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**DEPARTMENT OF HISTORY  
UTKAL UNIVERSITY, VANI VIHAR  
BHUBANESWAR-751004, (ODISHA) INDIA**

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# A STUDY ON RETIREMENT READINESS OF WORKING POPULATION IN MUMBAI

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## **ABSTRACT**

Retirement readiness encompasses not just the ability to manage basic necessities and old age-related medical expenditure after retirement, but also the availability of financial resources for any unexpected emergencies as well as expenses for leisure. With lack of a formal social security programme in India and the breakdown of joint family system, it becomes imperative for working individuals to strive for financial independence after retirement. The present study aims to assess the level of retirement readiness of the working population in Mumbai and also analyse it with respect to various demographic factors. Primary data collected from 104 respondents showed respondents displayed a significantly high level of retirement readiness. More than half of the respondents were planning to work after retirement mainly to meet their financial commitments and also to keep themselves busy. Among those who hadn't started planning for their retirement, the main reasons given were expected pension income and current financial obligations. Demographic factors like age, gender, education, income and occupation were found to be statistically insignificant with respect to retirement readiness. Urgent steps need to be taken to instil the habit of early retirement planning among the working population so as to ensure financially independent and secure retired population in the future.

**Key words:** *Retirement readiness, working population, financial planning, retirement planning, retirement savings*

## **1. INTRODUCTION**

The population of India is expected to rise to 1.5 billion by the year 2030 and to 1.6 billion by the year 2050, with an increase in the share of working age population in the age group of 15 to 64 years. Also, the ratio of older population to the working age population is increasing(Mukherjee, Bajaj, & Gulati, 2019). This demographic transition brings into focus the need for ensuring adequate financial security to the working population after their retirement from active service. With lack of a formal social security programme in India and the breakdown of joint family system, it becomes imperative for working individuals to strive for financial independence after retirement. This can be possible only through careful financial planning during their working years. The present study aims to assess the level of retirement readiness of the working population in Mumbai and also analyse it with respect to various demographic factors.

## **2. REVIEW OF LITERATURE**

Swaminathan (2019)studied the impact of behavioural factors on the retirement planning decisions of employees in the IT sector in Pune. The study found that although a good majority of respondents understood the importance of early retirement planning, they were delaying the actual implementation of any retirement savings plan, thereby creating a retirement funding gap.

Lal (2011)developed a retirement plan for individuals taking into consideration various factors influencing their retirement planning decisions. The study found that more than 70% of the respondents had started saving for their retirement and had an active retirement plan in place. The study recommended varying composition of retirement plans according to the life cycle stages with progressively lower investment in risky equity instruments.

Shendkar (2016) studied the retirement planning practices of individuals in the age group of 25 to 45 years in the city of Pune and their knowledge about various retirement financing options. The study found that the most important priorities for individuals regarding retirement funding are for medical emergencies, comfortable retired life and children's education or marriage.

Yavav (2017) conducted a study to assess the psychological and social factors of ageing in connection with the retirement planning of senior citizens. The study found that a majority of the respondents had planned for their retirement during their working years and were satisfied with the status of their retirement plans. Interestingly, around 3/4<sup>th</sup> of the respondents who had adequate retirement planning were not suffering from depression whereas the others were depressed.

Dwivedi, Purohit, Choudhary, & Mehta(2015) explored that attitude of women towards retirement planning by studying non-teaching female staff at Banasthali University, Rajasthan. The respondents were mainly in the 25-30 age bracket and financially independent. However, they hadn't started planning for their retirement on the grounds that before marriage, their parents would handle their financial decisions and once married, their spouses would take care of the same. The main reason for not saving for retirement was paucity of funds.

Biswas (2018), in his report 'Spotlight on Retirement- India' focused on the retirement planning practices of the growing older population in India. The report predicts that the ratio of working population supporting every retired person will drop from 13.8:1 in the year 2000 to 5:1 in 2050. Inadequacy of pension reforms, both in terms of population coverage and providing retirement income, is a major stumbling block.

Krishna Moorthy, et al., (2012) studied the impact of demographic and psychological factors on the retirement planning behaviour of working individuals in the age group of 26 to 55 years in Malaysia. Retirement planning behaviour was measured using variables such as attitude towards retirement, conflict in retirement and clarity of goals. Most of the respondents were looking forward to retired life and were satisfied with their financial preparation for the same.

### **3. RESEARCH GAP**

Very limited studies have been conducted to assess the level of retirement readiness of the working population in the city of Mumbai. Mumbai is considered the financial capital of India and it would be interesting to know if its working population realises the importance of being financially ready for retirement.

### **4. SCOPE AND SIGNIFICANCE OF THE STUDY**

This paper aims to study the level of retirement readiness of the working population in the city of Mumbai and also to assess the influence of demographic factors on retirement readiness. The results of the study could be used to answer the question as to whether the working population of Mumbai considers retirement planning to be an important component of their financial planning practices and could throw light on the efficacy and importance of early retirement planning.

### **5. TECHNICAL DEFINITION OF TERMS USED**

#### **5.1 Retirement readiness:**

Retirement readiness is the result of adequate retirement planning. Retirement readiness reflects the confidence that individuals have to be able to meet their expenses post-retirement and maintain an adequate standard of living. A retirement-ready individual is certain that the financial planning that he/she had done for his/her retirement will ensure that he/she has enough money to live comfortably after retirement.

#### **5.2 Working population:**

Working population refers to individuals who are engaged in any revenue generating activity. They include salaried individuals, businessmen and professionals. In this study, working individuals in Mumbai in the age group of 30 to 60 years have been considered.

## 6. OBJECTIVES OF THE STUDY

1. To assess the level of retirement readiness of working population
2. To examine the influence of demographic factors on retirement readiness of working population

## 7. HYPOTHESES

### Hypothesis 1:

$H_0$ : The level of retirement readiness of working population is not significantly high.

$H_1$ : The level of retirement readiness of working population is significantly high.

### Hypothesis 2:

$H_0$ : There is no significant difference between demographic characteristics (age, gender, educational qualification, marital status, annual income of family and occupation) and retirement readiness of working population.

$H_1$ : There is significant difference between demographic characteristics (age, gender, educational qualification, marital status, annual income of family and occupation) and retirement readiness of working population.

## 8. RESEARCH DESIGN AND METHODOLOGY

### 8.1 Data collection:

The research is based on data collected from primary as well as secondary sources.

#### 8.1.1 Primary data

Primary data was collected from 104 respondents through a questionnaire. The samples were drawn as per convenience sampling method and the data was analysed using various statistical tools such as tables, percentages, mean, standard deviation. Hypotheses testing was done using one sample t-test, independent sample t-test and ANOVA.

#### 8.1.2 Secondary data

Secondary data has been collected from websites, books, journals and other publications.

### 8.2 Data analysis and interpretation

#### 8.2.1 Demographic profile of respondents:

Demographic factors	Classification	Frequency	Percentage
Age (years)	30-40	27	25.96
	40-50	38	36.54
	50-60	39	37.50
	<b>Total</b>	<b>104</b>	<b>100</b>
Gender	Male	67	64.42
	Female	37	35.58
	<b>Total</b>	<b>104</b>	<b>100</b>
Educational qualification	Graduate	33	31.73
	Post Graduate	47	45.19
	Professional	24	23.08
	<b>Total</b>	<b>104</b>	<b>100</b>
Annual income of family (Rs.)	1-10 lakhs	30	28.84
	10-20 lakhs	43	41.35
	More than 20 lakhs	31	29.81
	<b>Total</b>	<b>104</b>	<b>100</b>
Occupation	Govt./Public sector employee	47	45.19
	Private sector employee	42	40.39
	Businessman/Self-employed professional	15	14.42
	<b>Total</b>	<b>104</b>	<b>100</b>

Table 1: Demographic profile of respondents

Source: Primary data

### 8.2.2 Retirement readiness:

#### Expected age of retirement:

The respondents were asked about the age at which they planned to retire from their current occupation.

Expected age of retirement	Frequency	Percentage
45 years	02	1.92
50 years	06	5.77
55 years	16	15.39
60 years	57	54.81
65 years	08	7.69
Can't say	15	14.42
<b>Total</b>	<b>104</b>	<b>100</b>

*Table 2: Expected age of retirement*

*Source: Primary data*

A little more than half the respondents expected to work till the age of 60 years, which is the normal retirement age for salaried employees. Around 14% of the individuals couldn't say for certain when they would take retirement.

#### Plan to work after retirement:

The respondents were asked whether they planned to continue to work and earn income even after attaining the age of retirement.

Plan to work after retirement	Frequency	Percentage
Yes	61	58.65
No	19	18.27
Can't say	24	23.08
<b>Total</b>	<b>104</b>	<b>100</b>

*Table 3: Plan to work after retirement*

It is interesting to note that more than half of the respondents were planning to continue to work after retirement, whereas about 23% were unsure of their post-retirement work plans.

#### Reasons for planning to work after retirement:

The individuals who planned to continue to work after retirement were asked to choose the reasons for doing so out of the options given.

Reasons	Frequency	Percentage
I need to stay active, or else I will be bored at home	58	68.24
I enjoy working	47	55.29
I will need the money for extras such as leisure, travel, etc.	37	43.53
I will need the money to make ends meet	16	18.82
I will need the money for meeting some financial commitments	14	16.47

*Table 4: Reasons for planning to work after retirement*

*Source: Primary data*

#### Saving for retirement:

Started saving for retirement	Frequency	Percentage
Yes	64	61.54
No, but considered	36	34.61
No and not considered	04	3.85
<b>Total</b>	<b>104</b>	<b>100</b>

*Table 5: Saving for retirement*

*Source: Primary data*

Around 61% of the respondents had already started saving for their retirement, whereas around 35% said that they hadn't started saving for retirement, though they had thought about the same. Only a small percentage hadn't even considered saving for retirement.

**Reasons for not saving for retirement:**

Reasons for not saving for retirement:	Frequency	Percentage
My pension/PF income will be enough to sustain me	16	30.19
I have other major financial commitments (current or future)	15	28.30
There is lot of time left for my retirement	13	24.53
Disposable income is not enough	13	24.53
I will face the situation when it comes	10	18.87
I am not aware of retirement planning products	5	9.43
My spouse / parent / other family member manages my financial affairs	4	7.55
However much I save, it won't be enough	4	7.55
Other reasons (expecting support from family, distrust of financial service providers)	3	5.66

*Table 6: Reasons for not saving for retirement*

*Source: Primary data*

**Percentage of income ideally to be set aside/actually set aside for retirement:**

Percentage of income ideally to be set aside for retirement	Frequency	Percentage
5%- 10%	13	12.50
10%- 15%	37	35.58
15%-20%	20	19.23
20%- 25%	27	25.96
Don't know	07	6.73
<b>Total</b>	<b>104</b>	<b>100</b>

*Table 7: Percentage of income ideally to be set aside for retirement*

*Source: Primary data*

Percentage of income actually set aside for retirement	Frequency	Percentage
Nil	17	16.35
5%- 10%	25	24.04
10%- 15%	19	18.27
15%-20%	15	14.42
20%- 25%	17	16.34
Don't know	11	10.58
<b>Total</b>	<b>104</b>	<b>100</b>

*Table 8: Percentage of income actually set aside for retirement:*

*Source: Primary data*

Though around 25% of the respondents felt that they should be ideally setting aside 20 to 25% of their income for retirement purposes, only about 16% actually managed to do so. Around 24% of the respondents were setting aside only about 5 to 10% of their income towards retirement whereas about 10% of the respondents weren't sure about the percentage of their savings for retirement.

**Main source of income post-retirement:**

Main source of income post-retirement	Frequency	Percentage
PF/ Pension/ other benefits from employer	73	70.19
Savings / Investment income / Rental income	61	58.65
Will continue working post-retirement	35	33.65
Sale of assets such as gold, property etc.	17	16.35

Will curtail expenses and try to live within means	13	12.50
Haven't thought about it	9	8.65
Inheritance from family	8	7.69
Financial support from children/ other family members	7	6.73
Reverse mortgage of self-occupied house	4	3.85

Table 9: Main source of income post-retirement

Source: Primary data

#### Influence on retirement planning decisions:

Influence on retirement planning decisions by	Frequency	Percentage
Self	80	76.92
Family	47	45.19
Friends/relatives	12	11.54
Financial advisor	10	9.62
Others (colleagues, bank relationship managers)	4	3.85

Table 10: Influence on retirement planning decisions

Source: Primary data

#### Overall Retirement Readiness:

A set of 8 questions were asked on a Likert scale on their readiness to meet daily expenses, medical expenses, unexpected costs after retirement and their overall retirement readiness, which was measured on a 5 point Likert scale. Their responses were analysed to get a measure of their retirement readiness.

A majority of the respondents were confident that they would have enough money to take care of their daily expenses, medical expenses, unexpected costs and also leisure activities after retirement.

#### 8.2.3 Hypothesis Testing:

##### Hypothesis 1:

$H_0$ : The level of retirement readiness of working population is not significantly high.

$H_1$ : The level of retirement readiness of working population is significantly high.

Test value = 3								
Variable	N	Mean	S.D	t	df	p value	Mean difference	95% confidence interval
Retirement readiness	104	3.72	0.824	8.97	103	<0.001	0.725	0.565 0.885

Table 12: One Sample T-test

Source: Primary data

Since p values are less than 0.05, the null hypothesis is rejected at 5% significance level. The mean score of 3.72 points to a high level of retirement readiness in the working population.

**Conclusion:** The level of retirement readiness of working population is significantly high.

##### Hypothesis 2:

$H_0$ : There is no significant difference between demographic characteristics (age, gender, educational qualification, marital status, annual income of family and occupation) and retirement readiness of working population.

$H_1$ : There is significant difference between demographic characteristics (age, gender, educational qualification, marital status, annual income of family and occupation) and retirement readiness of working population.

Demographic factors	Categories	N	Mean	S.D.	Test used	Test statistic	p value	Decision at 5% level of significance
Age (years)	30-40	27	3.57	0.84	One-way ANOVA	2.35	0.104	Retain $H_0$
	40-50	38	3.59	0.66				

	50-60	39	3.96	0.92				
<b>Gender</b>	Male	67	3.74	0.76	t- test	0.183	0.856	<b>Retain H<sub>0</sub></b>
	Female	37	3.70	0.94				
<b>Education</b>	Graduate	33	3.58	0.77	One-way ANOVA	1.33	0.270	<b>Retain H<sub>0</sub></b>
	Post Graduate	47	3.72	0.89				
	Professional	24	3.93	0.75				
<b>Annual income of family (Rs.)</b>	1-10 lakhs	30	3.65	0.62	One-way ANOVA	1.97	0.148	<b>Retain H<sub>0</sub></b>
	10-20 lakhs	43	3.60	0.89				
	More than 20 lakhs	31	3.98	0.86				
<b>Occupation</b>	Govt./Public sector employee	47	3.91	0.77	One-way ANOVA	2.43	0.093	<b>Retain H<sub>0</sub></b>
	Private sector employee	42	3.53	0.75				
	Businessman/ Self-employed professional	15	3.71	1.10				

*Table 13: Testing for significant difference among demographic factors with respect to retirement readiness of working population*

The above table shows that all the demographic factors tested (i.e. age, gender, education, annual income of family and occupation) were found to be statistically insignificant with respect to retirement readiness, since p value is more than 0.05. Therefore, the null hypothesis is retained at 5% significance level.

**Conclusion:** *There is no significant difference between demographic characteristics (age, gender, educational qualification, marital status, annual income of family and occupation) and retirement readiness of working population.*

## 9. LIMITATIONS OF THE STUDY

1. The sample size is restricted to 104 respondents.
2. The analysis of retirement readiness according to marital status could not be conducted because of inadequate sample size of unmarried working individuals.
3. Only the financial planning aspect of retirement readiness is considered in this study. The socio-psychological factors influencing retirement readiness is not considered here.

## 10. SUGGESTIONS

1. The young working population has to be made aware about the need for early retirement planning, for which financial planning concepts have to be introduced in the curriculum right since their school years.
2. Concentrated marketing efforts can be carried out by banks, financial institutions and insurance companies to target individuals who have just stepped into their careers so as to prompt them to start saving for their retirement years.
3. Private sector employees who may not have the benefit of pension income during their retirement must be made aware of the need for retirement planning. For this purpose, awareness campaigns can be conducted at their workplace itself.
4. Banks, financial institutions and insurance companies can come up with innovative products designed to offer adequate retirement income as well as insurance benefits.

5. The Government must conduct awareness campaigns on a massive scale to instil the habit of retirement planning among the working population in order to counter the lack of a formal social security system in India, so that the retired population becomes self-reliant.
6. Very few people seem to have knowledge of and are interested in Reverse mortgage loans as a retirement planning tool. Concentrated marketing efforts have to be directed towards making reverse mortgage loans popular as a source of funds during retirement years.

## 11. CONCLUSION

Retirement planning is not considered an important financial objective in our country, where providing for children's education, marriage, repayment of housing loans, etc. take precedence. However, with the objective of a self-reliant retired population in future, the Government has to ensure that the practice of retirement planning is instilled in the younger population right from the time they step into their careers. Individuals have to imbibe the habit of keeping aside a small portion of their income regularly towards retirement planning objectives. With the increase in aged population projected for India for the next few decades, it becomes imperative that individuals step into their retirement with the confidence that they would be able to lead a comfortable life post-retirement.

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# THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY ON BRAND EQUITY AND PERFORMANCE OF COMMERCIAL BANKS IN MUMBAI

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## Abstract

**Purpose:** The commercial banks of Mumbai after introduction of CSR mandate through Companies Act 2013 Section 135 and under growing pressure are now conducting every aspect of corporate social responsibility (hereafter referred to as CSR) for the welfare of their clients as well as society. The earlier studies conducted reveal that the value of CSR is attributed to the relationship between corporate images, brand awareness, brand equity, performance of brands, competitive advantage and financial result. This paper aims to measure the impact of CSR on Brand equity (hereafter referred to as BE) and performance of the commercial banks.

**Design/methodology/approach:** A sample of 200 customers of the commercial banks was contacted to collect information using questionnaire. Structural Equation Modelling was used to test the proposed hypotheses.

**Findings:** The study revealed that there exist a significant direct positive effect of CSR on Brand Equity and positive effect on performance of the banks.

**Practical Implications:** The study indicates that successful practice of CSR will enhance banks image in the minds of the customers. It establishes that customers may feel that they are contributing to social causes as they are receiving services from socially responsible organisations. The CSR practices adopted by banks will tend to sensitise the customers regarding the financial services provided by the banks. Subsequently, good reputation and brand awareness will help to build strong BE for banks and may increase customer loyalty.

**Originality:** This research is a rare study and tends to establish relationship between impact of CSR on BE and performance of the commercial banks in Mumbai. Hence, the findings of the study will add value to the existing literature.

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**Key Words:** Corporate Social Responsibility (CSR), Brand Equity (BE), firm performance

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**Introduction:** Corporate Social Responsibility (CSR) initiatives have gained importance. Companies across industries, to ensure sustainability of life in the business are spending millions of dollars on CSR activities (Luo and Bhattacharya, 2006). The heavy investments made by the companies on CSR activities make the companies claim that CSR is not only the “right thing to do but also the smart thing to do” (Smith, 2003, p. 52). Bhattacharya and Sen state that more than eighty percent of Fortune 500 companies mention CSR activities conducted by them on their web sites (Bhattacharya and Sen, 2004). These companies believe that these activities will lead to improved reputation (Lii and Lee, 2012). The CSR initiatives taken by the companies will also contribute to the formation of a good brand image. This brand image in turn will help to differentiate the company’s products or services (Hsu, 2012). A well-managed CSR program will increase the brand equity, brand awareness and resonate with strong values (Hency Thacker, 2019). CSR activities also help the companies to build moral capital which in turn supports a company’s intangible assets like corporate reputation (Godfrey, 2005) and brand equity (Meloand-Ignacio, 2011). Godfrey states that moral capital acts as an insurance policy as it protects company from negative stakeholder evaluation.

Financial Services industry considers both Corporate Reputation (CR) and Brand Equity (BE) as crucial factors for company’s success (Lai et.al., 2010). Pivato suggests that trust forms a fundamental element in the customer-company relationship (Pivato et.al., 2008). Trust is perceived as consumer expectations of socially responsible behaviour from companies (Vlachos et.al., 2009).

Consumer's perception helps their evaluation to be positive (Brown and Dacin, 1997). Studies reveal that the consumer's perception of CSR activities influences the company's reputation (CR) (Cretu and Brodie, 2007) and Brand Equity (BE) (Creel, 2012). There are no literature that specify the role of trust in building CR (Hur et.al., 2014) and BE (Chaudhari and Holbrook, 2001). Therefore, we propose trust as mediating factor connecting CSR to CR and BE. Studies further state that trust has important implications on marketing outcomes (Xue and Waqar, 2014). This research focuses on CSR's impact on CR and BE.

The research has twofold purposes: first, measures the impact of CSR on the two marketing outcomes CR and BE; second, the role of mediating factor, trust, in the relationship between CSR, CR and BE. The context identified for this research is commercial banks in Mumbai. Commercial banks have homogeneity of products and services and high competition as their characteristics (Fatma et.al., 2014).

The structure of the study is as follows: First heading focused on introduction; next heading gives preview of existing literature and builds hypotheses; third heading deals with methodology adopted for carrying out this research; fourth heading infers results; the last heading gives out conclusions, suggestions and future research directions.

## **Literature Review and hypotheses development**

### **Corporate Social Responsibility**

The concept of Corporate Social Responsibility came up in early 1950s when companies' contributions towards society and customers welfare became the object (Carroll, 1999). The definition of CSR evolved over the passage of time, yet, there is no one definition of CSR across the globe, implying that CSR is perceived differently by different people (McWilliams et. Al. 2006; Jamali, 2008; Campbell 2007; Jones et. al. 2009). This research work is based on the definition, "policies and practices of corporations that reflect business responsibility for some of the wider societal good." (Matten and Moon 2008). CSR focuses on four dimensions, such as, ethical, legal, economic and discretionary expectations of organisation (Carroll, 1979). In order to improve economic performance and to create sustainable competitive advantage, the companies invest in CSR practices (Porter and Karmer, 2006; Smith, 2003; Varadarajan and Menon, 1988). The strategy of investing on CSR practices by the companies brings unusual rate of return (Reinhardt, 1998; Hoppe and Lehmann-Grube, 2001) or when this kind of unusual rate of return is overlooked by competing companies (Hoppe and Lehmann-Grube, 2001). From the worker's perspective, CSR increases the productivity of the worker and their commitment towards the organisation and corporate citizenship (Carmeli et. al., 2007; Lin et. al. 2012). Hence, socially responsible companies will generate more revenues compared to the competing firms (Lichtenstein et. al., 2004).

### **Brand Equity**

Brand Equity is a marketing term. It has been defined by different authors from different points of view. In this research, we consider the definition from the customers' point of view given by Kotler and Keller, 2006). According to them Brand Equity (BE) is a promise that exists in the minds of consumers. Simon and Sullivan, 1993 has defined BE from the economic point of view and state that BE is the economic value of a brand of the organisation (Simon and Sullivan, 1993).

According to Mudambi et. al., 1997, BE is the total value added by the brand to the core product. Aker (1991) and Keller (1993) are considered as the pioneers in the development of consumer-based BE research. Aker defines BE as, "a set of brand assets and liabilities linked to a brand, its name and symbol that add or reduce the value provided by a product or service to a firm and/or to that firm's customers." He has used two approaches, perceptual approach – brand association, brand awareness, perceived quality – and behavioural approach – brand loyalty and market behaviour whereas Keller 1993 has measured BE by customer-based approach by focusing on perceptual components, namely, brand association and brand awareness of BE.

Hsu 2012 study reveals the fact that combination of behavioural and perceptual components may not yield causal relationship between CSR and BE although they be effective in assessing Brand Equity. Hence, this research considers only perceptual variables proposed by Keller 1993. These variables

are brand awareness and brand association as literature on branding stresses on perceptual components for measuring BE.

### **Firm Performance**

The studies of last thirty years have tested the relationship between CSR and financial performance of the companies and have stated that they are positively related (Beurden and Gossling, 2008; Margolis and Walsh, 2003; Orlitzky et. al., 2003). The point of argument here is that CSR improves financial performance of the companies by improving the relationship of the stakeholders group. This reflects the cost and revenue side. If one looks at from the cost side, when the relationships improve trust is built between the two sides leading to reduction in transaction costs and certain risks associated with it. If looked from the revenue side, better relationships with stakeholders bring in new customers and new investment opportunities helping the company to charge high prices (Barnett, 2008). This research defines firm performance as, “financial performance brought by suppliers’ brands and perceived by buyers.” Our research uses this definition and reasons out those suppliers’ CSR practices which are perceived by buyers force them to buy products or services of its brands creating firm performance.

### **Relationship between CSR and BE**

Studies state that most of the companies take CSR activities seriously as misuse may lead to negative effects on the company. Corporate Societal marketing programmes creates BE by building brand awareness, credibility, image, feelings, engagement, by creating brand communities (Hoffler and Keller, 2002). A daisy-wheel model presented by Jones states that brand equity is an output after the interaction between the brand and its customers. The expectations of the customers that the companies will perform its functions in a socially responsible manner will create a strong BE for the company (Jones, 2005). Brickley et. al., 2002 states that a company’s image purely depends upon socially responsible behaviour which is an important part of brand capital. Lai et. al., research show that CSR activities positively influence BE and firm performance. This is supported by Wang’s research which also states that CSR activities will enhance credibility of a brand and increase consumer’s expectations on the firms which will turn into BE (Wang, 2010). Hur et. al., 2013 also supported that CSR is the most important determinant of BE. The above literature enables us to build the hypothesis:

#### **H1: CSR is positively related to BE of the commercial banks.**

### **Relationship between CSR and corporate image**

Companies through CSR activities which focus on economic development, employee welfare, committed to support non-profit groups, and maintain ethical code of conduct in their organisation/firm/company set positive image in the minds of customers. Another study carried out by Jones reveal that companies continuously use CSR activities as tactical tool to respond to the expectations of stakeholders, like public opinion, media, non-government organisations and customers to build a favourable corporate image which in turn creates BE for the company. This is supported by a study conducted by Mudambi et. al., 1997. Esmaeilpour and Barjoei 2016 supported that corporate image as a mediator between CSR and BE. The study conducted by Singh and Verma also confirmed that CSR influences BE. Study by McWilliams et. al., asserted that CSR enables in creating corporate image which in turn helps to build BE. According to Arendt and Brettel, 2010 CSR has the capability to develop corporate image for the company. A study by Vazifehdust et.al., concludes that CSR has a significant positive impact on company image and its brand. Kim and Hyun’s research bringsforth a fact that brand image influences perceived quality which in turn creates BE. The above literature enables us to develop the following hypothesis:

#### **H1: CSR is positively related to corporate image of the commercial banks.**

### **Relationship between CSR and Firm performance**

Most of the studies conducted focus on the relationship between CSR and firm’s financial performance. One of the studies conducted states that CSR has a positive impact on the firm’s financial performance and also emphasises that those companies which do not give a heed to CSR activities do not have good financial performance in comparison to those companies which conduct social activities. The companies which do not consider the influence of its functions on environment

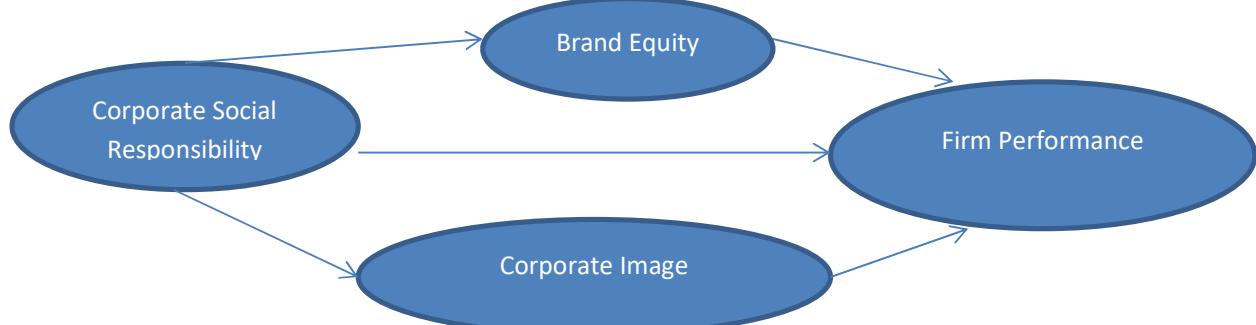
or society creates bad image in the mind set of customers thereby reducing the sales of the company. If the company pays attention to CSR activities and supports environment, society, non-government organisations etc. the company enters into the good books of customers thereby building a good image which in turn improve financial performance. The above study enables us to develop the following hypothesis:

**H1: CSR is positively related to firm performance of the commercial banks.**

**Conceptual Framework**

With the help of the above literature review, the conceptual framework consisting of direct and indirect relationships is established. The same will be proved through hypotheses testing.

**Fig 1 Conceptual framework of Firm Performance**



**Method - Sample and Data Collection**

This research is a descriptive study. The study is designed to test the developed hypotheses. The variables in used in this study include CSR through brand equity and corporate image on firm performance. CSR practices are treated as latent exogenous variable. Brand Equity (BE), Corporate Image (CI) and Firm Performance (FP) as endogenous variables. As Structural Equation Modelling can test multiple direct and indirect relationships between independent and dependent variables at the same time, so SEM is used as a tool for data analysis.

A questionnaire was used to collect data. The population of this study were bank customers who possessed knowledge on CSR practices adopted by the commercial banks and living in Mumbai suburbs. The customers chosen belong to 18 years and above and those who have accounts in commercial banks. Convenient sampling is adopted for data collection. Structured questionnaire is used and data was collected during office hours of the banks (10.00 a.m. to 3.00 p.m.) The study conducted by Malhotra and Dash (2011) recommend Structural Equation Modelling with five or fewer constructs. Each of these constructs should have three variables and commonalities at least 0.5 should be estimated. A sample size of 200 was recommended by these two researchers. Based on their study and recommendation, a sample size of 200 was chosen for this research.

**Measures**

To arrive at proper conclusions both primary and secondary data have been collected. Secondary data is collected from journals, newspapers, magazines, books, annual reports, websites etc. As stated earlier, primary data is collected from the customers who have accounts in the commercial banks of Mumbai suburbs through survey questionnaire. Likert Scale 1-9 is used where 1 and 9 indicate strongly disagrees and strongly agrees. The questionnaire comprised of two parts; the first part collected demographic data such as gender, age, education and type of institutions/organisations/companies they work with. Second part consisted of fourteen influential variables of BE shown in Table 1. The research used the partial least square method of structural equation model to build the conceptual framework BE through CSR.

**Data Analysis and results**

Table 1 shows the demographic profiles of the respondents. The majority of the respondents were male (62.5 %) aged between 35 and 45 years were 55.5%. 61.5% of the respondents had Master's degree and 38.5 % had Bachelor's degree. It adds value to the study as individuals possessing higher education are more knowledgeable about not only the emergence of CSR but also the additions and deletions involving the concept of CSR and BE. They value the commercial banks

with extensive CSR practices. The study also brings out that 93.5% individuals had accounts in private banks and 6.5% had accounts in public banks.

**Table 1: Summary of measurement items**

Number of constructs	Measurement Items	References
<b>Corporate social responsibility</b>	<i>Bank is a socially responsible institution.</i> <i>Bank takes initiatives for the welfare of the society.</i> <i>Banks are concerned about environment.</i>	<i>Berrens et. al. (2005)</i> <i>Du et. al. 2007</i> <i>Wagner et. al., 2009</i>
<b>Corporate Image</b>	<i>I always had good impression of my bank and my bank has taken efforts to maintain good image among its customers.</i> <i>I also believe that my bank is better than its competitors and this fact motivates me to accept financial services provided by my bank.</i>	<i>Nguyen and Leblanc 2001</i>
<b>Brand Equity</b>	<i>It makes good sense to use the services provided by my bank.</i> <i>My bank is preferred to other banks even if the other banks offer better services.</i> <i>I opine that it is smarter to use services offered by my bank.</i>	<i>Yoo et. al., 2000</i>
<b>Firm Performance</b>	<i>My bank performs better than other banks.</i> <i>The performance of other competitive banks does not influence me.</i> <i>I am happy to be associated with my bank.</i>	<i>Kirk et. al. 2013 and Wang et. al. 2015</i>

**Table 2: Demography of the respondents**

Variables	Frequency N = 200	Percentage
<b>Gender</b>		
Male	125	62.5
Female	75	37.5
<b>Age (Years)</b>		
Less than 25	3	1.5
25-35	45	22.5
35-45	111	55.5
Above 45	41	20.5
<b>Education</b>		
Bachelor's Degree	77	38.5
Master's Degree	123	61.5
<b>Bank</b>		
Private Bank	187	93.5
Public Bank	13	6.5

The impact of CSR on Firm Performance through BE and Corporate Image is tested by using Baron and Kenny 1986 method as it is good to test small group of data.

#### **Confirmatory Factor Analysis (CFA)**

Table 3 depicts fit indices for CFA model. The reliability and validity of CFA model can only be measured when  $\chi^2$ , Goodness of Fit (GFI) and other related indices reach cut off points of each fit indices. GFI, NFI, IFI, TLI and CFI should be  $\geq 0.9$  and Adjusted Goodness of Fit (AGFI) must be  $\geq 0.8$  and root mean square error of approximation must be  $\leq 0.08$ .

The following values are obtained in this study:

$$\chi^2 = 113.9; p = 0.001 < 0.05$$

GFI = 0.926

AGFI = 0.890

CFI = 0.960

NFI = 0.903

IFI = 0.961

TLI = 0.949

RMSEA = 0.055

These values indicate that the indices have attained their cut offs. This further confirms that the proposed model is reliable to continue next stage.

Table 3: Fit indices for CFA model

Index of fit	$\chi^2(df)$	$p$	GFI	AGFI	CFI	NFI	IFI	TLI	RMSEA
Values	113.9	0.001	0.926	0.890	0.960	0.903	0.961	0.949	0.055

Figure 2 Measurement Model

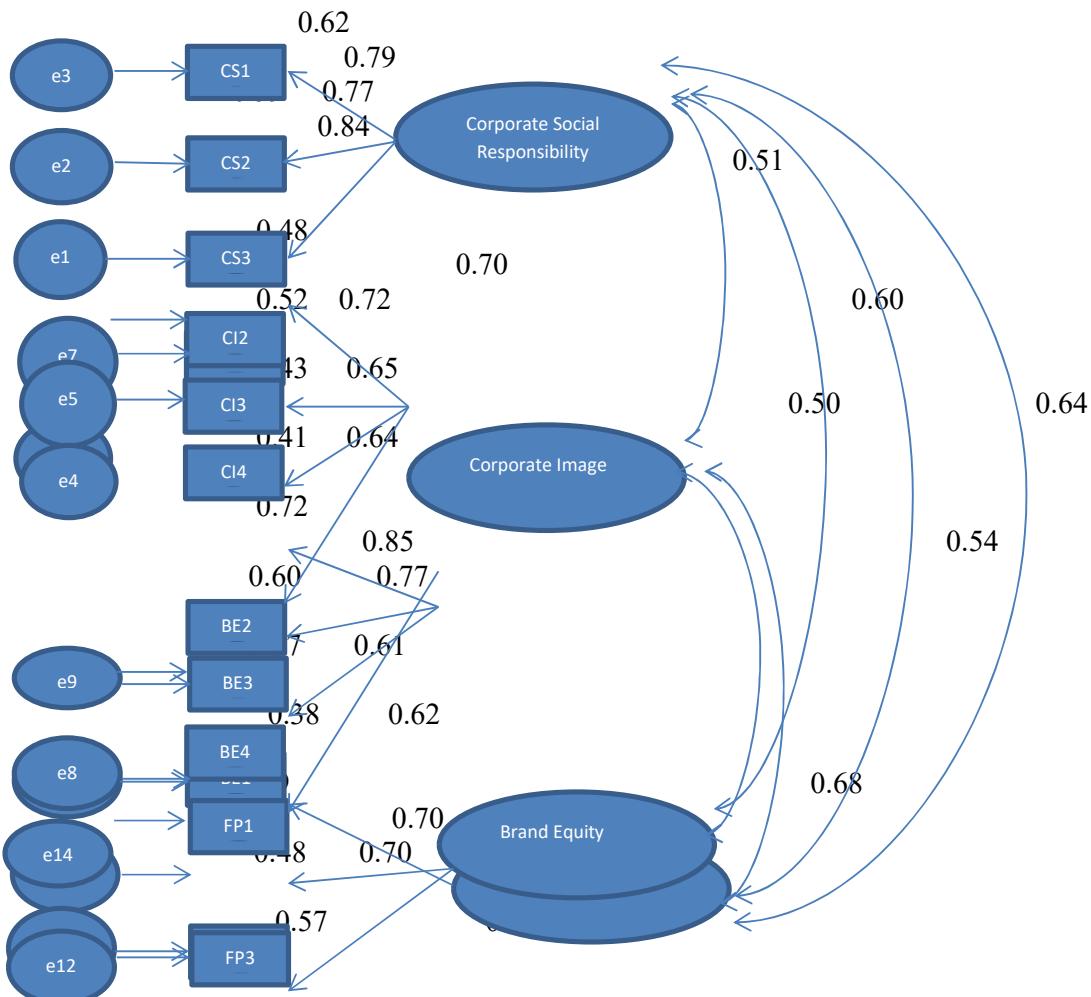


Figure 2 represents the measurement model of CFA. This figure reveals estimation based on regression weights.

Table 4 represents CFA model. Discriminant validity and convergent reliability are crucial when one evaluates the measurement model (Hair et. al., 2016). The measurement model becomes reliable only when each factor loading of CFA construct, average variance extracted (AVE) values, composite reliability (CR) values are higher than 0.7, 0.5 and 0.75 respectively. From the table IV it

can be inferred that the construct values of factor loading are in the range of 0.609 and 0.850. It also reflects that CR and AVE values are greater than 0.75 and 0.5. Hence, there is construct validity and reliability of these items.

### **Structural Model**

Once the evaluation of measurement model is complete, then the next step is development of structural model. In this case, GFI, CFI, NFI, IFI, and TLI must be greater than or equal to 0.90. AFGI must be  $> 0.8$ . RMSEA must be less than or equal to 0.8. Table V demonstrates that all fit indices meet up the cut off point and it is a sign of acceptability of structural model.

### **Hypothesis test**

Structural model can be used to test the hypotheses framed earlier. Table VI reveals that CSR has a positive effect on the Corporate Image at 0.001 indicating that it is statistically significant where  $\beta = 0.366$ ;  $p = 0.000 < 0.001$ . CSR also has a positive effect on BE at 0.01 which is statistically significant  $\beta = 0.283$ ;  $p = 0.009 < 0.01$ . These findings support the hypotheses H1, H2 and H3 respectively.

### **Conclusion**

CSR is a promising factor for commercial banks in Mumbai. The involvement of brand managers to CSR will surely bring excellent results in this regard. This research shows that CSR has both direct and indirect relationship with firm performance whereby Corporate Image (CI) and Brand Equity (BE) act as mediating factors between CSR and Firm Performance. The research will help the managers to develop customer-driven marketing strategies.

### **Limitations and scope for further research**

The sample size is small when research is conducted with large sample the result may vary. This study does not consider all aspects of firm performance leaving for scope of future research.

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## TEACHER PRESENCE IN AN ONLINE LEARNING COMMUNITY

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### ABSTRACT

The increasing deployment of online learning management systems is a part of the process of embracing change that could lead to a significant transformation in the education system. Though technology is important, it is the teacher who brings life to the whole process. Teacher presence and tutor support are key elements in the success of any educational effort, whether online or face-to-face. This purpose of this paper is to shine a spotlight on teacher presence and tutor support in the context of an online learning community which was created for undergraduate pre-service teacher preparation in a government-aided college of education in Mumbai. The researcher had developed an online learning community to supplement face-to-face teaching. Three cycles of implementations of the study were carried out, with the last cycle coinciding with the pandemic period. The present study was guided by two broad research questions. What were the perceptions of the pre-service teachers related to the quality of tutor support in the online learning environment? How was teacher presence established within the online environment? The study adopted a mixed methods approach. Quantitative data was collected through a survey tool and qualitative data was collected through semi-structured interviews. The findings reveal the perceptions of the pre-service teachers related to tutor support and teacher presence established in the online learning environment. The study affirms that teacher presence is indeed the binding element in the online learning community.

**Keywords:** Pre-service teacher education, Online learning community, Teacher presence, LMS, Moodle

### 1. INTRODUCTION

The increasing deployment of online learning management systems is a part of the process of embracing change that could lead to a significant transformation in the education system. Though technology is important, it is the teacher who brings life to the whole process. Teacher presence and tutor support are key elements in the success of any online learning environment. When the participants of the online learning community are pre-service teachers, there is an added responsibility on the online tutor who must model exemplary teaching presence within the online learning environment which in turn enables pre-service teachers to imbibe this and add to their repertoire of teaching skills. Understanding how to establish a teaching presence and how to provide tutoring support within any online learning environment has important implications not only for teaching but also for design of online courses. Teaching online requires as much of instructional effort and investing of emotions as does face-to-face teaching. This paper shines a spotlight on these dynamics within the online learning environment

### 2. BACKGROUND OF THE STUDY

The researcher had developed an online learning community for undergraduate pre-service teachers which was created using the Moodle Learning Management System. The attempt was to create an online space with easy access to curated learning resources and an online forum in order to supplement face-to-face classroom teaching. The development of the resources and activities on the website led the researcher to reflect more deeply on the dynamics of teaching online and creating a community of online learners. The website was not created primarily for research purposes but rather to provide a means to enrich the teacher preparation process for the learners.

There are a plethora of options for any educator who wants to use a Learning Management System to support teaching-learning. One of the easiest and cost-effective options is to choose from free and

open-source softwares which offer a system for learning and content management. One such popular and user-friendly LMS is Moodle. The Moodle Platform is intuitive and can be used by most teachers and students who are familiar with basic internet navigation and know how to use any simple word processing software and email. Teachers need not necessarily train to use the LMS and can learn through hands-on experience. The stated guiding philosophy of the design and development of Moodle is a constructivist approach. The Moodle website lists five simple referents derived from research that apply to education and form the key principles on which Moodle is developed.

1. We are all potential teachers as well as learners.
2. We learn well by creating and expressing for others.
3. We learn a lot by watching others.
4. Understanding others transforms us.

5. We learn well when the learning environment is flexible and adaptable to suit our needs.

The overall design features of Moodle promote social constructivist pedagogy through collaboration, activities, and critical reflection. The available features include modules such as assignment, chat, forum, glossary, lesson, quiz, survey, voting, wikis and workshop. The task of enriching and enlivening such an online environment lies with the teacher. A strong teacher presence and consistent tutor support contributes to the efficacy of the online learning community.

### **3. CONCEPTUAL FRAMEWORK**

The present study is situated within the social constructivist framework. The social constructivist approach has been greatly influenced by Vygotsky's view, which gives importance to the social contexts of learning and the fact that knowledge is mutually built and constructed. Rodgers and Raider-Roth (2006) articulate a theory of 'presence' in teaching as pertaining to self-awareness, connection to learners, connection to subject matter and pedagogical knowledge. The study is also informed by the Community of Inquiry theoretical framework suggested by Garrison et al (2000) represents a process of creating a deep and meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements - social, cognitive and teaching presence. Teaching Presence is the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes (Anderson, Rourke, Garrison, & Archer, 2001). Teaching presence begins before the course commences as the teacher designs instruction, plans and prepares the materials and teaching-learning activities, and then as the instructor facilitates the discourse and provides direct instruction when required (Anderson, et al, 2001).

### **4. RESEARCH QUESTIONS**

The following broad research questions guided the study:

1. What were the perceptions of the pre-service teachers related to the quality of tutor support in the online learning environment?
2. How was teacher presence established within the online environment?

### **5. RESEARCH DESIGN**

The research design process begins with stating the philosophical assumptions of the inquiry (Creswell, 2008). The study is based on pragmatism as a research paradigm. The pragmatic worldview arises out of actions, situations, and consequences rather than antecedent conditions. There is a concern with action and applications and hence uses different approaches to derive knowledge about the problem. The tenets of the naturalistic inquiry paradigm (Lincoln & Guba, 1985) were also adhered to in this study. A leading exponent of e-learning research, Shirley Agostinho (2004) suggests that naturalistic inquiry can be implemented in e-learning research with a

rigorous approach. The online teaching and learning context in this study provides a natural setting for the inquiry.

It may be noted that the first two cycles of the study the online learning community was used to support and supplement face to face teaching, whereas the third cycle of the study coincided with the pandemic period and was used to support and supplement the Zoom lectures held online. The synchronous video conferences which took place during the last cycle were providential and added new meaning to the study. The significance of the ‘naturalistic’ element and emergent nature of the inquiry were evident in this cycle of implementation.

The research method used was a mixed methods approach which included both quantitative and qualitative components. The present study adopts the convergent parallel design suggested by Creswell and Plano Clark (2011) as one of the six mixed methods designs. The purpose of the design is to obtain complementary data to understand the problem. One data collection form supplies strength to offset the weaknesses of the other form. All datasets are analysed separately, compared together and interpreted.

The Constructivist Online Learning Survey (COLLES) was used to collect quantitative data. The researcher used the standard survey tool prepared by Peter Taylor and Dorit Maor and administered it to 45, 42 and 44 pre-service teachers of three consecutive B.Ed. Batches respectively to study the perceptions of pre-service teachers in relation to the quality of tutor support in the online learning. This questionnaire focuses largely on the pre-service teachers’ perception of the degree of relevance of content, reflection, interaction, peer support, teacher support and interpretation of meaning offered online. The COLLES contains a five-point Likert-type response scale. Semi-structured interviews were used to collect qualitative data. An interview schedule was prepared for the same. Data analysis was done by identification of significant statements, coding using categories and identifying themes and patterns in order to make sense of the data. The qualitative data from the interviews was also triangulated with the quantitative data gathered in the COLLES questionnaire. The results of the data analysis are presented in the next section

## 5. DATA ANALYSIS

### 3.1 Analysis of Quantitative Data

The analysis of the quantitative data collected from the Constructivist Online Learning Survey helped to answer the first research question.

