadership, the AIADMK secured victories in all the subsequent by-elections from the constituencies of Peranamallur, Madurai East and Marungapuri to the Tamil Nadu Legislative Assembly.

A landslide victory was secured by Jayalalithaa in the Tamil Nadu Legislative Assembly elections held in 1991, when the party and its alliance won 225 out of the total 234 seats. She contested from two constituencies, Kangeyam and Bargur, and won both the seats comprehensively.

On 24 June 1991, she became the youngest ever and the second female Chief Minister of Tamil Nadu. She held the position till 12 May 1996.

She swept the 1991 General Elections by securing a complete victory for the AIADMK and its alliance partner INC in the 40 Lok Sabha constituencies of Puducherry and Tamil Nadu, thus creating history.

On 14 May 2001, Jayalalithaa became the Chief Minister of Tamil Nadu for the second time and held the post till 21 September 2001.

In February 2002, she was elected from the constituency of Andipatti.

She remained the Chief Minister of Tamil Nadu from 2 March 2002 to 12 May 2006.

Again in the 2011 Legislative Assembly elections in Tamil Nadu, the AIADMK and its allies bounced back, winning 203 seats out of 234, with the AIADMK securing 150 seats on its own. The new government was formed on 16 May 2011 and Jayalalitha became the Chief Minister of Tamil Nadu for the fourth time.

Jayaram Jayalalithaa had to step down from her post of the Chief Minister of Tamil Nadu in September 2014 when a trial court in Karnataka held her guilty in an 18-year-old disproportionate assets (amounting to Rs. 66.65 crore) and corruption case. The court had sentenced her to a four-year jail term with a fine of Rs. 100 crore, but she challenged this verdict in Karnataka High Court. On 11 May 2015, the Karnataka High Court acquitted Jayalalithaa in the Disproportionate Assets case.

J. Jayalalithaa was sworn-in as the Chief Minister of Tamil Nadu for a record-equalling fifth time on 23 May 2015.

On 25 April 2016, she filed her nomination papers in R. K. Nagar ahead of the Tamil Nadu Assembly elections.

She created a history of sorts by becoming the first chief minister since 1989 to return to power for a second consecutive term.

She took oath as the chief minister of Tamil Nadu for a record sixth time on 23 May 2016.

Transformation from a Leader to Goddess of Common people: Many of the schemes introduced by Ms. Jayalalithaa targeting the welfare of common people raised popularity and accoladed appreciation as a best model by other State and country. She can be called as a mother of populist schemes. Amma Unavagam (Food Canteen) ‘Amma Unavagam’ is probably way different from many others. Under this scheme the Former Chief Minister of Tamilnadu, Dr. J. Jayalalithaa has begun opening food canteens which will serve meals at highly subsidized prices. One must look at the price list to believe that quality food can be hygienically cooked and neatly delivered at these prices. While the intention of the scheme is to enable the really poor of the society gain access to a few meals every day, it is not surprising that a lot more beyond the poor seem to have also embraced and benefited from this scheme. After a long time we are beginning to see rave reviews and praises for a government scheme from the public across all sections.

The socio-economic benefits arising out of this scheme go well beyond just serving subsidized meals.

They also provide jobs, thereby reducing unemployment

They create healthier people, thereby reducing sickness and malnutrition

They possibly will reduce social disorder as many a times it is done for the sake of the belly

The mid- day meal scheme launched in the eighties by the then Chief Minister Dr. M.G Ramachandran of AIADMK, Amma Unavagam launched by the Former Chief Minister Dr. Jayalalitha is one that is of revolutionary for party, state and in similar lines at national level (for states that would adopt this). This scheme serves the people of the state while also acting as an example for other parts of the country to emulate.

The Mullaperiyar dam: The Supreme Court in its May 2, 2014, judgment had held that the 120-year-old dam is secured and allowed Tamil Nadu to increase the water level to 142 feet. The dam established in Thekkady is owned and managed by the Tamil Nadu government. The court’s judgment was reflected a ‘sweet victory’ for the state and the rise in water levels significantly helped the farming communities.

Brand Amma: This is probably one the important innovative welfare schemes launched by the late CM. Under her government, the government turned out a plethora of welfare schemes like free pc and laptops for students, canteens with subsidized meals called Amma Unnavagam for the

homeless. Apart from the mid-day meal plan, Jaya introduced breakfast meals at morning across government schools.

Stabilized power situation: Excessive power cuts were a major problem in Tamil Nadu villages across the state. Old areas would experience load shedding for more than 12 hours. Many small industries were on the edge of shutting down owing to bad power supply. Jayalalithaa in her second following term tackled this problem by providing a strong push to solar energy. The government also produced 200-750 units of free of electricity to handloom and power loom weavers. This is another major step.

Global Investors Meet: In the two-day Global Investors Meet event continued in September 2015, the Tamil Nadu government pulled close to Rs 2.42 lakh crore rupees in investments. Jayalalithaa was flattered for ensuring large investments.

Gold scheme for women: She started the 'Thallikku Thangam' scheme to give gold for mangal sutra and also economic assistance for conducting a marriage ceremony. According to the state website, 4 grams of gold with Rs.25,000 towards marriage help have been given to 86,676 educated ordinary women.

Phased Prohibition: In her occupation as CM, she hit down the number of liquor outlets and fixed the closure of 500. The shop timings changed from 10 am to 12 noon. While other people called in for a total ban on TASMACs (Tamil Nadu State Marketing Corporation), Jayalalithaa promoted for a phased prohibition.