#### **RQ1: What were the perceptions of the pre-service teachers related to the quality of tutor support in the online learning environment?**

The data was analysed using descriptive statistics and is presented in tabular format as well as graphically in Table No. 1 and Figure No. 1 below.

Cycle	Mean Scores
Cycle 1	15.43
Cycle 2	15.54
Cycle 2	17.07

*Table 1: Comparative Analysis of Mean Scores of Tutor Support component of COLLE*

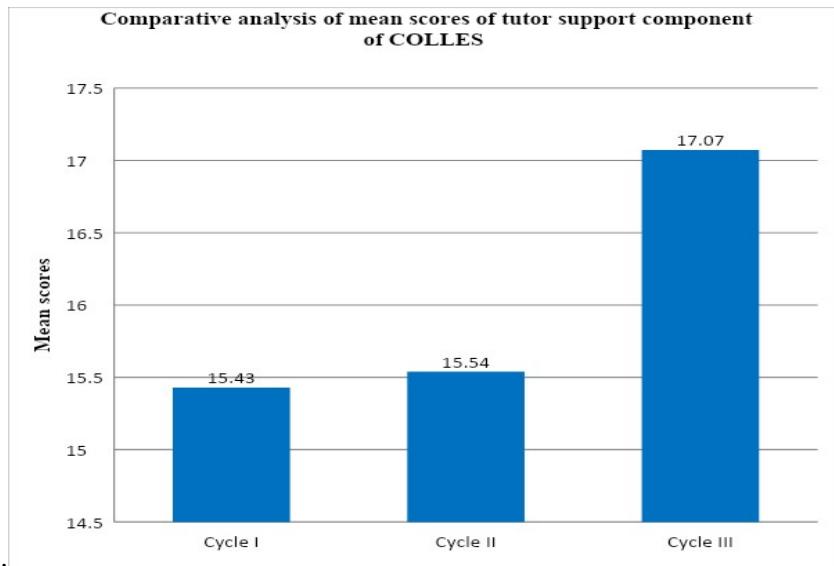


Fig. 1: Comparative Analysis of Mean Scores of Tutor Support component of COLLES

On comparing these mean scores, it can be concluded that the mean scores for tutor support during Cycle III was perceived higher than Cycle I and Cycle II respectively. On the basis of this observation it can be concluded that pre-service teachers who participated in Cycle III perceived greater tutor support component of COLLES than pre-service teachers who participated in Cycle I and Cycle II respectively. The reason for this may be that experience with online facilitation has helped the tutor to improve the teaching presence over time. Further, the third cycle being during the pandemic period was also supported by lectures using Zoom platforms and greater amount of online engagement - hence that may have also contributed to the perception of improved online teacher presence.

### 3.1 Analysis of Qualitative Data

The qualitative data became a way to get “behind the numbers” that were revealed in the quantitative analysis. This section deals with the analysis and interpretation of data collected from the semi-structured interviews with the pre-service teachers which helped to answer the second research question.

#### RQ2: How was teaching presence established within the online environment?

The key themes related to teacher presence are summarized in Table No 2 below:

Themes related to Teacher Presence & Support	Examples of Student Responses
Planning & Preparing the Course	The modules were well structured & presented. Forum discussions were meaningful to our course topics
Content Knowledge	The teacher displayed good knowledge of the subjects. The content was presented in a comprehensive manner.
Technological Knowledge & providing tech support	The tutor provided tech support whenever there was any issue with accessing and navigating the website. The students mainly faced password-related issues and inability to reset passwords was one of the most common.
Pedagogical Knowledge	Each unit was presented through different ways

	such as activities, videos and readings.
Facilitating Online Discourse	The tutor led the forum discussions in an interesting manner. The teacher was quick to respond whenever we posted online.
Providing Direct Instruction	The teacher summarized the forum discussions well. Revision sessions by email during examinations were very useful.
Acknowledging and reinforcing student contributions	The teacher encouraged us when we posted or participated online. The teacher did not pressure those who were reluctant to participate online.
Assessment of Learning	There were quizzes and online submissions of assignments. Except in case of Cycle III there were no online assessments or exams conducted.
Modelling good communication and reflection online	We learned a lot about teaching online from our experience. The online experience was relevant to our teaching practice.

*Table 2: Themes emerging from Analysis of Qualitative Data from Student Responses in Interviews*

From the data analysis it emerges that the pre-service teachers characterised 'teacher presence' in terms of efforts by the teacher to encourage and enable them to participate in the online learning community by stimulating their thinking. Tutor support was often equated with providing 'notes' or answers to questions. Majority of the respondents made a reference to good communication and self-reflection by the teacher on several occasions. They also suggested that the teacher should find strategies to encourage other students who are reticent, to participate more actively in the learning processes. The learners had the opinion that the tutor maintained a distance and neither encouraged nor pressured students to participate in the online community. The resources and links, the revisions before exams through emails were mentioned by all the pre-service teachers as indicative of tutor support. Most of the students, especially during the first cycle seemed to be in need of technological support in accessing and navigating the website - and considered troubleshooting by the tutor as an essential element of learning online. It was observed that the perception in relation to good tutor support was very high among those who were interactive and appeared to be reflective thinkers. However, there was a general consensus that tutor needs to provide more emotional support and establish greater rapport with the learners. It became clear from the study that the online tutor cannot limit her involvement for the 6 to 8 working hours in the day. The online teacher's work commitment stretches well beyond those hours.

The analysis enabled the researcher to identify some essential ways in which a teacher could enhance student support as well as establish her teaching presence in an effective manner.

## 6. CONCLUSION

Teachers who are now compelled to enter the world of online teaching will greatly benefit from creating a community of learners online. Embracing this change can lead to a transformation of the education system. An online teaching presence "is the binding element in cultivating a learning community" (Persico, et al, 2010). The other elements in the overall online learning environment such as relevance, reflection, interaction, peer support, interpretation of meaning are all dependent on the effectiveness of teacher presence in the online learning community. Tutor support is key to the success of the online initiative. The study gains an added relevance in the context of the pandemic

period. The teacher in an online learning environment needs to be proactive, maintain relevance, encourage reflection, support interaction, encourage peer support and improve interpretation of meaning. It is ultimately the tutor's task to and provide cognitive, affective, technological, and managerial support. The tutor should herself model good communication, reflection and interaction. In a blended learning scenario allocation of time in the schedule of the institution will considerably enhance the tutor's ability to be a better facilitator. It is important to mention here that online facilitation requires as much energy and motivation from the teacher as does face to face teaching. If required, the online tutor should undergo special training to improve their online skills. Being tech-savvy is not nearly enough, but it is a starting point in the process of providing support. It is important that tutors also be reflective practitioners and value the perspectives that this can bring to the online learning community. Managing an online learning community requires consistent commitment from the tutor - in that sense - the sense of 'teacher presence' online is paramount.

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## AGRI - ENTREPRENUERSHIPS AND ECONOMIC DEVELOPMENT: A SUSTAINABLE APPROACH TO KODAGU REGION

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### ABSTRACT

The study intends to throw light on the current trends in agriculture based entrepreneurship in Kodagu district with special focus on honey business and home made wines. The research throws light on the problems faced by honey and homemade wine entrepreneurs in Kodagu district and tries to give suggestions in making their business be recognized and promoted as an alternative source of income with coffee plantations and agriculture. Sustainable development of Kodagu is possible with these environment based activities. Primary and secondary data were used to arrive at the conclusions of the study. The outcomes of the research may help the entrepreneurial supporters, policy makers in promoting the business in Kodagu.

**Keywords:** Bee Keeping, First generation entrepreneurs, Honey Processing, Homemade wine.

### 1. INTRODUCTION

Entrepreneurship is an important factor that contributes economic development of a region, state and a nation by improving the standard of living and providing standard income to the family and creating job opportunities. As Kodagu is one of the districts notified under the agri-export zones and highly depending upon agricultural activities like coffee, pepper, rice, cardamom, rubber, orange, cashew, honey etc. According to 2011 census, Kodagu is an Agri- based economy. The main source of income here is from agricultural sector. It is one of the largest coffee producers in India and known for 'Coffee land' for their future. According to the statistics by the DIC Madikeri as on 31-03-2016, there are 300 agri-based MSME industries are located in the district with the average investment of 1200 lakhs rupees. Major agri-based industries in Kodagu are: Coffee Curing and Honey Processing.

The below statistics shows that nearly half of the people (49.70%) in Kodagu are non-Workers. Honey processing is a potential area of investment in the district and is one of the proposed clusters with textiles, hand embroidery, cane and bamboo business by MSME Development Institute, Government of India. Kodagu is a home for honey production in South India with massive bee nesting trees is present in large number. The district is famous for pure natural honey with quality and taste. The climate also supports the honey business here.

With the increasing job opportunities day by day there has been a necessity for flurry start-ups in the recent years with innovative ideas. Honey business can be seen as one of the potential products for entrepreneurial growth in Kodagu now a day. Latest addition to the list of potential products is Home- made wines. Tourists have found homemade wine a good addition to their kitty when they go back from Kodagu. Wine is made from grapes, gooseberries, betel leaves, ginger, Pineapple, passion fruit, rice and bananas. (1) Once the home stay concept became more popular in the district, these wines became very popular and now wine is sold in good number across the district. Homemade wine business gives entrepreneurial opportunities from grass root level of the society. More number of women entrepreneurs involved in the same business and is working on the source of income

to the family. In this traditionally and technologically transforming world, it is very necessary to understand the potential entrepreneurial products and the recent trends which are coming up in the entrepreneurship activities and promote them in a right way. Thus the research plays an important role in understanding the role of Agri-based entrepreneurship especially Honey and Homemade wine business in the economy of Kodagu and also the problems faced by them in their business.

**Table 1: Workers and Non-Workers in Kodagu District**

Type of employment	Males	Females
Main Workers	1,62,419	96,334
Marginal Workers	9681	10,504
Non-Workers	1,02,508	1,73,073
Workers in household industry	989	560
Cultivators	13,795	7379
Other Workers	1,49,680	91,382

**(Source: District Census Handbook Kodagu, Census of India 2011)**

## 2. OBJECTIVES

- To highlight the scope of Honey and homemade wine business in Kodagu
- To find new ways to promote Honey and Homemade wine business on a strong entrepreneurship platform
- To find out the problems faced by the entrepreneurs in their business

## 3. METHODOLOGY

The study is descriptive and time series in nature. Relevant primary data were collected using the combinations of quantitative (field survey) and qualitative (interview) methods. Primary data were collected through questionnaire method. Semi structured questionnaire was administered to 30 Honey and homemade wine entrepreneurs of Kodagu district in different regions based on convenient sampling method and the same respondents were interviewed during the study in January 2021. However, secondary sources of data were consulted for the purpose of gathering background information for supporting the study.

## 4. REVIEW OF LITERATURE:

The accumulation of factors of production i.e. knowledge, human, physical capital cannot alone explain economic development. Innovation and entrepreneurship are needed to transform these inputs in profitable ways (Anderrson and Tollison 1982) (2) Young people will be able to successfully lead their startups companies through their enterprising spirit, networks, leadership and learning with determination. (Cheolwoo Park, 2017) (3)

The District is covered with hilltop and forests; this geographical setup offers the quality raw materials for production of honey and is available free from nature. Buzzing with tourists, Kodagu District also offers very good market for Honey (Janitha M. L. and Sunayana N. 2018)(4) Beekeeping is one of the introductory that to perfect poverty reduction, environmental protecting (Dr. Arbogast, G. Mbeiyererwa 2014) (5)

“Being a women entrepreneur has been far from easy. Since I was a first generation entrepreneur I didn’t have a guide or mentor. Everything I learnt was by trial or error.” (Chaaya, Amazing entrepreneur series (June 2016) (06)

## 5. MAJOR FINDINGS

Most of the respondents who indulged in the business are educated and at least completed their Pre-University education. It clearly shows that, education acts as one of the motivators to get into entrepreneurship in innovative way.

40 percent of the total respondents are having 15 to 25 years of work experience and 30% of them are having 05 to 10 years of work experience as a honey and homemade entrepreneurs. It shows that the business has been contributing well to their everyday life and for that it could sustain for a long time.

While considering the percentage of respondents 28 percent of them are honey entrepreneurs, 32 percent are homemade wine entrepreneurs, and 40 percent are doing both the businesses.

In home-made wine business more number of female entrepreneurs can be noticed. With this statistics we can understand that these entrepreneurship are also attracting women and motivating them to earn income.

With the statistics given below, we can understand that most of the entrepreneurs are doing business to support their family by earning income and it shows that honey and homemade wine business can be promoted in Kodagu District as a weapon on unemployment and poverty.

**Fig. 1: Major reason for the business**



**Fig 01 : Source: Personal survey**

Over 63 percent of the total respondents consider honey and homemade wine business as a potential entrepreneurial product for the future with other agricultural activities.

While talking about the promotion of the business most of the respondents (53.42 percent) are depending upon mouth to mouth publicity. It shows the need for training them on the promotional methods of business and creating awareness on the digital and mass media promotion and its effectiveness in the entrepreneurial activities.

Most of the entrepreneurs are not satisfied with the Government support to the business and they are expecting more support in terms of financial assistance.

Major problems faced by them are: Infrastructural problems like power, supply, transport etc., Financial problems, Lack of managerial expertise, Failure to analyze SWOT, Use of technology in marketing.

According to the opinion of respondents new trends in their business are Use of Digital technology in promotion of products and modernized honey production methods.

## 6. SUGGESTIONS

Training Unemployed women for the production of homemade wines and honey, which will enable women participation in the improvement of economy and

it would contribute to increase the independency among women and standard of living of the society.

Government should concentrate more on Agri-based entrepreneurship and industry, especially in regions like Kodagu, where natural resources are available for free of cost. Giving financial assistance in terms of loans, concessions will help these entrepreneurs to develop their business in a broad range.

In this digital and technologically transforming world it is vital to create awareness among entrepreneurs on using technology in their business and encouraging them to use technology like business applications, mass media, digital media, social media, which will pull more number of customers towards them. These training programmers should be initiated by the local Government like Village Panchayats in an effective way.

Bringing all the entrepreneurs related to Honey and Homemade Wine business on a single platform by establishing a separate organization or society in district level will enable them to explore more in the same field. Kodagu is known for fresh natural and tasty honey which is a potential product for Export business. Majority of the producers are not aware about the export business procedures for their product in the District. Export business is a major source of income to them as well as to the whole economy. If they are trained well to export their products, definitely there is no doubt that large number of youngsters will come forward to take up the same business. Creating a market for producers to sell their products directly to the customers and avoiding retailers in business may help them to earn more and expand the current business.

## 7. LIMITATIONS

The researchers surveyed only 30 Honey and homemade wine entrepreneurs in Kodagu district, which may not sufficient. The impact of Covid19 on the business were not included as no significant findings came out from the respondents. The majority of this work is to provide a set of art information.

## 8. CONCLUSION

Kodagu is famous for its natural beauty, agriculture and also recognized as one of the hotspots in Tourism Industry. Kodagu is rich in its natural resources and suitable climate. Honey production is a part of everyday life of the people of Kodagu from centuries. Availability of honey in easier way with the districts natural wealth, Kodagu is a potential region for honey production business. A large number of tourists who are visiting Kodagu every year are creating a good market for honey enterprises. Homemade wine business is also one of the vital products of Kodagu, which attracts a large number of customers. Availability of raw materials like cashew, Guava, Betel leaves, Pineapple, Ginger, Rice, Passion fruit, Bananas to prepare Homemade wine is much easier here because of rich natural wealth of the region. Unemployed people, home makers, agriculturists all can concentrate on this business and can earn without many investments. These factors create the need for people and the government to concentrate on Homemade wine and Honey enterprises to increase the standard of living by doing so. These are the potential products for new startups with little investments and with the expectations of more growth in the future days. The local people and the Government should focus on this segment, which could lead the whole economy towards greater success.

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## **A STUDY ON AWARENESS AND PROBLEMS OF INVESTORS IN MUTUAL FUND – A STUDY WITH SPECIAL REFERENCE TO THANE DISTRICT**

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### **ABSTRACT :**

The main aim of the study is to find out the awareness of investors towards mutual fund and problems faced by investors in mutual fund in Thane district. The scope of the study is to track out the investors' problems and their awareness towards different mutual fund schemes. Keeping in view the various constraints the scope of the study is limited only to the investors residing in Thane district. Data for the study is collected from a sample of 200 investors by using stratified sampling. Out of all the questionnaires 196 questionnaires are considered valid for the purpose of the study. The research design for the study is descriptive in nature. The present study attempts to evaluate the investors' awareness and problems in mutual fund investments. For the purpose, individual mutual funds investors have been selected. The individual investors' awareness and problems in mutual fund investments has been confined to Thane district only. The researcher was used survey method for data collection. This study gathered the desired data through primary sources. Primary data were collected through a structured questionnaire from the retail investors living in Thane district and invested in Mutual Fund schemes. It is found that risks in investment and sources of information are the important awareness towards investment in mutual fund among the mutual fund investors who are in the age group of 41-60 years. Policy makers of the country should draft appropriate policy framework conducive for the growth of mutual fund market in Thane district.

**KEY WORDS :** Awareness, Problems, Mutual Fund and Investors

### **INTRODUCTION**

Stock market plays a very vital role in developing economy in India. It is also attracting the many people in recent years. Investors usually perceive that all capital market investment avenues are risky. Based on objectives and risk bearing capacities, investors go for different investment alternatives. Among the various investment possibilities, mutual fund (MF) seems to be viable for all kind of investors as it is considered to be a safer mode of investment. As the mutual fund industry provides an option of diversified investment structure with varying degree of risk, it was supposed to be the most lucrative market for Indian investors.

### **STATEMENT OF THE PROBLEM :**

Mutual fund is the most suitable investment option available to a common man as it provides an opportunity to invest in a diversified, yet professionally managed portfolio. Mutual funds act as a gateway to invest in big companies to an ordinary investor with his small investment. Mutual funds offer benefits such as diversification, access to equity and debt markets at low transaction costs, liquidity etc. to the investors. The investors who invest in growth or equity schemes consider it as an alternative to stock market investing and the investors who invest in debt schemes expect higher returns on their investments than returns on nationalized banks fixed deposits. The investors expect higher returns and get dissatisfied when they don't receive the expected returns. Another one biggest risk of investing in a mutual fund is one of underperformance. When an investor decides to invest in a particular asset class, he typically expects to get the return that the benchmark of the asset provides. Mutual funds try to maximize the returns on the funds invested through them but all of the funds cannot succeed an outperforming each other or the benchmark. In this context, the researcher has attempted to find out the awareness of investors towards mutual fund and problems faced by investors in mutual fund in Thane district.

## **SCOPE OF THE STUDY :**

The scope of the study is to track out the investors' problems and their awareness towards different mutual fund schemes. Keeping in view the various constraints the scope of the study is limited only to the investors residing in Thane district. Data for the study is collected from a sample of 200 investors by using stratified sampling. Out of all the questionnaires 196 questionnaires are considered valid for the purpose of the study.

## **OBJECTIVES OF THE STUDY :**

- 1) To know the awareness of investors towards mutual fund in Thane district.
- 2) To identify the problems faced by investors in mutual fund in Thane district.

## **METHODOLOGY :**

The research design for the study is descriptive in nature. The present study attempts to evaluate the investors' awareness and problems in mutual fund investments. For the purpose, individual mutual funds investors have been selected. The individual investors' awareness and problems in mutual fund investments has been confined to Thane district only. The researcher used survey method for data collection. This study gathered the desired data through primary sources. Primary data were collected through a structured questionnaire from the retail investors living in Thane district and invested in Mutual Fund schemes.

## **ANALYSIS AND INTERPRETATION :**

### **Awareness towards investment in Mutual Fund among different Age group of mutual fund investors**

An attempt has been made to find out the significant difference in awareness towards investment in mutual fund among different age group of mutual fund investors, 'ANOVA' test is used with the null hypothesis as, "**There is no significant difference in awareness towards investment in mutual fund among different age group of mutual fund investors in Thane District**". The result of 'ANOVA' test is shown in Table1.

**Table1**

**Awareness towards investment in Mutual Fund among different Age group of mutual fund investors**

<b>Awareness towards investment in Mutual Fund</b>	<b>Age Group</b>			<b>F Statistics</b>
	<b>20-40 years</b>	<b>41-60 years</b>	<b>Above 61 years</b>	
Awareness in liquidity	3.3182	3.4333	3.8714	2.742*
Awareness in rate of return	3.5460	3.7719	3.9333	2.690*
Awareness in tax benefits	3.1983	3.2273	3.2712	1.376
Awareness in capital gain	3.3434	3.5440	3.6777	1.783
Awareness in growth prospects	3.1667	3.2475	3.3769	1.766
Awareness in maturity period	3.9320	3.8990	3.9745	1.277
Awareness in safety and security	3.2323	3.9500	3.3430	2.829*
Awareness in sources of information	3.9899	4.0855	4.1833	1.335
Awareness in rules and regulations	4.0496	4.0833	4.1364	1.591
Awareness in variety and schemes	4.0000	4.0615	4.1960	1.416
Awareness in grievance handling	3.9833	4.0225	4.1290	1.090
Awareness in options available	3.7980	3.8223	3.9500	1.803
Awareness in fund performance and reputation	3.3167	3.4091	3.4489	1.087
Awareness in risks in investment	3.8167	4.2828	4.3843	3.978*
Awareness in expert guidance	3.3500	3.3990	3.4719	1.200

Awareness in minimum capital required	3.4444	3.4917	3.5500	1.417
Awareness in investor services	3.4192	3.4693	3.5933	1.915
Awareness in sponsors reputation	3.1768	3.2727	3.3000	1.972
Awareness in disclosure of NAV	3.2778	3.3581	3.4500	1.864
Awareness in rating given	3.1212	3.2340	3.3333	1.571
Awareness in skills of fund managers	3.0505	3.2025	3.3667	1.774
Awareness in available diversification	3.3223	3.4737	3.5667	1.924

**Source: Primary data**

\*Significant at five per cent level

It is clear from the above Table 1 that rules and regulations and variety and schemes are the important awareness towards investment in mutual fund among the mutual fund investors who are in the age group of 20-40 years as their mean scores are 4.0496 and 4.0000 respectively. Table further clearly shows that risks in investment and sources of information are the important awareness towards investment in mutual fund among the mutual fund investors who are in the age group of 41-60 years as their mean scores are 4.2828 and 4.0855 respectively. Table further reveals that risks in investment and variety and schemes are the important awareness towards investment in mutual fund among the mutual fund investors who are in the age group of above 61 years as their mean scores are 4.3843 and 4.1960 respectively. A noteworthy finding observed from the study is that the significant difference in awareness towards investment in mutual fund among different age group of mutual fund investors are identified in the case of liquidity, rate of return, safety and security and risks in investment, since the respective "F" statistics is significant at 5 per cent level, the null hypothesis is rejected.

#### **Awareness towards investment in Mutual Fund among different Gender group of mutual fund investors**

An attempt has been made to find out the significant difference in awareness towards investment in mutual fund among different gender group of mutual fund investors, 't' test is used with the null hypothesis as, "**There is no significant difference in awareness towards investment in mutual fund among different gender group of mutual fund investors in Thane district**". The result of 't' test is revealed in Table2.

**Table2**

**Awareness towards investment in Mutual Fund among different Gender group of mutual fund investors**

Awareness towards investment in Mutual Fund	Gender Group		T Statistics
	Male	Female	
Awareness in liquidity	3.5877	3.3095	3.557*
Awareness in rate of return	4.2771	3.9082	3.972*
Awareness in tax benefits	3.3016	3.1903	1.784
Awareness in capital gain	3.6952	3.1952	3.048*
Awareness in growth prospects	3.2834	3.1587	1.956
Awareness in maturity period	4.0794	3.7824	3.893*
Awareness in safety and security	3.3075	3.0873	1.871
Awareness in sources of information	4.1032	3.8907	3.117*
Awareness in rules and regulations	4.1587	3.9042	3.302*
Awareness in variety and schemes	4.0952	3.7908	3.559*
Awareness in grievance handling	4.0509	3.8120	3.317*
Awareness in options available	3.8770	3.6825	3.313*
Awareness in fund performance and reputation	3.5118	3.3968	1.232
Awareness in risks in investment	4.3663	4.0984	3.954*
Awareness in expert guidance	3.4127	3.3190	1.715
Awareness in minimum capital	3.4893	3.4048	1.458

required			
Awareness in investor services	3.4683	3.3385	1.504
Awareness in sponsors reputation	3.2701	3.1429	3.184*
Awareness in disclosure of NAV	3.3720	3.2175	1.464
Awareness in rating given	3.2727	3.1190	1.287
Awareness in skills of fund managers	3.2594	3.8730	3.069*
Awareness in available diversification	3.4144	3.1460	3.313*

**Source: Primary data**

\*Significant at five per cent level

From the Table2, it is understood that risks in investment and rate of return are the important awareness towards investment in mutual fund among the mutual fund investors who are male as their mean scores are 4.3633 and 4.2771 respectively. It is further understood that risks in investment and rate of return are the important awareness towards investment in mutual fund among the mutual fund investors who are female as their mean scores are 4.0984 and 3.9082 respectively. Table shows that the significant difference in awareness towards investment in mutual fund among different gender group of mutual fund investors are identified in the case of liquidity, rate of return, capital gain, maturity period, sources of information, rules and regulations, variety and schemes, grievance handling, options available, risks in investment, sponsors reputation, skills of fund managers and available diversification, since the respective "T" statistics is significant at 5 per cent level, the null hypothesis is rejected.

#### **Awareness towards investment in Mutual Fund among different Marital status of mutual fund investors**

In order to find out the significant difference in awareness towards investment in mutual fund among different marital status of mutual fund investors, 't' test is used with the null hypothesis as, "**There is no significant difference in awareness towards investment in mutual fund among different marital status of mutual fund investors in Thane district**". The result of 't' test is presented in Table3.

**Table3**

#### **Awareness towards investment in Mutual Fund among different Marital status of mutual fund investors**

Awareness towards investment in Mutual Fund	Marital Status		T Statistics
	Married	Unmarried	
Awareness in liquidity	3.4933	3.3625	1.469
Awareness in rate of return	4.3708	3.9406	3.685*
Awareness in tax benefits	3.3220	3.2022	1.278
Awareness in capital gain	3.6517	3.4207	3.381*
Awareness in growth prospects	3.3555	3.1360	3.269*
Awareness in maturity period	4.0000	3.7173	3.681*
Awareness in safety and security	3.3708	3.2263	1.080
Awareness in sources of information	3.8674	3.7268	1.132
Awareness in rules and regulations	3.8798	3.6681	1.147
Awareness in variety and schemes	3.8674	3.7208	1.073
Awareness in grievance handling	3.7366	3.6205	1.261
Awareness in options available	3.8770	3.7865	1.526
Awareness in fund performance and reputation	3.4588	3.4045	1.058
Awareness in risks in investment	4.3260	3.9146	3.540*
Awareness in expert guidance	3.4820	3.2708	1.161
Awareness in minimum capital required	3.5793	3.4157	1.095
Awareness in investor services	3.5428	3.4607	1.266

Awareness in sponsors reputation	3.3384	3.2360	1.037
Awareness in disclosure of NAV	3.3873	3.2247	1.222
Awareness in rating given	3.3360	3.1247	1.083
Awareness in skills of fund managers	3.3800	3.0787	3.503*
Awareness in available diversification	3.5157	3.2625	1.365

**Source: Primary data**

\*Significant at five per cent level

From the above table, it is understood that rate of return and risks in investment are the important awareness towards investment in mutual fund among the mutual fund investors who are married as their mean scores are 4.3708 and 4.3260 respectively. It is further understood that rate of return and risks in investment are the important awareness towards investment in mutual fund among the mutual fund investors who are unmarried as their mean scores are 3.9406 and 3.9146 respectively. Table shows that the significant difference in awareness towards investment in mutual fund among different marital status of mutual fund investors are identified in the case of rate of return, capital gain, growth prospects, maturity period, risks in investment and skills of fund managers, since the respective "T" statistics is significant at 5 per cent level, the null hypothesis is rejected.

#### **Awareness towards investment in Mutual Fund and Educational background of mutual fund investors**

In order to find out the significant difference in awareness towards investment in mutual fund among different educational background of mutual fund investors, 'ANOVA' test is used with the null hypothesis as, "**There is no significant difference in awareness towards investment in mutual fund among different educational background of mutual fund investors in Thane district**". The result of 'ANOVA' test is presented in Table4.

**Table 4**

#### **Awareness towards investment in Mutual Fund and Educational background of mutual fund investors**

Awareness towards investment in Mutual Fund	Educational Background				F Statistics
	School education	College education	Professional	Others	
Awareness in liquidity	3.3115	3.3680	3.4299	3.4402	1.642
Awareness in rate of return	3.8946	4.1770	4.2450	4.1302	3.611*
Awareness in tax benefits	3.2787	3.2064	3.3036	3.3381	1.329
Awareness in capital gain	3.2295	3.3396	3.6425	3.7143	1.428
Awareness in growth prospects	3.0984	3.2534	3.2942	3.3814	1.734
Awareness in maturity period	3.4585	3.7005	3.8396	3.8967	3.655*
Awareness in safety and security	3.1475	3.2589	3.3624	3.3830	1.202
Awareness in sources of information	3.6457	3.8179	3.9226	3.7995	3.660*
Awareness in rules and regulations	3.7179	3.7814	3.9132	3.9967	1.647
Awareness in variety and schemes	3.7317	3.8117	3.8429	3.8803	1.490
Awareness in grievance handling	3.7508	3.8000	3.8411	3.8660	1.099
Awareness in options available	3.5321	3.6000	3.7585	3.8164	1.676

Awareness in fund performance and reputation	3.3661	3.4134	3.4408	3.4940	1.270
Awareness in risks in investment	4.0459	4.2068	4.2758	3.9751	3.035*
Awareness in expert guidance	3.3302	3.3620	3.3900	3.4959	1.261
Awareness in minimum capital required	3.4057	3.4426	3.4751	3.5768	1.091
Awareness in investor services	3.3868	3.4163	3.4911	3.5738	1.830
Awareness in sponsors reputation	3.1148	3.2232	3.5053	3.4302	3.129*
Awareness in disclosure of NAV	3.2295	3.3727	3.4000	3.5586	1.878
Awareness in rating given	3.0328	3.1900	3.2642	3.4018	1.527
Awareness in skills of fund managers	3.8525	3.1357	3.1887	3.3571	3.286*
Awareness in available diversification	3.2623	3.3484	3.3984	3.4821	1.475

**Source: Primary data**

\*Significant at five per cent level

From the above table, it is understood that risks in investment and rate of return are the important awareness towards investment in mutual fund among the mutual fund investors who are school education as their mean scores are 4.0459 and 3.8946 respectively. It is further understood that risks in investment and rate of return are the important awareness towards investment in mutual fund among the mutual fund investors who are college education as their mean scores are 4.2068 and 4.1770 respectively. Table further reveals that risks in investment and rate of return are the important awareness towards investment in mutual fund among the mutual fund investors who are professionals as their mean scores are 4.2758 and 4.2450 respectively. Table further indicates that rate of return and rules and regulations are the important awareness towards investment in mutual fund among the mutual fund investors who are other educational background as their mean scores are 4.1302 and 3.9967 respectively. Table shows that the significant difference in awareness towards investment in mutual fund among different educational background of mutual fund investors are identified in the case of rate of return, maturity period, sources of information, risks in investment, sponsors reputation and skills of fund managers since the respective "F" statistics is significant at 5 per cent level, the null hypothesis is rejected.

#### **Problems faced in mutual fund among different Age group of mutual fund investors**

An attempt has been made to find out the significant difference in problems faced in mutual fund among different age group of mutual fund investors, 'ANOVA' test is used with the null hypothesis as, "**There is no significant difference in problems faced in mutual fund among different age group of mutual fund investors in Thane district**". The result of 'ANOVA' test is presented in Table 5.

**Table 5**  
**Problems faced in mutual fund and Age group of mutual fund investors**

Problems faced	Age Group (Mean Score)			F Statistics
	20-40 years	41-60 years	Above 61 years	
Limited awareness	4.2000	4.3208	4.2813	0.041
Lack of professional advice	4.0000	4.2567	3.9688	0.431
Lack of information	4.1875	3.9515	3.5625	2.371
Dividend from Mutual funds	3.7500	4.0829	3.6250	2.871*

have been less than expected				
Regulatory bodies like SEBI and others have not been able to control funds properly	3.7500	3.4382	3.4375	0.172
Poor service quality	4.0000	3.6213	3.4027	0.546
Growth in the unit value has been very slow	4.0000	3.3239	3.2500	0.819
Grievance redressal has not been effective	4.2500	4.5117	4.2500	2.009
Management cost charged to the funds have been minimum	3.7500	4.2817	4.0313	1.801
Difficulty in monitoring fund Performance	4.0000	3.9750	4.0313	0.056
Non availability of investment Support	3.5000	3.9484	3.9063	0.409
Non availability of good service from mutual fund company	4.7400	3.8592	3.5000	3.327*
Non performance of funds	4.5000	3.9875	3.9688	0.490

**Source: Primary data**

\*Significant at five per cent level

It is understood from the Table 5 that the important problems faced in mutual fund among the mutual fund investors who are in the age group between 20-40 years are ‘Non availability of good service from mutual fund company and non performance of funds’ as their mean scores are 4.7400 and 4.5000 respectively. It is further understood that the important problems faced in mutual fund among the mutual fund investors who are in the age group between 41-60 years are ‘Grievance redressal has not been effective and limited awareness’ as their mean scores are 4.5117 and 4.3208 respectively. The table highlights that the important problems faced in mutual fund among the mutual fund investors who are in the age group of above 61 years are ‘Limited awareness and grievance redressal has not been effective’ as their mean scores are 4.2813 and 4.2500 respectively. Table 5 shows that the significant difference in problems faced in mutual fund among different age group of mutual fund investors are identified in the case of dividend from Mutual funds have been less than expected and non availability of good service from mutual fund company, since the respective “F” statistics is significant at 5 per cent level, the null hypothesis is rejected.

#### **Problems faced in mutual fund among different Gender group of mutual fund investors**

In order to find out the significant difference in problems faced in mutual fund among different gender group of mutual fund investors, ‘t’ test is used with the null hypothesis as, “**There is no significant difference in problems faced in mutual fund among different gender group of mutual fund investors**”. The result of ‘t’ test is presented in Table6.

**Table 6**

**Problems faced in mutual fund among different Gender group of mutual fund investors**

Problems	Gender Group (Mean Score)		T Statistics
	Male	Female	
Limited awareness	4.4073	4.2670	1.952
Lack of professional advice	4.5363	4.0703	3.288*
Lack of information	3.9919	3.9016	1.098
Dividend from Mutual funds have been less than expected	4.1129	4.0281	0.975
Regulatory bodies like SEBI and others have not been able to control funds properly	3.5806	3.3583	2.644*

Poor service quality	3.7782	3.5199	2.666*
Growth in the unit value has been very slow	3.5040	3.2201	3.239*
Grievance redressal has not been effective	4.4960	4.4988	0.047
Management cost charged to the funds have been minimum	4.3065	4.2436	0.864
Difficulty in monitoring fund Performance	4.0524	3.9344	1.580
Non availability of investment Support	4.0444	3.8852	1.965
Non availability of good service from mutual fund company	3.9919	3.7635	2.753*
Non performance of funds	4.0000	3.9836	0.198

**Source: Primary data** \*Significant at five per cent level

From the Table6, it is understood that the important problems faced in mutual fund among the mutual fund investors who are male are ‘Lack of professional advice and grievance redressal has not been effective’ as their mean scores are 4.5363 and 4.4960 respectively. It is further understood that the important problems faced in mutual fund among the mutual fund investors who are female are ‘Grievance redressal has not been effective and limited awareness’ as their mean scores are 4.4988 and 4.2670 respectively. Table 6 shows that the significant difference in problems faced in mutual fund among different gender group of mutual fund investors are identified in the case of lack of professional advice, Regulatory bodies like SEBI and others have not been able to control funds properly, poor service quality and non availability of good service from mutual fund company, since the respective “T” statistics is significant at 5 per cent level, the null hypothesis is rejected.

### SUGGESTIONS :

- ✓ Mutual funds must re-structure their existing businesses strategies to meet the changing needs of their clients and provide them with complete investment solutions. Although emerging markets such as India offer a wide range of investment choices, it is important to design innovative products to fuel the growth of the mutual fund industry.
- ✓ Lack of awareness and financial illiteracy is one of the major problems identified in this study regarding mutual fund investments. Mutual funds should realize that they need to invest in financial education and awareness in order to reap long-term benefits. Campaigns to educate the investors should be conducted. Fund houses may try to bring novelty to the way they connect with their target customers. Regulators and agencies in Mutual fund industry also engaged in the investor awareness Programme. Digital strategy can also use for creating financial literacy among investors.

### CONCLUSION :

A good investment plan with customized and innovative features is highly essential for the fund investments to penetrate deep in to the market. Priorities should be given to the improvement in services rendered by mutual funds. Such actions definitely improve the investment conditions of mutual fund market in Thane district thereby the growth of the sector. Innovative products with fewer risk, speed and efficient grievance redressal together with imparting professionalism in investor services definitely can find good market for mutual fund instruments in Thane district given the buoyant capital market conditions of India. Fund managers should understand the general investor behaviour and must trace out the forces restraining them to be the part of the system. This shall help them to design fund schemes that has a perfect match with the investor expectations.

Policy makers of the country should draft appropriate policy framework conducive for the growth of mutual fund market in Thane district.

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## **SELECTING INSTITUTIONS FOR ONLINE HIGHER EDUCATION IN LOCK DOWN 2020: A CONSIDERABLE CHALLENGE FOR YOUTH**

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### **Abstract:**

**“Confident walking is always better than confused running”**

A cross country lockdown of 2020 because of COVID-19 caused us to learn numerous new exercises of life, explicitly, in the field of instruction we have acknowledged that it is so critical to cooperate and share our scholarly assets. We are thankful to online instruction, which caused us to understand the need of instructors and their interests for the learning and evaluation measure. It was clear that the educators may remain bolted or stationary however their scholarly sharing and information assets consistently can expand its versatility and effort. Above all the development by now that is swiftly taking place and bringing change in the world, the well-regarded fact remains that **“Education is a priority of life and is everyone's birth right.** As the assessment of students was a challenge for the teachers, similarly choosing a good institution for their On-Line higher education was a big challenge for the students of academic batch 2020. No doubt, the quality of education and environment of education differs in the spheres but we will not find any sound head, who will dispute in this regard of selection of good institute. The present paper deals with the kind of anxiety which youth, their parents and guardians go through while selecting best education and reputed institute for their ward for online mode of teaching and learning.

**Key words:** Quality attributes of Online Degrees, Skill based jobs after online education, Career oriented Credentials, Online ranking of institutions.

### **Introduction**

First and foremost, concern of today's youth in India is education. A good education is like a boon in one's life, opening up a host of opportunities. Approximately 600 million populations in India are younger than 25 years of age and close to 70% of the total population is less than 40 years of age. Near about 40% of the Indian population is aged between 13 to 35 years that is defined as youth according to the National Youth Policy. Such a huge population of young is not only exceptional in India but also in the World. This gap in India is much wider than the gap in any other country, such as in United States, the gap is of 23 years whereas in Germany the gap is less than 10 years.

Youth unemployment in India is on rise. According to the World Development Report 2013, 9% of males and 11% females aged between 15 to 24 years are unemployed. As per data of 2011-12, 9.7% of young men and 18.7% of young women in India were unemployed. At global level, chances of youth being unemployed is three times more than adults. But, in general the enthusiasm among today's youth is eloping somewhere leading to frustration and lack of zeal. The reason may be pressure and burden in the form of academic competition, unemployment, lack of job skills and skill-based job etc. Indian youth at present is also facing acute stress in every field for the selection of institutes for getting the professional and required degrees of their choice, that too through online mode. Although online ranking parameters had become very popular source for liberal forum of information yet many personal and social factors generate and raise the level anxiety among youth and their parents.

Indian youth demand for better education, On-line or offline, employment driven training and brighter future. Youth also wants that skill-based education and job placement should be a part of every higher education institution On-line or offline. Choosing a college or On-line higher education institution is a task of anxiety and excitement for both parents and their children and an overwhelming situation for all concerned, but how to find the right one serving to the individual requirements, makes the whole

process tedious and tiring. We all know that every parent dream for their child to have a great future. Some parents think what they suggest to their children to pursue is always better for them, yet they tend to ignore what their children desire. Other factors include financial stability, university prestige and of course, practicality of the course, On-line or offline mode. For them, education is the best treasure they can give to their child. That's why sometimes they don't even care how much money it costs to them just to put their child in a high standard institution which they envision to help their child embodiment his skills and flourish it for him to be a great and successful person as he grows-up and because of these, many students graduate in courses which they do not really like for themselves. On the other hand, others pursue their desired course with no doubt, and they are able to graduate with high scores. Peer pressure becomes another factor in career decision making because individuals who are closely involved with their friends tend to be involved in the decision of their friends. Some take up the career only because one person in the whole group chooses that particular one & others just follow. Sometimes peers influence others to take that certain course because they think that it is better for them to take that particular course. Thus, it requires critical decision-making more than anything else.

### **Objectives of the Study:**

- To study the factors that influence the choices of youth and their parents in selecting the institutions for higher education,
- To study the impact of choices made by the students and their parents on their academic achievement.

**Methodology** The self-prepared questionnaire was developed and the information was gathered from teenagers and their parents pursuing higher secondary or graduation On-line and offline. To achieve and accomplish the objectives, personal online interviews were also conducted which contained some of the following survey questions:

1. What factors influence the selection of higher education institutes to the parents and the students that affect student's final decision making in choosing their College?
2. Do parents dictate what their children 'Must' choose On-line or Offline?
3. Does financial stability & duration of the course affect their selection? For example, medical courses need above average financial support since it is subjected for 4-6 years and includes laboratory equipment and apparatus.
4. Are teenagers concerned of the practicality of the courses & reputation of institution they choose On-line or Off-Line?
5. Do people (especially the youth) demand for jobs right after graduation or professional degree (Engineering, or law) On-line or Off-Line?
6. Do they take up streams (Commerce or Humanities etc.) because their friends take it too On-line or Off-Line?
7. Do they take up nursing/aviation/ hospitality because the T.V. Advertisements state that some people abroad demand for nurse, house-chef and caregivers thus giving them the security after graduation.
8. What are the experiences of college students after they have joined the courses and institutions? Are they influenced by the work culture and environment of the institution?
9. Do they experience boredom or difficulties and they desire to quit as soon as possible?
10. Do they just continue it since they don't like to disappoint their parents?

### **Major Findings & Discussion**

Based on the analysis and interpretations done on the data gathered, the researchers analyzed there are many factors which influence the youth today that results in lowering self-esteem when it comes to the fact that they are pressured to do well in college. Several findings revealed in this perspective are summarized as:

1. The profile of the participants revealed that the majority are female (68.69%), obtaining an average of 80-89 % marks (60%)

2. The respondents that belonged to a family of high-income earners were 55%, most of the participants belonged to a family of two siblings, whereas both studying were 62%, whose parents are graduates (66.67%)
3. In terms of the factors that affect the graduating students' decision choosing their college courses, it was found most of the participants' parents (86%) approve with what course their child wants to choose.
4. Most of the participants (78%) did not mention financial stability as the main hindrance in choosing the course they like. 82 BTTC International Journal of Education and Research
5. With reference to the course's practicality, 87% of the participants are concerned with the distance of institutions and cost of the course was the concern of 46% respondents only.
6. In terms of how the students chose their course, it was revealed that several of the participants (51%) considered their capability on top of the criterion for the course they chose.
7. Most of the participants (80%) informed that they use the online ranking as baseline for their selection.
8. Only 9% respondents informed that they would have left the course if not liked by them.
9. Majority (88%) of the respondents opined they do not choose courses because of peer following or parental pressure.
10. All most all the parents (94%) responded that they were strongly concerned with the courses & institutions their children select for higher education.

### **Conclusions**

- The researcher concludes that one of the biggest problems of a higher education or graduating student is to decide on what course they will take in college, On-line or Off-Line.
- Accepting the fact that there are many factors that affect their decisions, most of them agreed that decision-making depends on the On-line availability, financial stability of the family with regards to college course. The student, thus sometimes finds it complicated to decide whether to go for the course that he or she desires for or to go for the course that his or her family can afford.
- The concern of money and On-line distant institutions were the greater obstacle that played roles as a hindrance in the path of many parents and students. Most of the students prepare themselves to stay away from their families to take a specific course having trust on themselves and their family members that they can accomplish it. Moreover, this trust serves as their inspiration as they build up their foundation for their future.
- Nearly everyone wants to be a graduate, On-line or to have a good job right after they graduate & if they did not; they landed at the probable decision to have their own business or work for a company.
- Students' believe that they can manage to stand by their choices whereas parents keep up their anxiety till the output and outcome of their performance is visible.
- Researchers concluded, if the youth would have this much of enthusiasm to select and pursue their career On-line or offline, all students would be successful and enjoy their choices, thus will our country.

### **Suggestions and Recommendations**

Although the reputation of any institution depends upon the academic input and output On-line or Off-Line, but there are many more factors which all parents and students must look for before taking up any institution. Apart from On-line or offline cost of the chosen course, infrastructure of the institution, location and placement of the college, there are many other factors that students and parents require to look for while selecting the institutions. The safety at campus, student Care programmes, the credentials of the faculty that teach at the college, the approval and accreditation of institution by state and national body are the major factors to be looked upon. The safety is of great concern to parents and should be checked on. What are the security arrangements on campus? Is there a good screening system to keep trespassers away? Have there been any incidents of violence on campus? What are the anti-ragging rules on the campus? Are there any animals running around in the campus? Is there a student grievance cell for addressing problems? In any institution the biggest source of

knowledge are teachers and teachers can make or break a college. Check for the qualifications of the faculty on the college website. Largely trustworthy colleges carry a short profile of each of their faculty with details of their educational qualification, research work and past experience.

The institutions have all the academic liberty to develop student service facilities. One must check, does the college offer scholarships and easy access to educational loans? Some colleges do have tie-ups with banks that provide student loans; others may only put underprivileged students to get in touch with bank representatives. Some of the colleges are providing dual degree or integrated degree. Academic counsellors are also available for students who are seeking career or academic guidance. Some colleges also offer free psychology counsellors in the event that you are suffering from anxiety, depression, or just need to have a professional talk with. Another focus area should be how important are extra-curricular activities at the institute? Activities that can engage students in other ways apart from academics are important for the holistic development of students. These include societies and clubs that can be a platform to showcase the varied talents students have. These spots are conducive to lounging with friends, people watching, doing homework and perhaps even writing a few lines of poetry.

One must also know how important college festivals in the institute are. After all, organising the college fests and festivals at college campus and taking part in them adds to the personality and soft skills of a student. College is the perfect place to develop and showcase leadership skills among youth. Participating in leadership roles is not only great experience for future but also good on a resume when one graduates and is out looking for jobs. You should look into leadership training and take advantage of every opportunity to be an officer or leader in the organizations that interest you. Leadership roles and positions are available in-residence halls, activities planning councils, student government, honour societies and other special interest organizations.

Is it an approved and accredited institute? While this question is irrelevant for central and state government institutions, it becomes absolutely crucial when it comes to private colleges. Private engineering colleges must be approved by All India Council for Technical Education (AICTE) and National Council of Teacher Education (NCTE). If the institution has a university status only then it does not need approval from AICTE because it can independently decide on its academic processes including curriculum, examinations and other details. According to the latest reports, universities cannot grant affiliation to technical colleges unless these institutions are pre-approved by AICTE. The best resource in case of private and deemed universities is to find the details is the official website of the university or college. Students must also check the list of fake universities at UGC's website ([www.ugc.ac.in](http://www.ugc.ac.in)) at the link.

Choosing a college, while potential and interest wise investment in the future, is difficult for most of us, but one can choose wisely if one would keep both important and unimportant factors in mind.

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# **A STUDY TO INVESTIGATE RELATIONSHIP OF ACADEMIC SCORES AT ENTRY LEVEL AND EXIT LEVEL OF GRADUATION PROGRAM.**

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## **ABSTRACT**

Machine learning is well known term, very much useful to develop models for solving real life problems. It uses data and come with facts using which decisions can be taken. This study, aim to find the relationship between higher secondary level subjects the students selected and the final grade obtained at the end of six semester course at university level. Analysis was carried out using classifiers with the Weka software. The Sample size 128 treated using WEKA tool for data analysis. PART, JRip, and Decision Table algorithms used to evaluate data. Outcomes shows 92.1875% accuracy with PART with 8 rules.

**Keywords:** Educational Data Mining, Machine learning, Rule base learning, PART, JRip, Decision Table

## **1. INTRODUCTION**

Graduation is very much necessary to get decent job, but which stream the student should select is one question normally comes in the parents as well as students mind when he appears for his higher secondary examination. Selection of a proper course creates foundation of future. Strong in wrong skills equals to failed, if the student is weak in one subject domain then it may be difficult for him to go ahead and take degree in the same subject. If happened so then dropout rate increases, which is harmful for student as well as for any educational institute.[4] Multimedia plays a crucial role here in the educational domain. Visuals and special designed course contents helps students to learn at their own pace and helps the slow learners to overcome hurdles and reach towards the success.[8][7] For this they must need a path to walk. If students come to known about the interlinked subjects prior and the impact they make, it will make a change.[10] The course consider under this study is computer science six semester course. While enrolling students in this course candidate must have mathematics and statistic as one subject in higher secondary education is a criterion, which says importance of the subject in further study. While the Information technology is the course also use the same subject to prepare merit list for admission in three-year integrated undergraduate level course under University of Mumbai.

It is an attempt to find the relationship of academic score student achieve at his higher secondary education and final grade he achieved at the end of three-year integrated bachelor's degree course, which helps the student to check his performance matric early and enable him to take proper action to improve academic performance.

The paper organized in 7 sections. Section 2 gives literature review. This section gives base for further study in this topic. Section 3 clears the objective of the study. Section 4 talks about research methods used in study. Section 5 presents outcomes as Results and Section 6 stands for Conclusion. Further study is mentioned in section 7. Section 8 gives references.

## **2. LITERATURE REVIEW**

Ernest M. Munowenya (1999) tried to find whether there is a need to offer basic vocational education in Zimbabwe's secondary schools. Candidature lists and pass rates were the variables used for the study. Result shows, very few candidates registered for vocational subjects and the pass rate in the academic subjects was as low as 21%. It is therefore recommended that the country deliberately introduce basic vocational education in secondary schools to prepare and equip most students with survival skills.[4] Samrat Singh and Dr. Vikesh Kumar (2013) uses WEKA tool for analysis the student's academic performance for Training & placement department or company

executives. In study 50 samples were analysed using six classification methods Bayes Net, Naïve Bayes, Multilayer Perceptron, IB1, Decision Tree and PART. Where six input variable and three output classes are considered for prediction. Observations say that according to experimental result IB1 the nearest neighbour Classifier is most suitable method for this type of student dataset.[9] M. A. Anwar (2013) work to find student's grades in degree program using association rules mining and tried to investigate the relationship among various courses to find the effect of performance of in one course on the other. The analysis reveals that there were students who got excellent grades in mathematics also performed very well in a programming course.[6] Ghada Badr in 2016, build a model to predict the performance of students in a programming course based on their grades in courses and other subjects. A classification based on an association rules algorithm was used to build a classifier to help evaluate the student's performance in the programming course. Two experiments were conducted using the CBA rule-generation algorithm. The first used students' grades in two English courses and two mathematics courses, which generated four rules with accuracy of 62.75%. The second used students' grades only in two English courses, generating four rules with accuracy of 67.33%. [5]

present study investigates the relationship between prior academic performance and student's academic success on an undergraduate programme using machine-learning techniques. The study addresses a gap in the literature by applying machine-learning techniques which can capture non-linear relationships present in real life data. Also, the estimated relationship is used for prediction

### 3. OBJECTIVE

To investigate relationship of academic scores at entry level and exit level of graduation program.

### 4. METHODOLOGY

The primary data collection itself is a big task but become simple with the online survey techniques. During COVID-19 pandemic it is impossible to meet personally with anyone but online data collection with the help of Microsoft Form becomes possible. The data collected not always appears as ready to use for analysis. Sometimes records has missing values, bias, too many features which may leads towards overfitting [1]. The sample size was 128 used for this study. Only one negative response was there, so to avoid bias record not considered and dropped from record set. Features considered for the study was final grade student got at exit level considered as a target variable, while marks achieved at entry level means in higher secondary education for subjects like mathematics and statistics, physics, chemistry, English used as input variables average of physics chemistry and mathematics also considered for the study, since PCM is also a choice criterion in some courses along with HSC passing percentage.

The data received for higher secondary educational level converted in terms of grades namely A, B, C, D, E depends on marks and mapped with greater than or equal rules for 70, 60, 55, 50, 45 and 40 marks, respectively. While the data received as a course outcome at final semester grade converted into grades O, A, B, C, D and mapped with greater than or equal rules for 80, 60, 50, 45, 40 percentage, respectively.

	A	B	C	D	E	F	G	H
1	FINAL-Gra	MATHS &	PHYSICS	CH-CHEM	ENGLISH	PCM-AVG	HSC-PASSING-GRADE	
2	A	M-A	P-A	CH-A	E-O	PCM-A	HSC-B	
3	C	M-D	P-D	CH-A	E-A	PCM-C	HSC-C	
4	A	M-A	P-A	CH-A	E-A	PCM-A	HSC-B	
5	B	M-B	P-B	CH-A	E-C	PCM-B	HSC-B	
6	B	M-C	P-B	CH-A	E-A	PCM-B	HSC-B	
7	A	M-A	P-B	CH-A	E-A	PCM-A	HSC-A	
8	A	M-A	P-B	CH-A	E-A	PCM-A	HSC-A	
9	A	M-A	P-A	CH-A	E-A	PCM-A	HSC-A	
10	A	M-A	P-B	CH-B	E-B	PCM-B	HSC-B	
11	D	M-E	P-E	CH-B	E-A	PCM-D	HSC-A	

Table 1: Spreadsheet interface of Dataset

Classification algorithms PART, Decision Table, and JRip used to study the relationship in this proposed work and set some rules using basic educational information at entry level. The machine learning approach divides the data into two parts training set and testing set. Since the records considered for this study are less in number so 10 cross-fold validation technique used for the study instead of 5 cross-fold validation. A nontechnical person can easily interpret the results with the rule base approach where if then else structure makes understanding simple. The experiment performed with machine learning techniques using WEKA tool for data analysis. [1][3]

- PART: This algorithm useful for multi-class classification, based on partial decision tree which Combines the divide and conquer strategy with separate and conquer strategy of rule learning. It builds a partial decision tree on the current set of instances then create a rule from the decision tree. Where the leaf with the largest coverage is made into a rule. Once the rule set then remove that tree along with those variables used to construct it.[2]
- Decision Table: The algorithm helps to reduce overfitting by removing features which contribute a little or nothing towards the prediction. It uses wrapper method to build table with useful set of features.[3]
- JRip: It is an advance version of OneR algorithm. Also known as greedy algorithm. Generally used for testing against the variable and the predictors. Generate rules using if- else structure. Works in three stages building stage, optimization stage and drop rules. Where the building stage is divided into grow phase and prune phase.[2]

## 5.RESULTS

The total instances considered for the study was 128. Distinctly selected attributes are 4 labelled as B, D, C, A with Count 45, 53, 16, and 14 respectively for target variable final grade. The 60 percentage of dataset used for training purpose while the remaining 40 percentage used for testing.

Rules generated using PART: 8 Time taken to build model: 0.02 seconds

- PART Decision List: Correctly classified instances 118 while the misclassified records 10
1. MATHS & STATS = M-C: B (17.0)
  2. MATHS & STATS = M-B: B (14.0/2.0)
  3. MATHS & STATS = M-A: A (12.0)
  4. PHYSICS = P-E AND MATHS & STATS = M-E: D (53.0/2.0)
  5. PHYSICS = P-E: C (9.0/1.0)
  6. PHYSICS = P-B: B (9.0)
  7. PHYSICS = P-D: C (8.0/1.0)
  8. : B (6.0)

Rules generated using JRip: 8 Time taken to build model: 0.02 seconds

- JRIP Decision List: Correctly Classified Instances 115 while the misclassified records are 13
1. (MATHS & STATS = M-A) => FINAL-Grade=A (12.0/0.0)
  2. (MATHS & STATS = M-D) => FINAL-Grade=C (14.0/4.0)
  3. (PHYSICS = P-D) and (CH-CHEMISTRY = CH-E) => FINAL-Grade=C (4.0/0.0)
  4. (MATHS & STATS = M-C) => FINAL-Grade=B (17.0/0.0)
  5. (MATHS & STATS = M-B) => FINAL-Grade=B (13.0/1.0)
  6. (PHYSICS = P-B) => FINAL-Grade=B (8.0/0.0)
  7. (PHYSICS = P-C) => FINAL-Grade=B (4.0/0.0)
  8. => FINAL-Grade=D (56.0/4.0)

Rules generated using Decision Table: 19 Time taken to build model: 0.01 seconds

- DT Decision List: Correctly Classified Instances 117 while the misclassified records are 11. Searching strategy used was Best first with forward direction search, stale search observed

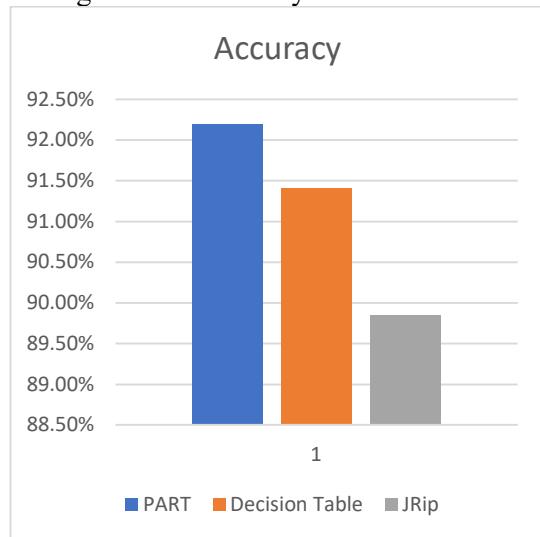
after 5 node expansions. Where Feature set: 2,3,1 used namely MATHS & STATS, PHYSICS and FINAL-Grade.

Sr. No.	MATHS & STATS	PHYSICS	FINAL-Grade	Sr. No.	MATHS & STATS	PHYSICS	FINAL-Grade
1	M-A	P-D	B	11	M-A	P-B	A
2	M-B	P-D	B	12	M-D	P-E	C
3	M-C	P-D	B	13	M-B	P-E	B
4	M-D	P-D	C	14	M-C	P-E	B
5	M-E	P-D	C	15	M-E	P-E	D
6	M-A	P-A	A	16	M-B	P-C	B
7	M-B	P-B	B	17	M-C	P-C	B
8	M-C	P-B	B	18	M-D	P-C	B
9	M-D	P-B	B	19	M-E	P-C	B
10	M-E	P-B	B				

Table2: Rules generated using Decision Table

Rules set by PART 1,2 3 and JRIP 1,4, 5 are identical, says that if entry level score in mathematics and statistic subject is good represented by grade A then the exit level score also shows grade A. while entry level B grades in mathematics and statistic subject represent score as a B grade. Decision Table rules given in table 2, rule number 6 and 11 shows the equivalent results as discussed for PRAT rule number 3 and JRIP rule number 1. But here, along with mathematics and statistics physics score also considered to set rules. The score in physics may be grade A or grade B, if the score in mathematics shows grade A then the exit level grade will be A. The rule number 15 shows that the output grade will D, if the score at entry level is poor for both the subjects that means grade E.

This analysis accepts the fact that the entry level consideration for mathematics and statistic is very much essential and there exist a strong relationship among the entry level grades and exit level grades achieved by the students.



Algorithm	Accuracy with 10-fold cross-validation	No of Rule Generated
PART	92.19%	8
Decision Table	91.41%	19
JRip	89.84%	8

Figure 1: Accuracy of Algorithms Table 3: Accuracy of Algorithms

PART comes up as a most appropriate algorithm for the proposed work, the results show it gives good result compare to other since accuracy for this algorithm is high 99.18% while Decision Table gives 91.41% and JRip shows 89.84%.

## 6. CONCLUSION

According the outcomes there exists a strong relationship among the entry level score and exit level score of the student. It essential to consider the base level subject knowledge of the domain before moving ahead with the course.

## 7. FURTHER STUDY

The study can be extended to find relationship between the grades achieved in the lover semester results with final year grade achieved by the student. This work may help to students to plan their study for getting more success in their selected course.

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# A STUDY ON UNDERSTANDING STUDENTS' BEHAVIOUR IN ONLINE TEACHING LEARNING PLATFORM

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## ABSTRACT

Since the rapid growth of mobile phones, smart phones, tablets, laptops E-learning platform has developed rapidly. In online platform of teaching learning various sorts of advantages and disadvantages are there. It is a need to analyze the behavior of learners who are learning through online platform is needed. In this paper I have analyzed the interest of learners attending online lectures, the behavior of learners, effectiveness of teaching learning in online platform. Online teaching learning process have grown rapidly in recent days in all form of studies The study done in this research work provides information in interest of learners as well as comfortability of attending online lectures.

**Keywords:***online, learners, behavior, teaching, students.*

## 1. INTRODUCTION

As with the development of internet and IT technology new platform has been opened up in the field of online learning. Online learning is opening up a wide platform for the teachers to explore and give better results in the field of teaching. As compared to the traditional method of teaching chalk and talk learners are able to attend the learning session comfortably. All possible support are been given by the educational institutes and from home to attend online learning sessions.

E-content are been shared in online sessions with audio, video presentations are added which make learning more interesting.

Even though if compared with positive effects negative points are also there, like the retentions part of online teaching. Traditional classroom learning is missed out. Direct interaction with teachers and friends are not comfortably possible. Lectures are been organized in various online platforms like zoom, teams, Google meet and various other platforms. Lectures are arranged live in YouTube, Facebook etc.

As per the data collected from 219 respondents across students studying in UG program residing in Mumbai and studying in degree colleges in Mumbai, following results are been collected.

## 2. OBJECTIVES OF STUDY

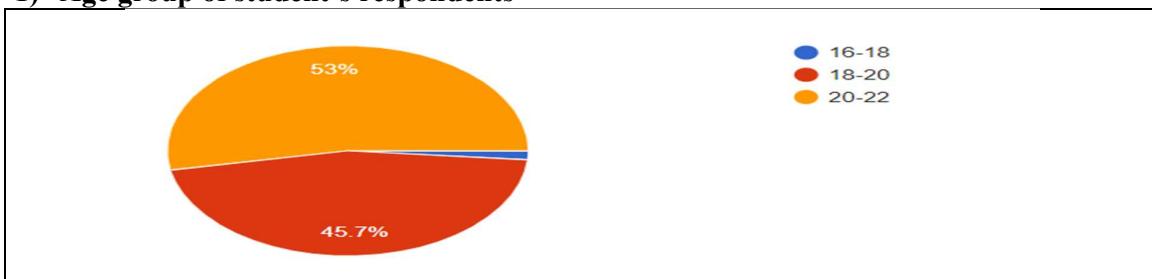
To know about student's behavior in online learning  
To know about the effectiveness of remote learning

## 3. RESEARCH METHODOLOGY

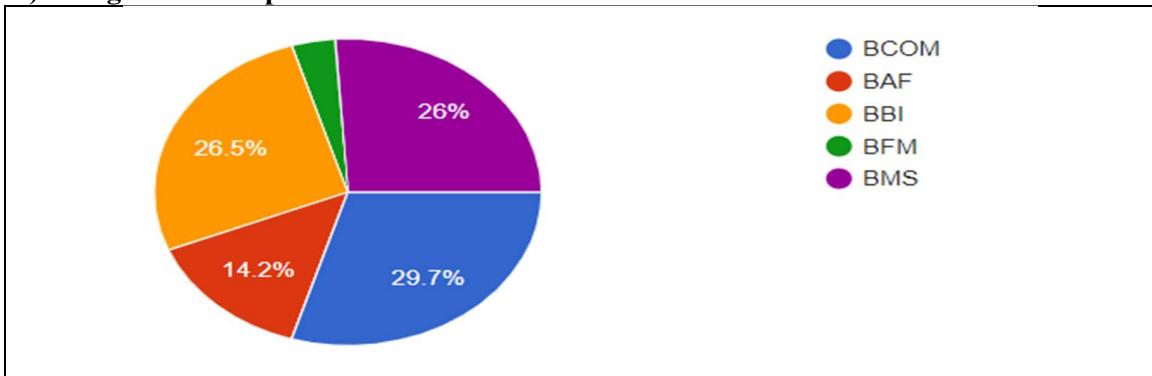
This paper is based on primary data as well as secondary data,  
Primary data collected from 219 respondents of youngsters, college students across Mumbai,  
Secondary Data information gathered from various magazines, newspaper, websites.

#### 4. DATA ANALYSIS, FIGURES AND TABLES

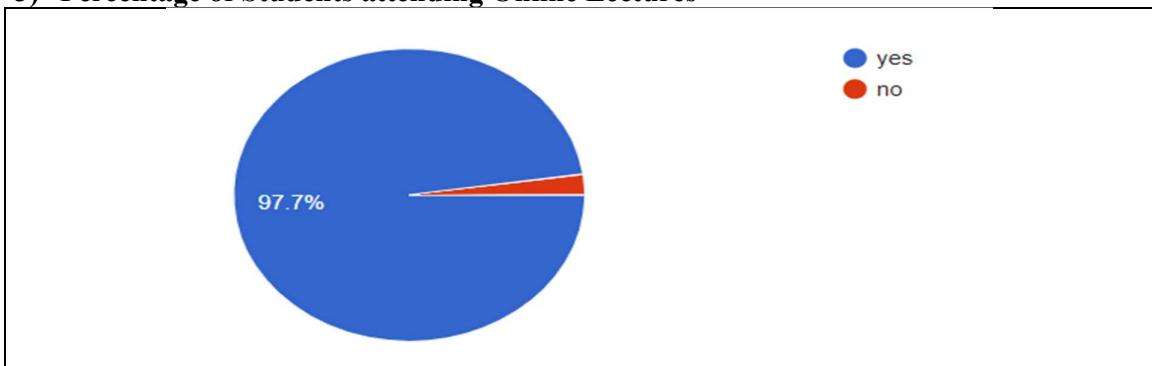
##### 1) Age group of student's respondents



##### 2) Programs of respondent students



##### 3) Percentage of Students attending Online Lectures



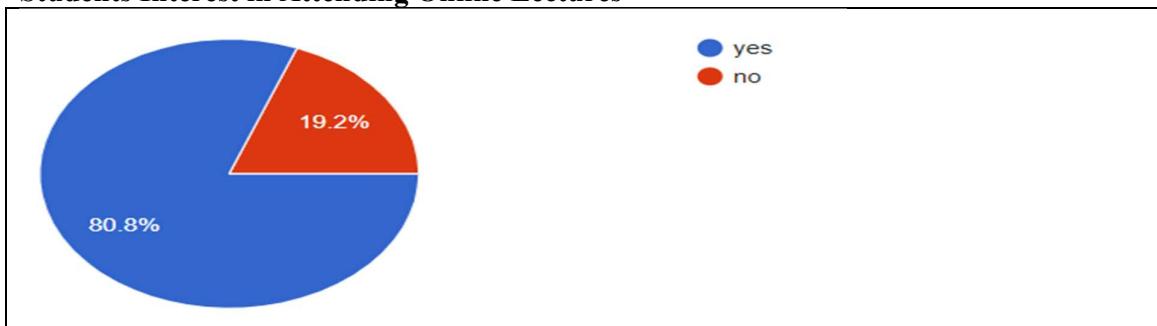
##### 4) Digital Platform used for Attending Online Lectures



**5) The mode of Internet Access used for Attending Online Lectures**



**6) Students Interest in Attending Online Lectures**



**7) Percentage of Students Interactions with Faculty during Lectures**



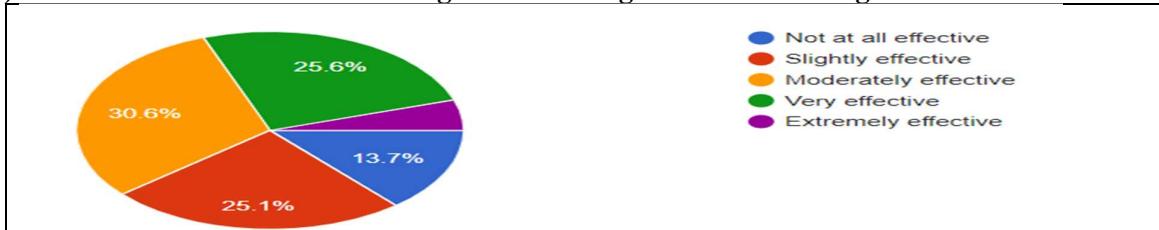
**8) The mode which students interacting with faculty during online lecture**



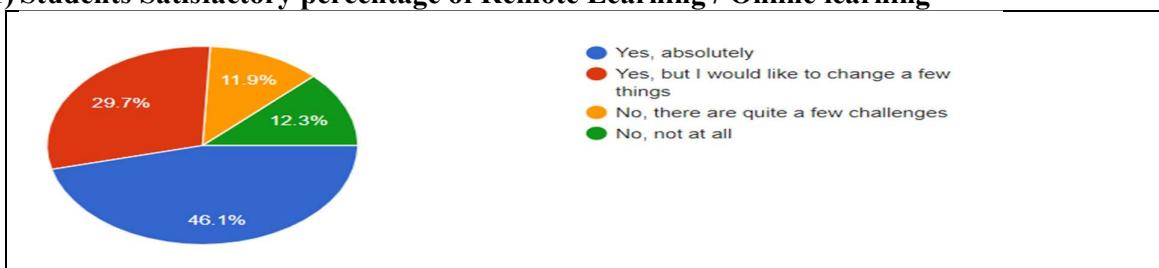
**9) Students opinion about online teaching and learning platform**



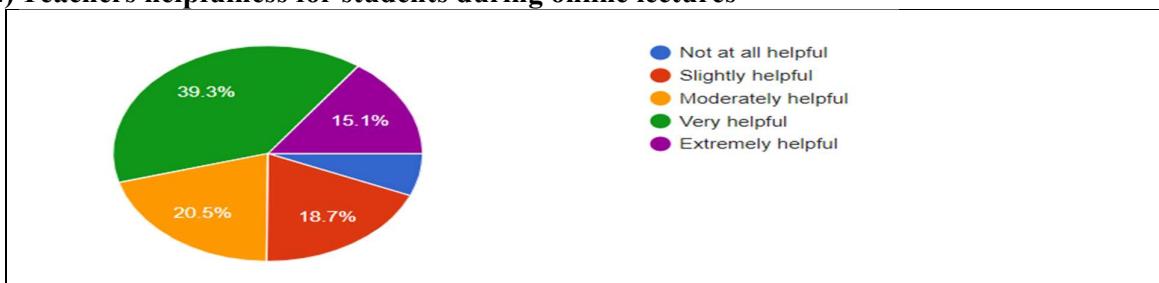
**10) Effectiveness of Remote Teaching and Learning / Online Learning**



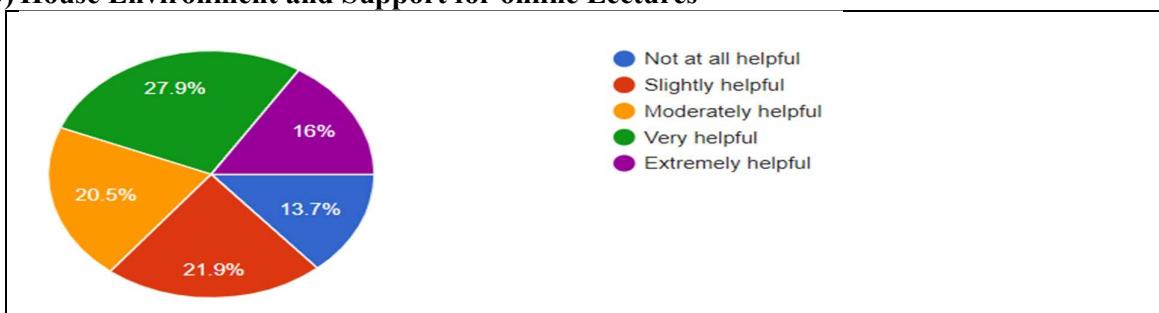
**11) Students Satisfactory percentage of Remote Learning / Online learning**



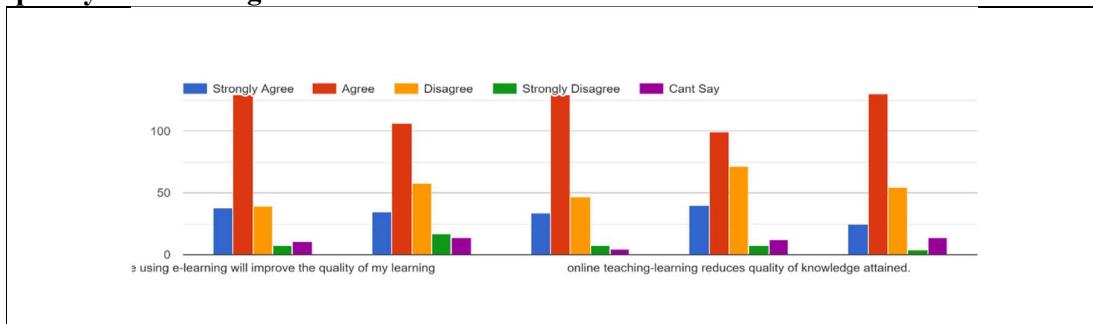
**12) Teachers helpfulness for students during online lectures**



**13) House Environment and Support for online Lectures**



#### 14) Students opinions that online Education had improved quality of teaching and learning, quality of knowledge attained



#### Findings:-

- In this research data is been gathered from respondents studying in UG Programs in various colleges in Mumbai region.
- 74.9% respondents are attending online lectures in zoom platform and rest few respondent's are attending online lectures in teams or google meet.
- 80.8% respondents have shown interest in attending online lectures
- 63% have respondents they have interaction with the faculty members
- 69.9% respondents give response to the questions asked or interact with faculty members in chat that is available in the online platform
- In general majority respondents have given opinion good about online teaching learning platform
- 46.1% are satisfactory in remote learning
- 36.3% respondents find teachers very helpful in online teaching learning

#### 5. CONCLUSION

It is been observed from the research conducted that the learners are finding online teaching learning platform interesting. Learners are finding teachers helpful in online teaching platform. At home learners are get good learning environment. Learners are participating in lectures in clearing doubts by the support system available in online platform. There is a better teaching and learning experience in online learning. The students are able to connect better with teacher, even learning is happening from remote locations. Learners are even getting better support from teachers in online lecture, where during lectures they are able to sort doubts directly from teachers. Students overall have a better review that they are able to get wide range of knowledge, gather additional skill and develop better ability due to online learning

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## TECHNOLOGY AND ITS IMPACT ON STUDENTS ACADEMIC ACHIEVEMENT – CASE STUDY OF UG STUDENTS

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### ABSTRACT

Technology is used by the people in various field. Technology and Digital learning is widely used today in field of teaching and learning. It also improves to develop better skill and ability and gain knowledge. Today in the field of Academics various technology is used which is the need of time and future. Accessibility of information is much powerful tool, and technology is bridging the gap of sharing knowledge. Technology can be used in various form in regular classroom, as well in digital platform to conduct lectures, conduct exams, results etc. Technology upgradation in Academics have helped to create various resources for Educational purpose. Use of technology and digital platform is used in teaching and learning process, which had led to connect students in remote locations, It also helps in better sharing of knowledge. In this research paper its identified that students have a better access of technological device today, where they are getting various benefits. And it has also been identified, it had led to increase in Academic performance of Students and they are ready to use it in future also as they have identified its need of time and future.

**Keywords:***technology, students, academic performance, education, digital, learning*

### 1. INTRODUCTION

Technology is a major catalyst in the field of learning today. Technical upgradation is used in various educational institute since last many years. Number of emerging technologies has been increasing the participation of students in schools and colleges. It is through wide use of technology where students are able to develop various new skill and ability. Vast amount of knowledge can be shared with the use of technology and in recent years, it had led to improvement in Academic performance of students.

In the recent year, every educational institution is using digital platform in the field of teaching and learning, which has created a wide range of sharing of knowledge. Use of digital platform for teaching and learning is accessible to large students as they have supporting device and internet connectivity to connect to class. Accessibility of information is much powerful tool, and technology is bridging the gap of sharing knowledge. This research paper will throw light to technical upgradation and use of digital platform and its impact on students' academic achievements. This research paper is collected from 319 students respondent across city, where majority students have access to use of technology in education and are finding it much efficient when it comes to gaining knowledge, leaning additional skills. Their has been a drastic improvement in students performance due to use technological upgradation in education.

### 2. OBJECTIVES OF STUDY

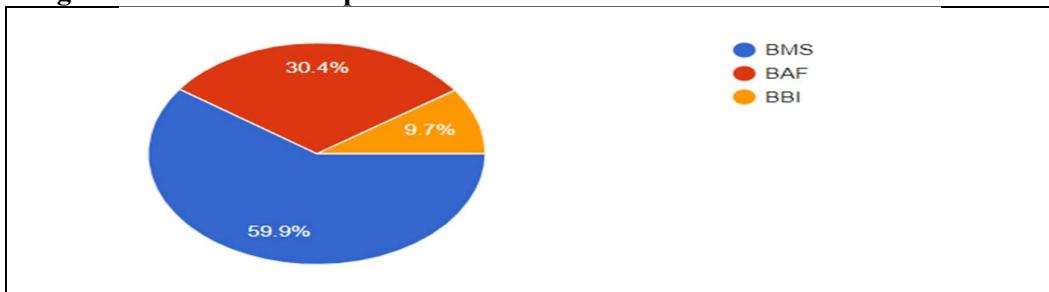
- To know about the impact on Students Interest in use of technology on students
- To know about the technological impact on Students Achievements

### 3. RESEARCH METHODOLOGY

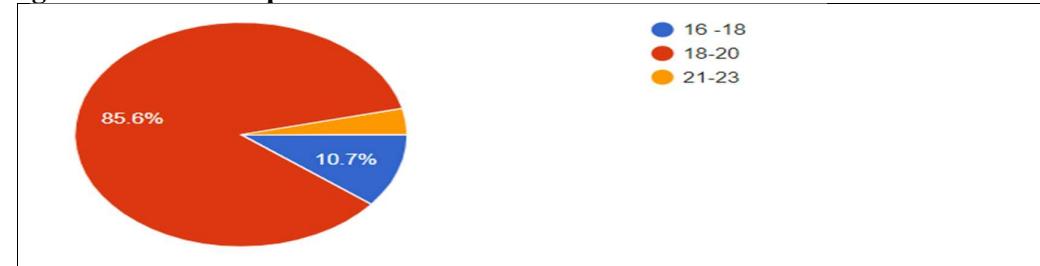
This paper is based on primary as well as secondary data, primary data collected from 319 respondents of youngsters, college students across Mumbai, Secondary Data information gathered from various magazines, newspaper, websites.

#### 4. DATA ANALYSIS, FIGURES AND TABLES

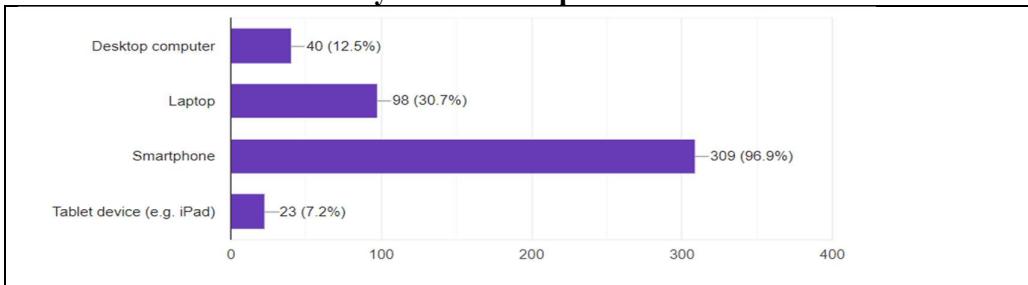
##### Programs of Students Respondent



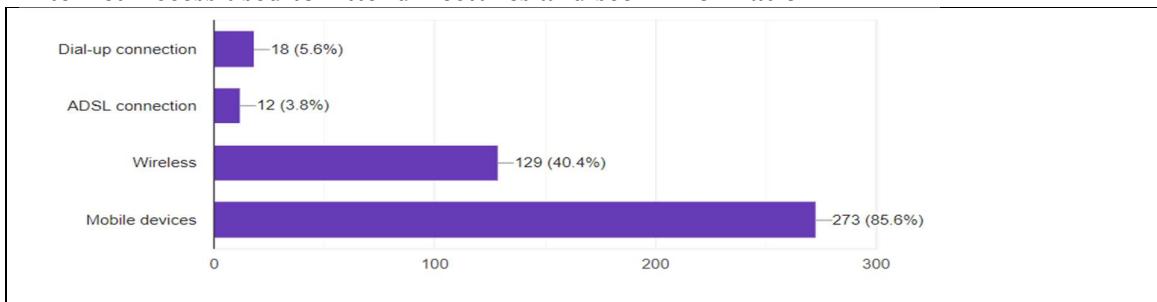
##### Age of Students Respondent



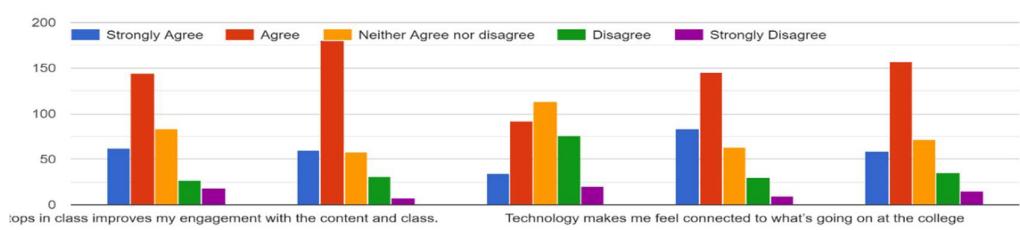
##### Electronic Device used by students Respondent to Attend Lectures



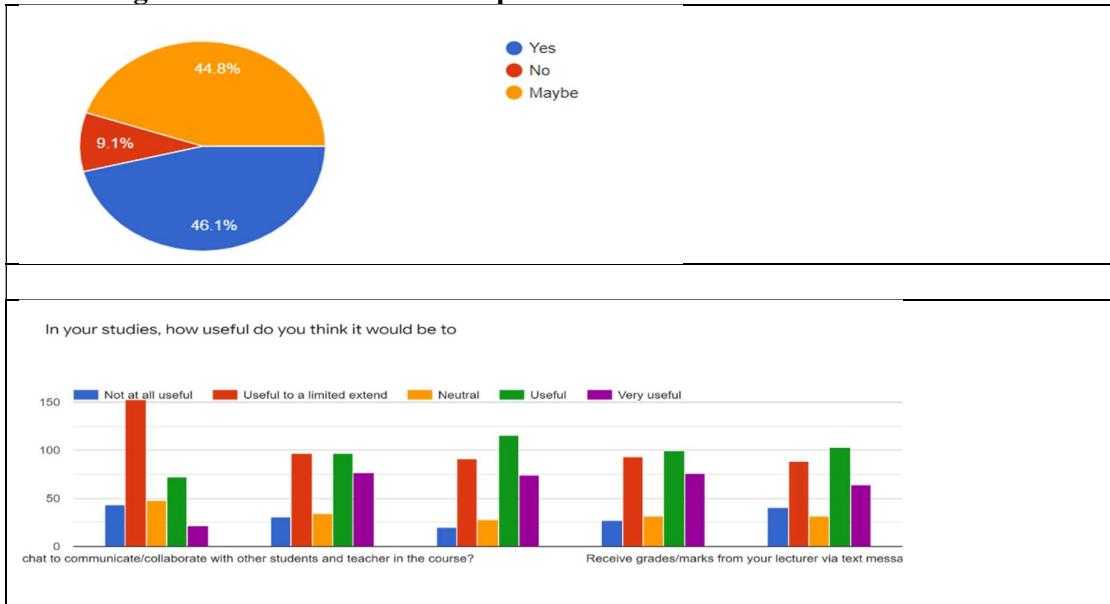
##### Internet Access used to Attend Lectures and seek Information



Please indicate to what extent you agree with the following statements



### Percentage of students in terms of improvement in Academic Performance



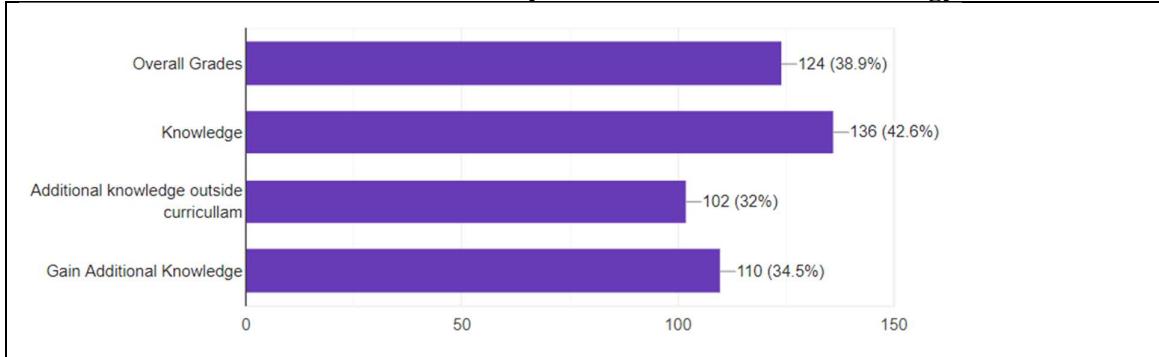
### Rating of improvement in students performance due to technical upgradation



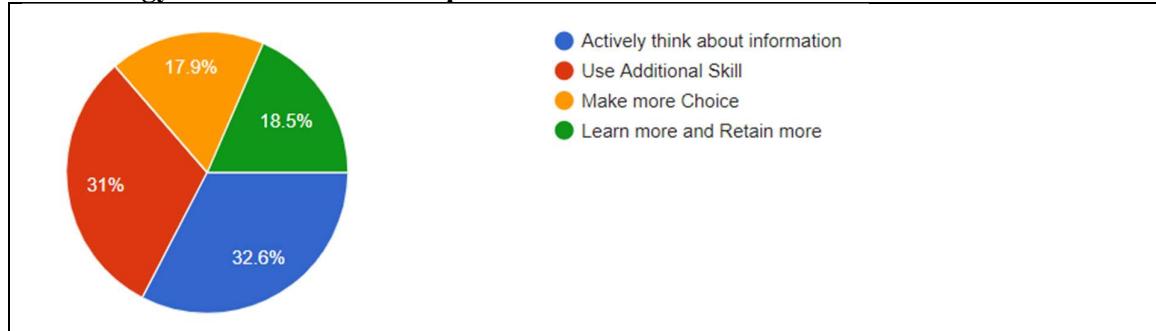
### Percentage of Student Respondent continue Technology in Academics



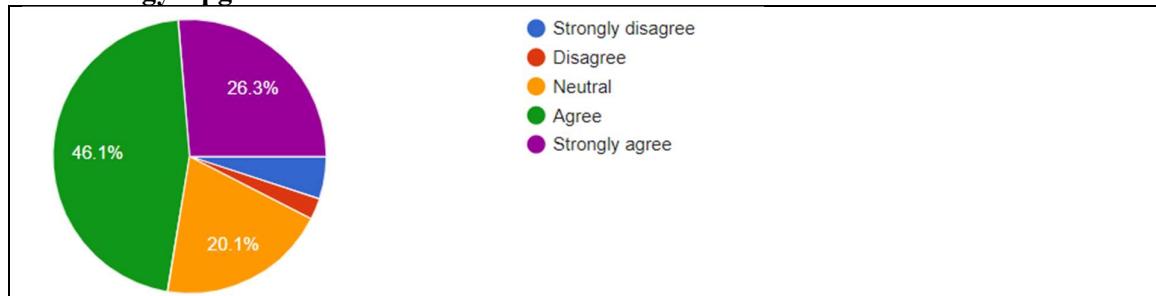
### Academic Performance of Students Respondent due to use of Technology



### Technology use in Academics helps students to



### Technology Upgradation in Academics is Need of time and for future



#### Findings: -

- It is identified that majority students have access technical and digital platform through mobile phone and laptops and computer desktop
- It is observed majority students use mobile data connectivity to attend lectures and to gain knowledge through use of technology
- It is observed that students are able to connect with other students and teachers due to use of technical upgradation in academics
- Majority students are of view that use of technology had led to improvement in their Academic performance
- More than majority of students claim they will continue to use technology in their academics in future also
- It has been observed that majority students claim there is increase in proportion of gaining knowledge, and much improvement in Academics performance and also lead to gain additional skill due to use of technology
- It is identified that student respondent are actively able to think, they are able to learn more and retain more due to use of technology in academics.
- Majority student's respondent agree that technology upgradation is need of time, and they will continue use of technology and digital platform in future.
- Technology and digital learning needed to be embraced as it creates a large impact when it comes to teaching and learning.
- 

#### 5. CONCLUSION

Use of technology in academics field is need of time and will have great advancement in future. With use of various digital platform to attend lectures and use of various technology, software and educational application it had great advancement in participation of students for lectures. Technology is helping students to connect better with teachers in spite they are in remote location. Even technology and digital learning has helps students to gain more knowledge, develop better ability and even develop additional skills. There has been a drastic improvement in students' academic

performance also when it comes to use of technology. Through this research paper it has also been identified, technical upgradation and use of digital platform in teaching and learning is leading to increase in Academic performance of Students and they are ready to use it in future also as they have identified its need of time and future.

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## REGIONAL DEVELOPING COUNTRIES- THEIR TAKE ON CORE BANKING SOLUTION. A THEORETICAL REVIEW

**Ms. Priya Ashok Sapkale.**, Lecturer, Anil Asrani Vocational College

**Abstract-** The digitalized banking services have made remarkable development in the banking industry across the world. The researcher has studied the perspectives of core banking solution in developing countries with the help of research done by other researchers in their respective countries. After studying various aspects of core banking solution from different researches of international market, the researcher concluded that the core banking solution is instrumental in making significant growth of the bank. Therefore the banks' management and service providers should make all out efforts to remove the hurdles/obstacles, arising out of implementation of CBS. Banks should try to prepare themselves to face/counter Potential threats arising after implementation of CBS.