Rainwater Collection: Tamil Nadu test with the alternative water storage technique of rainwater harvesting (RWH) is a rare victory story. The RWH scheme, a brainchild of CM Jayalalithaa, was started in 2001 in the dehydrated state despite opposition from many people. The CM did RWH mandatory for all government and domestic buildings. The project soon helped people in water-starved areas such as Chennai by increasing water tables in most regions.

The Cradle Baby Scheme: The 'cradle baby' scheme, added brainchild of late Chief Minister Jayalalithaa in 1992 was started to battle female abortion. The project which began in 1992 runs in towns and villages across Tamil Nadu. In this scheme, parents are allowed to hand over new-borns to Cradle baby centres anonymously. They are well decorated with life-saving drugs, bed sheets, gas connections and other facilities. The centres have been set up in several districts across Tamil Nadu like Madurai, Theni, Dharmapuri, Erode, Dindigul and Namakkal.

Other biggest Achievements: The Jayalalithaa government in 2003 outlawed sale of all lotteries, including online, within the area of the state, notwithstanding the risk of the state losing revenue. Dreaded poacher & sandalwood smuggler Veerappan was also murdered when she was in power.

Conclusion: Ms. Jayalalithaa, had a strong personality and Intelligence that many times overshadowed male around her in Politics and Cinema. She is a very good diplomat who can deal with any political issues at ease and set an example for women empowerment. Women empowerment was one of the dreams of Ms. Jayalalithaa and she often highlighted it in her speech. Once she expressed that " For women to survive in this world needs a lot of self-confidence, courage, will power, the capacity to take anything no matter how unpleasant, how bitter, how painful and not show that it hurts ". Though she was the leader of the people and for the people, many popular schemes are introduced by her Government for the welfare of women and girl child. The study is concluded that a great mass leader of an era, dreamt high, excelled in all fields irrespective of her likings and dis-likings, set an example in her long history of Politics and Cinema. Demise of a lady with Iron heart is truly a set back and loss to Politics and Tamil Nadu.

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ROLE AND CONTRIBUTION OF WOMEN TOWARDS LEADERSHIP

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Abstract

Indian women, have come up a long way during the past 50 years. Those days are gone when the leadership positions were occupied by males. Now in almost every field women are equally occupying positions and who have silently begun challenging the conventional male ideas that had shaped the policies earlier. This study was conducted with an aim to highlight the paradox in public attitude towards women as a leader. It was my pleasure to take an example of Ms. Mithali Raj, a current Captain of Indian Women's Cricket Team as a successful leader in sports.

INTRODUCTION: India is a country of great leaders, both men and women. The women leaders in India are diverse in terms of their personality, and their contribution to education, politics, sports, women empowerment and social welfare is neither limited nor forgettable. Today women are not just restricted to household work and cooking for her family. Today, it's all about empowerment of women. It is she who gives birth to the future of the world. A woman is a leader of the family throughout her life. So based on this introduction I am going to discuss about Ms. Mithali Raj, one of the best examples of leadership in recent times.

OBJECTIVES:

To know the importance and contribution of women in leadership through an example of Ms. Mithali Raj.

To discuss facts and figures relating to contribution of women in leadership in corporates.

Some facts and data:

Near about 73% companies don't have a strategy for developing women in leadership roles.

42% companies do not offer activities targeted to the needs of women leaders.

23% companies offer some activities or programs for women.

9% companies are planning to add programmes and activities in the future.

20% companies are very concerned about retaining women in leadership role.

20% companies want to have work-life programmes to attract and retain female talent.

81% companies want to help women develop the full range of skills for senior leadership roles.

Contribution of Mithali Raj in Sports: Mithali Raj is an Indian Women's Cricket Team Player and a Current Captain. She is an inspiration in leadership. Following is the data highlighting her stats and showing that how effective leadership is important:

Competition	Test (Women)	ODI	T20I
Matches	10	186	63
Runs scored	663	6,190	1,708
Batting average	51.00	51.58	37.95
100s/50s	1/4	6/49	0/10
Top score	214	114*	73*

As her career stats showed above, she is considered as world's greatest cricketer and leader of all time.

Other Epic Achievements:

She is the only captain to lead India to an ICC ODI World Cup Final Twice in 2005 and 2017.

She is the only player in the world who has scored 7 consecutive 50's ODI games.

She is the only leader and a player in the world has scored more than 6000 runs mark in ODI games. (Highest run-scorer in International Cricket.)

She was the youngest player who made debut in Internationals at the age of 17 years and was in the list of probable's of 1997 Women's World Cup.

She led the side to their first ever victory in Test series in England.

Under her leadership, India has also won the Asia Cup Twice.

She has received Arjuna Award in 2013.

Padma Shri in 2015-India's 4th highest civilian Award Currently No.1 Batsmen in the World with ratings 710 as per ICC World Rankings.

Viacom 18 motion picture is going to make a feature film on her life hoping to inspire girls to make their career in Cricket.

In BBC 100 Women list 2017

Conclusion:

From above studies, we can figure out some conclusive points:

From facts and figures of corporates, Women are now inseparable part in development and growth.

With an example of Mithali Raj, we come to know the following points:

How she changed herself over the years from an aspirant of Classical dancer to an International Team Leader.

To be a great leader, one require fearless mind, decision-making ability, how to react to pressure situations, focus.

Another important point is leadership is all about to do and getting it done from team

She has proved that given a chance to woman to lead a side, what role woman can play in contributing at greatest level.

Truly, she is an inspiration to all women not just in the field of cricket but in their respective careers.

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