**Keywords:** Core banking solution, global perspective, developing countries

**I. Introduction:** Financial system contains various sectors which accelerate the economic growth of the country. Likewise banking industries are persisting to enhance the growth and development in the competitive business world by merging information and communication technology and digitized banking services with effective practices. When banks clubbed traditional banking services with technology, it accelerated the pace of banking. End users welcomed this change and e-banking became the face of the modern banking. However, all these E-services would have been ineffective without introducing core banking solution. Penetration of technology in the service sector, especially in banking, provides revolutionary impact and added advantage of centralized management to banking services. The terminology use for the combined use of technology + a centralized+ banking service into core banking solution is popularly known as CBS. The acronym for CBS is 'Centralized Online Real Time Exchange'. For acquiring core needs of banks in digitized banking, banks develop computer software to perform core banking solution which provide various banking services such as passbook maintenance, calculations of interest on loan and deposits, money transfer, maintenance of customer records, routine banking operations etc. This software is installed in every branch and gets integrated through the central data center by connecting means of communication like internet, telephone, satellite etc. Core banking solution is the general solution where all the branches of a bank work on the same network, thereby allowing its customers to access their account from any branch of the bank. Before analyzing the global perspective of core banking solution it is essential to understand the origin of it. The first core banking solution appeared in the United States of America. The functions were executed with the help of mainframe computers, which were designed by banks themselves or by different parties in collaboration with US banks. United States of America wanted to get core banking solution on a global platform, but could not grasp this objective on immediate effect. In 1980 this package solution started emerging from other parts of the world primarily Europe, Asia and Australia. Private banking solution developed in Switzerland and Luxembourg but due to different characteristics of business the solution were more customers oriented than transaction oriented.

### **II. Literature Review:**

**1) Priscilla Mait (2014)-** The researcher has discussed that study of implementation of CBS has brought significant change in technology system, but banks in Indonesia faced different constraints like

human error, network failure, hardware and software failure and non financial loss like affected brand image of the bank while implementing a core banking solution.

**2) Harries Ngu Musau(2015)-** The researcher has indicated in his study that the strategic factors like operational risk analysis, delivery risk analysis, business risk analysis and accounting risk analysis,etc. influenced commercial banks in Kenya to implement core banking solution.

**3) Mansour dehghan/ Mahdi Ghafoorifard/babak shami/ Seyed Heydari(2015)-** Researchers have stated that different banking services of CBS affect the profitability of the banks. ATM banking and internet banking help to increase the profitability of the private banks whereas telephone banking and mobile banking does not affect on the profitability of the private banks in Iran.

**4) Negalign Mamo and Lisanwork Amare(2016)-** The researchers stated that commercial banks in Ethiopia have appreciated core banking solution, but due to lack of knowledge and skill of information technology is not very popular among the customers so it become the obstacle in banks.

**5) Cherry Lou. B. Benedicto, Maribeth G. Buenviaje(2016)-** researchers have quoted that customers in Philippines country are satisfied with CBS. The study shows that the users are satisfied with the implementation of new core banking solution which gives them Security, work productivity and other benefits.

**6) Mohammad Anisur Rahman(2016)-** In the exploratory research, researcher studied the obstacles and challenges of commercial banks during implementation of core banking solution in Bangladesh.

**Evaluation of Literature Review-** Literature review has given foresight to study the different aspects of core banking solution. CBS is becoming imperative software in the international banking industry as it provides advance banking services. The researcher has tried to study the perspectives about the core banking solution in the international market. The study aimed to understand the global perspectives of core banking solution therefore the researcher has conjoined various country's perspectives for better understanding which is explained below:

**India:** In 1990's India brought New Economic Policy with liberalized regulations for the betterment and development of the country by opening various avenues for foreign investors. Thus, Indian banking industry mould in reformative banking services. The first step towards computerized banking was taken in 1980 with the introduction of Electro Mechanical Leger posting machine. In 1985 Advanced Ledger Posting Machine was in vogue. After deregulation in the 1990 Total Branch Automation introduced and in the year 2000 core banking solution came into existence with centralized banking services. In September 2004, Reserve Bank of India issued a circular (refer Annexure-I) to all public sector banks to introduce core banking solution in their banking functions and be on core banking solution platform. After analyzing the need of CBS by the year 2012 all the commercial banks implemented core banking solution. The researcher has found that there is a positive impact on banks customer service and profitability. CBS has provided avenues to the commercial banks to compete with private and foreign banks in competitive banking business. Reserve bank of India provides financial aid as well as cloud based core banking facilities to co-operative banks to help them to compete in the competitive banking industry.

**Indonesia:** The researcher has thrown a light on implementation of core banking system at PT. bank sulut. The study has shown that the implementation of core banking system has brought significant change in technology and human resources in Indonesia. CBS has increased the performance and functions of the banks, which helps them to compete in Indonesia's economic world. But in spite of this, banks in Indonesia are facing hurdles such as failure of power supply, damage conditions of hardware and software, etc. Due to this banks were not only facing financial losses but also suffering from the non-financial loss such as brand image. These all obstacles interrupt smooth flow of banking services.

**Kenya** - Kenya is located in East Africa with a coastline of the Indian Ocean. The project titled 'strategic factors influencing the implementation of core banking system among commercial bank' has given the perspective of commercial banks towards CBS. There are various strategic factors that are influenced commercial banks in Kenya. The factors include end-user involvement, top management support, effective communication, vendor commitment and staff motivation. The studies have revealed that the management of commercial banks in Kenya should formulate appropriate guidelines for implementation of a new core banking system. It was found that management should allocate financial resources to monitor new core banking system.

**Iran (Mashhad):** Mashhad is a city in northeast Iran. In Mashhad, the separate core banking services such as internet banking and ATM banking do affects the profitability of banks. Therefore, banks need to encourage their customers to use electronic tools and modern technology. Whereas, other core banking services such as mobile banking, telephone banking do not affect the profitability of banks due to the recent implementation of services in Iran. Therefore, banks are recommended to encourage their customers to take steps towards core banking services and electronic tools.

**Ethiopia:** Ethiopia is the north-eastern part of Africa. In Ethiopia, commercial banks have adopted CBS on 30<sup>th</sup> April 2012. The Implementation of CBS has brought economic development with modernized banking services in the country. The researcher has indicated perspective of CBS in Ethiopia by saying that due to lack of suitable legal and regulatory framework, core banking solution is being an obstruction for adopting new technology in Ethiopia. The study indicated that most of the commercial banks spend some portion of funds for the protection and safety from internet hackers and computer viruses to avoid misleading factors which arise during implementation of new technology.

**Philippines-** Philippines country is situated in Southeast Asia. The study conducted by a researcher on 'Implementation of new core banking system in local banks' has highlighted the perspective of banks and its customer towards the core banking system. The banks in the Philippines came on CBS platform due to various reasons like increased consumer demand, increase competition, lack of work productivity, profitability and operational cost. The users of the banks are satisfied with the core banking solution as it gives benefits viz. work productivity, effective software, easy to use and system security. The users' find CBS the most effective software in respect of system security and user friendly. The CBS users have raised problems about a core banking solution, i.e. system downtime of during working.

**Bangladesh:** like other countries, banking is a major constituent in the financial system of Bangladesh. Bangladesh has welcomed information technology to improve and upgrade the banking services which would help them to cope up with the changes arising in the financial sector around the world. E-banking is the most recent widespread phenomena among the banks in Bangladesh. All the banking services in Bangladesh shifted from traditional banking to E-banking through core banking solution. 'Eastern Bank Ltd' of Bangladesh has introduced a first core banking solution in their banking operations. Prior to 2000, the banks in Bangladesh used to obtain core banking solution service from domestic software providers, but after 2000, due to rapid expansion of information technology and competitiveness, banks started obtaining CBS services from foreign software service providers to overcome the challenges and problems of banking operations. The world of information technology is flexible and dynamic in nature, so new challenges would encounter after a particular time interval therefore banks need to accept the challenges and find out the ways to reduce them.

**Different perspectives during and after implementation of core banking solution need to consider:** The core banking solution is the central processing unit of banks to survive in the competitive banking world. When the global bank implements this solution in international environment more obstacles and complexity arise during and after the implementation process Therefore, Banks have to tackle various issues and challenges that are arising in international market. The researcher has highlighted some of the

vital constraints and a different perspective about CBS, which every country need to consider during and after the implementation of CBS are explained below:

**1) Legal perspective:** Every country has its own legal norms, regulations and law practices and it's mandatory for all sectors to follow who belongs to that particular territory. Likewise, every country's law and banking practices vary across countries. The banks that are providing banking services across the world faces legal hurdles and restrictions on hosting data across international borders. In some countries prior approval is required, whereas some countries not allowed for the same. Some companies have a confidential law to hide customer data in order to avoid misleading practices. Thus, service providers and banks face obstacles and restrictions during and after implementation of core banking solution on a global platform.

**2) Technical perspective:** The availability of resources such as hardware and software system may vary from country to country so these problems caused the obstruction in smooth banking implementation practices. So these technical aspects can restrict to core banking solution.

**3) Geographical and cultural perspective:** Geographical and cultural variances such as multiple languages, cultural differences in the same country and natural geographic features of land could bring opportunities or obstacles during and after implementation core banking solution.

**III. Objectives of the Study:** The study aimed to understand the global perspective of core banking solution in order to explore the knowledge. The study has the following objectives –

- 1) To study the concept of core banking solution in the international banking industry.
- 2) To understand the global perspectives of different countries towards a core banking solution.

**IV. Scope of the study:** The present study is focused upon the global perspective of core banking solution of developing countries in the international banking sector. The researcher has taken glance on CBS practices, and perspective of different countries including India and arrived at conclusion by synthesizing different perspectives of various developing countries under one roof.

**V. Research Methodology:** The present study is exploratory. The researcher has focused on the perspectives of core banking solution with the help of exploratory research and tried to get in depth knowledge pertaining to core banking solution in different developing countries. The study is purely based on secondary source. Secondary data has collected through books, articles, research papers and other web-based sources.

**VI. Limitations of the study:** The study is purely based on secondary sources. The intension of researcher is to study perspective of developing countries towards core banking solution. The study is restricted to developing countries. It was found difficult to acquire extended knowledge of core banking solution of all developing countries, hence researcher tried to bring different developing countries' perspective under one roof.

**VII. Conclusion:** The study was conducted to explore the knowledge to grasp the global perspectives of developing countries towards core banking solution in the international banking industry. The researcher concludes that the core banking solution is in vogue. The study shows that there is a positive impact of core banking solution on banks profitability, customer service and technical development of the banks. There is the other side of CBS, which indicates that some developing countries like Indonesia facing financial and non financial losses during the implementation of core banking solution. The banks in Iran need to encourage their customers to adopt core banking services and other electronic tools which could

enhance profitability of the banks. The study also shows that all the banks and the venders (service providers) should consider all legal, technical, geographical and cultural aspects during after implementation of core banking solution in national and international banking industry.

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# **A STUDY ON LEGAL ASPECTS OF BUSINESS ENVIRONMENT: IMPACT OF THE CONSUMER PROTECTION ACT, 2019 AND CONSUMER PROTECTION (E-COMMERCE) RULES, 2020 ON E-COMMERCE BUSINESS**

**Susan M. Abraham**, Assistant Professor, RAV's Laxmichand Golwala College of Commerce and Economics, University of Mumbai

## **Abstract:**

This research was conducted to understand the impact of legal environment on a business. The study was conducted with special reference to impact of The Consumer Protection Act, 2019 and Consumer Protection (E-Commerce) Rules 2020 on e-Commerce businesses. It takes into consideration the various duties of e-commerce entities, liabilities of marketplace e-commerce entities, duties of sellers on marketplace and duties and liabilities of inventory e-commerce entities.

**Keywords:** Consumer, E-commerce, E-commerce entities, marketplace e-commerce entities, sellers on marketplace

## **Introduction**

The Consumer Protection Act, 2019 which succeeded the almost three-decade old Consumer Protection Act, 1986 came into force on the 20<sup>th</sup> of July 2020 after being passed by both houses of the Parliament.

The Consumer Protection Bill, 2019 was introduced in the Upper House of Parliament by the Minister of Consumer Affairs, Food and Public Distribution, Ram Vilas Paswan, on the 8<sup>th</sup> of July 2019. It was passed by the Lok Sabha on the 30<sup>th</sup> of July 2019 and Rajya Sabha on the 6<sup>th</sup> of August 2019. The Bill was then signed into law by President Ram Nath Kovind on the 9<sup>th</sup> of August 2019.

The Act provides for the protection of the interests of the consumers. For the same it aids the establishment of authorities for timely and effective administration and settlement of consumers' disputes and matters connected or incidental to it.

Section 2 (7) widens the definition of the term consumer and the expressions "buys any goods" and "hires or avails any services" which now includes offline or online transactions through electronic means or by teleshopping or direct selling or multi-level marketing.

Section 2(16) defines the term e-commerce as "buying or selling of goods or services including digital products over digital or electronic network."

Further, in exercise of the powers conferred by sub-clause (zg) of sub-section (1) of section 101 of the Consumer Protection Act, 2019 (35 of 2019), the Central Government made the rules which are called the Consumer Protection (E-Commerce) Rules, 2020.

## **Review of Literature**

1. Smita Paliwal and Richa K. Gaurav (2020): "India: Impact Of Consumer Protection Act, 2019 On E-commerce – The Law, The Rules And The Road Ahead." This research discusses the various duties and liabilities that have been cast upon e-commerce entities and sellers. It also stresses on the duties of an e-commerce entity. Further it states other additions that have been made in the Act with respect to jurisdiction of filing complaints, product liability and mediation calls.
2. Sushil Kumar Antal (2020): "Inclusion of E-commerce under New Consumer Protection Act, 2019." This research discusses the broadened definition of the term "consumer" in the New Act. As per the new definition, a Consumer is a person who "buys any goods" and "hires or avails any services" which includes offline or online transactions through electronic means or by teleshopping or direct selling or multi-level marketing. It also highlights the powers conferred upon the Central Government to prevent unfair trade practices in e-commerce, direct selling etc. Section 94 of the New Act provides that for the purposes of preventing unfair trade practices in e-commerce, direct

selling and also to protect the interest and rights of consumers, the Central Government may take such measures in the manner as may be prescribed.

### **Objectives of the Study**

The study was conducted with the following objectives

1. To understand the duties of e-commerce entities
2. To study the liabilities of marketplace e-commerce entities
3. To evaluate the duties of sellers on marketplace
4. To understand the duties and liabilities of inventory e-commerce entities.

### **Applicability**

The Consumer Protection (E-commerce) Rules 2020 applies to:

- (a) all goods and services bought or sold over digital or electronic network including digital products;
- (b) all models of e-commerce, including marketplace and inventory models of e-commerce;
- (c) all e-commerce retail, including multi-channel single brand retailers and single brand retailers in single or multiple formats; and
- (d) all forms of unfair trade practices across all models of e-commerce:

Some of the important terms as defined by the Rules are as follows:

“E-commerce entity” is defined as any person who owns, operates or manages digital or electronic facility or platform for electronic commerce, but does not include a seller offering his goods or services for sale on a marketplace e-commerce entity.

“Inventory e-commerce entity” is defined an e-commerce entity which owns the inventory of goods or services and sells such goods or services directly to the consumers and shall include single brand retailers and multi-channel single brand retailers.

“Marketplace e-commerce entity” is defined as an e-commerce entity which provides an information technology platform on a digital or electronic network to facilitate transactions between buyers and sellers.

### **Duties of e-commerce entities**

- Every e-commerce entity must be incorporated under the Companies Act, 1956 (1 of 1956) or the Companies Act, 2013 (18 of 2013) or a foreign company covered under clause (42) of section 2 of the Companies Act, 2013 (18 of 2013) or an office, branch or agency outside India owned or controlled by a person resident in India as provided in sub-clause (iii) of clause (v) of section 2 of the Foreign Exchange Management Act, 1999 (42 of 1999);
- They must appoint a nodal person of contact or an alternate senior designated functionary who is resident in India, to ensure compliance with the provisions of the Act or the rules.
- Every e-commerce entity shall provide information with respect to legal name of the e-commerce entity; principal geographic address of its headquarters and all branches; name and details of its website; and contact details like e-mail address, fax, landline and mobile numbers of customer care as well as of grievance officer. All such information must be provided in a clear and accessible manner on its platform and should be displayed prominently to its users.
- The e-commerce entity should not adopt any unfair trade practice, whether in the course of business on its platform or otherwise.
- Every e-commerce entity shall establish an adequate grievance redressal mechanism having regard to the number of grievances ordinarily received by such entity from India, and shall appoint a grievance officer for consumer grievance redressal, and shall display the name, contact details, and designation of such officer on its platform.
- Every e-commerce entity shall ensure that the grievance officer acknowledges the receipt of any consumer complaint within forty-eight hours and redresses the complaint within one month from the date of receipt of the complaint.

- In case an e-commerce entity offers imported goods or services for sale, it should mention the name and details of any importer from whom it has purchased such goods or services, or who may be a seller on its platform.
- Every e-commerce entity shall endeavour on a best effort basis to become a partner in the convergence process of the National Consumer Helpline of the Central Government.
- No e-commerce entity can impose cancellation charges on consumers cancelling after confirming purchase unless similar charges are also borne by the e-commerce entity, if they cancel the purchase order unilaterally for any reason.
- Every e-commerce entity shall only record the consent of a consumer for the purchase of any good or service offered on its platform where such consent is expressed through an explicit and affirmative action, and no such entity shall record such consent automatically.
- Every e-commerce entity shall effect all payments towards accepted refund requests of the consumers as prescribed by the Reserve Bank of India or any other competent authority under any law for the time being in force, within a reasonable period of time, or as prescribed under applicable laws.
- An e-commerce entity shall not manipulate the price of the goods or services offered on its platform in such a manner as to gain unreasonable profit by imposing on consumers any unjustified price having regard to the prevailing market conditions, the essential nature of the good or service, any extraordinary circumstances under which the good or service is offered, and any other relevant consideration in determining whether the price charged is justified;
- No e-commerce shall discriminate between consumers of the same class or make any arbitrary classification of consumers affecting their rights under the Act.

### **Liabilities of marketplace e-commerce entities**

- A marketplace e-commerce entity which seeks to avail the exemption from liability under sub-section (1) of section 79 of the Information Technology Act, 2000 (21 of 2000) shall comply with sub-sections (2) and (3) of that section, including the provisions of the Information Technology (Intermediary Guidelines) Rules, 2011.
- Every marketplace e-commerce entity shall require sellers through an undertaking to ensure that descriptions, images, and other content pertaining to goods or services on their platform is accurate and corresponds directly with the appearance, nature, quality, purpose and other general features of such good or service.
- Every marketplace e-commerce entity shall provide the following information in a clear and accessible manner, displayed prominently to its users at the appropriate place on its platform, namely
  - details about the sellers offering goods and services, including the name of their business, whether registered or not, their geographic address, customer care number, any rating or other aggregated feedback about such seller, and any other information necessary for enabling consumers to make informed decisions at the prepurchase stage;
  - a ticket number for each complaint lodged through which the consumer can track the status of the complaint;
  - information relating to return, refund, exchange, warranty and guarantee, delivery and shipment, modes of payment, and grievance redressal mechanism, and any other similar information which may be required by consumers to make informed decisions;
  - information on available payment methods, the security of those payment methods, any fees or charges payable by users, the procedure to cancel regular payments under those methods, charge-back options, if any, and the contact information of the relevant payment service provider;
  - all information provided to it by sellers under sub-rule (5) of rule 6; and

- an explanation of the main parameters which, individually or collectively, are most significant in determining the ranking of goods or sellers on its platform and the relative importance of those main parameters through an easily and publicly available description drafted in plain and intelligible language.
- Every marketplace e-commerce entity shall include in its terms and conditions generally governing its relationship with sellers on its platform, a description of any differentiated treatment which it gives or might give between goods or services or sellers of the same category.
- Every marketplace e-commerce entity shall take reasonable efforts to maintain a record of relevant information allowing for the identification of all sellers who have repeatedly offered goods or services that have previously been removed or access to which has previously been disabled under the Copyright Act, 1957 (14 of 1957), the Trade Marks Act, 1999 (47 of 1999) or the Information Technology Act, 2000 (21 of 2000):  
Provided that no such e-commerce entity shall be required to terminate the access of such seller to its platform pursuant to this sub-rule but may do so on a voluntary basis.

#### **Duties of sellers on marketplace**

- No seller offering goods or services through a marketplace e-commerce entity shall adopt any unfair trade practice whether in the course of the offer on the e-commerce entity's platform or otherwise.
- No such seller shall falsely represent itself as a consumer and post reviews about goods or services or misrepresent the quality or the features of any goods or services.
- No seller offering goods or services through a marketplace e-commerce entity shall refuse to take back goods, or withdraw or discontinue services purchased or agreed to be purchased, or refuse to refund consideration, if paid, if such goods or services are defective, deficient or spurious, or if the goods or services are not of the characteristics or features as advertised or as agreed to, or if such goods or services are delivered late from the stated delivery schedule:
- Any seller offering goods or services through a marketplace e-commerce entity shall:
  - have a prior written contract with the respective e-commerce entity in order to undertake or solicit such sale or offer;
    - appoint a grievance officer for consumer grievance redressal and ensure that the grievance officer acknowledges the receipt of any consumer complaint within forty-eight hours and redresses the complaint within one month from the date of receipt of the complaint;
    - ensure that the advertisements for marketing of goods or services are consistent with the actual characteristics, access and usage conditions of such goods or services.
    - provide to the e-commerce entity its legal name, principal geographic address of its headquarters and all branches, the name and details of its website, its e-mail address, customer care contact details such as fax, landline, and mobile numbers and where applicable, its GSTIN and PAN details.
- Any seller offering goods or services through a marketplace e-commerce entity shall provide the following information to the e-commerce entity to be displayed on its platform or website:
  - all contractual information required to be disclosed by law;
  - total price in single figure of any good or service, along with the breakup price for the good or service, showing all the compulsory and voluntary charges such as delivery charges, postage and handling charges, conveyance charges and the applicable tax, as applicable;
  - all mandatory notices and information provided by applicable laws, and the expiry date of the good being offered for sale, where applicable;
  - all relevant details about the goods and services offered for sale by the seller including country of origin which are necessary for enabling the consumer to make an informed decision at the prepurchase stage;

- the name and contact numbers, and designation of the grievance officer for consumer grievance redressal or for reporting any other matter;
- name and details of importer, and guarantees related to the authenticity or genuineness of the imported products;
- accurate information related to terms of exchange, returns, and refund including information related to costs of return shipping in a clear and accessible manner;
- relevant details related to delivery and shipment of such goods or services; and
- any relevant guarantees or warranties applicable to such goods or services.

#### **Duties and liabilities of inventory e-commerce entities**

- Every inventory e-commerce entity shall provide the following information in a clear and accessible manner, displayed prominently to its users:
  - accurate information related to return, refund, exchange, warranty and guarantee, delivery and shipment, cost of return shipping, mode of payments, grievance redressal mechanism, and any other similar information which may be required by consumers to make informed decisions;
  - all mandatory notices and information required by applicable laws;
  - information on available payment methods, the security of those payment methods, the procedure to cancel regular payments under those methods, any fees or charges payable by users, charge back options, if any, and the contact information of the relevant payment service provider;
  - contractual information required to be disclosed by law;
  - total price in single figure of any good or service along with the breakup price for the good or service, showing all the compulsory and voluntary charges, such as delivery charges, postage and handling charges, conveyance charges and the applicable tax; and
  - a ticket number for each complaint lodged, through which the consumer can track the status of
    - their complaint.
- No inventory e-commerce entity shall falsely represent itself as a consumer and post reviews about goods and services or misrepresent the quality or the features of any goods or services.
- Every inventory e-commerce entity shall ensure that the advertisements for marketing of goods or services are consistent with the actual characteristics, access and usage conditions of such goods or services;
- No inventory e-commerce entity shall refuse to take back goods, or withdraw or discontinue services purchased or agreed to be purchased, or refuse to refund consideration, if paid, if such goods or services are defective, deficient, spurious, or if the goods or services are not of the characteristics or features as advertised or as agreed to, or if such goods or services are delivered late from the stated delivery schedule;
- Any inventory e-commerce entity which explicitly or implicitly vouches for the authenticity of the goods or services sold by it, or guarantees that such goods or services are authentic, shall bear appropriate liability in any action related to the authenticity of such good or service.

#### **Conclusion**

The Consumer Protection Act 2019 widens the definition of a consumer bringing into its ambit the e-commerce business. It brings about a more holistic view on consumers and the laws affecting them. The Rules laid under the Consumer Protection (E-Commerce) Rules, 2020 clearly lays down the various duties and liabilities that e-commerce entities have to follow. Over all the Act ensures that consumers are prevented from any unfair trade practices that may be implemented.

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## CRYPTOCURRENCY – A BRIEF INTRODUCTION

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### ABSTRACT

Due to the rapid development of information and communication technologies, many activities in our daily life have been merged online and they become more flexible and more effective. A huge growth in number of online users has activated virtual word concepts and created a new business phenomenon which is cryptocurrency to facilitate the financial activities such as buying, selling and trading. Cryptocurrency represent valuable and intangible objects which are used electronically in different applications and networks such as online social networks, online social games, virtual worlds and peer to peer networks. The use of virtual currency has become widespread in many different systems in recent years.

A multitude of projects and companies have emerged to provide products and services that facilitate the use of cryptocurrency for mainstream users and build the infrastructure for applications running on top of public blockchains. A cryptocurrency ecosystem, composed of a diverse set of actors, builds interfaces between public blockchains, traditional finance and various economic sectors. The existence of these services adds significant value to cryptocurrencies as they provide the means their native currencies to be used beyond in the broader economy.

This paper works on the various elements of cryptocurrency, it also explores the users' confidence of dealing with cryptocurrency in a time that using such virtual money is not fully controlled and regulated. Besides, the paper also touches upon certain risks involved in the use of cryptocurrency.

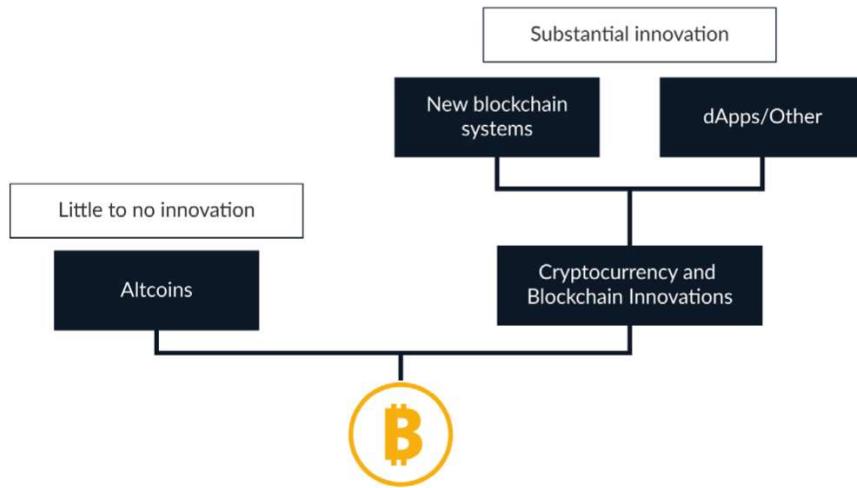
**Keywords:** Bitcoin, Cryptocurrency, crypto assets, Ethereum, mining, payments, risks, wallets

### INTRODUCTION

Research into cryptocurrencies has a decades-long pedigree in academia, but decentralize crypto-currencies (starting with Bitcoin in 2009) have taken the world by storm. Aside from being a payment mechanism “native to the Internet,” the underlying blockchain technology is touted as a way to store and transact everything from property records to certificates for art and jewellery. Much of this innovation happens in the broader hobbyist and entrepreneurial communities; Bitcoin was the first cryptocurrency to use blockchain and has been the market leader since the first bitcoin was mined in 2009. After the birth of Bitcoin with the genesis block, more than 1,000 altcoins and crypto-tokens have been created, with at least 919 trading actively on unregulated or registered exchanges. This entire class of cryptocurrencies and tokens has been classified by some tax authorities as having the same status as commodities.

Bitcoin began operating in January 2009 and is the first decentralised cryptocurrency, with the second cryptocurrency, Namecoin, not emerging until more than two years later in April 2011. Today, there are hundreds of cryptocurrencies with market value that are being traded, and thousands of cryptocurrencies that have existed at some point.

The most interesting element of these different cryptocurrency systems is the public ledger ('blockchain') that is shared between network participants and the use of native tokens as a way to incentivise participants for running the network in the absence of a central authority. However, there are significant differences between some cryptocurrencies with regards to the level of innovation displayed. The majority of cryptocurrencies are largely clones of bitcoin or other cryptocurrencies and simply feature different parameter values (e.g., different block time, currency supply, and issuance scheme). These cryptocurrencies show little to no innovation and are often referred to as 'altcoins'. Examples include Dogecoin and Ethereum Classi



Bitcoin exists in a state of tension between anonymity (in the sense that real identities are not required to use the system) and traceability (in that all transactions are recorded on the blockchain, which is a public, immutable, and global ledger). In practice, the privacy of vanilla Bitcoin comes from obscurity: users may create as many addresses as they like and shuffle their coins around, even creating a new address for each transaction. Anonymity in cryptocurrencies is a matter of not just personal privacy, but also confidentiality for enterprises. Given advanced transaction graph analysis techniques, without precautions, the blockchain could easily reveal cash flow and other financial details.

#### EMERGENCE OF A BUSINESS ECOSYSTEM

A multitude of projects and companies have emerged to provide products and services that facilitate the use of cryptocurrency for mainstream users and build the infrastructure for applications running on top of public blockchains. A cryptocurrency ecosystem, composed of a diverse set of actors, builds interfaces between public blockchains, traditional finance and various economic sectors. The existence of these services adds significant value to cryptocurrencies as they provide the means for public blockchains and their native currencies to be used beyond in the broader economy.

While the cryptocurrency industry is composed of many important factors and groups, this paper limits to what we believe are the four key cryptocurrency industry sectors today: exchanges, wallets, payments companies, and mining

Exchanges can be used to buy, sell and trade cryptocurrencies for other cryptocurrencies and/or national currencies, thereby offering liquidity and setting a reference price. Wallets provide a means to securely store cryptocurrencies by handling key management. The payments sector is composed of companies that provide a wide range of services to facilitate cryptocurrency payments. Finally, the mining sector is responsible for confirming transactions and securing the global record of all transactions (the 'blockchain').

Some companies provide a platform featuring products and services across multiple industry sectors, whereas others are operating in multiple industry segments using different brands. 19% of cryptocurrency companies that were considered for this paper, provide services that span two industry sectors, 11% are active in three industry sectors, and some entities operate across all four industry sectors. A growing number of companies in the industry can thus be considered universal cryptocurrency platforms given the diverse range of products and services they offer to their customers

Figure 10: The estimated number of unique active users since 2013 to between 2.9 million and 5.8 million today

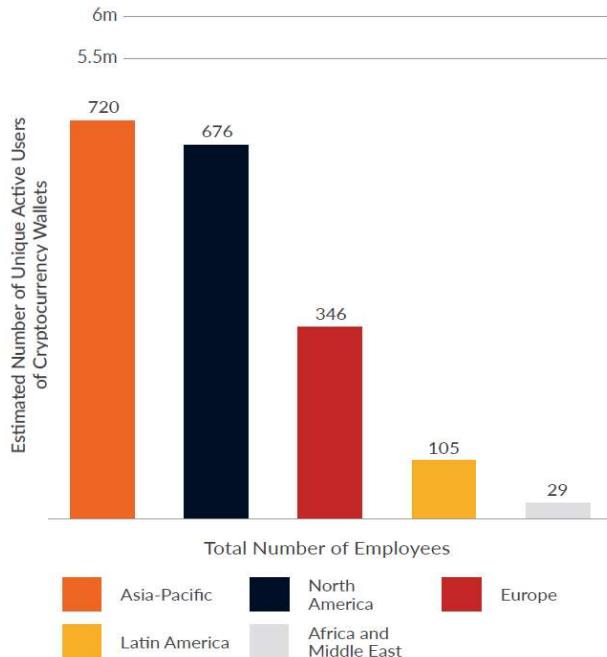


Figure 9: North American cryptocurrency companies have the highest median number of employees

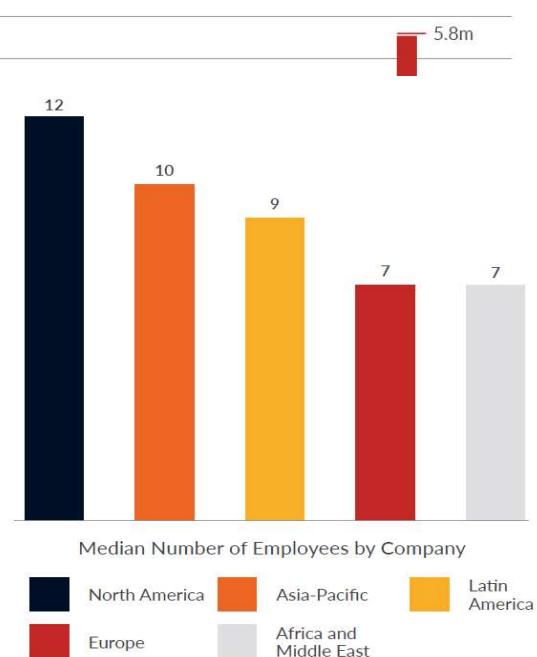


Figure 8: Cryptocurrency companies based in Asia-Pacific and North America have the highest number of employees

Combining the participating entities of all industry sectors reviewed in this report (with the exception of miners, for which no employee data was collected), the lower bound of the total number of people employed in the cryptocurrency industry can be established at 1,876 employees.

## USE CASES AND ACTIVITY

The use cases for cryptocurrencies can be grouped into four major categories:

- \* Speculative digital asset/investment
  - \* Medium of exchange
  - \* Payment rail
  - \* Non-monetary use cases

Some evidence exists that as of today the main use case for cryptocurrencies is speculation; 54% of users use bitcoin strictly as an investment. While a growing number of merchants worldwide are accepting cryptocurrency as a payment method, it appears that cryptocurrencies are not primarily being used as a medium of exchange for daily purchases. This is due to several factors, including price volatility and the lack of a ‘closed loop’ cryptocurrency economy, in which people or businesses would get paid in cryptocurrency and then use cryptocurrency as a primary payment method for everyday expenses.

A considerable number of companies have emerged that use cryptocurrency networks primarily as a ‘payment rail’ to make fast and cheap cross-border payments. However, following the recent surge in bitcoin transaction fees, some are reconsidering this strategy and shifting transactions towards private blockchain-based solutions.

Estimating both the number of cryptocurrency holders and users is a difficult endeavour as individuals can use multiple wallets from several providers at the same time. Moreover, one single user can have multiple wallets and exchange accounts for different cryptocurrencies and thus be counted multiple times. Assuming that an individual holds on average two wallets, we estimate that currently there are between 2.9 million and 5.8 million unique users actively using a cryptocurrency wallet. The total number of active cryptocurrency users is likely considerably higher than our estimate of unique active wallet users.

## RISKS AND RETURNS INVOLVED IN CRYPTOCURRENCY TRANSACTIONS

If cryptocurrency is viewed in the same class as commodities or stock market, how different is it in terms of its risk and return structure? The specific parameters that should be assessed to judge the performance of cryptocurrency are briefed below

Firstly, we try to understand that cryptocurrencies and their returns behave similarly to other asset classes. In other words, how investors and markets value current and future prospects of cryptocurrencies. Second, we study the exposure of cryptocurrency returns to major currencies (Australian Dollar, Canadian Dollar, Euro, Singaporean Dollar, and UK Pound). Third, we study the exposure of cryptocurrency returns to precious metals commodities (gold, platinum, and silver). This aims to test a popular narrative that cryptocurrency may serve as an alternative to precious metals as a store of value. Fourth, we study the exposure of cryptocurrency returns to macroeconomic factors. The main conclusion is that only cryptocurrency market specific factors – momentum and the proxies for investor attention – consistently explain the variations of cryptocurrency returns. This suggests, in contrast to popular explanations, that markets do not view cryptocurrencies similarly to standard asset classes

## SMART CONTRACTS

One of the hottest areas within cryptocurrencies, so-called smart contracts are agreements between two or more parties that can be automatically enforced without the need for an intermediary. For example, a vending machine can be seen as a smart contract that enforces the rule that an item will be dispensed if and only if suitable coins are deposited. Today's leading smart-contract platform is called Ethereum, whose blockchain stores long-lived programs, called contracts, and their associated state, which includes both data and currency. These programs are immutable just as data on the blockchain is, and users may interact with them with the guarantee that the program will execute exactly as specified.

## OVERCOMING THE PITFALLS

Cryptocurrencies implement many important ideas: digital payments with no central authority, immutable global ledgers, and long-running programs that have a form of agency and wield money. These ideas are novel, yet based on sound principles. Entrepreneurs, activists, and researchers have envisioned many powerful applications of this technology, but predictions of a swift revolution have so far proved unfounded. Instead, the community has begun the long, hard work of integrating the technology into Internet infrastructure and existing institutions. As we have seen, there are pitfalls for the unwary in using and applying cryptocurrencies: privacy, security, and interfacing with the real world. These will be fertile areas of research and development in the years to come.

### The Future for Crypto asset Returns

Looking at the historical returns of bitcoin or other crypto assets and deciding that you should have allocated to them in the past is easy. But will these return characteristics continue in the future? The best approach to tackling this question is to consider each of the three core characteristics of crypto assets separately: high volatility, low correlation with traditional assets, and high potential returns.

Summary

To date, bitcoin has been a rare asset, combining the return characteristics of a classic alternative asset with the liquidity characteristics of publicly traded equities. The key question is whether it will retain these key characteristics in the future.

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Arvind Narayanan and Andrew Miller

## **ANALYTICAL STUDY OF E-LEARNING CHALLENGES FACED BY THE TEACHERS & STUDENTS DURING COVID-19 WITH SPECIAL REFERENCE TO MUMBAI REGION**

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### **ABSTRACT:**

The study was conducted to identify e-leaning challenges faced the teachers and students during Covid-19 in Mumbai region. The survey involved a sample of 237 students, 39 teachers, 6 parents / guardian and 18 both Teacher and parent (total 395) selected randomly. For the purpose of conducting survey, a structured questionnaire in the Google Form was created and link sent through Whatsapp group and email. The respondents were free to respond the questionnaire through the use of desktop computers, laptops, tablet, smart phones etc. The responses were later analyzed using graph, mean, median, mode and One Sample T Test. Responses from the respondents show that there are significant e-learning challenges faced by the students and teachers.

**Keywords:** *Covid-19 pandemic, E-Learning Challenges, Students, Teachers, and WhatsApp*

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### **1. INTRODUCTION:**

Teaching Learning activities during COVID-19 pandemic has been affected a lot across the world. The COVID-19 pandemic has changed education forever across the world. The COVID-19 has resulted in schools and colleges shut all across the world in order to follow norms of social distancing. COVID-19 pandemic has forced to go for e-classes. Because of schools and colleges shut across the world, millions of students have had to adapt to new types of leaning i.e. e-learning. The e-classes or e-learning helped to continue the teaching learning activities during COVID-19 pandemic. The main challenge in e-leaning was internet connection. There are other many challenges were faced by students and teachers such as disturbances at home, no updated cell phone etc.

### **2. SIGNIFICANCE OF THE STUDY:**

The study will help to understand the e-learning challenges faced by teachers and students during covid-19 pandemic.

### **3. OBJECTIVES OF THE RESEARCH PAPER:-**

The objective of the present study is as follows:

- i) To study the e-learning challenges faced by the teachers and students during covid-19 pandemic.

### **4. HYPOTHESIS OF THE RESEARCH PAPER:**

The hypothesis of the present study is as follows:

H0: There are not significant e-learning challenges faced by the teachers and students during covid-19 pandemic.

H1: There are significant e-learning challenges faced by the teachers and students during covid-19 pandemic.

### **5. RESEARCH METHODOLOGY:**

In the present study, the research has used primary as well as secondary method of data collection.

## **PRIMARY METHOD OF DATA COLLECTION:**

**6.1 Sampling:-** The researcher has used the simple random sampling technique. The study includes 395 samples from different background. The samples are included only literate population.

**6.2 Tools Used:-** The Structured Questionnaire has been designed and used a sampling tool. It consists of questions of open and closed ended types. The discussion, observation and personal interviews have also been conducted to collect responses from the sample of the study.

**6.3 Statistical Technique:-** Simple method of percentage, One Sample T Test has been used.

## **SECONDARY METHOD OF DATA COLLECTION:**

In secondary method of data collection, published research papers, newspapers, YouTube video has been used.

## **6. LIMITATIONS OF THE STUDY:**

The study was confined only in Mumbai region and limited to only 395 respondents.

## **7. DATA ANALYSIS AND INTERPRETATION:**

Data were collected from 395 respondents from Mumbai region. Data collected by respondents were coded and imported in SPSS. This data further used for drawing findings and conclusions based on the objectives and hypotheses of the study. The data collected from the 395 respondents were analyzed using simple percentage method, mean, median, mode and one sample t-test.

### **SAMPLE PROFILE:**

In the present study, researcher has used simple random sampling for collection of responses from respondents in Mumbai region.

In the Table no. 1.1, researcher has presented details of the respondents according to their gender wise distribution.

**Table No. 1.1:**

**Gender wise distribution of respondents**

Gender	Frequency	Percent
Male	162	41.00
Female	233	59.00
<b>Total</b>	<b>395</b>	<b>100.00</b>

Sources: Compiled from Primary Data

Table No. 1.1 reveals the number of respondents with respect to gender. For the present study, 162 Males and 233 Females were deliberately and randomly selected for the response to questionnaire.

In the table no. 1.2, the researcher has presented details of the respondents according to their role in society and family.

**Table No. 1.2: Role in Society and Family**

Stream	Frequency	Percent
A student	326	82.50
A teacher	41	10.40
A parent / guardian	10	2.50
Both teacher and parent	18	4.60
<b>Total</b>	<b>395</b>	<b>100</b>

Sources: Primary Data

**Table No. 1.3: Age (Years)**

Age	Frequency	Percent
Upto 25	322	81.52
26-40	38	9.62
41-50	27	6.83
51-60	6	1.52
61 and above	2	0.50
<b>Total</b>	<b>395</b>	<b>100.00</b>

Sources: Primary Data

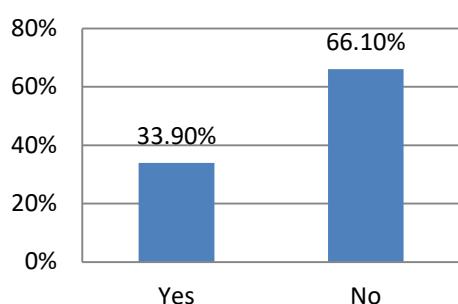
In the Table No. 1.4, researcher has presented details of respondents about education level.

**Table No. 1.4: Education Level**

Education Level	Frequency	Percent
Upto HSC	32	8.10
Undergraduate	230	58.23
Graduate	38	9.62
Post Graduate	57	14.43
Professional	10	2.53
Doctorate	28	7.09
<b>Total</b>	<b>395</b>	<b>100.00</b>

Sources: Compiled from Primary Data

In the Graph No. 1: researcher has presented effectiveness of e-learning.

**Graph No. 1:Effectiveness of E-learning**

Sources: Compiled from Primary Data

Table No. 1.2 reveals details of the respondents according to role in the society and family. Out of 395 respondents, 326 respondents were students, 41 respondents were teachers, 10 respondents were parents / guardians, and 18 respondents were both teachers and parents.

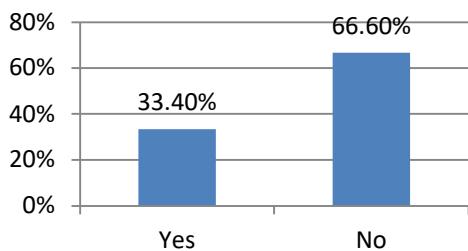
Table No. 1.3 reveals about age wise distribution of respondents. Out of 395 respondents, 322 respondents were upto age of 25, 38 respondents were between 26-40 years, 27 respondents were between 41-50 years, 6 respondents were between 51-60 years and 2 respondents were 61 years and above.

Table No. 1.4 reveals education level of the respondents. Out of 395 respondents, 32 respondents have studied up-to HSC, 230 respondents were undergraduate, 38 respondents were graduate, 57 were respondents were 10 professional and 28 respondents were doctorate.

Graph no. 1 reveals effectiveness of E-learning. According to graph no. 1, 33.90% of the respondents said that e-learning is effective whereas 66.10% of the respondents said that e-learning is not very much effective. It means e-learning method is not very much effective.

In the Graph No. 2, researcher has presented details of the respondents according to their preference to online teaching over traditional method of teaching.

**Graph No. 2: Preference to e-learning over traditional method of teaching**



Graph no. 2 reveals preferences of the respondents to online teaching over traditional method of chalk-duster teaching. 33.40% preferred to e-learning whereas 66.10% of the respondents do not prefer e-learning over traditional method of chalk-duster teaching. It means 66.10% of the respondents preferred to traditional method of teaching i.e. chalk-duster teaching method.

**Sources:** Compiled from Primary Data

**ANALYSIS OF DATA OF THE PRESENT STUDY:**

To study the e-learning challenges faced by the teachers and students during covid-19, the respondents were asked to express their views on the five point challenges scale. The codes for which are given below.

SA = Strongly Agree = 5, A = Agree = 4, Can't = Can't Comment = 3, D = Disagree = 2, SD = Strongly Disagree = 1, Mean =  $\bar{X}$ , Median = Me, Mode = Mo

**Table No. 1.5: E-learning challenges faced by the teachers and students during covid-19 pandemic in Frequency and in Descriptive Parameters.**

SR. NO.	E-learning challenges faced by the teachers and students	SA	A	Can't	D	SD	$\bar{X}$	Me	Mo
		%	%	%	%	%	4.31	4	4
1.	Good Smartphone / Desktop / Laptop, & speedy internet connection are not available with every student.	45.1	46.3	4.1	4.1	0.5	4.28	4	4
2.	Students and teachers get disturbed due to continuous buffering.	40.8	49.9	6.8	2.0	0.5	4.18	4	5
3.	Students are not able to concentrate due to surrounding disturbance such as TV/ Cooking / sudden ringing of phones/ WhatsApp messages.	42.8	41.5	7.6	7.3	0.8	3.81	4	4
4.	Kids (below 15 years) are not used to online teaching	30.9	40.5	9.9	16.2	2.5	4.40	5	5
5.	Certain problems are better understood through black board, pen-and-paper.	53.4	38.2	4.6	2.8	1.0	4.36	4	5
6.	Most students get connected, but after a certain period, they start leaving due to poor connectivity or communication gaps.	47.6	45.8	3.5	1.5	1.5	4.32	4	5
7.	Parents are unprepared for online teaching as they cannot purchase good Smartphone, or laptop immediately due to financial crisis.	47.8	40.5	8.4	2.8	0.5	3.88	4	4
8.	Students do not get enough time to ask	30.1	43.5	11.1	14.2	1.0	4.22	4	4

	their doubts.								
9.	In online teaching, students cannot practically involved in physical activity such as group discussion, drama etc.	40.8	46.3	7.6	4.3	1.0	4.34	4	5
10.	In online teaching, teachers cannot observe the body language & gesture of each student.	48.6	41.0	6.3	3.5	0.5	3.75	4	4
11.	Few teachers are not used to working with technology.	22.3	45.3	18.5	13.4	0.5	3.92	4	4
12.	All the teachers are not equipped with digital infrastructure	30.4	42.5	16.7	9.6	0.8	4.11	4	4
13.	There is lack of opportunities for hands-on learning in complex subjects such as science and mathematics.	34.4	48.1	12.4	4.6	0.5	4.15	4	4
14.	In online teaching, teachers cannot give special attention to passive students.	38.7	45.1	9.1	6.6	0.5	4.38	5	5
15.	Both Students & Teachers are missing face to face interaction with each others.	50.1	42.0	4.1	3.0	0.8	4.32	4	5
16.	Excessive technology use can negatively impact the physical, mental, emotional and social health of students.	45.6	44.8	6.3	2.8	0.5	4.58	5	5
17.	More use of Mobile phone or laptop increases the problem of headache, eye redness, blurred vision, back pain, neck pain etc.	63.3	32.9	2.8	0.3	0.8	4.31	4	4

**Sources:** Compiled from Primary Data

#### **Interpretation:**

Above table no. 1.9 shows descriptive parameters such as Mean, Median and Mode related to e-learning challenges faced by the teachers and students during covid-19. From the Graph No. 1, 2 and Table No. 5, it can be concluded that the Mean and Median of e-learning challenges faced by teachers and students to 4 whereas Median and mode is 4 and above it.

#### **HYPOTHESES TESTING OF THE STUDY:**

##### **HYPOTHESIS 1:**

H0: There are not significant e-learning challenges faced by the teachers and students during covid-19 pandemic.

H1: There are significant e-learning challenges faced by the teachers and students during covid-19 pandemic.

For testing above hypotheses, researcher has used One-Sample Test.

**Table No. 1.10: One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
E-learning Challenges	18	4.2011	.22599	.05327

**Table No. 1.11: One-Sample Test**

One-Sample Test						
Test Value = 3.5						
	t	d.f.	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
e-learning challenges has been faced by the teachers and students during covid-19 pandemic	13.163	17	.000	.70111	.5887	.8135

**Sources: Complied from Primary Data**

**Observation:**

From above table no. 1.10 and 1.11 it is observed that  $t(17) = 13.163$ ,  $P=0.000$ .

**Interpretation:**

P-value is 0.000 which is less than 0.05. Therefore, we reject null hypothesis and accept alternative hypothesis i.e. significant e-learning challenges has been faced by the teachers and students during covid-19 pandemic.

**8. FINDINGS OF THE STUDY:**

E-learning has helped the students and teachers during lockdown and restrictions. However, the network issues are a major hindrance in smooth conduction of classes. Online teaching learning is not so much effective.

**9. CONCLUSIONS:**

Looking to the present education development in the country online teaching-learning is not suitable in our society.

**10. SUGGESTIONS AND RECOMMENDATION:**

There should be recorded video, more time should be given students for clearing their doubts and at free or reasonable rate internet should be provided.

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## RELATIONSHIP MARKETING IN THE TELECOM SECTOR: A CONCEPTUAL STUDY IN THE INDIAN CONTEXT

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### Abstract

In the present competitive world, it becomes important for most of the companies to focus on relationship marketing for having a loyal base of customers and have a long term and profitable relationship with their customers. In the current scenario, relationship marketing is an important factor and companies especially the service industries should focus on relationship marketing. It is an integral part of the service sector. Companies which are not able effectively to strategise their relationship marketing activities will face the problem of customer switching. The present study is focussed on finding the relationship between different variables of relationship marketing such as trust and satisfaction of the customer, which ultimately increases customer loyalty in the telecom sector.

**Keywords:** *Relationship marketing, trust, satisfaction, customer loyalty, telecom sector.*

### Introduction

Relationship Marketing (RM) is a popular term used in the corporate world to address loyalty issues in the current marketing environment in practice. The most cited and the best definition is given by Gronroos (1994) it defines Relationship marketing as a concept which identifies, establish, maintain and enhance and when necessary also to terminate relationships with customers so that the objectives of all parties are met. It is Customer-centric marketing which emphasizes on understanding and satisfying the needs, wants, and resources of individual consumers rather than those of mass markets or market segments. The customer is the starting point of the planning process in customer-centric marketing. It has the potential to increase customer loyalty by building long-term relationships with customers. Relationship Marketing can substantially increase marketing effectiveness and efficiency by minimizing marketing costs, and creating opportunities for up-selling and cross-selling and also facilitating database development (O'Malley and Tynan, 2000).

Understanding the importance of relationships has led to the transformation from transactional to relationship marketing which gives a competitive edge to the company over the competitors (Buttle, 1996).

Initially, Relationship Marketing was conceived in the business-to-business (B2B) environment. The adoption of this concept to consumer research is new and has gone through different stages of obscurity, discovery, acceptance, to popularity (O'Malley and Tynan, 2000). It is a concept which is easy to understand but difficult when it is to be implemented by the companies. There are different views on Relationship Marketing found in the literature such as in the companies where this concept has been applied blindly. On the contrary, some companies have questioned the practicability of Relationship marketing (Iacobucci, 1998). It is due to the reasons like the anonymity of consumers; limited interaction; and the high costs of implementing Relationship Marketing programs. It is felt by most of the researchers that relationship marketing is a scholarly concept with little limited real-life applicability. Another view of relationship marketing suggests that it is more applicable to the consumer market for relationship-friendly products (Cahill, 1998) and is dependent on the willingness of participating consumers (Sheth and Parvatiyar, 1995). The Internet is viewed as a facilitator in the success of relationship marketing. The importance of internet can be gauged by the fact that most of the

relationship marketing strategies are heavily dependent on the internet. This changing dynamics of markets place has forced the companies to adopt new marketing strategies to get a competitive edge over competitors. In a competitive service industry, the satisfying customer is paramount for the sustainability of the organization (Piaralal & Bhatti, 2014). There are conceptual confusions about relation marketing which needs to be clarified; this study is an effort towards this direction. The paper identifies and discusses conceptual reasons for the confusions of relationship marketing in the consumer market.

## **Literature review**

Relationship marketing is a strategy to attract, maintain and enhance customer relationships for longer periods (Berry, 2002). Gronroos (1994) contended that relationship marketing aims to establish, maintain, and enhance relationships with customers and other partners, at a profit, so that the objectives of all the parties are met. It is a concept to develop mutually beneficial long-term relationships with customers (Ravald and Gronroos, 1996). Relationship marketing evolution has been the most significant developments in marketing over the decades, (Palmatier et al., 2006). It is a concept which works well when customers are highly involved in the good or service, and there is an element of personal interaction, and customers are willing to engage in relationship-building activities (O'Malley and Tynan, 2000). Relationship marketing is therefore a concept which aims at increasing profitability of the organizations and focuses on providing the best services to customers for gaining competitive advantage. Many studies such as by Palmatier & Gopalakrishnan (2005) have demonstrated a positive relationship between relationship marketing strategies effectiveness and business performance. A study by Kim and Yoon (2004) examined the customer loyalty in Korea and their results show that the level of satisfaction with alternative specific service attributes, including call quality, handset type, and brand image, affects customer loyalty. Meeting diverse requirements of the customer is the key to achieve customer loyalty in the present times. The telecom industry is one of the most important sectors in the world and it delivers voice communications, data, graphics, and video at ever-increasing speeds. To gain sustainable competitive advantage, telecommunication firms make innovation and use the best of the strategies for customer satisfaction. Because of this relationship marketing plays an important role in the telecommunication industry. The telecom companies are focusing on developing relationship marketing tools to build a loyal and profitable customer relationship. Ndubisi (2004) found that most of the companies are focusing on building a strong customer relationship by assessing relevant customer information to serve customers and restrain them from switching to competing brands. Relationship marketing proposes that closer attention is paid to long-term financial growth and other benefits of retained customers (Heffernan et al., 2008). Relationship marketing is emerging as a marketing activity for business operations in fiercely competitive environments (Gupta and Sahu, 2012). Customer relationship is a process of building long term mutually beneficial relationship between the company and the customer which helps in creating mutual rewards for both the parties (Rapp and Collins, 1990) because of relationship marketing an organisation can also gain quality sources of marketing intelligence for better planning of marketing strategy. An organisation must design loyalty programs to gain customer loyalty and to also increase its propensity towards valuable goods and services. These loyalty programs would help in increasing the loyalty of the customer and increase its satisfaction. Other studies by (Garbarino and Johnson, 1999) highlights the importance of relationship marketing by describing it as a tool for developing and cultivating long-term beneficial relationship it leads to the promotion of long-term relationships as it is acknowledged widely (Tseng et al., 2007). The present study focuses on the elements of relationship marketing such as trust, service quality, loyalty programmes, brand image as

well as customer loyalty. Therefore, relationship marketing is the main point in planning marketing strategies.

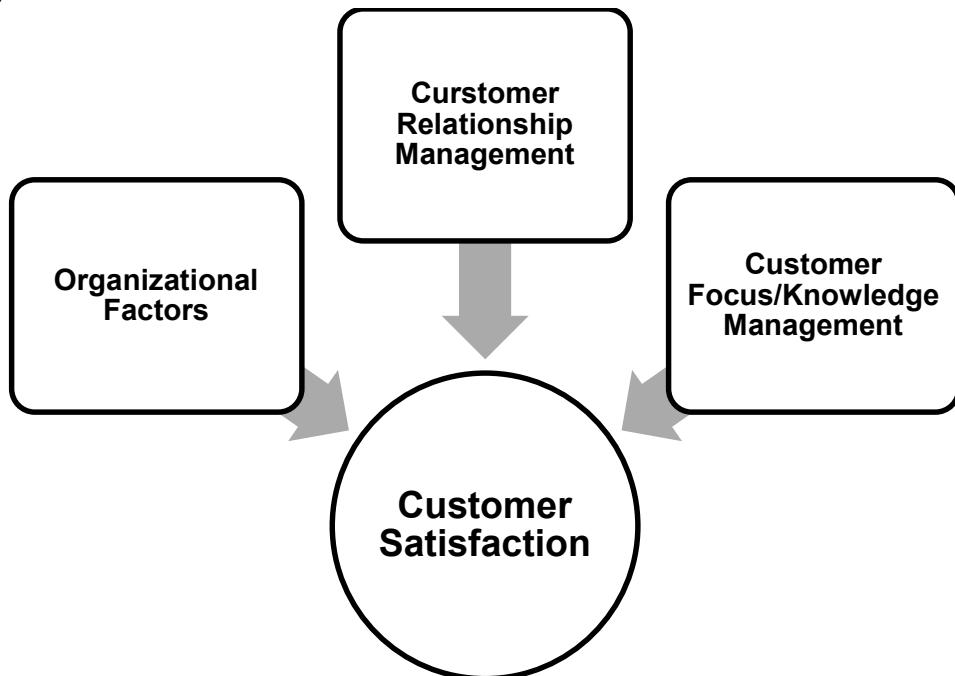
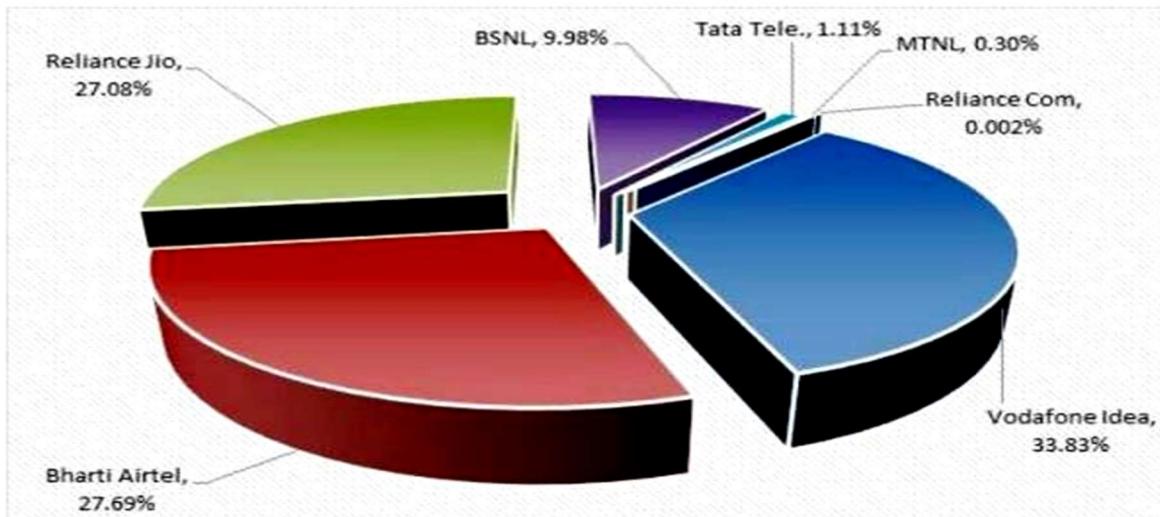


Fig-1: Theoretical Framework

#### Practical Difficulties of Relationship Management in the Consumer Market

There are many elements of RM, which are important in relationship building, these elements such as trust, credibility, reliability etc may be lacking in the service context. Pressey and Mathews (2000) in their study highlighted many barriers to RM in service dominated sector like telecom and consumer retailing also they concluded that balanced power, purchase involvement, the professionalism of the service provider and high levels of personal contact are important to Relationship Management success. Along with operational strategies used by marketers, the propensity to develop B2C relationships is also dependent on the "relationship friendliness" of the product-market and consumer relationship intimacy (De Wulf et al., 2001; Sheth and Parvatiyar, 1995). Conditions are belonging to four categories that are necessary for the success of Relationship Management. These conditions include prerequisites from market, marketers, nature of offering and consumers. The literature above provides a systematic view of some concepts presented in the literature. Some of the important elements related to relationship management include competition, communication, transparency and accessibility. Competition affects market conditions, such as the number of players, available choices, and product/service commoditization. In a highly competitive market, marketers are more motivated to employ consumer relationship strategies to differentiate themselves from competitors, build barriers and reduce price sensitivity. The more the accessibility to consumers, the easier it is to build consumer relationships (Pels, 1999). In the context of market Transparency, it is about how well the transaction between parties is performed. It may include vendor transparency, customer transparency and process transparency, and contributes to relationship success.

### Access Service Provider-wise Market Shares in term of Wireless Subscribers as on 30<sup>th</sup> April, 2019



#### Managerial implications

Theoretically, the study provides evidence for the influence on customer loyalty of relationship marketing elements such as trust, long term relationship, technology, service quality, satisfaction, loyalty programmes and brand equity. This study adds value to the literature. The practical implications of the study are that mobile service operator who wishes to retain and develop loyal customers should be trustworthy and should have long term relationship orientation to build a profitable relationship. It should deliver a good quality of mobile services timely and accurately, update the technology to maintain excellent network coverage and must satisfy the customers. The satisfied and loyal customers act as brand ambassadors and act as communicators of positive word-of-mouth about organisations products and services (Ndubisi, 2004). Another implication is mobile service operator should create a trustworthy environment, long term relationship building strategies, service quality mechanism to handle user's complaints effectively and ensure timely and consistent good services. Having a better relationship with customers, the telecom service operators can satisfy customers better than competitors by better understanding the customer needs which helps in building an effective long-lasting relationship. The present study proves the relationship between customer loyalty, relationship quality and relationship strategies. The study helps to understand the concept of relationship marketing tactics and customer loyalty. The relationship can be made healthier by focusing on the elements discussed. These elements will eventually increase customer loyalty. This study would help marketers to take appropriate decisions to increase customer loyalty. It also proves the importance of these elements in a long term relationship. All these elements are important but some are more important than the other. Service quality (SERVQUAL) is the most important element among all. Therefore telecom operators should emphasize on service quality enhancement. Companies need to consider relationship quality and its importance in their business. A satisfied customer will remain with its service provider for a long time and both will reap the benefits of a profitable relationship to be in a win-win situation.

#### Conclusions and Future Research

This paper tries to understand the concept of relationship marketing conceptually. Consumer relational characteristics are important to design suitable RM strategies. Technology can be used as an effective element, which enhances consumer RM in a broad sense through communication advantages. The paper helps in understanding relationship marketing in a broader sense and the impact of the

technology on consumers. More study is needed to understand the impact of technology on consumers. Empirical research is needed to find the impact of technology on consumer relationship building. Meanwhile, it is suggested that the internet, would be very useful and future generations may possess different decision-making processes and market behaviours (Chen, 2000). Griffith and Krampf (1998) show that the majority of service providers are utilizing their Web sites for advertising, public relations and customer service access. The study on web sites revealed that the usage of the Internet follows an ornamental or informational pattern, not a relational one (Geiger and Martin, 1999). This study has indicated that relationship marketing has a substantial impact on customer loyalty in the Indian mobile telecom sector. Therefore, companies should aim to nurture loyal customers and should pay close attention to issues of trust, long term relationship and service quality, brand equity. These factors significant help in retaining the customer base through effective relationship marketing strategies. Relationship marketing and customer loyalty help to maintain the quality relationship between the mobile user and mobile service provider which results in a profitable relationship. Marketers need to understand the effectiveness of relationship marketing elements from the consumer's perspective. It is also important for service providers to realize the importance of relationship quality and customers loyalty. In the present scenario customer retention is becoming more important than customer development. As customer loyalty is more vulnerable in the service industry therefore relevant strategies should be implemented to develop a long term relationship between the customer and the company. Another element of service quality is important than the price perception and brand image and if the customers are more satisfied then customer loyalty would depend on customer satisfaction as well as trust. It can be concluded that the strategies of relationship marketing are positively related to relationship quality. The literature shows that service quality has a significant impact on customer satisfaction. It means that if service quality is high, satisfaction will increase. Relationship quality is positively related to customer loyalty. The study supports previous studies that satisfaction and trust increase customer loyalty. Therefore telecom service providers should focus on service quality enhancement. Future studies should focus on identifying moderating influencers.

#### Limitations & Future Research Directions

For further researches, the new service of "Mobile Number Portability (MNP)" can be considered. The impact of MNP can be measured on customer loyalty. This service has made switching more easy and impacted customer loyalty. Proper understanding of this will help marketers to develop a strategy to avoid customer switching.

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# TRAIN CROWD MANAGEMENT WITH AUTOMATION SECURITY SYSTEM

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## ABSTRACT

Local trains are very integral part of our day today life. We largely depend on them for regular travel and journey. But the journey becomes very horrible experience for us when trains are overcrowded, this cause the accidents. Technology has advanced very far in our life same we can use to make information available to public in advance, so that they can take judgment or decision in advance for better journey.

In this system, which we are proposing, all trains will carry a sensor system to sense level of occupancy in each train compartment and it will be shown on a large indicator on platform before the train arrives on station via Zigbee based wireless communication such that people can take decision in advance to ride the train or leave it and if decide to travel then in which compartment, that can be decide well in advance, This will help train also to distribute crowd evenly throughout the train.

Features include advanced motion detection, mask out areas which could cause false alarms, stores images in a compressed format, produce reports on captured images, custom motion effects, overlay text onto captured images, write images to an moving file, play sounds when motion is detected. Proactive defence sensor for security using ultra sonic sensor for doors of local which detect and recognize the actions of the individuals with a scene.

## 1. INTRODUCTION

### 1.1 Background

Railway Train Crowd manages crowd in each compartment of the train by calculating the percentage of the passengers and displays the approximate percentage on the LCD display which is being connected on the railway station by which passengers will accommodate accordingly.

The Spy" generally developed to monitor and record suspicious movement in a Local during when the train is on board. Organizations today face new and more insidious threats than they ever have in the past. Using ultra sonic sensor for doors of local which detect and recognize the actions of the individuals with a scene. To protect infrastructure a like requires a level of vigilance not previously anticipated.

### 1.2 Objectives

The main aim of this project is to MANAGE THE CROWD OF THE COMPARTMENTS & TO PREVENT ACCIDENT PLUS RAIL SUSIDE

- People can easily accommodate to the vacant compartments.
- Saves human struggle to run here and there.
- Approximate percentage of the peoples will show on LCD.
- Can be controlled by Zigbee technology.
- Kept track on suspicious human behavior with motion detection capture.
- Calculates the radians of the person distance from door using ultrasonic sensor.
- In-system programmable i.e. we can modify the code of the Controller at any time depending upon our requirement without taking out the controller from the board.

Instead of keeping a chain for emergency, We will keep a panel of four switches in each compartment with acknowledgement indicator and different condition labels like :-

- Fire bracket
- Medical emergency
- Theft attempt this will help traveller and train management both to make quick and informed decision through wireless communication between train and station head office.

### 1.3 Purpose, Scope & Applicability

#### 1.3.1 Purpose

Railway Train Crowd manages crowd in each compartment of the train by calculating the percentage of the passengers and displays the approximate percentage on the LCD display which is being connected on the railway station by which passengers will accommodate accordingly. Also capture the suspicious moment and people distance using motion detection and ultrasonic sensor

Mainly, behind coming up with this project idea is that to manage crowd as well as for passengers who get threat of accidents because of the overcrowded Local trains. This will help people to easily accommodate to the vacant areas in which compartment crowd is less and prevent the cause of accidents and rail suside.

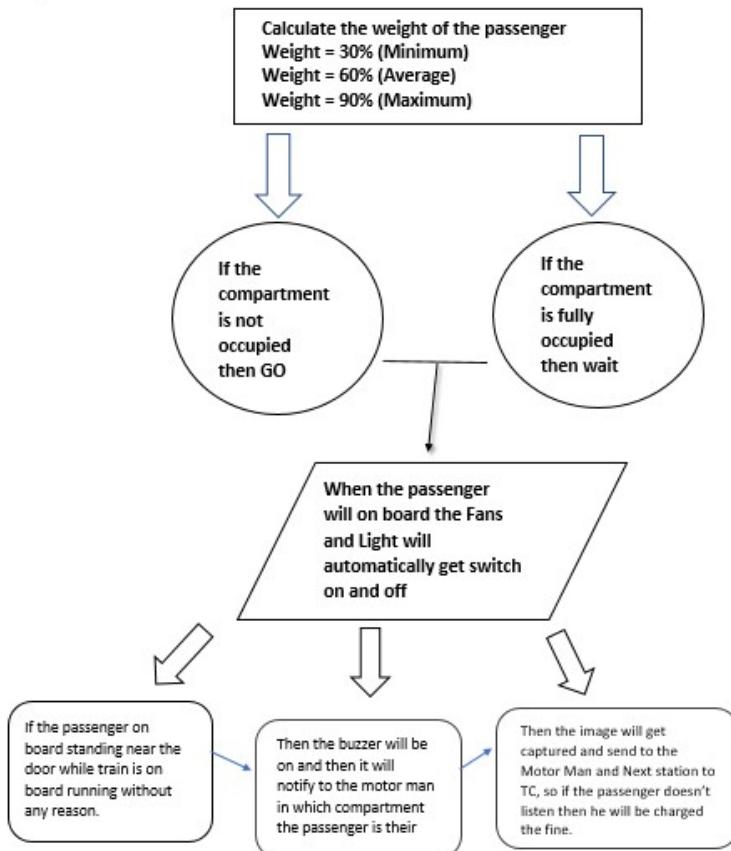
#### 1.3.2 Scope

This embedded project, can be used in future for Indian/Western/Harbour Railways. Train Crowd Management System can also further evaluated with high technologies like Wi-Fi/WiMAX for transmitting the data continuously in continuous ways of communication.

#### 1.3.3 Applicability

Crowd Management System & Intelligent Video Surveillance can be applicable in regions like

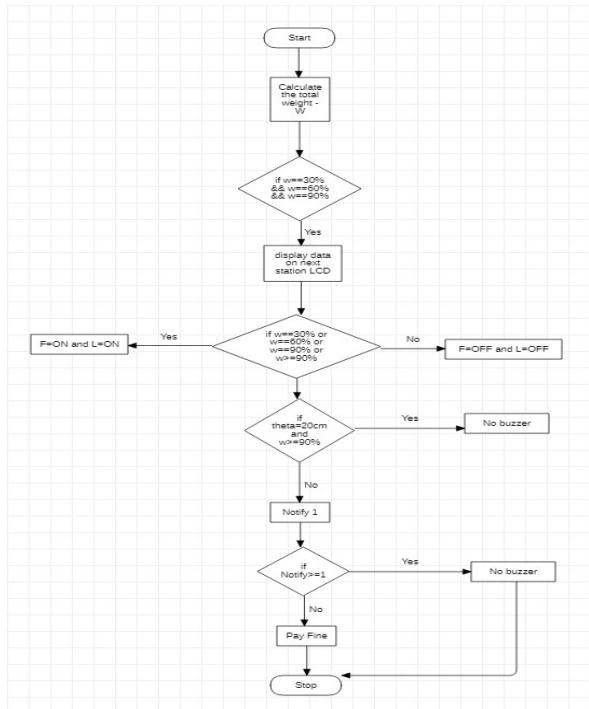
## 2. APPLICATION OVER CLOUD



### 3. ALGORITHM

- Start
- Calculate total weight W
- If  $W == 30\%$  and  $W == 60\%$   $W == 90\%$   
then Go
- else  
    Fully Occupied/no space
- Display data to next station LCD
- If  $W \in (30\%, 60\%, 90\%)$   
    then L and F = ON
- else  
    L and F = OFF
- If  $\theta == 20\text{cm}$  and  $W \geq 90\%$   
    then No Buzzer
- else if  $\theta == 20\text{cm}$  and  $W \leq 30\%$  and  $W \leq 60\%$   
    then Notify 1
- else Pay fine
- else  $\theta < 20\text{cm}$   
    then No Buzzer
- Stop

### 4. FLOW CHART OF THE MODULE



Parameters are:

- W = weight
- Theta = Threshold value (Distance Measured from the sensor.)
- L = Light

- F = Fan

## 5. BENEFITS OF CLOUD BASED ON THE SYSTEM

Cloud utilizes capabilities of advanced internet technologies. Ability of cloud computing to scale up services at any instance gives strength to projects related to the transforming the data. Cloud offers the ability to handle time related computing. Cloud reduces the maintenance cost, infrastructure cost and energy consumption. Cloud computing provides full control over access mechanism. It provides different access mechanism for different type of users. Some benefits of cloud computing are:

- **Scalability:** Resources of cloud computing such as CPU, servers, hard drives can be purchased automatically in any quantity at any time to fit growing number of users.
- **Availability and Accessibility:** Cloud computing applications and information are hosted online therefore citizens can use them anytime and anywhere.
- **Cost Saving:** Cloud computing systems do not need to purchase and install the ICT equipment and software on their own building, because these will be available on cloud server.
- **Backup and Recovery:** Since all the data is stored in the cloud, backing it up and restoring is much simpler than traditional way.
- **Unlimited Storage:** Storing information in the cloud gives you almost unlimited storage capacity.
- **Green technology:** Cloud computing is relatively good in energy consumption and provides eco-systems through virtual services. It will provide the way to save the resources for future.

## 6. ISSUES AND MAJOR CHALLENGES

Despite of various advantages of cloud computing to Train Crowd Management with Security System, several issues and challenges need to be addressed. The main issues and challenges for adopting cloud computing for the Train Crowd Management with Security System are:

- **Security and privacy:** Security requirements must be fulfilled on several layers where the implementation of cloud computing includes advanced security technologies.
- **Data protection and compliance:** Some data protection regulations do not allow the storage of sensitive data in other countries, which is basically not accomplished by most cloud service providers.
- **Interoperability and data portability:** There are lack of standards in implementing cloud computing services. Users should be able to change between cloud service providers with a minimum of risk and cost, so governments may need to adopt open standards policies for the cloud.
- **Identity and access management:** Speed and availability will be an issue because cloud computing services relies completely on the availability and speed of the Internet as a carrier between consumer and service provider.
- **Auditing:** Cloud providers currently do not offer detailed auditing possibilities. But in some situations where compliance to specific regulations or policies must be verified the auditing becomes essential.

Low level of literacy and shortage of skilled employees. Various technical challenges are also there on the way of Train Crowd Management with Security System with cloud computing like Data scaling, auditing and logging, rolling out new Instances, replication and migration, disaster recovery, policy management, system integration and legacy software, obsolete technologies and migration to new technologies.

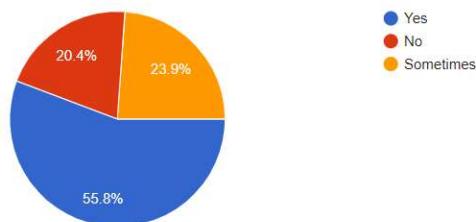
## 7. FUTURE OF TRAIN CROWD MANAGEMENT WITH AUTOMATION SECURITY SYSTEM

Presently it is accepted that with the cloud computing, Train Crowd Management with Security System has a bright future. A very popular project in India for providing a unique ID to every citizen of India is Unique Identification project which is based on “Railway cloud platform,” that is assembled using open architecture and components. Providing UID application overview and requirements, the authority observes that cloud computing is fast emerging as the next generation computing paradigm to build and deploy Internet applications targeting large sets of geographically dispersed users. Further, the utility of cloud computing is in that it facilitates these applications to be deployed and managed in distributed systems across data centres and provide clean abstraction for low level resource and application management. Typically, these deployments are highly virtualized and help business to use processors, memory, disks and network in an optimal way. The authority says next generation applications should be architected and deployed over such a computing platform to take advantage of scale and elasticity of the cloud.

## 8. FEEDBACK SURVEY

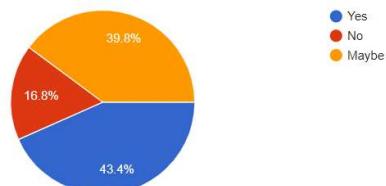
Are you regularly passenger of Local Train ?

113 responses



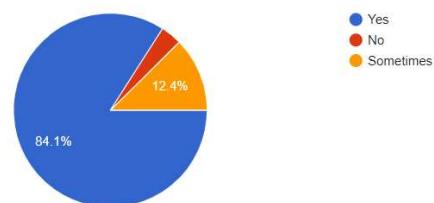
Do you ever feel after onboarding on local trains in a particular compartment there will be more occupancy in another compartment ?

113 responses



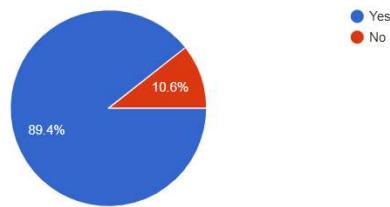
Do you feel because of unnecessary standing of passenger in front of local train door step causes an issue while onboarding and offboarding from the train ?

113 responses



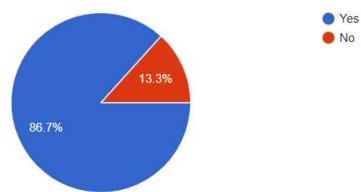
Do you feel that empty compartments with light and fan switch on is wastage of electricity and we should avoid doing something about this ?

113 responses



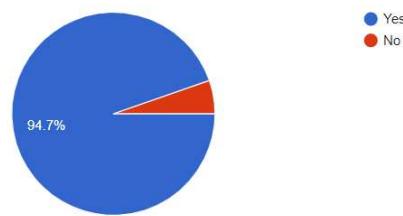
Will you like to get rid of this situation where people stand unnecessarily in front of door steps by charging some fine to them to avoid situations like suicide, a human injury which occurred in the less crowded compartment of the train?

113 responses



Would you like this if the light and fan can get automatically switch off in an empty compartment ?

113 responses



## 9. CONCLUSION

The complications about managing the crowd in the compartment are solved.

- The main objective of the designed system is to manage the crowd efficiently before train arrives on the next platform. This system also provides automatically fans and lights on/off.
- The efficient and advanced technique may help passengers to accommodate accordingly.
- This also keeps track the human health condition.

By using this project can build an effective storing mechanism which should be Secure & memory efficient. And it will to detect the events from the recording as well as it will create A textual index from video. In this project, effectively gather maximum information from the Recording takes place. It gives advantage of keeping textual index is its storage efficiency, search Efficiency, ease of applying intelligence

# **A STUDY ON THE FACTORS INFLUENCING CONSUMER RESPONSE AND BRAND VALUE AS A RESULT OF DIGITAL MARKETING IN A STANDALONE RESTAURANT**

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**ABSTRACT.** The use of the internet as a digital advertising platform are proliferating. As a consequence for which, this article presents a basis for examining how digital technology has an effect on consumer behaviour in a standalone restaurant. This paper examines the features of digital marketing and how brand identity can be created, and also discusses an overview of digital marketing and the effect it has on consumer actions in fostering the growth of a standalone restaurant through brand equity and explores the factors influencing digital marketing by providing three variables: social media marketing practices, brand recognition, consumer reaction.

**Keywords:** Social Media Marketing, Consumer response, Brand awareness, Brand equity

## **1. INTRODUCTION**

The mode of communication has developed a lot as mainstream media was the only form of communication medium for a few years. As the world evolved, there are no more unconnected areas on the planet, which means that the world is trying to simplify it to a few quick taps by using the Internet (Ahmed et al. 2015). Digital marketing covers many aspects such as website marketing, content marketing, SEO, social media, email marketing, online video, viral marketing, and so on... as the digital technologies in marketing has many benefits, such as achieving better transaction levels, saving substantial resources, allowing real-time client support, producing higher profits, delivering more significant return on interest from business promotions with standalone restaurants by taking rational choices in this new technological framework for the use of emerging tools such as data analytics which has evolved as a successful method to fix measurability issues through maximizing consumer activity traceability in the modern world as web-based platforms and social network sites (SNS) that could be applied to components with vast numbers of people in communities, alliances and collaborations between groups and individuals to distribute brand messages which encourage users to create transparent or semi-accessible accounts within the networks which makes marketers to be both cost-effective and engage with

customers and buyers in a new way which could have a tremendously good effect on running a standalone restaurant ((Liao et al. 2015),(Chi 2011)). Human resources and psychological well-being often motivate the use of social media from a realistic viewpoint which is a crucial way through immersive multimedia in a standalone restaurant with the use of customer relationship management which has become the current trend in the field of client experience management since new standalone restaurant have recognized the necessity to develop in an environmentally conscious way in order to thrive with their business campaigns ((Bagga and Bhatt 2013),(Gil-Gomez et al. 2020)). Branding through the Internet and increasing the recognition of the goods/services would be higher with more significant percentages of customers being able to use the brand than the conventional approaches to raise market awareness as marketers have become very innovative in catching the customer's interest through multiple methods, such as audience analysis, focus studies and in-depth dialogue((Andreassen and Streukens 2009), (Loftus 2012)).

This review aims to provide an outline of digital marketing studies in standalone restaurants to explore the effect of digital media on customer behaviour and create and build brand awareness by evaluating the major factors influencing the digital branding. To accomplish this aim, prior 2010–2020 study is evaluated and critically examined to recognize and define distinct study fields. This goal was dealt with in a narrative review focused on literature searches. Therefore, the present study contributes to the literature on marketing by offering an up-to-date analysis of a diverse and increasing area and getting a wider reach than previous analyses covering the convincing impact on customer behaviour and other forms of research.

## **2. Literature review**

### **2.1 SOCIAL MEDIA MARKETING EFFORTS**

According to (Kurniawati and Siregar 2019) Digital technologies have benefitted people to interact, engage and communicate each other this has been a more significant benefit for the marketing through social media, and the effect on the brand is tremendous for satisfying the customers and resulting in brand loyalty. According to the findings of (Kurniawati and Siregar 2019), it was stated that the self-expressive brand is the connection between the brand and consumers as the brand can improve in social integration. Brand love is built by customer satisfaction through emotional bond.(Erdoğan and Çiçek 2012) proves that Social media marketing is different from many other conventional marketing methods; therefore, to achieve brand identity and loyalty, particular attention and

strategy building is required. Social media marketing is related to marketing relationships, where companies need to move from "try to sell" to "connect" with consumers. In the minds of (Erdoğmuş and Çiçek 2012) a significant number of customers, brands will gain unique, positive and powerful value, and they become desirable and irreplaceable; this helps to win customer loyalty. In exchange, brand loyalty gives sales revenues, market share, and productivity to companies and helps them expand or stay in the marketplace. According to the (Erdoğmuş and Çiçek 2012) the most critical drivers of brand loyalty are beneficial social media ads, followed by content importance, the popularity of content among friends, and presence on various social media sites and applications

### **2.1.1. Entertainment**

Consumers today spend time on creating and watching new multimedia content through different platforms such as YouTube and other platforms such music streaming, online video games these media helps brands and companies for maintaining a relationship with customers which could be beneficial for a standalone restaurant. (Hennig-Thurau et al. 2010) was able to find that Search bots are a handy tool in marketing because customers mainly search for products on their preference and this is one of the most common online activity as the usage of a search engine, or the bots are made possible to use anywhere. This helped to change the way consumers receive information about the products, firms, services and people search engines are mainly used for pull factor. (Muntinga, Moorman, and Smit 2011) states Consumer online brand-related activities (COBRAs) are a concept to focus on the consumer's activity toward brand-related content on social media platforms. electronic word-of-mouth (eWOM) is the interaction by a consumer to consumer. (Alam Kazmi et al. 2018) was able to prove that Digital media has become a useful marketing tool for the firm for connecting with people through activities and campaigns building a strong relationship which eventually makes the customer feeling satisfied which leads to customer loyalty in the traditional marketing it was seen that satisfaction of customers is based on the unique selling propositions or the point of difference that a standalone restaurant offer to a customer through products and services.

### **2.1.2. Interaction**

According to (Javornik 2016) AR (Augmented Reality) is an interactive technology which modifies the physical surroundings with virtual elements to make it more realistic and simulated this technology can potentially create salient media characteristics of interactive technologies by bringing them to two different AR formats in marketing such as smart device apps and large interactive screens. AR is prominently used for web interactivity, and this lacks the absence of response associated with the interactive social engagement as this is not a two-way communication as of now. AR contents are mostly based on pull strategy than push, and this can be less appealing and more based on the mobility as this is

not location-specific this feature makes it more convenient for the consumer. (Khan, Rahman, and Fatma 2016) describes that Customer-brand commitment always leads to improved firm productivity; notably profitability, cost savings, increased productivity, increased customer contributions to shared product innovation. According to the study conducted by (Enginkaya and Yılmaz 2014) the consumers interacting with a brand through social media depends on the consumer's consumption behaviours evolved as a crucial part of the self-concept of individuals in this connective world. In contrast, social identities become highly regarded through these online platforms which also states that Companies are not only using SM for digital advertising, but also customer service handling, finding innovative ideas, and creating actively involved brand communities. The adoption by users of the Internet of Things ( IoT) continues to develop at a slow rate (Woodside and Sood 2017)Six percent of American households are fitted with smart home devices, including internet-connected devices, home control services, speakers and lighting. Not only can such apps engage with users through social networks, but they often connect through machine-to-machine communications without the intervention of humans. Transforming ordinary commonplace items into IoT artefacts by incorporating sensors dramatically impacts the selling cycle by improving the object's interaction with customers and users. This latest digital marketing engagement framework poses significant threats and opportunities for standalone restaurant as social networking experiences are always affecting buying decisions (Hutter et al. 2013).The young generations appear to have their DNA rooted in social consciousness (Loureiro and Lopes 2019) they are joined in trying to achieve more than only accumulate worldly resources and evaluate achievement through their desire to change others' lives.

### **2.1.3. *Trendiness***

(Kim and Ko 2012)states that customers should be seen as intangible assets which a firm should wisely acquire, maintain and maximize just like any other financial assets which in regards is said that customer equity is the discounted sum of the customers lifetime values which is established in the long term values of the firm. The primary goal of marketing online is to boost consumer equity by improving customer engagement. as this process will help a brand or a business firm to use social media marketing SMM to enhance the customer's equity at a standalone restaurant. Increasing influence through social networking giants such as Facebook, Twitter andInstagram also offer a catalyst for the Internet growth pace (Roy, Datta, and Basu 2017). The desire to connect with peers via social networking is an essential incentive in social network experiences

#### ***2.1.4. Customization***

(Zhang et al. 2015) was able to prove that Social media promote the efforts of businesses and consumers to create content on social media, referred to as marketer-generated content and user-generated content, and to allow customers to share MGC and UGC effectively in social networks such as the perception by the customer of the extent to which the information presented on the website is accurate and appropriate to support the fulfilment of the customer task directly. (Zhang et al. 2015) describes Co-creation as an experience which refers to the emotional state of clients arising from their participation in the process of co-creation of value. As co-creation experience of consumers, as the origins and foundation of interest, their real continued involvement in value co-creation is significantly affected. Social media sites have a significant influence on the co-creation experiences of customers and their subsequent intention to be involved in future co-creation of brand value(Zhang et al. 2015).

#### ***2.1.5. Word-of-mouth***

(Farzin and Fattahi 2018) states that Word-of-mouth (WOM) communication is widely recognized as having a notable role in impacting and influencing customer perceptions and behavioural intentions WOM communication is more effective as it relates to other methods such as editorial advice or ads, as it is viewed as offering comparatively more accurate information as it states that Traditional WOM communication has indeed been expanded to electronic channels, such as online discussion boards, newsgroups, forums, review sites and social networking sites the E-WOM, has been a central factor in influencing customer purchase behaviour. E-WOM seems to have a beneficial effect on the perception of the brand and eventually in customer purchasing intentions, as well as the image of the brand continues to have a positive impact on consumer purchase intentions.(Balakrishnan, Dahnil, and Yi 2014) found that the usage of social media by generation Y "Boomerang kids" are increasing, and this makes the social media a hub for the market intelligence this will help to understand the customer's purchase intention. Social media has evolved into the 21st century by making it easier to create and distribute contents. Building on the Web 2.0 foundation, social media applications have facilitated unprecedented growth in modern-day human interaction through the effect of the social media marketing platform in Generation Y on brand loyalty and purchasing intention.(Cheung and Thadani 2012) describes Electronic word-of-mouth (eWOM) gained significant coverage both in the corporate world and in academia. With the introduction of the Internet, which improved eWOM connectivity to numerous additional virtual environments, the effect on buying decisions through WOM communication has been further intensified.(Kim and Johnson 2016)It suggests that social

media enriches customers to interact their views and to have an impact, both personally and socially, on other buyers and products, because social media helps consumers to effectively gather information and exchange their opinions, users are no longer passive recipient of product description, but active generators and distributors of information such as one way or another.(Kim and Johnson 2016). Building and sustaining social relationships is the primary task among SNS users Customer social network conversations include a high degree of voluntary self-discourse among users (Chu and Kim 2011), an analytical analysis of the determinants of eWOM distributed through SNS may provide potential

## **2.2. BRAND EQUITY THROUGH SOCIAL MEDIA MARKETING EFFORTS**

According to (Hollebeek and Macky 2019) Digital content marketing aims at improving the customer engagement and trusts as this is possible through identifying, satisfying and anticipating customers requirement profitably it is said that digital content is a tool from relationship management states that the primary focus of digital content marketing is to provide knowledge to the potential customers so this would lead to an appreciation to the brand. Social media marketing (SMM) is an improvement in conventional and digital marketing engagement platforms (Ebrahim 2019) that track and promote consumer contacts, partnerships and connections with the business, its products and other consumers. Social networking should be viewed as a strategic partnership mechanism in which enterprises should establish collaborative buyer-seller ties (Sánchez-Casado et al. 2018). From the customer's point of view, brand equity may be defined as the worth of a brand in its eyes (Chakraborty and Bhat 2018). Firms utilize networks to build social network pages for their products (Ibrahim, Aljarah, and Ababneh 2020)through Facebook, Instagram and Twitter to attract more users. In social media marketing (SMM),(Raji et al. 2020) explains the essence of the partnerships between brands and customers is transparent and collaborative. the dynamism and uncertainty of customer behaviour, and response to marketing strategies becomes increased as social network messages begin to rise in importance in building and maintaining brand value. CBBE calculation relates to measuring and recognizing what is it appears in the minds of customers concerning a symbol(Raji, Mohd Rashid, and Mohd Ishak 2019). Market mentality maybe about a brand's success and value in the context of emotions, impressions, pictures, expectations, values, attitudes and thoughts. In general, brand awareness is understood to be a buyer's ability to identify a

brand in adequate detail to make a purchase(Vasudevan and Peter Kumar 2019) it can be brand recognition or brand recall. Peer-to-peer digital brands are internet utility networks focused on applications, and part of the so-called Web of digital economy(Ozbal, Duman, and Topaloglu 2020). If they cannot carry out an extensive search for relevant knowledge, they can make decisions using mental shortcuts or heuristics. After the inception of the Internet,(Nogueira and Tsunoda 2018) found that marketing practitioners have tried to track the network in order to collect brand-related knowledge with a view to communicating with their customers or enhancing their competing intellect.The connection between a standalone restaurant 's social networking operation and consumer-based brand value is a point of controversy among advertising and brand managers looking to distribute strategic capital (Shay and Van Der Horst 2019). Because of the nature of technical innovations and networking (Febriyantoro 2020), advertisement habits are often digital, such that corporate promotion practices shift. Awareness deficit is also apparent in the SNSs field, where work is also at its early stages (Langaro, Rita, and de Fátima Salgueiro 2018). The initial studies were devoted to understanding the mechanisms, applications, motives of SNSs and their effect on the social capacities of users. The cognitive dimension includes comprehension and recognition (Ho et al. 2015) the affective aspect involves like and preference; the conative extent includes deciding and purchasing. The usage of mobile data services (MDS) is of interest to customers and companies (Abu ELSamen 2016). MDS permits versatility and comfort for customers. For businesses, a variety of MDS is a significant source of revenue that lets companies generate higher mark valuation and equity (Abu ELSamen 2016). Web 2.0 seeks to allow the consumer to write, add, link, delete, compose, rate, etc. (Yan Xin et al. 2014) As a result, this digital platform affects the conventional industry(Balakrishnan et al. 2014) in terms of marketing and advertisement in order to stay profitable and succeed in the industry; companies are pressured to embrace Web 2.0(Yan Xin et al. 2014) because this application is supposed to boost connectivity, customer satisfaction and profitability. Facebook.com is a popular application of Web 2.0.

### **2.3. BRAND EQUITY AND CONSUMER RESPONSE**

According to (Ahmed et al. 2015) digital media has become a significant and powerful platform for marketing as this mechanism helps the business to be interactive by being engaged, respond to the queries and communicate effectively with the target audience which in turn brings high brand awareness and a great return on investment. The Fast-Moving Consumer Goods (FMCG) firms are not very much interested in marketing their products on digital media because their main target is on homemakers and the head of families. The availability of smartphones at a lower price and

the arrival of 3G and 4G encourages people to be a part of the technology industry as the use of digital media has raised and this will bring a more significant share at the marketing campaign and people will start investing in it because of the high potential. According to (Dehghani and Tumer 2015) Facebook advertising offers an opportunity for the consumers to interact actively with the post on the brand page by allowing them to like and share and also connect with their friends who liked and shared the same adverts. (Ismail 2017) states that Social media marketing activities influence the customers by creation and generation of user-generated content as the consumers are using social media to find details with the best deals on favourite items. The way consumers and marketers communicate has entirely changed with social media by providing customers with a voice and allows them to communicate and share their thoughts with everyone else in the world. (Tavitiyaman, Qu, and Zhang 2011)explains competitive strategy is one of the factors that affect objective achievement in a significant way. However, designing the strategic plan is a Challenging mission for many hoteliers because in the face of intense competition, growing consumer awareness and rapid technological developments, the hotel industry is evolving drastically as the intense competition arises from a variety of interconnected structural forces: multiple or similarly balanced competitors, weak growth in the market, high fixed or storage costs, lack of differentiation or switching costs, increased flexibility in diverse competitors.

### ***2.3.1. Brand preference***

(Ben Brahim 2016) states that the ability to entertain is vital for advertising as it creates a positive connection between advertising and entertainment to attract peoples through online advertisement; this helps the consumer and the standalone restaurant to create a healthy relationship. (Järvinen and Karjaluoto 2015) describes the role of web analytics in digital marketing performance can be found that a standalone restaurant 's dependency on the metric system to boost the performance of a standalone restaurant . Many brands have adopted digital marketing for benefits such as cost-effectiveness, change in customer behaviour, and the investments are easily measurable when compared to traditional marketing. (Martins et al. 2019) Smartphones are a beneficial product for marketers as this is a form to transmit advertisement in a more effective way as the growth of smartphone industry has been increasing this product became more helpful for the people to communicate each other. It is a handy way for the marketers to communicate with the customers hence being a necessity in their private and professional

lives. (Lien et al. 2015) Brand image is a determinant of subjective expectations and consequent actions of customers and is an extrinsic indicator when consumers consider a product/service before purchasing.(Hostler et al. 2011) explains recommendation agent offers a tailored online shopping experience as several researchers have hypothesized that online merchants are allowed to influence the actions of customers behaviour its ability to attract the participant to recommend products lookout for and grow interested in goods.

### **2.3.2. *Price premium***

According to (Godey et al. 2016), social media provides marketing with considerable The potential to connect with consumers in the social platforms and to develop an outstanding intimate connection. This article contributes to how SMMEs (Social Media Marketing Efforts) boost brand equity and customer attitudes against the brand. (Godey et al. 2016)The study conducted showed that SMMEs had slightly higher positive effects on brand loyalty (0.876), brand choice (0.739) and price premium (0.648) and that the result was consistent across the countries surveyed (China, France, India, Italy).

### **2.3.3. *Brand loyalty***

(Šerić, Gil-Saura, and Ruiz-Molina 2014) The integrated marketing communication system is seen as a significant contribution to the development of brand equity, strengthened by developments in information and communication technology states that changes in the market have led to improvements in marketing and communications management strategies, as one single marketing communication method alone does not accomplish marketing communication purposes. (Labrecque et al. 2013) states that the growth of the Internet drove the assumptions of increasing consumer power in the digital age that prompted the turn of the century and then reinvigorated by social media. The ability to produce user-generated content is information-based power through content production. It facilitates empowerment by offering an outlet for self-expression, expanding the individual reach and increasing individual opinion's ability to influence markets.

## **2.4. INFLUENCE ON CONSUMER RESPONSES FROM SOCIAL MEDIA MARKETING**

(See-To and Ho 2014) Electronic word-of-mouth is any positive or negative comment made by future, current or former consumers of a product or business made available via the Internet to a multitude of individuals and institutions which also states that the effect of eWOM on purchasing intention is that eWOM has a direct impact on purchasing intention as positive eWOM enhances purchasing intention, negative eWOM reduces. Even eWOM influences are purchasing intention through its impact on consumer confidence. Trust is a reasonable expectation that technically advanced

efficiency or shareholder responsibility and accountability will follow along. (Zheng et al. 2015) suggests Social media platforms should have provided members with globally accessible means of communication to promote knowledge exchange and dissemination by engaging interactively in online communities through forums, social networking sites (SNSs) and other social resources states that Facebook is the most common SNS amongst the current social media tools. Many brands have built online brand advertisement groups on Facebook Fan Pages, encouraging dialogue and understanding between a stand-alone restaurant and its customers, and creating brand loyalty.

## METHODOLOGY

A narrative literature review approach was adopted in this study to analyze emerging research on the impacts of digital marketing for building a brand equity and the causes and effects it has on the consumer's behaviour. In the first stage data collection were made through a search engine Google scholarly (scholar.google.com) then refined the search through few publishers such as Emerald, Elsevier, Sage.

**Table I.** Classification of articles based on theme and time period

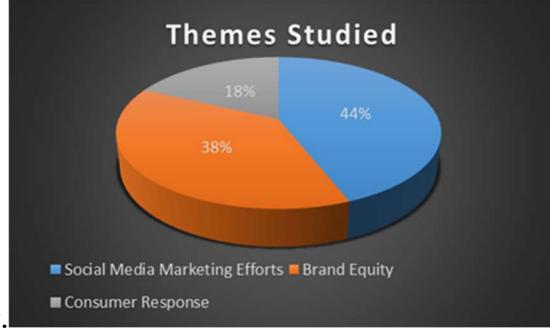
Year \ Theme	Social Media Marketing Efforts	Brand Equity	Consumer Response	Total
2010	1 (4.5%)(2%)	0 (0%)(0%)	0 (0%)(0%)	1 (2%)
2011	2 (9.09%)(4%)	1 (5.2%)(2%)	1 (11.1%)(2%)	4 (8%)
2012	3 (13.6%)(6%)	0 (0%)(0%)	1 (11.1%)(2%)	4 (8%)
2013	1 (4.5%)(2%)	0 (0%)(0%)	1 (11.1%)(2%)	2 (4%)
2014	3 (13.6%)(6%)	1 (5.2%)(2%)	1 (11.1%)(2%)	5 (12%)
2015	2 (9.09%)(4%)	3 (15.7%)(6%)	2 (22.2%)(4%)	7 (14%)
2016	3 (13.6%)(6%)	1 (5.2%)(2%)	2 (22.2%)(4%)	6 (12%)
2017	2 (9.09%)(4%)	1 (5.2%)(2%)	0 (0%)(0%)	3 (6%)
2018	2 (9.09%)(4%)	4 (21.05%)(8%)	0 (0%)(0%)	6 (12%)
2019	3 (13.6%)(6%)	4 (21.05%)(8%)	1 (11.1%)(2%)	8 (16%)
2020	0 (0%)(0%)	4 (21.05%)(8%)	0 (0%)(0%)	4 (8%)
Total	22(44%)	19(38%)	9(18%)	50

To ensure that the reviewed articles were relevant and within the scope of this study, "Social media marketing efforts," "Brand Equity," "Digital Marketing," and "Consumer Response" were used as keywords during the data search as Relevant articles were sorted out by the system from the online database under the time period of (2010–2020). The journals used for the literature review are: Computers in Human Behavior, International Journal of Advertising, International Journal of Hospitality Management, International Journal of

Hospitality Management, Journal of Interactive Marketing, Journal of Internet Commerce, Journal of Marketing Theory and Practice These research topics were chosen by the study conducted and the topics the article covers.

## ANALYSIS AND RESULTS

The results are described according to the year and trends in (Table I), with a



distinction for each year.

*Figure 1 Themes Studied*

The themes and classification of the collected data from the articles were analyzed by studying the pie chart (figure 1). Then it was found that social media marketing efforts cover the highest which is 44% then the brand equity covers a 38% and then the consumer response with 18% The table and pie chart illustrates cumulative development throughout the duration across the themes of the article. For the sake of simplicity of the domain, the classification does not take into account relations and interactions between categories after the clarification of themes and categories. The goal is to promote the interpretation of the spectrum of themes and to have a comprehensive view of the digital marketing domain.



*Figure 2 Total articles published*

This distribution (Figure 2) demonstrates the volume of studies conducted on digital marketing. It suggests that the volume of the research reported for the period 2010-2020 is the largest in the year 2019. As technology and adaptation tends to grow, there has been an improvement from 2014 to 2020.

## **DISCUSSION**

A lot of research articles were able to recognise the significance of using digital marketing for brand building, although only few researcharticles focused on the major factors as well as the effect of digitally branding a stand-alone restaurant hence this research paper will focus on how standalone restaurants could use digital branding to increase their brand equity and customer network the factors identified responsible for digital branding is mainly brand loyalty, customer preference and customers willingness to pay. The gap identified is that the major shifts in consumer behaviour due to digital marketing in standalone restaurant is that new consumers require a streamlined and personalisedexperience as they are less brand loyal.The analysis of peer reviewed research articles was able to explore a new trend discovered on consumer interaction with brands through social networks and virtual communities whereinthe earlier papers focused more on traditional advertisement platforms which increased the brand presence but not marketing on a personal level and when moving towards the recent years research article from 2015-2020 are focused more on Social media marketing efforts such as Electronic Word of Mouth, Virtual Communities, Customization and Augmented reality technologies. More focus is placed on personal branding to the target customers by interacting in a positive manner and understanding what consumers requirement is thereby improving the relationship between the brand and consumer.The managerial implications of this study will allow marketers to examine the strengths and potential of their marketing operations this research project would allow Social Media Marketing Managers and Brand Managers of standalone restaurant to study the outcomes of this research project and to strategize and factor out the variables to be changed according to the brand's need for profit maximization.The outcome of this review paper is that Innovation of the Digital technology have reduced the defamation of a brand and have increased the customer networks. Brands focus is placed on personal branding to the target customers by interacting in a positive manner and understanding what consumers requirement is thereby improving the relationship between the brand and consumer as well as the relationship between social media marketing efforts, brand equity and consumer response towards the brand.

## **CONCLUSION**

Unprecedented shifts in the global market environment have been witnessed in the past decade, significantly facilitated by the information and communication technology revolution. This paper explores the digital marketing techniques used in standalone restaurant through digital marketing to create brand

image and has provided a conceptualization of the ability for marketers to connect, interact and potentially establish direct relationships to recognise consumer reaction in this context. The main limitation of this research is that various outcomes may be obtained for the chosen market by the analysis conducted by using brand recognition and brand value as measurements of brand equity. Future studies may also provide other aspects, such as brand consistency and client relations, and reassess the method of building brand value. Socio-demographic factors, such as gender, age, wage and education, can have a substantial or moderating impact on the statistical model and may be used in subsequent analyzes for a more in-depth interpretation of the phenomena being analyzed.

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## **CORPORATE SOCIAL RESPONSIBILITY PRACTICES FOLLOWED BY PRIVATE COMPANIES AND PUBLIC COMPANIES IN THANE DISTRICT**

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### **ABSTRACT :**

Corporate Social Responsibility is the obligation of the corporate houses towards society for the well-being of the society. The purpose of this study is to explore how companies participate in socially responsible activities and explain the Corporate Social Responsibility approach undertaken by them. The researcher has visited 50 companies to get the questionnaires filled up from the top officials. The companies situated in Thane district were covered for the purpose of the study. The research design is empirical in nature since the study is conducted using both analytical and descriptive type of research. The study is based on primary data and secondary data. The primary data have been collected from the companies in Thane district. Secondary data have been collected from various published and unpublished sources including journals, magazines, publications, reports, books, dailies, periodicals, articles and research papers. It is found that out of all the CSR activities, responding to consumer complaints was high and frequently performed [i.e., 92%] by almost all the corporations. Then 90% CSR activities, contribute towards to medical aids and facility, 88% of activities contribute towards environment safety measures, 88% of activities contribute towards product safety, 86% of activities contribute towards contribution to eradication of poverty and hunger, 82% of activities contribute towards educational institutions as scholarship. It is concluded that there is a need to increase the understanding and active participation of business in equitable social development as an integral part of good business practice.

**KEY WORDS:** Corporate Social Responsibility, Corporate Houses, Social Development and Eradication of Poverty

### **INTRODUCTION :**

Corporate Social Responsibility is the obligation of the corporate houses towards society for the well-being of the society. It is based on the give and take ideology. A company takes resources from the society in the form of man, material, money, market etc. and gives something back to the society in the form of CSR activities. Business depends on society for input, and being so dependent on society business definitely has responsibility towards society. Corporate Social Responsibility is the mechanism through which the corporate organizations have executed their charitable visions for social welfare. It is a powerful way of making sustainable competitive profit and achieving lifelong values for stakeholder as well as shareholder. The rising perspective on corporate social responsibility focuses on responsibility towards all stakeholders: shareholders, employees, creditors, suppliers, government, and community rather than only on maximization of profit for shareholders. CSR is the lifelong commitment by businesses to perform morally and contribute to economic development while improving the quality of life of the workforce, families as well as the local community and society at large. CSR is a company's sense of responsibility towards the community and environment, both ecological and social, within which it operates.

## **MEANING OF CORPORATE SOCIAL RESPONSIBILITY :**

Corporate Social Responsibility also called Corporate Conscience or Responsible Business is a form of corporate self-regulation integrated into a business model. CSR is defined as the voluntary activities undertaken by a company to operate in an economic, social and environmentally sustainable manner. CSR policy functions as a self-regulatory mechanism whereby a business monitors and ensures its active compliance with the spirit of law, ethical standards and national or international norms.

The concept of Corporate Social Responsibility is not a new one but its focal point changes with the changing requirements of business and varying social needs. The concept of CSR was first mentioned in 1953 in the publication of “Social responsibilities of businessman” by William J.Bowen. However the term CSR became only popular in the 1990s, When the German Beta pharma generic pharmaceutical company decided to implement CSR. CSR is a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment. It is represented by the contributions undertaken by companies to society through its business activities and its social investment. CSR has been making an increasingly prominent impact in the Indian social system by supplementing development projects. But it is not a novel concept in India as its historical roots goes till the Vedic age.

**Economic responsibilities:** The first responsibility of the company towards society refers to running the business as an economically healthy unit. It includes aspects such as return on investment for shareholders, fair employee salaries, and quality products supplied to customers at fair prices; all required by the society. (Crane & Matten, 2004)

**Ethical responsibilities:** It refers to corporation’s responsibilities which are not covered by legal or economical requirements, but instead by what could be considered as ‘right’ or ‘fair’ in the eyes of society. Society therefore expects corporations to act ethically towards their stakeholders. (Crane & Matten, 2004)

**Legal responsibilities:** Demands that companies act in accordance with existing legislation and regulatory requirements. The legal framework consequentially fosters society’s ethical view and all companies attempting to be socially responsible are therefore required by society to follow the law. (Crane & Matten, 2004)

**Philanthropic responsibilities:** This involves corporation’s willingness to enhance the quality of living for their stakeholders (i.e. employees, local community, and society at large) through charitable donations and organizational support. These corporate decisions are entirely voluntary, of less importance than the former three, and (with regards to social responsibility) only seen as desired by society. (Crane & Matten, 2004).

## **DEFINITIONS OF CORPORATE SOCIAL RESPONSIBILITY :**

It is not simple to define CSR as it sounds. There are various definitions based on varying perceptions of the analysts. “Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large.”

By Lord Holme and Richard Watts the World Business Council for Sustainable Development “Social responsibilities of business are to pursue those policies, to make those decisions and to follow those lines of action which are sdesirable in terms of the objectives and values of our society.”

By H.R. Bowen “CSR is a concept whereby companies integrate social and environmental concerns in their business operations and interaction with their stakeholders on a voluntary basis.”

## **FEATURES OF CORPORATE SOCIAL RESPONSIBILITY :**

1. It is a universal concept which applies in both public and private sector in developed and developing economies.

2. It is related to corporates i.e. profit making organisations and not meant for not for profit organisations.
3. It is a continuous process because business is also an on-going process.
4. It has wide scope. It is a human welfare concept and not confined only to employees, government, shareholders, customers etc.
5. It is 2- way traffic. Society to business and business to society. Business creates supply, wealth, employment & contributes for community maintenance and society provides environment for business development. Various sections of the society fulfil their responsibilities by providing services & resources to the business. The same way business fulfils its responsibility towards various sections of the society.
6. In CSR, public interest is supreme over individual interest which is considered as a base for the success of any business.

#### **CRITERIA FOR DETERMINING SOCIAL RESPONSIBILITY :**

1. Size, profit and management of a company are the bases for determining social responsibility of the company.
2. Each company should think carefully before performing social responsible activities.
3. Company should choose that social problem which can be managed by the best of company's ability without or minimum political involvement.
4. When a company grows, it influences more & more people. Society takes more and more interest in company's activities so it should be more careful about its activities.
5. Investment in social responsible activities is a long term decision. Initially it may reduce profit but helping to meet environment pollution, civil disorders, education and health problem is in the long term interest of the company.

#### **FACTORS RESPONSIBLE FOR REALISING COPORATE SOCIAL RESPONSIBILITY**

- ✓ Market forces
- ✓ Government interventions
- ✓ Growth of trade union
- ✓ Awareness of Law of responsibility
- ✓ Good public image

#### **SIGNIFICANCE OF THE STUDY :**

The corporate houses and non-governmental organizations have to come forward to eliminate various social problems and play vital role in society development their activities such as providing quality education, extending healthcare facilities, nutritious food, creating awareness on environment safety, drinking water facilities, sponsoring the sports events, participating in natural disaster management programmes, ethical values promotion, enriching the Indian culture, etc. The corporate houses have to come forward to do their part towards development of the society. This contribution will be helpful to the organizations to enhance their brand awareness and reputation in the market. The society development should be treated as an integral part of the organization's strategy. CSR strategies promote the corporate sustainable development as well as society as at large. Therefore community development is a responsibility of the government, non-governmental organizations and business organizations as well.

#### **STATEMENT OF THE PROBLEM :**

The purpose of this study is to explore how companies participate in socially responsible activities and explain the Corporate Social Responsibility approach undertaken by them. Profit is the purpose of business, but the execution of social responsibility is the foundation for sustainable development of each enterprise. The Corporate Social Responsibility concept was initially used by

national companies more as a marketing and media coverage instrument rather than for its ethical values. Recently the public is watching closely to pressing cases of violating business ethics and destroying the environment and health at serious level. The wrong-or right of the above cases are clear. However, for the society and thousands of operating enterprises, the issue of Corporate Social Responsibility (CSR) is started and it requires to be discussed seriously in terms of policy argument and practice.

#### **OBJECTIVES OF THE STUDY :**

- ✓ To analyse the Corporate Social Responsibility Practices Conducted by Companies in Thane District
- ✓ To study the present status of Corporate Social Responsibility in India.

#### **METHODOLOGY :**

The researcher has visited 50 companies to get the questionnaires filled up from the top officials. The companies situated in Thane district were covered for the purpose of the study. The research design is empirical in nature since the study is conducted using both analytical and descriptive type of research. The study is based on primary data and secondary data. The primary data have been collected from the companies in Thane district. Secondary data have been collected from various published and unpublished sources including journals, magazines, publications, reports, books, dailies, periodicals, articles and research papers.

#### **LIMITATIONS OF THE STUDY :**

While collecting primary data from the senior executives of the various companies, the researcher had difficulties in getting the quick responses to the mailed questionnaire. Repeated reminders had to be sent to get the responses to the questionnaire.

#### **ANALYSIS AND INTERPRETATION :**

**TABLE 1**  
**CORPORATE SOCIAL RESPONSIBILITY PRACTICES CONDUCTED BY COMPANIES**

<b>Sl. No</b>	<b>Statements</b>	<b>Yes</b>	<b>Percentage (%)</b>	<b>No</b>	<b>Percentage (%)</b>
1.	Responding to consumer complaints	46	92	04	08
2.	Contribution to Medical aids and facility	45	90	05	10
3.	Environmental safety measure	44	88	06	12
4.	Ensuring product safety	44	88	06	12
5.	Contribution to eradication of poverty and hunger	43	86	07	14
6.	Contribution to educational institutions	41	82	09	18
7.	Solid Waste management	40	80	10	20
8.	Promotion of sustainable practices	40	80	10	20
9.	Provide contribution for game and sports	38	76	12	24
10.	Promotion of women – based micro enterprises	36	72	14	28
11.	Contributions to culture and literary works	33	66	17	34
12.	Contribution for public amenities ( e.g. bus stop shades)	29	58	21	42
13.	Contribution to crime prevention	25	50	25	50
14.	Provision loan for low income housing	20	40	30	60

15.	Provide loans to small enterprise	18	36	32	64
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Source: Primary data

The above table shows that out of all the CSR activities, responding to consumer complaints was high and frequently performed [i.e., 92%] by almost all the corporations. Then 90% CSR activities, contribute towards to medical aids and facility, 88% of activities contribute towards environment safety measures, 88% of activities contribute towards product safety, 86% of activities contribute towards contribution to eradication of poverty and hunger, 82% of activities contribute towards educational institutions as scholarship, 80% of activities are contributed towards solid waste management, 76% of activities to provide contribution for games and sports, 72% of activities are contributed towards promotion of women – based micro enterprises, 66% of activities contributions towards culture and literary works, 58% of activities are contributed towards public amenities (e.g. Bus stop shades), 50% of activities are contributing towards crime prevention, 40% of activities are provision loan for low income housing, 35% of activities are providing loans to small enterprise. It can be concluded that the majority of the corporate focused on consumer response to complaints as a major activity of CSR.

#### Corporate Social Responsibility Practices based on Nature of Business

In order to find out the significant difference in corporate social responsibility practices based on nature of business, ‘ANOVA’ test is used with the null hypothesis as, “**There is no significant difference incorporate social responsibility practices of different organization belong to different nature business**”. The result of ‘ANOVA’ test is presented in Table 2.

**TABLE 2**  
**ACTIVITIES OF CORPORE SOCIAL RESPONSIBILITY BASED ON NATURE OF BUSINESS**

Sl. No	Statements	Nature of Business (Mean Score)			F Statistics
		Manufacture	IT and Service	Financial Institution	
1.	Responding to consumer complaints	3.9414	3.8643	4.0045	0.874
2.	Contribution to Medical aids and facility	3.8672	3.8869	3.7085	1.657
3.	Environmental safety measure	3.8828	3.7647	3.8430	0.618
4.	Ensuring product safety	3.6133	3.7511	3.8789	3.291*
5.	Contribution to eradication of poverty and hunger	3.9102	3.7041	3.8565	2.628*
6.	Contribution to educational institutions	3.5820	3.6244	3.5561	0.170
7.	Solid Waste management	3.5664	4.2036	3.7583	3.337*
8.	Promotion of sustainable practices	3.6133	3.6606	3.5605	0.466
9.	Provide contribution for game and sports	3.6094	3.6516	3.5785	0.216
10.	Promotion of women – based micro enterprises	3.4133	3.3063	3.1009	2.117*
11.	Contributions to culture and literary works	3.4281	3.1719	3.2206	2.093*
12.	Contribution for public amenities ( e.g. bus stop	3.6836	3.5475	3.4978	1.678

	shades)				
13.	Contribution to crime prevention	3.6953	3.2602	3.1789	2.751*
14.	Provision loan for low income housing	3.3617	3.4222	3.9179	2.345*
15.	Provide loans to small enterprise	3.5664	3.2919	3.3655	2.181*

Source: Primary data

From the above table, it is understood that responding to consumer complaints and contribution to eradication of poverty and hunger are the important corporate social responsibility practices among the manufacture sector as their mean scores are 3.9414 and 3.9102 respectively. It is further understood that solid waste management and contribution to medical aids and facility are the important corporate social responsibility practices among the IT and service sector as their mean scores are 4.2036 and 3.8869 respectively. Table further shows that responding to consumer complaints and provision loan for low income housing are the important corporate social responsibility practices among the financial institution as their mean scores are 4.0045 and 3.9179 respectively. Regarding the corporate social responsibility practices among different nature of business, ensuring product safety, contribution to eradication of poverty and hunger, solid waste management, promotion of women – based micro enterprises, contributions to culture and literary works, contribution to crime prevention, provision loan for low income housing and provides loans to small enterprise are statistically significant at 5 per cent level.

#### **Distribution of Corporate Social Responsibility Practices by Nature of Ownership**

Overall activities of corporate social responsibility were taken for the analysis and being categorised into fifteen activities classified according to the nature of ownership of the corporation. The following table depicts the distribution.

**TABLE 3**  
**ACTIVITIES OF CORPORE SOCIAL RESPONSIBILITY BASED ON NATURE OF OWNERSHIP**

Sl. No	Statements	Private Companies	Public Companies
1.	Contribution to Medical aids and facility	21	25
2.	Responding to consumer complaints	22	23
3.	Contribution to eradication of poverty and hunger	20	24
4.	Ensuring product safety	21	23
5.	Promotion of women – based on micro enterprises	21	22
6.	Provide contribution for games and sports	17	24
7.	Contributions to culture and literary works	18	22
8.	Promotion of sustainable practices	17	23
9.	Contribution to educational institutions	18	20
10.	Provision as loan for low income housing	15	21
11.	Provide loans to small enterprises	13	20
12.	Contribution for public amenities (e.g. Bus stop shades)	10	19
13.	Contribution to crime prevention	6	19
14.	Environmental safety measure	7	13
15.	Solid Waste management	8	10

Source: Primary data

The above table shows that maximum numbers of activities were conducted by public companies than private companies. This is because the private companies are not strictly bound by government regulation. In public sectors, the guidelines regarding expenditure on CSR activities for Central Public Enterprises were issued by the Department of Public Enterprise. According to these “Guidelines on Corporate Social Responsibility and Sustainability for Central Public Sector Enterprises” revised by the Department of Public Enterprises (DPE), Ministry of Heavy Industries and Public Enterprises every year, each CPSE shall with the approval of its Board of Directors make a budgetary allocation for CSR and sustainability activities/ projects for the year (Global CSR Submit - 2013). This further made the public corporation to be more focused on CSR activities than other corporations. But it is true, few private and MNCs focused only few CSR activities and spend huge money rather listing more CSR activities and executing it.

#### **Corporate Social Responsibility Practices based on Nature of Ownership**

In order to find out the significant difference in corporate social responsibility practices of organisation based on different nature of ownership, ‘t’ test is attempted with the null hypothesis as, “**There is no significant difference in corporate social responsibility practices of organisation based on different nature of ownership**”. The result of ‘t’ test is presented in Table 4.

**Table 4**  
**Corporate Social Responsibility Practices based on Nature of Ownership**

Particulars	Nature of Ownership (Mean Score)		T- Statistics
	Private Companies	Public Companies	
Contribution to Medical aids and facility	3.5968	4.1309	2.882*
Responding to consumer complaints	3.8677	3.9343	0.373
Contribution to eradication of poverty and hunger	3.7411	4.0867	2.712*
Ensuring product safety	3.4073	3.8670	2.952*
Promotion of women – based on micro enterprises	3.5363	4.0703	3.288*
Provide contribution for games and sports	3.7919	3.9016	1.098
Contributions to culture and literary works	3.7129	4.0281	2.475*
Promotion of sustainable practices	3.5806	3.8583	2.644*
Contribution to educational institutions	3.7782	4.1199	2.666*
Provision as loan for low income housing	3.5040	3.8201	3.239*
Provide loans to small enterprises	3.8960	4.0988	1.047
Contribution for public amenities (e.g. Bus stop shades)	3.5065	3.7436	2.064*
Contribution to crime prevention	3.3524	3.5344	1.580
Environmental safety measure	3.1444	3.2852	1.965
Solid Waste management	3.1919	3.3635	1.753

Source: Computed data

\*-Significant at five per cent level

Table 4 shows the mean score of corporate social responsibility practices of organization based on different nature of ownership along with its respective ‘T’ statistics. The important corporate social responsibility practices among the private companies are provide loans to small enterprises and responding to consumer complaints and their respective mean scores are 3.8960 and 3.8677 and among the public companies, Contribution to Medical aids and facility and contribution to educational institutions and their respective mean scores are 4.1309 and 4.1199. Regarding the corporate social responsibility practices, the significant difference among the different nature of

ownership of organisation, are identified in the case of contribution to medical aids and facility, contribution to eradication of poverty and hunger, ensuring product safety, promotion of women – based on micro enterprises, contributions to culture and literary works, promotion of sustainable practices, contribution to educational institutions, provision as loan for low income housing and contribution for public amenities (e.g. bus stop shades), since the respective 'T' statistics are significant at 5 per cent level, the null hypothesis is rejected.

## **SUGGESTIONS**

- 1) The choice of selection of corporate social responsibility must be based on requirement of respective geographical area of the states or nations.
- 2) The detailed study on economic, social, medical, transport, education problems and other areas must be undertaken as all companies should work in those areas.
- 3) This study also suggests that when area wise analysis is done, areas like education, medical, environment and community welfare performed excellent in Social Responsibility. This shows that many companies have selected relevant areas of social responsibility performance. The study suggests that infrastructure, safety, charity and Human Resource Development where companies have performed satisfactory in Social Responsibility. It shows some companies have selected these areas of social responsibility. Today companies cannot ignore employees, customers and society. These areas are also very important for the different stakeholders of the company. The study also suggests that Art & Culture, Beauty, Sports and Agriculture where companies have performed poor in Social Responsibility. These are the traditional areas of the country and historical past is associated with these areas. Therefore it is the responsibility of the companies to do significant contribution in these areas. Agriculture sector contributes significantly to GDP (Gross Domestic Product). So government also should encourage companies to work in this area.

## **CONCLUSION :**

It is concluded that there is a need to increase the understanding and active participation of business in equitable social development as an integral part of good business practice. Considering the limitations of the corporate in their CSR activities, some recommendations which can be used towards satisfaction like companies should extend their CSR activities in less privileged states rather than concentrate in resource rich states. It is essential that companies develop an effective value chain system of their products through their CSR activities, which is essential for competing in the global market. It will give better results if activities are based on a more practical & participatory approach and touch the grassroots level. Voluntarism among employees should be encouraged and institutionalized through recognition and incentives. There is also need for public-private partnership with well-defined controls and process for the best use of resources for social change. Company must also provide appropriate training to its employees on environmental and social risks in lending to ensure that climate change is taken into account in corporate decisions.

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## SMART HEALTHCARE FACILITIES TO FEMALE COMMERCIAL SEX WORKERS (FCSW) IN MUMBAI CITY

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### Abstract

Smart health care supports individual health needs, has improved medical care facilities and is part of development towards modern medicine. Not surprisingly, in the present times of COVID 19 Pandemic, Indian Government insists the need to use the Aarogya Setu mobile App to protect the citizens from the dreaded coronavirus. We can see the rise in use of smart health care which is a need for protecting the nation from deterioration due to health hazards. The research paper addresses the issue of Female Commercial Sex Workers (FCSW) from Mumbai city, their health needs, and the hazards of their occupation in the wake of not having proper smart health care facilities. Internet facilities and lack of affordability to purchase smart phones deprive the FCSW of availing proper medical benefits. The research paper intends to appeal to NGOs and Government to address the health concerns of the FCSW.

**Key words:** Female Commercial Sex Workers, Covid 19, Physical Health Issues, mental health issues, smart healthcare facilities

### Introduction

Most women take up prostitution as profession under unavoidable circumstances. These circumstances directly affect their health adversely. These FCSW are looked down upon by the society and hence they live as groups and the areas they live have bad sanitation facility; they share toilets and thus contract communicable diseases. To add on to this, the amount of health care facilities they have access to is bare minimum and hence, they fall ill quite often and resort to either self-medication or visit the local, over-crowded dispensaries for treating their health ailments. With the country moving ahead with smart technologies, this segment of the population is completely neglected (without any access) only because of their profession which is looked down upon by the society. Now, with the increasing spread of Covid 19, their lives have worsened. Current research article throws light on their health issues that they are coping with, due to lack of proper health care facility coupled with sustenance issues in times of Covid 19 and how this has adversely affected them and their livelihood without much scope for rebuilding their physical, mental and financial health problems.

### Review of Literature

Brazilian FSW Group (2019) in their research analysed that sex work stigmatisation and discrimination in providing health services have been barriers for prevention of diseases among the women FCSW.

According to Rudrajit Paul, FCSW have diverse health concerns and they are a vulnerable part of the society. They have limited access to healthcare.

(Delbosc and Currie 2011) quotes lack of proper medical service access also is a factor influencing their physically unhealthy living. Another study found that if women earning daily wages have access to proper healthcare, they are less likely to fall ill frequently (Lynch and Atki 1988).

Politics of Shame and of Exclusion by Jha D and Sharma point out that political discourse has focused more on FCSW's social standing from a caste-based or feminist approach rather than a rights-based approach.

Richter M rightly quoted that peer educators can support the understanding and utilisation of health services among the FCSWs.

Study of Sonagachi project by Richter M, in the state of West Bengal, has indicated that, having presence of their own community at health centres/clinics or outreach services along with healthcare professionals would encourage FCSWs to use the facilities.

Levy H, Janke A point out that level of literacy matters or influences understanding of health care.

Study by Dandona R, Dandona L, Kumar GA, Gutierrez JP, McPherson S, Samuels F on “Demography and sex work characteristics of female sex workers in India” have explicitly mentioned that FCSWs in India are found with very low levels of literacy.

The international Labour Organization has expressed the importance of ensuring legal rights which includes occupational health support.

Indian law does not recognise FCSWs as labour, thus denying rights to occupational health care and maintenance of safety standards. There is not enough support extended to address their health problems.

### **Objectives of the study**

The broad objective of the study is to examine the impact of working at odd hours by female, their health conditions and accessibility to healthcare facilities on FCSW residing in Mumbai City. The specific objectives are as follows:

1. To examine the effect of poor working conditions on women's physical health
2. To evaluate the impact of traumatic incidents in life on the mental health and the risk factors associated with the same.
3. To investigate the awareness level of the respondents about smart healthcare facilities that are, of late, very popular and convenient
4. To study the accessibility of smart healthcare facilities among the respondents which will help them with online consultations , need of hour post pandemic.

### **Research Methodology**

#### **Primary sources of Data**

The present study is based on primary data collected from FCSW Kamatipura area in Mumbai, by administering an interview schedule and personally interviewing them. 100 such schedules were administered to them using purposive sampling technique. An enumerator was appointed for the purpose. Based on the relevance of the responses, it was trimmed to 82.

#### **Sample selection**

The sample consisted of 82 women FCSW aged between 18 and 55 years of age.

#### **Secondary sources of data**

M.Phil./ PhD Thesis, Journals, and other Periodicals.

#### **Interviews:**

The questions were based on personal details (age, daily income), working conditions, physical attributes, lifestyle, food habits, psychological health, other health problems, awareness about smart healthcare facilities, and their access level to these facilities. The researchers classified the respondents into two major categories based on their frequency of visit to local health centres: (less than one day a week and more than 1 day a week) Information on covariates was collected from the response sheets. Path analysis was also carried out to test the association between severity of health concerns and unmet healthcare needs.

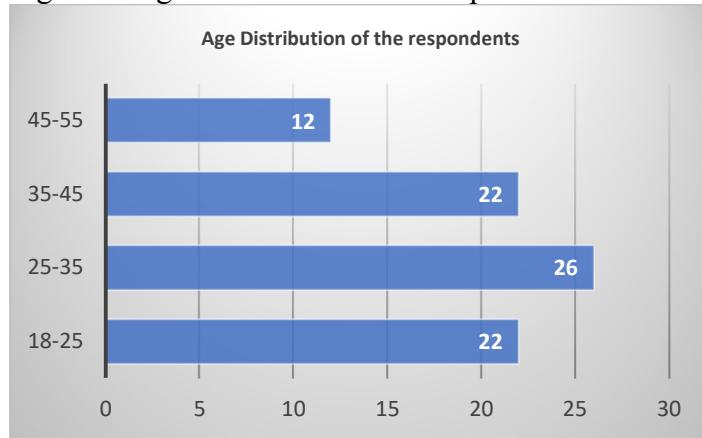
#### **Hypotheses tested**

1. Respondents' demographic profile's association with their frequency of falling ill and visiting the local health centre
2. Respondents' socio- economic profile's association with their frequency of falling ill and visiting the local health centre
3. Respondents' educational level's association with their frequency of falling ill and visiting the local health centre
4. Respondents' educational level has no significant association with their accessibility to smart healthcare facilities

## Results and Discussion

### 1. Demographic profile of the respondents

Figure 1. Age distribution of the respondents

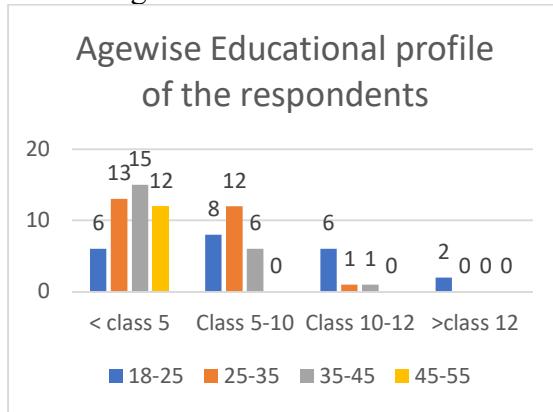


Source: Analysis based on samples interviewed

Figure 1 above shows the age distribution of the respondents. Majority of the respondents (32 %) belonged to the age group between 25 and 35 years of age, while only 14 per cent of them belonged to the age group of 45-55.

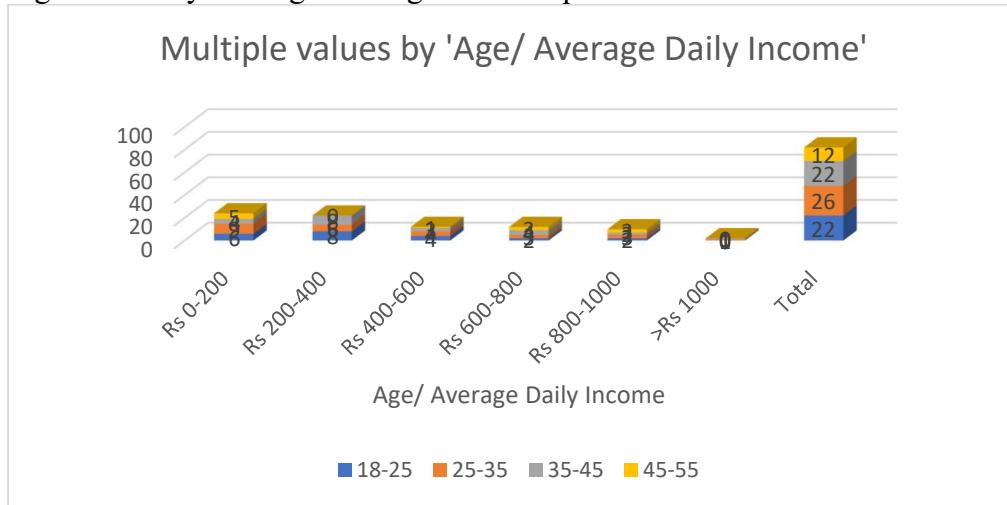
### 2. Socio economic Profile of the respondents

Figure 2. Educational Profile of the respondents



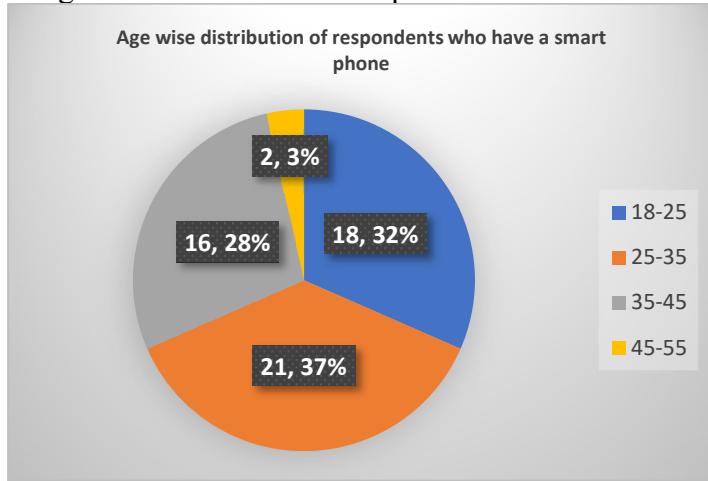
Source: Analysis based on samples interviewed

Figure 3. Daily Average earnings of the respondents



Source: Analysis based on samples interviewed

Figure 4. Age wise distribution of respondents who have a smart phone



Source: Analysis based on samples interviewed

H0: There is no significant relationship between age of the respondents and their having a smart phone

Table1. Chi-Squared Test Results

Value	1.1623
Df	3
Sig.	0.352

Source: Analysis based on samples interviewed

We are unable to accept the null hypothesis and conclude that age has a significant relationship to the respondents possessing a smart phone

H0: There is no significant relationship between educational level of the respondents and their having a smart phone

Table 2. Chi-Squared Test Results

Value	1.1331
Df	3
Sig.	0.352

Source: Analysis based on samples interviewed

We are unable to accept the null hypothesis and conclude that educational level of the respondents have a significant relationship to the respondents possessing a smart phone

H0: There is no significant relationship between daily earnings of the respondents and their owning a smart phone

Table 3. Chi-Squared Test Results

Value	22.6323
Df	15
Sig.	7.261

Source: Analysis based on samples interviewed

We are unable to accept the null hypothesis and conclude that daily earnings of the respondents have a significant relationship with the respondents possessing a smart phone

### 3. Health Profile of the respondents

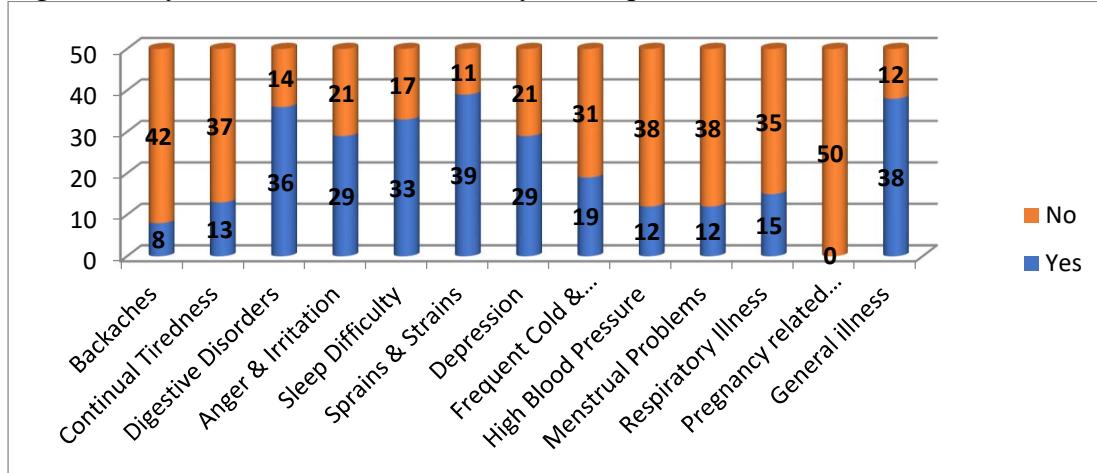
#### i. Physical Health issues

Age-wise Common physical health issues of the respondents

Physical Health issues faced by the respondents is due to the impact of late-night work and excessive work. Women working in late and excessively, do not get proper sleep as majority of them have to

devote the day towards domestic chores. Lack of proper sleep during daytime creates many problems for women for performing their social obligations up to the expectations of family and society. For married women, with children or other dependents, it is not possible to sleep during daytime. The naps during day cannot make up for a night's sleep. Because of the time differences, the natural order of things is reversed and plays havoc with mind. Women are unable to spend time on themselves or with their near and dear ones and are thus completely cut-off from spending even a few minutes of quality time for themselves. This has resulted to their anger & irritation followed by backaches, continual tiredness, sprains & strains, major depression, digestive disorders and frequent cold & headache. The major health problems faced by the FCSW's were high blood pressure accompanied by sleep disorders. The other health problems faced were menstrual related problems, respiratory illness, and digestive problems. Women tend to feel lethargic and lifeless during the day. Studies on the physical, psychological, and medical effects of night work has proven ill effects on the health of these women.

Figure 5. Physical Health issues faced by the respondents



Source: Analysis based on samples interviewed

The above figure depicts the physical problems associated with night shifts on women's health. Majority of the respondents suffer from digestive disorders (72 percent), sleep difficulty (66 percent) and strains and sprains (78 percent). These, have in turn, resulted in anger and irritability among 58 percent of the respondents which has also led to problems like depression among them.

H0: There is no significant relationship between age of the respondents and their frequency of falling ill (common illnesses)

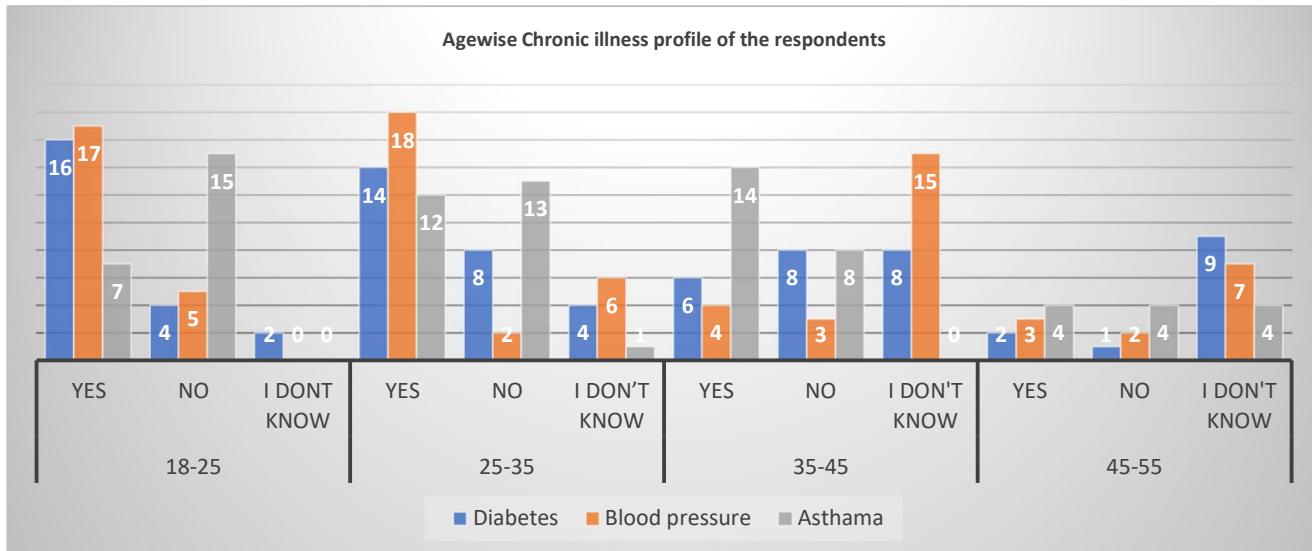
Table 4. Chi-Squared Test Results

Value	13.453
Df	27
Sig.	16.151

Source: Analysis based on samples interviewed

From table 4, showing results of chi-squared test conducted 5% significant level the researchers are unable to reject the null hypothesis and conclude that there is no significant association between age of the respondents and their frequency of falling ill.

Figure 6. Age wise Chronic illness of the respondents



H0: There is no significant relationship between age of the respondents and their frequency of falling ill (Chronic Illness)

Table 5. Chi-Squared Test Results

Value	1.243
Df	6
Sig.	1.635

Source: Analysis based on samples interviewed

From table 1, showing results of chi-squared test conducted 5% significant level the researchers are unable to reject the null hypothesis and conclude that there is no significant association between age of the respondents and their frequency of falling ill.

Table 6 Age-wise classification of respondents' frequency of falling Physically ill and visiting health centres

	Age	Frequency of visiting local health care centres		Visiting local health care centre till date for illnesses		
		$\leq 1$ day/week	$\geq 1$ day/week	$\leq 1$ year	1-5 years	$> 5$ years
less than 5 years	18-25		16.50%	5.20%	2.40%	10.17%
	25-35		44.38%	0.60%	0.20%	46.23%
	35-45		30.12%	0.16%	0.13%	29.12%
	45-55		9.04%	0.32%	0.23%	7.22%
	Total		100%	6%	3%	93%
more than five years	18-25	0.80%	11.00%	0.60%	9.00%	
	25-35	9.20%	29.00%	9.40%	9.00%	
	35-45	42.00%	11.00%	42.00%	14.00%	

	45-55	48.00%	49.00%	48.00%	68.00%	
	Total	100.00%	100.00%	100.00%	100.00%	
Years of experience	Marital Status					
	Married		35.60%	3.90%	0.50%	32.70%
less than 5 years	Single		64.40%	1.00%	3.90%	60.00%
more than five years	Married	50%	51%	69.00%	29.00%	
	Single	50%	49%	71.00%	31.00%	
	Living with dependents					
	Yes		27.80%	1.40%	3.60%	24.00%
less than 5 years	No		72.20%	3.40%	0.00%	68.70%
	Yes			70.00%	28.90%	
more than five years	No	49.60%	49.30%	69.00%	29.10%	
less than 5 years	No of Children		43.90%	4.89%	2.50%	35.60%
	no children		37.60%	0.01%	0.00%	37.60%
	one child		18.50%	0.00%	0.00%	20.50%
	two children					
more than five years	no children					
	one child	9.00%	9.00%	11.00%	8.00%	
	two children	41.00%	41.00%	49.00%	22.00%	
more than five years	No of family members					
	Single		27.80%	2.40%	2.40%	22.00%
	Couple		3.90%	0.00%	0.00%	4.90%
less than 5 years	three to four		53.70%	2.40%	0.00%	51.30%
	more than four		14.60%	0.00%	0.00%	16.60%
	Single					
	Couple					
more than five years	three to four	32%	31%	60.00%	22.00%	
	more than four		41%	10.00%	8.00%	
	Daily earnings					
	18-25		9.80%	0.00%	2.40%	7.30%
	25-35		41.50%	0.00%	0.00%	41.50%
	35-45		36.60%	4.90%	0.00%	31.70%

	45-55		12.20%	0.00%	0.00%	12.20%
less than 5 years						
	18-25					
	25-35					
	35-45	52.00%	52.00%	53.00%	18.00%	
more than five years	45-55	8.00%	23.00%	17.00%	12.00%	

Source: Analysis based on samples interviewed

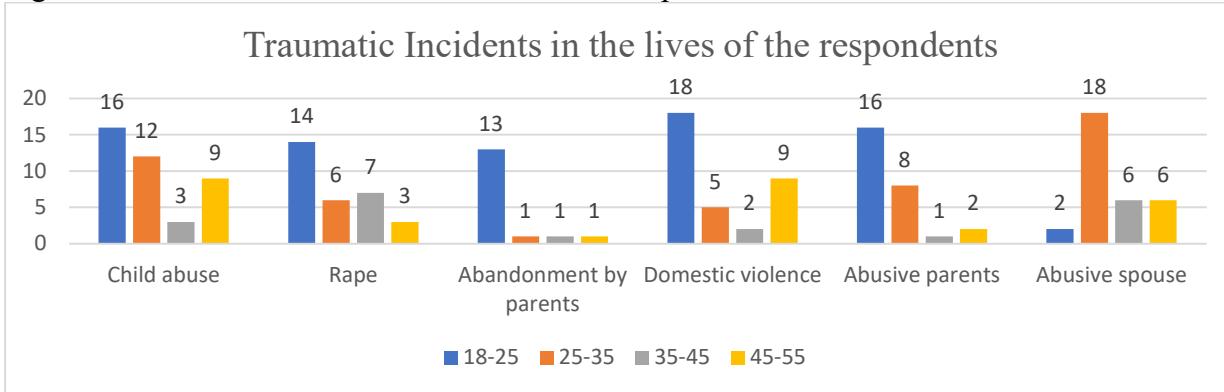
The above, Table 6 summarises the frequency of the respondents falling ill and visiting local healthcare centres based on their age, number of years of them in the current profession, marital status, number of children, overall family size and their daily pay.

The findings can be summarized as all respondents in the age group of 45-55 with work experience of 5 years or more confine themselves to working over 3 nights. While those who work for more than 3 nights a week belong to the lower age with lesser experience. Those who are single with lesser years of work experience work more.

People who have been in this profession for a longer period of time and people who are paid higher are falling ill for at least 5 times a week.

## ii) Mental Health Profile

Figure 7. Traumatic Incidents in the lives of the respondents



Source: Analysis based on samples interviewed

Ho: There is no significant association between traumatic life incidents and the age of the respondents

Table 7. Chi-Squared Test Results

Value	6.523
Df	15
Sig.	7.261

Source: Analysis based on samples interviewed

From table 4, at 5% significance level, we accept the null hypothesis and conclude that there is no significant association between the traumatic life incidents of the respondents and the age of the respondents.

## Mental Health analysis of the respondents

Figure 8. Mental Health analysis of the respondents

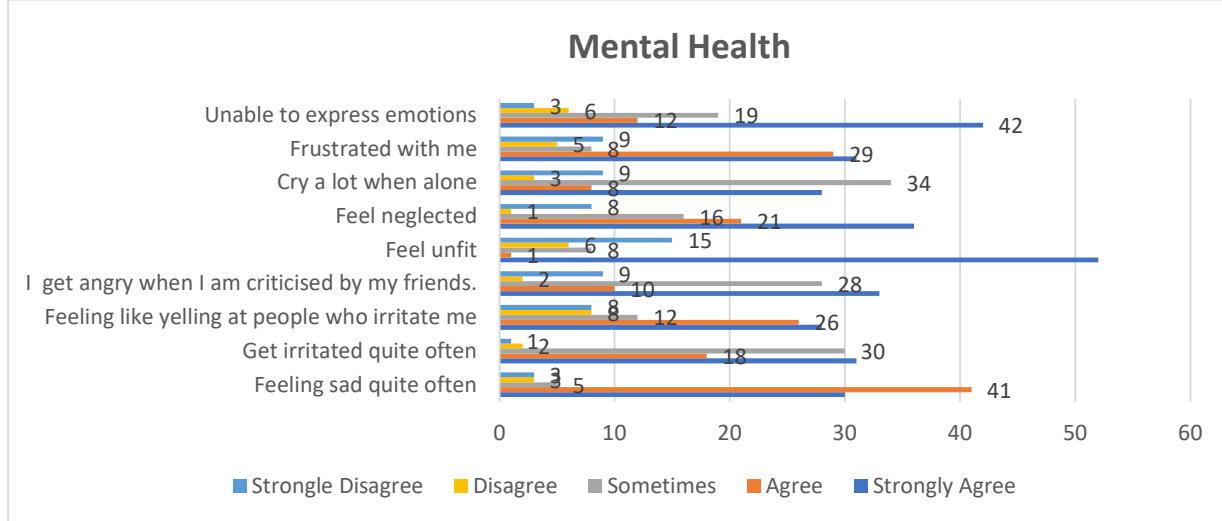


Figure 8 Shows the Mental health status of the respondents.

H1: Increasing common Health concerns of the respondents is inversely associated with the amount of healthcare facilities they have access to .

H2: Increasing Chronic Health concerns of the respondents is inversely associated with the amount of healthcare facilities they have access to

H3: Increasing Mental Health concerns of the respondents is inversely associated with the amount of healthcare facilities they have access to.

Table 8. Results of Hypothesis Testing and Structural Relationship

Hypothesis	Path	Coefficient	S.E	t-stat	Decision
H1	Common Health issues -> inadequacy of Healthcare facilities access	0.29	0.02	8.28*	Supported
H2	Chronic Health issues -> inadequacy of Healthcare facilities access	0.14	0.08	7.76*	Supported
H3	Mental Health issues -> inadequacy of Healthcare facilities access	0.08	0.01	6.63*	Supported

Sources: Data based on Field Survey, 2019.

T-values for two tailed tests: \*p < 0.01

Hypothesis 1, 2 and 3 postulate the associations between common, chronic and mental health of the respondents with the inadequacy of access to healthcare facilities. Table 4.4.2 shows evidence that all the factors have an overall impact on the health of the respondents who do not possess enough support to maintain good health. The strength factors depict its impact of  $\beta = 1.259$  which showed significant association with their lack of proper healthcare support at 5% level of significance.

Table 9. Formulated Model – Regression Weights

Endogenous Variable	Latent	H	$\beta$	SE	T V	P V
Backaches	Common	H4	0.58	0.28	2.32	0.05
Continual Tiredness	Common	H5	0.78	0.36	2.26	0.05
Digestive Disorders	Common	H6	0.01	0.37	0.03	0.97
Anger and Irritation	Common	H7	0.7	0.27	2.6	0.01
Sleep Difficulties	Common	H8	0.53	0.24	2.26	0.02

Sprains and strains	Common	H9	0.03	0.36	0.1	0.92
Diabetes	Chronic	H10	0.72	0.34	0.05	0.96
Blood pressure	Chronic	H11	0.45	0.3	1.51	0.13
Asthama	Chronic	H12	-0.3	0.37	0.82	0.42
Feeling sad quite often	Mental	H13	0.74	0.36	2.04	0.04
Get irritated quite often	Mental	H14	-0.04	0.32	0.14	0.89
Feeling like yelling at people who irritate me	Mental	H15	0.42	0.33	1.29	0.2
I get angry when I am criticised by my friends.	Mental	H16	0.41	0.3	1.34	0.18
Feel unfit and Neglected	Mental	H17	0.78	0.27	2.92	0.00
Frustrated with me and cry a lot	Mental	H18	0.9	0.32	2.77	0.01
Suicidal Thoughts	Mental	H19	0.81	0.3	2.69	0.01
Unable to express emotions	Mental	H20	0.8	0.29	2.73	0.01

Sources: Data based on Field Survey, 2019.

T-values for two tailed tests: \*p < 0.01

H<sub>1</sub>-H<sub>9</sub> show causal relationship between the Common health issues and their access to healthcare. The result predicts that the factors like sleep difficulties, anger and irritation and continual tiredness have a significant association in determining the respondents' poor physical health status that requires immediate attention as far as the common illnesses (factors) such as women's health safety in the area and their access to healthcare facilities (whether smart or physical). When it comes to digestive disorders, pains and strains other than the direct factors, several such indirect factors also determine the likelihood of FSCW falling ill very frequently and visiting local health care centres.

To study the degree of relationship between the Chronic illness and existing healthcare access.

H<sub>10</sub>-H<sub>12</sub>: Causal relationship between respondents' chronic illnesses and frequency of them visiting health care centres in their locale.

Under the factors of chronic illness, diabetes and blood pressure issues shows a significant association. Proper treatment to these can improve their health.

i. To study the degree of relationship between the mental health and its dimensions.

H<sub>13</sub>-H<sub>20</sub>: Causal relationship between mental health of the respondents and their access to healthcare which significantly contributes to their mental well being

The analyses results predict that mental health factors such as feeling of sadness, frustration, frequent irritation, inability to express emotions, feeling unfit and neglected, above all, suicidal thoughts have affected their mental health. This could be a cause of the traumatic incidents they have suffered also. This needs immediate attention.

Assessing R<sup>2</sup> Values

R<sup>2</sup> (Coefficient of determination) value is used to evaluate the structural model. This coefficient measures the predictive accuracy of the model and is calculated as the squared correlation between actual and predictive values of a specified endogenous construct. The R<sup>2</sup> values represent the exogenous variables' combined effects on the endogenous latent variables and it also represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs linked to it (Hair et al., 2013). In this study, the endogenous variables enrolment has R<sup>2</sup> value as 0.210. This reflects the fact the structural model developed in this study has predictive relevance.

#### Table 10. R-Square

Variable	R <sup>2</sup>	Adjusted R <sup>2</sup>
Overall Health	0.20	0.18

Sources: Data based on Field Survey, 2019.

### Impact Performance Matrix Analysis (IPMA)

Further investigation was carried out to analyse the relative priority of health dimensions on healthcare facilities. The IPMA (Hock, Ringle, & Sarstedt, 2010; Rigdon, Ringle, Sarstedt, & Gudergan, 2011) was carried by taking the performance of each exogenous latent variable into account. IPMA results in a priority map for decision-oriented presentations. For assigning priorities to different aspects for their improvement for a particular endogenous latent variables' performance level in the future, actions should have a relatively high impact (i.e. high path coefficient) and a relatively low performance (Hair et al., 2013).

Table 11. Impact performance

latent variable	Impact	Performances
Common	2.92	48.06
Chronic	2.54	38.52
Mental	1.84	83.75

Sources: Data based on Field Survey, 2019.

We reject null hypothesis and conclude that age, nature of work and socio-economic factor has a significant relationship with the physical health of the respondents

Table 13. Chi-Square Test of Model Fit

Value	329.75
Degrees of Freedom	133
P-Value	0.01

Source: Analysis based on samples interviewed

H0: Null hypothesis is that there is no difference between the patterns observed in these data and the model specified. The researchers are unable to reject the null hypothesis and hence conclude the model is a good fit.

Another measure of goodness of fit is the root mean square error of approximation (RMSEA).

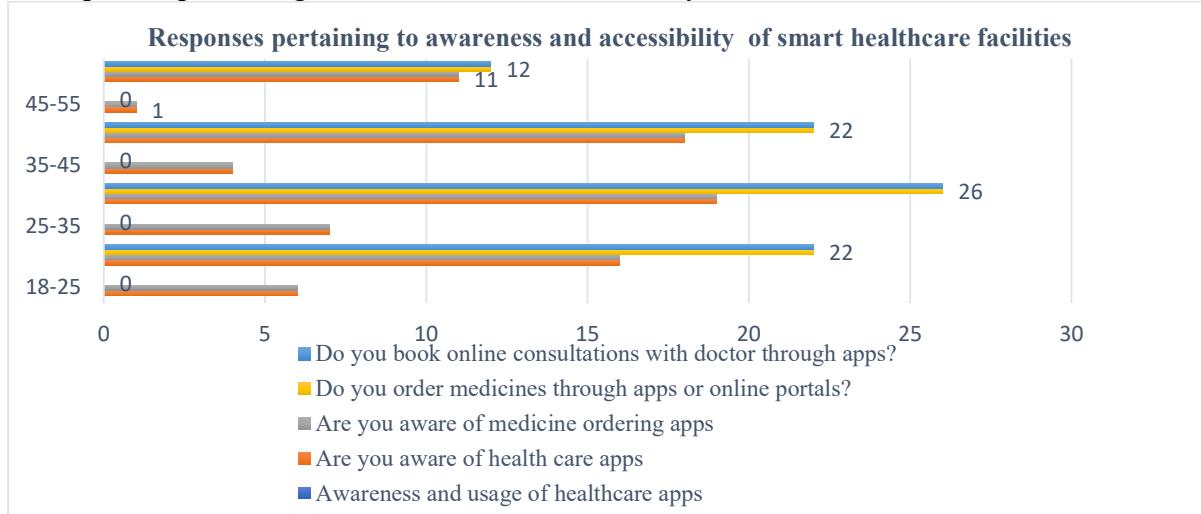
Table 14. RMSEA (Root Mean Square Error of Approximation)

Estimate	0.13	
90 Percent C.I.	0.01	0.18
Probability RMSEA	< 0.05	0.00

Source: Analysis based on samples interviewed

An acceptable model should have an RMSEA less than .05. You can see above that the estimate for RMSEA is .013, the 90 percent confidence interval is 0.01, .018 and the probability that the population RMSEA is less than .05. Again, consistent with our chi-square, the model is a good fit.

Figure 9. Responses pertaining to awareness and accessibility of smart healthcare facilities



H0: There is no significant relationship between age of the respondents and accessibility and awareness of smart health care

Table 15. Chi-Squared Test Results (5% Significance level)

Value	6.243
Df	12
Sig.	5.226

Source: Analysis based on samples interviewed

We are unable accept the null hypothesis and conclude that there is significant association between age of the respondents and their awareness level of smart healthcare facilities.

### **Conclusion:**

To Conclude, from the results and discussions, it can be seen that these women live in an area where there is no proper sanitation facility. They share toilets, live in chawls and unhygienic surroundings. They do not have affordability to lead quality life or spend on healthy living. It is also evident that they do not have adequate healthcare facilities. Most of them do not possess smart phones and hence there is no question of them accessing smart healthcare. Though Government insists on the use of smart phones to assess COVID 19, these women do not possess them due to which they are unable to avail smart healthcare facilities. With their earnings, they unanimously said that they did not have any savings and access to internet was not possible. And to add to this, the pandemic has made it worse by leaving them with no customers to service... and hence no earnings. The apathy is that when these women do not have the affordability to lead a life with minimum basics, then where is the question of them having access to smart healthcare facility? The research amplifies the apathetic situation of the FSCW and highlights the need for intervention of adequate support facilities, especially smart healthcare facilities to save them from hazardous diseases and be on par with the society's smart changes- at least as far as their health is concerned.

### **Our Suggestions**

Government, NGO, or Social workers can take initiative and help them with health campaigns, awareness campaigns etc, and help the FCSW lead better life.

Policy and legal changes must be implemented, socioeconomic empowerment of the FCSWs also to be addressed by the Government.

The medical personnel providing target healthcare to FCSWs must be sensitized to the conditions of these patients. Improved healthcare facilities will help in curbing transmission of STDs and other deadly diseases.

During Covid, especially when they have no means of earning a living, Government must extend all necessary support to them.

In today's times of technological advancement, smart healthcare providers must provide training to FCSW about importance of technology in availing health benefits.

If Government can support the FCSW with internet facility and smart phones at lower rates or free of cost, they will be in a position to get health benefits through smart health features.

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## IMPORTANT FACTORS INFLUENCING CONSUMER BEHAVIOR

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### Abstract:

Consumer behavior entails "all activities associated with the purchase, use and disposal of goods and services, including the consumer's emotional, mental and behavioral responses that precede or follow these activities." The term, consumer can refer to individual consumers as well as organizational consumers, and more specifically, "an end user, and not necessarily a purchaser, in the distribution chain of a good or service." Consumer behavior is the study of individuals and organizations and how they select and use products and services. It is mainly concerned with psychology, motivations, and behavior. Some of the most important factors influencing consumer behavior. Marketing Mix Factors, Personal Factors, Psychological Factors, Social Factors, Cultural Factors. The study of consumer behavior indicates how individuals, groups and organizations select, buy, use and dispose goods, services, ideas, or experiences to satisfy their needs and desires.

Consumer behavior is concerned with, the purchase of goods or services; how consumers acquire products and services, and all the activities leading up to a purchase decision, including information search, evaluating goods and services and payment methods including the purchase experience. use or consumption activities concerns the who, where, when and how of consumption and the usage experience, including the symbolic associations and the way that goods are distributed within families or consumption units. Disposal activities concerns the way that consumers dispose of products and packaging; may also include reselling activities such as e Buy and second-hand markets.

**Keywords:** Consumer Buying Behavior, Marketing Mix Factors.

### Important Factors Influencing Consumer Behavior.

#### Introduction

Consumer behavior is the study of consumers and the processes they use to choose, use (consume), and dispose of products and services, including consumers' emotional, mental responses. Consumer behavior incorporates ideas from several sciences including psychology, biology, chemistry, and economics. Consumer behavior is the study of how individual customers, groups or organizations select, buy, use, and dispose ideas, goods, and services to satisfy their needs and wants. It refers to the actions of the consumers in the marketplace and the underlying motives for those actions. Consumer behavior is the study of individuals and organizations and how they select and use products and services. It is mainly concerned with psychology, motivations, and behavior.

How consumers think and feel about different alternatives (brands, products, services, and retailers) how consumers reason and select between different alternatives. The behavior of consumers while researching and shopping. How consumer behavior is influenced by their environment (peers, culture, media) how marketing campaigns can be adapted and improved to more effectively influence the consumer. Consumer responses may be emotional responses: refer to emotions such as feelings or moods, mental responses: refer to the consumer's thought processes, their behavioral responses: refer to the consumer's observable responses in relation to the purchase and disposal of goods or services.

#### Objectives of the Study

1. To understand what consumer behavior is and the different types of consumers.
2. To understand the relationship between consumer behavior and the marketing concept, the societal marketing concept, as well as segmentation, targeting and positioning.

3. To understand the relationship between consumer behavior and customer value, satisfaction, trust and retention.
4. To understand how new technologies are enabling marketers to better satisfy the needs and wants of the consumers.
5. To understand how marketers are increasingly able to reach consumers wherever consumers wish to be reached.
6. To understand how the world's economic condition is leading to consumption instability

### **Definitions of consumer behavior**

- 1. According to Engel, Blackwell, and Mansard**, 'consumer behaviour is the actions and decision processes of people who purchase goods and services for personal consumption'.
- 2. According to Louden and Bitta**, 'consumer behaviour is the decision process and physical activity, which individuals engage in when evaluating, acquiring, using or disposing of goods and services'.

### **Important Factors Influencing Consumer Behavior**

Some of the most important factors influencing consumer behavior are as follows: A. Marketing Mix Factors B. Personal Factors C. Psychological Factors D. Social Factors E. Cultural Factors. The study of consumer behavior indicates how individuals, groups and organizations select, buy, use and dispose goods, services, ideas, or experiences to satisfy their needs and desires. Consumer behavior is affected by several factors. Marketers need to have a good knowledge of the factors affecting the consumer behavior.

**In general, the factors that affect consumer behavior are discussed in the following sections:**

#### **A. Marketing Mix Factors:**

Each component of the market mix product, pricing, promotion and place of distribution—has a direct or indirect impact on the buying process of the consumers.

##### **1. Product:**

The special characteristics of the product, the physical appearance and the packaging can influence the buying decision of a consumer.

##### **2. Pricing:**

The price charged on the product or services consumed by the consumer affect the buying behaviour of the consumers. Marketers must consider the price sensitivity of the target customers while fixing prices.

##### **3. Promotion:**

The variables of promotion mix such as advertising, publicity, public relations, personal selling and sales promotion affect the buying behaviour of the consumers. Marketers select the promotion mix after considering the nature of the target audience.

##### **4. Place:**

The channels of distribution and the place of distribution affect the buying behaviour of the consumers. The marketers makes an attempt to select the right channel and distribute the products at the right place.

#### **B. Personal Factors:**

The personal factors such as age, occupation, lifestyle, social and economic status and the gender of a consumer may affect the buying decisions of the consumers individually or collectively.

##### **1. Age factor:**

The age factor greatly influences the buying behaviour. For example, teenagers prefer trendy clothes, whereas office executives prefer sober and formal clothing.

##### **2. Gender:**

The consumer behaviour varies across gender. For example, girls prefer certain feminine colours such as pink, purple and peach, whereas boys go for blue, black and brown.

##### **3. Education:**

Highly educated persons may spend on books, personal care products, and so on. But a person with low or no education may spend less on books and more on personal grooming products.

#### **4. Income level:**

Normally, the higher the income level, the higher is the level of spending and vice versa. But this may not be the case in developing countries, especially in the rural areas.

#### **5. Status in the society:**

Persons enjoying higher status in the society spend a good amount of money on luxury items such as luxury cars, luxury watches, premium brands of clothing, jewellery and perfumes.

#### **C. Psychological Factors:**

**A person's buying behaviour is influenced by the psychological factors such as the following:**

##### **1. Learning:**

It refers to changes in individual behaviour that are caused by information and experience. For example, when a customer buys a new brand of apparels, and is satisfied by its use, then they are more likely to buy the same brand the next time. Through learning, people acquire beliefs and attitudes, which in turn influence the buying behaviour.

##### **2. Attitude:**

It is human tendency to respond in a given manner to a particular situation or object or idea. Consumers may develop a positive, or a negative, or a neutral attitude towards certain products or brands, which in turn affects their buying behaviour.

##### **3. Motives:**

A motive is the inner drive that motivates a person to act or behave in a certain manner. A marketer must identify the buying motives of the target customers and influence them to act positively towards the marketed products.

##### **4. Beliefs:**

A belief is a descriptive thought that a person holds about certain things. It may be based on knowledge, opinion, faith, trust and confidence. People may hold certain beliefs of certain brands/products. Beliefs develop brand images, which in turn can affect the buying behaviour.

#### **D. Social Factors:**

The social factors such as reference groups family, and social status affects the buying behaviour. Social factors in turn reflect a constant and dynamic influx through which individuals learn different meanings of consumption.

##### **1. Reference groups:**

A reference group is a small group of people such as colleagues at workplace, club members, friends circle, neighbors, family members, and so on.

**The reference groups influence the members in following manner:**

- a. They influence members' values and attitudes.
- b. They expose members to new behaviors and lifestyles.
- c. They create pressure to choose certain products or brands.

##### **2. Family:**

The family is the main reference group that may influence the consumer behavior. Nowadays, children are well informed about goods and services through media or friends circle, and other sources. Therefore, they influence considerably in the decisions of buying both fast moving consumer goods and durable items.

##### **3. Roles and status:**

A person performs certain roles in a particular group such as family, club, organization, and so on. For example, a person may perform the role of a vice president in a firm and another person may perform the role of a marketing manager. The vice president may enjoy higher status in the organization as compared to the marketing manager. People may purchase the products that conform to their roles and status, especially in the case of branded clothes, luxury watches, luxury cars, and so on.

## **E. Cultural Factors:**

There is a subtle influence of cultural factors on a consumer's decision process. Consumers live in a complex social and cultural environment. The types of products and services they buy can be influenced by the overall cultural context in which they grow up to become individuals. Cultural factors includes race and religion, tradition, caste and moral values. Culture also includes subcultures, sub-castes, religious sects and languages.

### **1. Culture:**

It influences consumer behaviour to a great extent. Cultural values and elements are passed from one generation to another through family, educational institutions, religious bodies and social environment. The cultural diversity influences food habits, clothing, customs and traditions. For example, consuming alcohol and meat in certain religious communities is not restricted, but in certain communities, consumption of alcohol and meat is prohibited.

### **2. Subculture:**

Each culture consists of smaller subcultures that provide specific identity to its members. Subcultures include sub-castes, religious sects (Roman Catholics, Syrian Catholics, Protestant Christians, etc.), geographic regions (South Indians, North Indians) and language (Marathi, Malayali, Gujarati).The behaviour of people belonging to various subcultures is different. Therefore, marketers may adopt multicultural marketing approaches, that is, designing and marketing goods and services that cater to the tastes and preferences of the consumers belonging to different subcultures.

### **Changes in Food Buying Behavior:**

Changes in various aspects of food consumption behavior were measured which are presented in Table for different groups of people based on their regional shift.

### **Changes in Food Buying Behavior for Different Categories of Respondents**

Dimensions of Food Buying Behavior	Not moved	Moved during the last 5yrs	Moved during the last 5-10 yrs	Total	F	Sig
There is definitely some changes in the way we purchase food items now	<b>3.35</b>	<b>3.33</b>	<b>3.50</b>	<b>3.38</b>	<b>0.622</b>	<b>0.537</b>
We now use more ready-to-eat food items than earlier	<b>3.30</b>	<b>2.93</b>	<b>3.23</b>	<b>3.20</b>	<b>2.663</b>	<b>0.071</b>
We now buy most food items from organized retail of shops/shopping malls	<b>3.42</b>	<b>3.25</b>	<b>3.50</b>	<b>3.40</b>	<b>1.167</b>	<b>0.313</b>
We now visit less frequently to local grocery stores to buy food items	<b>2.61</b>	<b>3.09</b>	<b>2.85</b>	<b>2.77</b>	<b>7.1123</b>	<b>0.001</b>
I look for more number of food products options than earlier	<b>3.86</b>	<b>3.94</b>	<b>3.96</b>	<b>3.90</b>	<b>0.353</b>	<b>0.703</b>

I want to buy my products at the place where the display is better	<b>3.40</b>	<b>3.36</b>	<b>3.41</b>	<b>3.39</b>	<b>0.064</b>	<b>0.938</b>
I want to buy my food products where I may get all the items at one place	<b>3.56</b>	<b>3.64</b>	<b>3.60</b>	<b>3.59</b>	<b>0.193</b>	<b>0.825</b>
now buy food items for more number of days than earlier	<b>3.24</b>	<b>2.86</b>	<b>3.04</b>	<b>3.11</b>	<b>4.003</b>	<b>0.019</b>
Now our purchase decisions for food products are heavily dependent on advertisements	<b>2.74</b>	<b>2.61</b>	<b>2.53</b>	<b>2.66</b>	<b>1.382</b>	<b>0.253</b>
Price is not an important criteria for buying food items now compared to earlier period	<b>2.77</b>	<b>2.64</b>	<b>2.65</b>	<b>2.71</b>	<b>0.576</b>	<b>0.563</b>
Now-a-days both husband and wife are taking decisions about the type of food items to be purchased	<b>3.84</b>	<b>3.71</b>	<b>3.74</b>	<b>3.79</b>	<b>0.792</b>	<b>0.454</b>
Children influence the food buying decisions to a great extent	<b>3.53</b>	<b>3.29</b>	<b>3.50</b>	<b>3.47</b>	<b>2.256</b>	<b>0.106</b>

Note: 1 indicates “strongly disagree” and 5 indicates as “strongly agree”

Changes in various aspects of food consumption behavior were measured (on 1-5 scale, where 1 indicates strongly-disagree and 5 indicates strongly-agree), which are presented in Table for different groups of people based on their regional shift. Looking at total number of responses, it is clear that people strongly agreed that shifting to a new city affects their food habit (mean score 3.44). They now prefer more healthy foods (4.25) and have started eating new dishes (3.75) compared to earlier. They also agree that they take their dinner together in the family (3.64), learn cooking and eating new food items after relocation (3.47). They also agreed the influence of children on the type of food items that they eat. Respondents disagreed with statements like, they have started eating out at restaurants more frequently (2.61) and they stopped eating some of their traditional food items after shifting to a region (2.65). Most of the changes are common to all the three categories of respondents as their mean

scores are not significantly different (at level of significance as 0.05). However, people who have shifted to new location indicated less preference for organic food and also for eating out at restaurants compared to people who have not moved to a new region.

## Conclusion

The present study explored the consumer behavior in India from different perspectives. Cleanliness of the product, free from pesticides, freshness, good for health, and clean place of sale are some of the most important attributes, which are rated very highly by people in India while buying food products. Value for money, overall quality, taste, availability of variety of products at same place, seasonality for the product, flavor, good display of products, nearby availability and good ambience are some other important parameters. Promotional offer does not have much impact on the sale of food products and people did not rate food products from other country very highly for purchase decision. People rate various parameters differently for different product groups. For highly perishable items, freshness, cleanliness and good for health are the most important parameters but for products like food grains-pulses, cleanliness and free from pesticides are the most important criteria. Based on factor analysis, it appeared that store quality, marketing mix and taste-flavor explained the maximum variance in the purchase decision for fruit and vegetables. Although quality of food products is one of the most important parameters for food product purchase decision, people do not see much improvement in the quality related parameters for food items.

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## **IMPACT OF ICT ON HIGHER EDUCATION (from students' perspective)**

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### **Abstract**

For decades, the year 2025 was predicted as the onset of the future – where humans would reside on Mars and live lives dominated by robots and machines. While, these predictions might not come true; the technology has managed to transform our lives in number of ways. From self-driven cars to multiple missions to AI assistants, technology has enabled massive disruptions that technology in our daily lives and one of the sectors that has been completely transformed by technology in recent times is the education sector. The concept of flexibility in the location of education is not new to the prevalence of distance education programs for years. Additionally, the use of ICT tools instead of a traditional classroom setting has given way to learning in work-based settings with students able to access courses and programs from their workplace. The concept of technology powered ‘any place learning’ also ensures that learners enroll in courses offered by any institute across the world rather than only applying for local educational institutes, which includes extended course offerings and the opportunity to digitally interact with co-learners and students from differing backgrounds, cultures, and perspectives. Today, the need of the hour is to cope up with the accelerated changes in modes of delivering quality education, through the use of digital resources. As colleges contemplate reopening themselves for traditional classes, there will be a new set of changes made in the way colleges approach classroom education while maintaining the norms of safety and social distancing, especially post pandemic.

**[Keywords:** self-driven learning, modern education, freedom & flexible, global reach]

### **Introduction:**

In traditional high schools, colleges and universities, institutions provided minimal choice for students for when the learning would take place. Typically, the students would accept the learning schedule prepared by the institute and follow the same. Traditional teaching has revolved around content with great emphasis laid on textbook-based learning. The teachers headed the classroom and used lectures, tutorials, and presentations to help the students understand the material being taught. With the advancements of ICT and various tools, students are no longer restricted to learning from the textbook, class lectures, and presentations. With the help of the internet and ICT tools, higher education learners can access a variety of sources for information, including videos, documentaries, podcasts, and speeches by experts. The sources of learning are endless. The onus of learning has also shifted from teachers to the students as there is an increased focus on student-centered learning that is based on the access of information. This has also changed the role of the teachers from being content experts to being guides and mentors for the students. ICT is not only influencing, changing and supporting the content that is being learnt in higher education institutes but is also changing the way students are learning. There has been a systematic movement from content-centered curriculum to a competency-based curriculum with the aid of various ICT tools. Similarly, there is a movement away from teacher-centered learning to student-centered forms of knowledge. Major ICT Initiatives in Higher Education India has taken up major initiatives in terms of content delivery and furthering education through Information and Communication Technology. For instance GyanDarshan was launched in 2000 to broadcast educational programs for school kids, university students, and adults. Similarly GyanVani was another such

important step which broadcast programs contributed by institutions such as IGNOU and IITs. The use of ICT tools allows students to optimize their learning experience by choosing when they wish to study based on their routine or body clock. Learners are free to participate in learning activities, when time permits or be assured of no interruption. This freedom and flexibility have significantly increased the opportunities for many students to participate in formal programs. It has also provided learning opportunities for many more learners who previously were constrained by other commitments. The use of online technology learning has enabled learning to become an activity that is no longer set within programmed schedules and slots. The various technologies can provide asynchronous support for learning so that the need for real-time participation is avoided while the students can benefit from the communication and collaboration that the online system provides. It is not only students, but even teachers benefit from those tools as they can decide what periods in the 24X7 envelope can be utilized for teaching and interacting with the students.

As students get ready to step into the future, there will also be an increased preference for using various technological tools in the learning process. Some of these tools include:

- **Video based learning:** This is a great way to improve learning outcomes through increased engagement. Video-based learning provides fast access to experts from across the world. The recent improvements in the video capabilities of many handheld devices together with the easy availability of low-cost or free video platforms ensure growth in video-based learning.
- **Block-chain in learning:** It can be defined as an online public ledger that automatically records and verifies transactions. In the coming years, it can be used to not only serve as a transparent record storage system for students but also to track & share their students' credentials with potential employers.
- **AI based learning:** AI or Artificial intelligence will be integrated with schools/colleges in number of ways including setting up question papers, giving feedback to the teachers to help them improve their teaching strategies and to personalize the learning experience for the students.
- **Virtual Reality in learning:** It has entered the world of education few years ago and it is here to stay for a while. It has been used in the classroom in a number of ways and the most common use of VR technology is providing the ability of virtual visits to distant or physically inaccessible places. It is also often used in the medical classroom and in the year 2025, it is expected to become one of the most commonly used methods to display objects, processes, locations, and historical events to students.
- **Cloud based technology:** The year 2025 might also see acceleration in the adoption of cloud-based technologies for student relationship management. This tool might accelerate the adoption of cloud-based technologies for Student Relationship Management (CRM), Learning Management System (LMS) & classroom assessment management.
- **Personalized learning:** Personalization is the learning style of the future. Personalization ensures that different students who enroll in the same course; may be assigned different materials by the learning platforms to their learning path. This will be assigned based on their profiles, learning styles, performances & behavior. Personalized learning can boost engagement & produce strong learning outcomes for the students.
- **Distance learning tools:** As soon as the pandemic struck, one of the key priorities for schools/colleges became to ensure learning continuity for the students. During this time, many schools shifted online, using tools such as Google Meet, Microsoft Teams etc. to ensure that the classes could continue without disruption. In areas with limited internet connectivity, local governments launched radio & television programs together with the distribution on print materials to ensure uninterrupted learning.

- **LMS:** While many schools/colleges closed or cancelled exams, many institutes also opted for alternative modalities, such as online testing and exams. In online testing, the students' progress was monitored with the help of **LMS** and such apps like Google classroom, Moodle etc. This ensures rapid learning assessments and helps to identify learning gaps faster than the traditional methods.
- **Development of new & innovative tools to promote inclusive learning:** As countries adopted distance learning practices, students with disabilities faced and struggled with many barriers. This prompted to innovate & develop tools and technological resources for learners with disabilities and their parents. This included enhancing accessibility features, such as audio narration, sign language video, and simplified text to ensure that learners with disabilities could continue their studies.

### **Objectives of the study:**

1. To analyze the changes in higher education
2. To analyze the challenges to be faced by students (respondents)
3. To forecast the impact of blended learning by 2025

### **Review of literature:**

- Ozdemir and Abrevaya (2007) asserted that ICT is reducing the cost per students and expanding the enrolments and makes the provisions for employers and supports enduring learners.
- Lalitbhusan S Waghmare, et-al (2014) studied "Role of Information and communication technology in Higher education: learners' perspective in rural schools". They concluded that there is a need to foresee the role of technology in education and take appropriate measures to equip the stakeholders for adequate and optimum application of the same.
- UttamkrPegu studied "Information and communication technology in higher education in India: challenges and opportunities" (2014). The study revealed that ICT enabled education will ultimately lead to the democratization of education and it has the potential for transforming higher education in India.
- Mahisa, Anju studied "The role of ICT in higher education in India" (2014). The study revealed that ICT plays a vital role as a strong agent for change among many educational practices.

### **Research Methodology:**

- ❖ **Data collection:**
- ✓ Primary Data: It has been collected through a designed questionnaire from various students (Sample of 60 students/respondents)  
Data collected is further analyzed through MS-Excel

- ❖ **Data Collection & Analysis:**

<b>Students of:</b>	<b>No. of students</b>
12 <sup>th</sup>	12
FY	12
SY	12
TY	12
Post-Graduation	12
<b>Total</b>	<b>60</b>

### **Conclusions & findings:**

In conclusion, higher education systems have grown exponentially in the past few years & are expected to grow even more to meet the increasing demands of quality education by 2025. The swift advancements in ICT have also helped to propel the higher education sector to serve the students and teachers better. Today, ICT applications can provide many options and choices and for the students and institutes can create competitive edges by offering these choices to their students, as more than 51% have responded saying they will definitely consider integrating ICT based learning in some theoretical academic subjects, but given the choice will still prefer physical/offline learning for practical subjects like accounting/financial management for conceptual understanding. Some education trends that I forecast by the year 2025 are: increased preference for online courses, increased investment in LMS by schools/colleges, 5G stimulated learning experiences, increase in blended learning; however, while shifting this base, there are certain requirements which are to be fulfilled like support to teachers' needs, online appreciation to educators/students, changing role of the parent, increasing disparity between students to get the desired outcome of it.

### **Suggestions:**

The quality of programs is to be measured & the purpose should continue to grow, if the stakeholders perceive the various educational programs are meeting their needs and expectations. ICTs serve to provide the means for activities to realize the potential in human resources. Furthermore, adequate funds must be provided to initiate, develop, promote, review and implement ICT policies in the educational sector to bring about an improvement in ICT utilization. In the period of economic recession, the price of ICT equipment and materials will continue to the astronomical, so one can actually utilize that opportunity to get well equipped with the desired platforms. It becomes highly imperative for all stakeholders of education to entice industrial establishments, politicians, big businessman and entrepreneurs, non-governmental organizations and the community at large to assist the institutions in the provision of ICT equipment and materials and well-furnished computer laboratories. The penetration of ICT systems in higher education institutions is extremely poor according to a survey of accredited colleges by UGC in 2008 which revealed shortcomings in IT infrastructure. Also, as the majority of Indians living in rural areas have poor access to internet, it is necessary that they are exposed and trained in basic computing skills and ICT utilization. Moreover, the low awareness on IT literacy is also a major challenge India faces in realizing ICT implementation in higher education. According to the International Telecommunication Union; The Internet and Mobile Association of India (IAMA) report a majority of government institutions do not have sufficient IT systems. India's linguistic diversity necessitates the development of content in multiple languages to increase ICT applications. ICT has facilitated a modern learning approach where students are encouraged to take responsibility for their own learning. Students are increasingly turning towards the web and online subject matter experts from who they will learn; thus creating an environment of independent learning has become vital now; which might continue to be in years to come.

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**Appendix:**

Structured questionnaire - <https://forms.gle/DVmYnF98URiy4hWz6>

## **ROLE OF ELECTRONIC WORD OF MOUTH ON CONSUMERS PURCHASE DECISIONS IN FOOD & BEVERAGE OUTLETS IN BANGALORE**

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### **Abstract**

Interpersonal impact of word-of - mouth (WOM) are considered the most significant source of knowledge when a customer makes a decision to buy. These effects are particularly relevant in the food and beverage outlets, the intangible resources of those are difficult to determine before purchase. When WOM becomes global, the Internet's large-scale, private, ephemeral nature creates new ways to record, evaluate, view and control the effect that one user can have on another. This paper explains interpersonal online control, of eWOM, as a potentially cost-effective way of promoting food and beverage outlets, and addresses some of the current technical and ethical challenges that marketers face as they attempt to adopt modern eWOM technologies.

**Keywords:** Online reviews, reputation management, social media, consumer behavior

### **1: Introduction**

Every sector is engaged in online transactions in the e-commerce era, and the food and beverage industries are no different. 71% of dining related bookings are made online. Many customers in recent months ordered food or booked a table at restaurant through online.(Buhalis& Law, 2008).Customers are providing feedback online after consumption and such online reviews are becoming increasingly relevant(Kaplan & Haenlein, 2010).They are easy, up-to - date and anywhere available, and have become the word-of - mouth of the modern era From the viewpoint of prospective buyers, these reviews are considered accurate, trustworthy and helpful; they are also significant (Zhu & Zhang, 2010). Online reviews thus play a key role in the hospitality and tourism industry's sales, which primarily provides services and focuses on customer satisfaction and decision making(Li & Hitt, 2008).With technological creation and innovation, eWOM allows user-generated content (UGC) to be developed and rapidly shared in a digital world. This helps consumers to quickly seek feedback from different social platforms. Foreg; TripAdvisor is a common website where people can browse through online reviews shared by peer travelers for all sorts of travel-related details(Forman, Ghose, & Wiesenfeld, 2008).Online feedback can be put indifferent ways and produce strong online word-of - mouth (Chen & Xie, 2008).

To fill in the gap, this study analyses empirical performance goals relevant to online feedback, which is the most prominent and common part of food and beverage outlets social media (Buhalis& Law, 2008; Gu & Ye,2014).eWOM is a new and influential digital world phenomenon. Having got a clearer understanding of its driving factors and substantial effects, restaurant practitioners will respond promptly and map effective e-marketing strategies..The research is unique and uses two methods. First, we review all of the research literature relevant to online reviews to establish a summary and comprehensive order of the current subjects, learning outcomes, and the methods applied. Second, examine the limitations of previous research and suggest strategies for future field studies, with implications for fellow researchers as well as the industry. The aim of this study is to find out the advanced overview of technologies and development in food and beverage outlets by electronic word of mouthin consumer decision making and an overall outlook on potential research efforts.

## **Characteristics of electronic word of mouth**

Electronic word-of - mouth (eWOM) has had an influence on the restaurant industry and address developments which could affect their future. eWOM was to become an important force as a source of views and thoughts of travelers (Litvin et al., 2008).eWOM has emerged as a highly important part in modern marketing policy, and to have existed and to provide a hope for the future as a confirmation torestaurantwork. Interpersonal or social contact was reported as being the most significant and A significant source of customer knowledge, both for hospitality and generally.(Travel et al., n.d.)EWOM will be getting more relevant and the hospitality administration and advertisers will learn and support the feature.eWOM has achieved its pledge of being a significant force on the restaurant sector and will continue to play a crucial role in food and beverage outlets marketing in the near future(Litvin et al., 2008. By making good use of social media, restaurant connect with their existing and future clients effectively and efficiently. The approach to digital marketing inside a digital world needs to be immersive. Restaurant brands who aim to establish a social world by encouraging visitors to develop a virtual community would be more effective.This study offers realistic guidance for food and beverage outlet businesses in resolving the online background problems and opportunities identified(Travel et al., n.d.)

## **multidimensional scope of electronic word of mouth**

WOM was described as the conduct of verbal contact between individuals relating to a certain brand, object, or service. eWOM is the direct exchange of feedback and experience by non-promoting networks that do not include vendors and human control and also eWOM is the most cost-effective way of promoting food and beverage outlets(Xie et al., 2016)The study showed that eWOM has a major impact on the affective, perceptual and specific picture of a destination in question. eWOM was found to be a strong indicator of the mood of visitors and their desire to consume. Study results that eWOM tends to have the most significant impact on components of the destination identity than face-to - face WOM. (Jalilvand & Heidari, 2017)food review websites are the most commonly used online community by tourists for finding information, followed by food blogs and travel social network pages. customers have changed their eating plan behavior with the introduction of online food ordering apps. New technologies encourage consumers to participate in online discussions or acquire knowledge through interactions with eWOM.(Kim et al., 2015)more online site experience is more affected by on-line reviews than people with less knowledge. So it's clear to say that eWOM have a drastic role in consumer decision making(Hernández-Méndez et al., 2015).Consumers have considered eWOM to be more acceptable, up-to - date, comfortable and less disruptive to perceive. eWOM is able to change customers at all levels of their decision-making. This involves understanding their purposes, determining their decision criteria, analyzing alternatives based on their characteristics and making decisions.(Pourfakhimi et al., 2020)For high-involvement goods the role of e-Reviews in the decision-making process increases. The growth in eReview is associated with rises in revenue.The role of eWOM in the decision-making process for consumer transactions always centers on a single context.(Chen et al., 2015)relative interest plays a mediating role between eWOM, the pleasure of visitors and loyalties.eWOM improves understanding, beliefs, opinions , attitudes, focus on actions and behaviour. It has been reported that increased brand awareness of the destination contributes to strong brand loyalty of the destination.(Yang et al., 2016)for customers who have had a mild dining experience or spent less emotional work in writing web reviews, social impact is greater. This study examines whether and how previous appraisal scores submitted by other users influence the online evaluation of an individual user.(Bradley et al., 2016). For customers who have had a mild dining experience or spent less emotional work in writing web reviews, social impact is greater. Non-elite reviewers are more vulnerable to the social impact of a lifetime average approval ranking relative to reviewers identified by providers.(Li et al., 2020)

## **consumer choices on electronic word of mouth**

Online reviews play a significant role in helping customers make their own decisions, particularly in the food and beverage outlet sectors. Studies have been scarce on factors influencing people's reviews on the Internet, such as how emotions affect people's behavior when they publish eWOM.(Manes & Tchetchik, 2018) There are three key variables in the planned theory of behavior, attitude, subjective norm and perceived control of behavior. In this analysis the article states there is a connection between consumer emotion and e-WOM. Therefore e-WOM that contains both positive and negative emotions would make the analysis real.eWOM(Yan et al., 2018)eWOM is capable of converting communication networks efficiently to influence networks, improve customer understanding and eventually contribute to recognition and deals.. Due to its simplicity, speed of contact, anonymity, many-to-many interactions, lack of time and space constraints, reach and source.(Leong et al., 2019)The effect of eWOM depends on the reliability of the source, the valence and the amount of knowledge that eWOM obtains. (Abd-Elaziz et al., 2015)the development of Internet technologies, eWOM takes place in a wide range of online media,.eWOM behavior include finding an opinion, giving an opinion and passing an opinion. Opinion seeking refers to an individual looking for knowledge and advice from others, while opinion giving refers to actions and encouragement of an individual to share information.(Kaplan & Haenlein, 2010).More than 70 % of youth are using social networking sites for over 1 hour.The result shows that ewom has become an integral part of the lives of young people and a crucial communication tool for decision making.(Yoon, 2015)Online consumer reviews posted on the Internet constitute one of the most available and prevalent types of e communication.Attitude towards visiting a food outlet, subjective norm, and perceived regulation of actions are all found to be essential determinants of the intention to consume a certain dishes. eWOM has more impact on the decision-making of restaurant relative to the expansion of companies.(Jalilvand & Samiei, 2012)About 74 per cent of customers use other customers ' feedback as sources of information when planning their dining .(Jalilvand et al., 2013)The intensive use of social media and peer interaction had a broad impact on the decisions of Generation Y to interact in eWOM about their experiences in work. Generation Y was affected by technical innovation of mobile devices to share pleasant or bad service impressions, rather than healing impressions sufficiently. Family influence has a mixed impact on Generation Y subgroups (21-24 years vs. 25-35 years of age) to participate in eWOM about their satisfactory or bad service experience. (Zhang et al., 2017)Present users prefer to use the previous average user ranking as an index, and change their own ranking depending on their context. Consumers prefer to score a higher restaurant if the current overall rating is high, or if a sufficient amount of recent online reviews are available.(Li et al., 2019)

## **The multidimensional scope of the impacts of electronic word of mouth on consumers' choices**

eWOM is part of the social media community which includes various activities related to social media. eWOM is consumer-dominated direct contact medium where the source is economy-independent. eWOM is the electronic communication, around the Internet, of observations and views about a product or business from individual to customer. The internet helps the user to express with a wide audience their own ideas and observations, emotions and perceptions on the services and products(Lis & Horst, 2013). Online reviews and social media offered a convenient way for prosumers to exchange and discover information..(Fine et al., 2017).different service interactions result in different motivations and the purpose of spreading eWOM by consumers getting bad feedback expect to affect businesses by online reviews. Customers are collecting reviews from other consumers online to save time and make smarter buying choices.(Manes & Tchetchik, 2018) Consumers love belonging to a shared community, and engage regularly in such communities to meet the need to recognize and to seek economic

interest. EWOM plays an important role in intermediate websites providing customer discussion platforms or consumer feedback information or interactive communities providing a space for exchanging views. (Sotiriadis & van Zyl, 2013) eWOM effect is determined by the positive, negative, neutral or mixed valence of eWOM. Controversy persists over the role of positive and negative valence on the distribution of eWOM and its consequences. level of service and loyalty, loss and recovery, customer frustration and sense of group belonging were suggested as the key reasons of users to write online reviews. (Sijoria et al., 2019) it was found that, to a greater or lesser degree, all findings recognize the impact of ratings on the decision-making process, suggesting that eWOM is widespread in today's market and has the ability to affect consumer decision-making. In the same way, it was observed that behavioral influence and eWOM are listed as the most significant source of knowledge when a customer makes a buying decision. The findings demonstrated that eWOM may have an effect on loyalty. (Serra-Cantallops et al., 2018) consumer decision to purchase again, perceived value, and perceived risk in the peer-to-peer economy. EWOM plays an important role as regards its impact on all initial proposed variables. (Liang et al., 2018) Consumers' loyalty in an online review message is dictated primarily by their trust in its content. The study showed that trust is passed from the review site to the reviewer's group, and then to a single reviewer. It was also observed that customer trust in the individual reviewer and helpfulness of the author also relate to the adoption process. 81 percent of customers read reviews and search scores before deciding to purchase. (Lee & Hong, 2019) Understanding the details shared in the online setting is a significant problem in the world of restaurant marketing. Good and negative eWOM offers potential consumer a good view of the restaurant and its Marketing Companies may use this knowledge to satisfy the needs and desires of the clients. (González-Rodríguez et al., 2016)

## **methodology**

### **Data collection**

The study examines the involvement of online reviews as electronic word of mouth, and collect data's which shows how this online review make importance in consumers life and decision-making process in daily life before purchasing. So, the data are collected from Google Scholar, is an online search engine that is publicly available and indexes the full text or documentation of academic literature across a variety of publication platforms and disciplines. The Google Scholar index, released in beta in November 2004, contains most peer-reviewed online scholarly articles and books, conference articles, theses and dissertations, preprints, abstracts, scientific reviews and other academic literature, including court opinions and patents. Although Google does not disclose the size of Google Scholar's database, scient metric researchers calculated it to be contagious. An earlier statistical analysis released in PLOS ONE using a Mark and Recapture approach reported a distribution of approximately 80–90 percent of all publications written in English for an estimation of 100 million. This calculation also determined how many documents were publicly accessible on the internet. For making the data's more relevant and accurate most of the data are from Taylor & Francis, Sage and Elsevier which are the most significant journals which provides accurate and latest articles from all around the world, makes this data collection relevant and meaningful.

### **Data analysis**

#### **Article publication trend from 2010 to 2020**

**Table 1**

<b>year</b>	<b>Number of papers</b>
<b>2010</b>	<b>1</b>
<b>2011</b>	<b>1</b>
<b>2012</b>	<b>2</b>

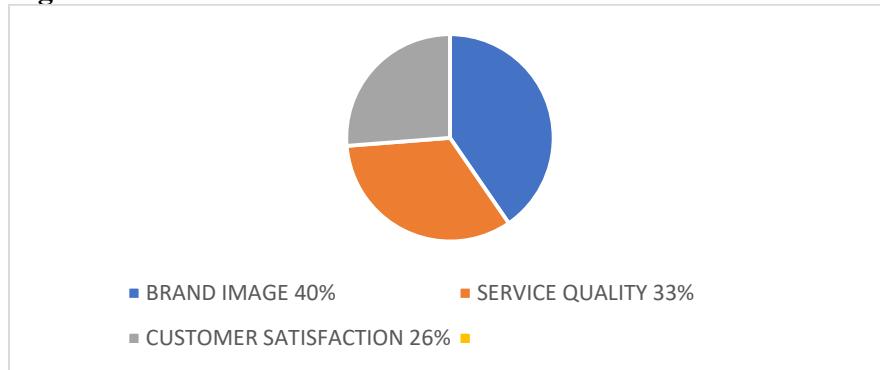
<b>2013</b>	<b>2</b>
<b>2014</b>	<b>1</b>
<b>2015</b>	<b>6</b>
<b>2016</b>	<b>5</b>
<b>2017</b>	<b>4</b>
<b>2018</b>	<b>4</b>
<b>2019</b>	<b>3</b>
<b>2020</b>	<b>1</b>

**aPapers selected for each variables**

**Table 2**

<b>year</b>	<b>Brand image</b>	<b>Service quality</b>	<b>Customer satisfaction</b>	<b>total</b>
<b>2010</b>	<b>0</b>	<b>1[3%]</b>	<b>0</b>	<b>3%</b>
<b>2011</b>	<b>1[3%]</b>	<b>0</b>	<b>0</b>	<b>3%</b>
<b>2012</b>	<b>1[3.5%]</b>	<b>0</b>	<b>1[3.5%]</b>	<b>7%</b>
<b>2013</b>	<b>1[3.5%]</b>	<b>1[3.5%]</b>	<b>0</b>	<b>7%</b>
<b>2014</b>	<b>1[3%]</b>	<b>0</b>	<b>0</b>	<b>3%</b>
<b>2015</b>	<b>2[7%]</b>	<b>3[10%]</b>	<b>1[3%]</b>	<b>20%</b>
<b>2016</b>	<b>3[10%]</b>	<b>1[3.5%]</b>	<b>1[3.5%]</b>	<b>17%</b>
<b>2017</b>	<b>1[3%]</b>	<b>0</b>	<b>3[10%]</b>	<b>13%</b>
<b>2018</b>	<b>2[7%]</b>	<b>1[3%]</b>	<b>1[3%]</b>	<b>13%</b>
<b>2019</b>	<b>0</b>	<b>2[7%]</b>	<b>1[3%]</b>	<b>10%</b>
<b>2020</b>	<b>0</b>	<b>1[3%]</b>	<b>0</b>	<b>3%</b>
<b>Total</b>	<b>40%</b>	<b>33%</b>	<b>26%</b>	<b>100%</b>

**Figure**



## **Findings**

### **Brand image**

The way information is being exchanged has changed with developments in information technologies and the advent of online social networking platforms. This pattern affects consumers, as this knowledge that is readily available may have a direct effect on consumer decisions.(Jalilvand et al., 2013)e-WOM was one of the most important generators of brand image in mass markets. The finding shows ways to successfully support a brand by means of online user groups as well as general guidelines for website and forum facilitators in order to help their on-line audience participants make this

presentation useful.(Jalilvand et al., 2013) This study expands current brand image assessment to a different world by e-WOM.

### **Service quality**

As social media sites becoming more accessible and influential, online reviews have a virtual pattern that plays an important part in customer buying decisions(Xie et al., 2016) Two types of online reviews are available: consumer-generated reviews relying on personal and technical which is editors-generated experiences.(Yoon, 2015) The analysis showed that consumers' satisfaction scores regarding food, atmosphere and service quality and the amount of online customer feedback are related to the online success of restaurants. Although publisher reviews have a low relation to consumers' intention to visit the website of a restaurant(Yoon, 2015)

### **Customer Satisfaction**

In view of the positive relationship between customer satisfaction and loyalty and the aim of retailers to establish a long-term relationship with their customers, this matter is significant. Good exposure to eWOM before purchase raises customer satisfaction with the product bought and exposure to negative eWOM reduces consumer satisfaction with the product bought(Szymanski &Hise, 2000) The social effect, in particular eWOM, not only influences customer buying decisions and their plan to disseminate eWOM after purchase, but also has consequences for consumer satisfaction with the item purchased.

### **Discussion and Implication**

It is noticeable that online reviews on food and beverage outlets studies have taken a keen interest in the relationship between online reviews and online buying behavior. Considering their importance to food and beverage outlets, the impact of online reviews on sales and consumer decision-making are the most researched areas. Most of these articles have a fairly strong focus on the restaurant industry , primarily, and offer sound practical suggestions and implications based on their findings. Another popular area is customer satisfaction and online review management, which relates to purchase. It's been popular for a time to discuss the implications regarding the use of artificial intelligence technology on opinion mining / sentiment analysis of online reviews. This hot trend, after all, disappeared because of a lack of innovative methods. The methods applied in this field are the same and this makes progress difficult unless a revolutionary method appears. Relatively less studied were the motivations for posting, reading, and sharing reviews, as well as the role of reviews on e-commerce platforms.

Checking online reviews is considered an essential process for making purchases from the perspective of consumers. Later, these online buyers regenerate online reviews to express their satisfaction or complaint. Through this cycle, online reviews on the platform become more popular and influential, actually functioning as the most important role between buyers and sellers. From the suppliers' perspective, an online reputation created primarily by online reviews of customers represents their core competitiveness in attracting potential customers and ensuring more sales. As a marketing strategy online management was quickly accepted and expanded over time. The social media management has still not chosen to take over by more than half the restaurant studied shows worldwide. More than 70% of TripAdvisor 's restaurant, have adopted online response management with more than 100 reviews. The online management awareness and practise is the result of the most important aspect of online reviews, in particular the negative word of mouth. Poor reviews, on the one hand, cause reputational damage to providers and, on the other, start providing suppliers with opportunities to improve.

This study fills the gap, meanwhile, in the fact that the literature not examines the impact on customer purchasing decisions of each type of social media. We not only focused on the impact of online reviews on online procurement but also classified all the articles in question into three topics and offered a comprehensive understanding for industry as well as academics.

## Conclusion

By reviewing and analyzing the content of related articles in terms of research topic, contribution and limitations, sample sources, data types, and methods of analysis, this study contributes to the literature by clearly answering the research question " role of electronic word of mouth on consumer purchase decision in food and beverage outlet" This article will help experts and academic researchers to get a better understanding of how to deal with online and online reviewing behavior and to improve customer satisfaction and decision making. And also reveals what can be blew up by massive databases of customers ' online reviews, why customers post reviews and the role of reviews online which motive to purchase. In brief, online review appears to be an important strategic instrument, particularly in promotion, online sales and reputation management in the restaurant sector in Bangalore .Moreover, we believe that this contribution will give managers the opportunity to gain an overview of the major outcome from new findings on on-line reviews and to reflect on their e-commerce strategies.

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# THE WOE OF THE SECOND-LEAD SYNDROME: HOMOSOCIALITY AND HEGEMONIC MASCULINITY IN KDRAMAS

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## ABSTRACT

The *Hallyu*<sup>i</sup> has not only gripped the world with its cultural products from kpop (South Korean popular music) to kdrama(South Korean drama series) but has also successfully generated new experiences for its consumers. Avid consumers of romantic kdramas often claim to suffer from the second-lead syndrome that has re-surfaced with the success of the recent hit kdramas, *Start-Up*(2020) and *True Beauty* (2020). The second lead-syndrome is a term coined by consumers of kdrama to refer to the growing desire to witness the second lead win over the lead in their romantic pursuit, despite the awareness that the possibility is, almost and usually, negligible. The second-lead syndrome is examined in this analysis with respect to the second male-lead syndrome and does not examine the second female-lead syndrome. This implies that the syndrome arises from a plot where the female lead is positioned as the romantic interest of two men, one destined to be the primary love interest, the male lead, and the other, the second malelead who is overshadowed by the male lead and the prominence of the male lead in the life and experience of the female lead. The analysis of the second-lead syndrome is posited in the canon of romantic kdrama and its examination does not apply to kdramas that are non-canonical and of a genre that is not predominantly romance. The syndrome, while possibly a plot device to re-infuse interest in a formulaic plot structure also illustrates the viewers' investment in the imaginary – from fan fantasies of the possibilities of the homosocial and the foregrounding of the hegemonic masculinity of the male lead in the kdrama.

**Keywords:**kdrama, romance, television series, second lead syndrome, plot analysis, Eve Sedgwick, Claude Levi-Strauss, homosociality, hegemonic masculinity, queer theory, queer studies

## 1. INTRODUCTION

The 2020 *sageuk*<sup>ii</sup> comedy, *Mr. Queen*, prompted a series of memes with every episode that aired during the weekends. When episode 8 released, all meme accounts on social media, promptly connected the Queen's calculative musings to the fate of the much-loved and grieved-for characters in other popular Korean dramas (hereafter referred to as kdrama). The Queen deviously contemplates that her knowledge of the future could aid her in a design to eliminate "three generations of Hans"<sup>iii</sup>. The viewers soon generated a meme noting this to be the cause for the loss that three characters suffer in their romantic pursuits: Han Woo-tak from *While You Were Sleeping* (2016), Han Ji-pyeong from *Start-Up* (2020) and Han Seo-joon from *True Beauty* (2020). The three characters belong to the famously ill-fated group of kdrama characters referred to as the 'second male lead' that gains the viewers' empathy and support for their affectionate and attentive actions towards the female lead but is unsuccessful in their attempt to win the affection of the female lead. Viewers note how such 'second male leads' push them to suffer from the second-lead syndrome, also known as SLS in the kdrama fandom.

## 2. THE CONDITIONS OF THE SLS

The second-lead syndrome has long plagued the viewers of romantic mainstream kdrama, from teens to *ahjummas*<sup>iv</sup> , all typically avid consumers of the media form. The second-lead syndrome refers to a viewership experience that arises from an investment in the journey of the lead character in a romantic kdrama. The viewer cheers the journey of the lead character and is aware that the lead

character is destined to experience the “happily-ever-after” conclusion with a character that also plays the lead role but also, in certain kdramas, is touched by the character that plays the ‘second-lead’: one that yearns for the lead but whose love remains unrequited. The second-lead syndrome hurls the viewer into despair who is now left torn between the romantic possibilities for the lead. The second-lead syndrome is not equally applicable to all kdramas and must fulfil select conditions for the experience to eventually set in. The conditions include an unflinching loyalty to the lead they can never attain, a painful experience or trauma they must overcome or perhaps something or someone that often functions to impede their growth and finally, an exemplary consideration and affection for the lead which contrasts with that of the lead’s actual love interest that often initially depicts poor behaviour and problematic personality traits.

### 3. THE POSSIBLE ORIGINS OF THE SLS

The analysis of the second-lead syndrome in this paper will limit itself to that of second male leads caught in an ill-fated love triangle with the female and male lead of the kdrama. Perhaps the earliest instance of intense second male-lead syndrome registered by the viewers originated from *Boys Over Flowers* (2009). *Boys Over Flowers* was a hit kdrama based on the 1990s *shojo*<sup>v</sup> manga<sup>vi</sup> *Hana YoriDango*. The plot of the manga and the kdrama is centred on a female lead who isn’t rich but is exceedingly courageous and righteous. Geum Jan-di (the name of the female lead in the kdrama adaptation) captures the attention of the arrogant leader of F4, Gu Jun-pyo, who bullies her and eventually attempts to woo her (and succeeds). The second male lead, Yoo Ji-hoo, is another member of F4. F4 is a popular and powerful group of boys at a high school. Yoo Ji-hoo is depicted as prince-like, affectionate, attentive and a gentleman. Jan-di is drawn to his gentleman-like demeanor and is distraught to discover that he is interested in another woman. Ji-hoo eventually turns his interest to Jan-di and stays content as a companion throughout the series. Soon enough, the second male-lead syndrome evolved as crucial in frustrating the viewers’ possible setback of ease with the tired plot of romantic kdramas, easily predictable and prone to viewer dissatisfaction in the face of intense competition from other shows or the repetitive formula. Second male-leads are not always deserving of audience’s attention and interest till they fulfil the criteria, evidenced by the lack of interest in the welfare of several second leads that often exhibit villainous tendencies and malice in their resentment of the looming loss. However, it is not simply the potential excitement infused into the plot by the second male-lead that serves as the development of the second male-lead syndrome, but a series of possibilities that emerge in the consumption of these characters, both as individual characters confronting their respective impediments and as characters positioned in the plot, in relation to the other characters in the kdrama.

Han Seo-joon is the latest second lead to infect the viewers of *True Beauty* (2020) with the second male-lead syndrome. He competes with the male lead, Lee Su-ho for the affection of the female lead, Lim Ju-gyeong. Viewers, and fans of the webtoon by the same name, pitted the two against each other in the classic Team Seo-joon and Team Su-ho division. However, a sizeable number of the viewers shared the exasperation of the female lead Lim Ju-gyeong who irritably wonders if the two were “married in their previous lives”, given their constant confrontation, despite her efforts to separate them and evade conflict. This participation of fans and viewers alike is referred to as a ‘shipping’. Fans often construct a heavily utopian world through the practice of shipping, a conscious pairing of two characters into a fictionalized romantic relationship or a homosocial unit, at best.

All popular audiences engage in varying degrees of semiotic productivity, producing meanings and pleasures that pertain to their social situation out of the products of the culture industries. But fans often turn this semiotic productivity into some form of textual production that can circulate among – and thus help to define – the fan community. Fans create a fan culture with its own systems of production and distribution...

-John Fiske, “The Cultural Economy of Fandom”

Fan culture and creation of fan literature is observed across different fan cultures that consume popular culture. Additionally, it is not unique to the kdrama industry either. Active fan behaviour and consumption is seen across various fields of media consumption, gaming, movies, sports, music, books among many others. The rapid spread of information and the influence that can be harnessed through the means of digital technology has enabled and empowered fans to constantly engage in varied forms of “textual production”.

Fandom is an experience that constantly negates with dominant forms of culture and cultural expressions. Much shipping is realised in the production of fanfiction or fan literature. In the limited novelty that a kdrama operates upon during the few weeks that it airs on, fan activity peaks as does production of fan literature, predominantly on various digital platforms or rather, stan drama accounts. Encouraging shipping is a marketing design that certain filmmakers permit to ensure fans stay and are engaged in the production of meaning. Shipping is derived from the word ‘relationship’ and simply functions to entice the viewer to imagine, beyond the universe of the kdrama, and hypothesize alternative textual narratives, thus enabling them to actively participate as a viewer and, additionally, the producer of potential meaning. The heterosexual love triangle is now a potential site of male homosociality.

#### 4. HOMOSOCIALITY

Eve Sedgwick, in her works on queer theory and male bonding, notes how the rivalry present in the love triangle serves to draw the male participants into a homosocial unit with a gradual obliteration of the female participant or the female object. *True Beauty* viewers ache for the lost friendship of Su-ho and Seo-joon and they must reconcile for either to fully commit to any other dream or fulfilment. Several crises occur in the plot but perhaps the most dramatic one involves not the heterosexual pair but rather Su-ho and Seo-joon. Distraught by the memory of their lost male friend, the two run wildly across the streets only to meet with a serious accident. As they recover, they unite and learn the sufferings of each other. Interestingly, Seo-joon’s interest in the female lead arose from her being an object of desire for Su-ho, furthering the homosocial nature of their relationship. When Su-ho leaves for America to care for his ailing father, he entrusts Lim Ju-gyeong to Seo-joon. This lends itself to Levi-Strauss’ contribution to alliance theory and the role of women as an object of exchange in male bonding.

Several viewers of kdrama note the worrisome trend of the preference of male leads with less-than-ideal personality traits in contrast to the second male leads that cause the second-lead syndrome. Jun-pyo of *Boys Over Flowers* is an arrogant and immature bully, Lee Su-ho of *True Beauty* is cold and initially mistreats Ju-gyeong too, Lee Seon-joon of *Sunkyunkwan Scandal* (2010) is painfully upright and cold, Hwang Tae-kyung of *You’re Beautiful* (2009) is cold and mean and the list continues. The female lead is declared imperceptive, easily driven by impulsive moments and ‘clueless’ of the second-lead’s endeavours and affections. While the invalidation of the female lead’s free will and choice is often overlooked by such claims, the analysis shall focus on the plot’s preference for the problematic male lead over the second lead who demonstrates ideal and less toxic personality traits in comparison.

#### 5. HEGEMONIC MASCULINITY

South Korean masculinity is an extensive examination of the paradigm shifts in Korean history and gender, the transformative narratives of colonial discourse and the positioning of the Korean subject in opposition to other masculinities. The foundation of the Korean societal value system is derived from the Confucian ethical system. Neo-Confucian patriarchy formed the ideological basis in Joseon-era Korea. Neo-Confucian philosophy valued education, high-ranking employment posts and athletic prowess as important hallmarks of masculinity. Neo-Confucian patriarchy, military hegemony and Western capitalist ideology form the framework of the formation of Korean masculinity. Often foregrounded is the *seonbi*<sup>vii</sup> masculinity in kdramas. Sun Jung notes the *seonbi*

masculinity as the valued and desired masculinity, the idea of the ideal man as one of cultural attainment than physical attainment, one of success and ambition. The male leads perform hegemonic masculinity as distinct from the second male leads who are often crippled by their shortcomings. Male leads are not without weakness; most of them have painful pasts that they endeavour willingly to overcome. Second leads on the contrary tend to seek a more passive route, delay confronting their problems and are therefore left crippled. The female lead, as she struggles with her own pain and obstacles, often cannot identify and connect with the passive second lead who, crippled, offer a helping hand or a shoulder to cry on but cannot serve as an example. Take for instance the male lead of *True Beauty*. LeeSu-ho is the classic *tsundere*<sup>viii</sup> but never lets his traumatic past hinder him from excelling in academics. He resents no one apart from his father but with whom he never confronts or disrespects till a situation arises and he is forced to confront it. Even as he battles his own demons, he empowers Ju-gyeong throughout. Similarly, Nam Do-san of *Start-Up* has little to compare with the second male lead, Han Ji-pyeong as the latter is successful, smart, insightful, and sharp. Nam Do-san however is willing to confront and move over the lies that impede his relationship with Dal-mi unlike Ji-pyeong who has been complicit in production and conservation of the lies. While Ahn Min-hyuk of *Strong Woman Do-bong Soon* (2017) might be a softer masculinity as against the second lead, he is a successful CEO, focused on his goals, determined and charismatic. Do Kyung-seok of *My ID is Gangnam Beauty*(2018) may not be a successful adult as he is still a student, but his gentility, maturity, meticulous ambition, intelligence, and perceptiveness sets him apart as superior to not just the second male lead, who is a teaching assistant, but also the other male characters present in the drama. He boosts the confidence of the female lead, rescues when needed and when she decides to stand up for herself, he happily supports her from the sidelines and cheers her on. Ahn Min-hyuk of *Strong Woman Do-bong Soon* and Do Kyung-seok of *My ID is Gangnam Beauty* readily position themselves as secondary in the life of the female lead, while ensuring that the role of their masculinity is not rendered passive and does not deviate from hegemonic masculinity. The male lead additionally is keen from the start of ensuring that their pursuit of the female lead ends successfully and intend to ensure long-term companionship, fidelity, and romance. The second male leads are crippled by their own feelings and other circumstances and their inability of confront the problems or their delay in comprehending their feelings for the female lead hold them back, thereby rendering them unsuccessful. The male lead thus aligns with the one of the several goals of hegemonic masculinities: union, the family ideal and as Juliet Mitchell notes “shift to capitalism”. Do Kyung-seok leaves his father who is a politician and embarks on his own journey to sustain both himself and his relationship with Kang Mi-rae. Ahn Min-hyuk is a successful CEO in his own right and does not dependent on his conglomerate family for success or support and therefore, when he marries Do Bong-soon and is blessed with super strong twins towards the end of the kdrama, he successfully asserts in every way imaginable throughout the plot, the undeniability of his masculinity.

## 6. CONCLUSION

The second-lead syndrome will continue as an operational plot device in romance kdramas as it continues to bring interest to not just the plot but to the actors that successfully essay the roles. The unsuccessful fate of the second male lead however has changed since *Boys Over Flowers* (2009), to insure the second lead against an unsuccessful life. Second male leads have been depicted to discover new, non-romantic, avenues of life, potentially in the pursuit of better career opportunities. The orientation of the second male lead at the conclusion of the kdrama towards other ideals of *seonbi* masculinity, such as success in career, is reflective of the plot’s attempt to elevate the imaginary future of the second male lead and successfully induct them, completely, into the exclusive membership of hegemonic masculinity. The loss of the female lead is simply a phase in the journey of life and thus the second-lead syndrome transforms from the desire to cheer the female lead to unite with the second male lead, to the contentment from the knowledge of the second male lead’s

bright future. The second-lead syndrome therefore transforms, in the course of the series, to propel the investment in the second-lead as equivalent to the interest in the welfare of the leads of the series.

<sup>i</sup>*hallyu*—Korean Wave, it is a term to denote the spread of Korean cultural products across the globe

<sup>ii</sup>*sageuk*—a Korean term that denotes historical drama series or traditional drama plays. *Sageuk* in this paper will refer to South Korean historical television dramas

<sup>iii</sup>*Han* is one of the many family names in South Korea.

<sup>iv</sup>*ahjumma*—a Korean term and honorific. Equivalent of aunt.

<sup>v</sup>*shojo*—Japanese term for ‘young woman’. Shojo manga caters to the demographic of a young female audience.

<sup>vi</sup>*manga*—Japanese comics

<sup>vii</sup>*seonbi*—Virtuous scholars in Joseon Korea.

<sup>viii</sup>*tsundere*—Japanese term for a person who has a cold exterior but is actually warm and affectionate.

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## AN ANALYSIS OF FACTORS IMPACTING THE DIVIDEND PRACTICES OF INDIAN FIRMS: AN EMPIRICAL STUDY

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### ABSTRACT

Dividend, always been a debated issue in fields of corporate finance, attracts the researchers and academicians as even after six decades, there is no convincing theoretical explanation about the behaviour that a firm portrays while exercising the dividend practices. The present study examines the BSE 100 firms for the time period ranging from 2010-2011 to 2019-2020. The sample firms have been analyzed using the multiple regression model which leads to results that firms with the higher profits, larger in size, having ample growth prospects and increasing adjusted closing price have more tendency to distribute the dividends among the investors as compared the firms less profitable, smaller, and lacking growth opportunities. And the cashflow factor shows negative significant impact over the dividend payments of the sample firms signifying that the firms are more inclined towards the summing up of cash for future profitable outlooks instead of current dividend payments, thereby opposing the proposed relation with dividend policy of the sample firms.

**Keywords:** *Dividend policy, profitability, cashflow, size, growth, Indian firms.*

### 1. INTRODUCTION

Dividend decision is one the most debated and unsolved issue in corporate finance literature. Dividend basically is that portion of net income that firms distribute among its investors. But what proportion of net income should be distributed and how the firm conceives various factors that have bearing on dividend decisions is still an unresolved issue. As Black (1976) wrote concerning the dividend decisions as “the harder we look at the dividend picture the more it seems like a puzzle with pieces that just do not fit together”.

Since dividend renders a puzzling behavior, it becomes eye catching to the investors. They started observing the practices of the firms' and considering the factors that have bearing on the dividend decisions. Dividend irrelevance theory (Miller & Modigliani, 1961), Bird in hand theory (Gordan, 1963) and Lintner's Model (1956) are among the opening theories of the dividend puzzle followed by the signaling theory (Bhattacharya,1979), agency theory (Jensen & Meckling,1976), life-cycle theory (DeAngelo,2006) and catering theory of dividends ( Baker & Wurgler,2004).

Existing literature in this regard pointed out the dividend policy varies to a large number of factors viz. profitability, size of the firm, cashflows, growth opportunities, stock prices etc. However, these factors are mainly focused on the financial data of firms belonging to the developed markets, but the circumstances of developing countries are differ from the developed ones, thus, it might be possible that firms from developing countries behave differently towards the factors previously identified.

This paper focused on firms belonging to the developing and emerging market like India. The sample involves 100 firms listed on Bombay Stock Exchange mainly constituting the large cap companies from major sectors. The study helps in identifying the factors having impact on the dividend practices of Indian firms in current scenario. It provides insight to the investors as well as to the managers regarding the influencing power of various factors and how these factors together frame the overall dividend policy of the sample firms.

### 2. REVIEW OF LITERATURE

Lintner (1956) made an opening up contribution to the dividend puzzle and revealed earnings as a major factor of dividend decision, also firms set a target payout ratio and adjust the dividend payouts

accordingly. Anil & Kapoor(2008) studied the Indian IT firms and provided that profitability is a leading determinant in the dividend decisions. Bhayani(2009) also, provides support to the profitability factor.

Al-Najjar (2009) analysed the dividend policies of Jordanian firms. His findings revealed that alongwith profitability, business risk and growth rate also have major impact on dividend decisions. Patra , Poshakwale and Ow-Yong (2012) in context of Greece firms, concluded that firm's size, profits and liquidity are positively affecting the dividend payments while risk and leverage have negative impacts on the dividend payments. Gupta and Singhania (2012) using the tobit model approach signify negative influence of firm's size and growth opportunities on the dividend distributions. Warne and Pinki (2013) after examining the Indian automobile firms concluded that even same industry firms may have differences in their dividend practices. Labhane & Mahakud (2016) firms with higher profits, larger in size, liquidity and maturity have followed the higher dividend payout ratio and vice-versa. Following the same, Yusof and Ismail (2016) gives evidence that the Malaysian firms also consider the earnings, size and investment opportunities while discussing the dividend decisions and showed their positive attitude towards them. Kumar & Ranjani (2018) like the previously, also concluded the positive impact of size of the firm and cash holdings on the dividend declarations. Cash from operations also described as a significant factor to the dividend payouts by Chakraborty et al. (2018) in case of Indian automobile firms.

### 3. DATA & METHODOLOGY

#### 3.1 Data

This study examines the determinants of dividend policy for the firms listed in BSE 100 Index. The sample consists of only the non-financial firms which bring the sample size to 78 firms. Also, the firms with missing data are excluded from the list which at last leads to 649 firm-year observations with the variables' data ranging from 2010-2011 to 2019-2020. Data have been taken from CMIE Prowess database also supplemented from the several websites like besindian.com, moneycontrol.com etc.

#### 3.2 Proposed Variables

The dependent variable is dividend rate which is defined as ratio of dividend per share to market price of share. The independent variables are followed from the existing literature and they are as follows:

**Profitability (PAT):** Profits after tax is used as a proxy for the profitability of the firm. As evident from the literature, firms with the higher profits are expected to have higher funds at their closure and thereby they can pay higher dividends with a much comfort. Thus, a positive relation has been proposed between the profitability variable and dividend policy of the firms.

**Cashflow:** The cashflows from operating activities is used as a proxy for the cashflow variable in the study. The cash balance at the outset of the firm is an indication that the firm has growth opportunities and smaller firms prefer to hold cash in order to avoid the costs of external funding. Thus, a negative relation of cashflow has been proposed with the dividend policy of the firms.

**Adjusted closing price:** Since, the investors are enthusiastically observing the share prices of their purchased stocks, possibly they started assuming the image and financial potential of the firms from these stock prices. Also, the increasing stock prices of the firms act as an indication of their building profits which might be possible in real sense also. Thus, it is believed that firms with higher closing stock prices have larger funds and are more tended towards the dividend distributions. Hence, a positive relation has been proposed or expected between the dividend policy and adjusted closing prices of the shares.

**Firm Size:** The natural logarithm of market capitalization of the firm has been used as a proxy for measuring the firm size. It is evident from the existing literature that the larger firms have huge funds and access to the low costs finance ultimately benefits the investors, since larger firms are paying the regular and higher dividends because of sufficiency of funds. Thus, a positive relation has been expected between the size of the firm and dividend policy of the firms.

**Growth opportunities:** This variable has been measured using the market to book value ratio. Since, utilization of growth opportunities needed funds which can either be internal or external ones. Firms preferably used the internal funds and thereby reducing the net income available for distribution among the investors. Hence, it is expected to have the negative relation of growth opportunities with the dividend policy of the firms.

### 3.3 Model Specification

The present study is focused on the identifying the impact of different proposed factors over the dividend policies of sample firms and studying their direction and level of influence on the dividend practices of sample firms. For the analysis, the multiple regression model has been used as the paper aims on studying the influencing relation of factors over the dependent variable.

$$DR_{it} = \beta_0 + \beta_1 PAT_{it} + \beta_2 CASHFLOW_{it} + \beta_3 ADJCP_{it} + \beta_4 SIZE_{it} + \beta_5 GROWTH_{it} + e_{it}$$

Where, DR<sub>it</sub> = dependent variable, dividend rate for firm i in the period t, PAT<sub>it</sub> is profit after tax for the firm i in the period t, CASHFLOW<sub>it</sub> is cashflow from operating activities of the firm i in the period t, ADJCP<sub>it</sub> is adjusted closing price for the firm i in the period t, SIZE<sub>it</sub> is natural logarithm of market capitalization of the firm i in the period t, GROWTH<sub>it</sub> is market to book value ratio for the firm i in the period t,  $\alpha$  is a constant,  $\beta$ s are the slope coefficients, e<sub>it</sub> is the error term for firm i in period t.

## 4. RESULTS AND DISCUSSION

The table 1 shows the summary statistics of the variables used in the paper. The average firm in sample pays dividend at rate of 394% and has profits around 2733 crores. The average operating cash flow is at 3937 crores and market-to-book ratio is at 6%. The dividend rate shows the standard deviation at around 702 with the maximum rate of 7900%.

Table 1: Descriptive Statistics

	DR	PAT	CASHFLOW	ADJCP	SIZE	GROWTH
Mean	394.8123	2733.214	3937.238	1427.343	10.39935	6.230570
Median	200.0000	1086.900	1287.430	347.6300	10.39436	4.180000
Maximum	7900.000	35163.00	76560.00	72300.70	13.66932	50.71000
Minimum	0.000000	-36088.20	-2759.770	21.95000	6.483306	0.340000
Std. Dev.	701.8999	5002.293	7757.770	5673.632	1.102180	6.094733
Observations	649	649	649	649	649	649

Source: compiled by author

The table 2 provides the results of regression model used for the analysis of proposed variables. The table portrays that all the independent variables are showing the significant relationship with the defined dependent variable (Dividend rate).

Table 2: Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PAT	0.031881	0.008352	3.817148	0.0001**
CASHFLOW OPERATING	-0.020231	0.005262	-3.844739	0.0001**
CLOSING PRICE	0.012966	0.004501	2.880459	*
MARKET CAP	120.0668	29.41479	4.081851	0.0001**
P/B	28.19518	4.403026	6.403592	*
C	-1055.465	292.0938	-3.613447	0.0003

\*\*\*Significance at 5% level.

As per the table, the variable representing profitability factor i.e. Profits after tax (PAT) showing the consistent results with the existing literature. As per results, firms with the larger profits are more inclined towards the dividend payments since they have larger funds at their disposal to distribute as dividends as compared to firms with lesser profits. The negative coefficient of operating cash flow shows that the firms with higher cash flows are less interested towards the dividend payments as they seemed to believe that cash flows are crucial source for funding the future hidden and short term unexpected fruitful opportunities which possibly are availed only with better cash balances. Thus, these firms have less inclination towards the dividend and they prefer to hold the excess cash balances for upcoming prospects.

The coefficient of adjusted closing price shows the expected positive relation with the dependent variable, the results are in line with the proposed hypothesis. The higher closing price gives indication of better position and its market image. The higher the closing price, the higher assumptions the investors made about the firm's profits and its market position. Therefore, it can be believed that firms with the increasing closing prices are more tended towards the dividend distribution. The next one is the size factor, it renders the positive and significant relation with dependent variable, thereby showing the consistent results with the existing literature. The firms larger in size have the less information asymmetry and they also have benefit of raising funds at lower costs. Thus, they have larger funds with them and are able to pay the higher dividends.

The market to book value ratio represents the available growth opportunities to the firms. The positive coefficient of growth factor is just showing the reverse relation than the expected one. The results provided that firms with higher growth opportunities pay more dividends as they earned more funds at their closet as compared to the firms with lesser opportunities.

## 5. CONCLUSION

The present study examines impact of factors influencing the dividend behaviour of BSE100 firms during the period from 2010-2011 to 2019-2020. From the empirical analysis, results provided that the firms having higher profits, higher adjusted closing price in the market and larger in size are more tended towards higher dividend payments as compared to the firms having lower profits, low adjusted closing price and smaller in size. In respect of cashflow factor, it is observed that it influences the dividend decisions in a negative significant manner i.e. the firms are more affirm towards the holding of cash instead of distributing as dividends. The growth factor opposite to the proposed relation shows the positive behaviour to the dividend payments. Unexpectedly, firms with growth opportunities are paying the dividends. The reason may be extra funds that the firm earns from exploiting the opportunities are not just, more than sufficient but also motivating the firm decision makers to pay higher dividends.

The limitation of the study may be that apart, from the above studied factors, there are some other factors also like leverage, interest coverage ratio, board characteristics, ownership structure etc. that may bring different results which might not be currently used due to the time constraints.

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## MENTORING- A FRIENDLY APPROACH TOWARDS THE OVERALL-GROWTH OF THE STUDENT.

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### ABSTRACT

Educational institutions like schools, colleges, and universities are continuously following mentoring activities for student in a variety of models to meet the specific needs of the students. Such activities provide a lot of benefits from easyadaptation of students to school or college life to facilitating the transition to an upper-level education or work life. Our institution *Vidyalankar School of Information Technology* is one of the institutes where such type of mentoring activities is being conducted for the overall growth of mentees. We conducted a survey of our student-mentees to examine student mentoring practices as a basis for future implementations by developing suggestions. The students really appreciated the efforts taken by the teachers as mentors and the activities (online) being conducted to facilitate online mentoring. The aim of this paper is to explore the relationship of a mentor with the student and to focus on psychological health factor of students. We explore the different ways of engaging a student in a constructional way which results in an overall growth of a student as a person. This paper focuses on various factors such as Role of a Mentor in individual's life and interpersonal relationships between the mentor and mentee.

**Keywords:**student, mentoring, model, e- mentoring

### 1. INTRODUCTION

It is a necessity for individuals to constantly learn effectively and transfer knowledge into life in this era of Information Society. Mentoring is one of the most appreciated and known practices to achieve and sustain effective learning towards the overall growth of an individual / institution [1,2]. Mentoring activities are frequently preferred not only in business-related institutions or companies, but also in schools and universities both for students and teachers to create effective human resources. Lots of research studies are there that suggest that student mentoring practices are quite helpful in providing psychological & emotional support to students, providing support in career selection and goal setting, providing support in academic-growth, and providing a role model to follow. Some research studies also depict that the mentoring practices are beneficial to the student mentees, mentors, and institutions where effective mentoring practices take place [3,4]. We conducted a survey in our own institute *Vidyalankar School of Information Technology* in which we asked undergraduate students about their views and opinions on various aspects of mentoring activities specially during the ongoing pandemic. We have got responses from 150 students.

## 1.2. Literature review

In educational institutes, student mentoring practices are used continuously in a variety of models to meet the specific needs of the students. Some mentoring models include face-to-face interactions; and some include mentors from teachers and/or specialists in the field and some include e-platforms. In some models, the aim of the mentoring process is solely academic, in some socialization, social justice and values are also aimed topics [5-8]. Student mentoring practices are carried out in various forms/channels [4,9]:

1. One-to-one mentoring: There is a mentor and a mentee in the process.
2. Group/Team mentoring: There is more than one mentee and a mentor (or vice versa) in the process.
3. E-mentoring: Mentor & mentee interaction is supported via technologies through some platforms or modules.
4. Peer mentoring: Both the mentor and mentee are students in the process.

Here in *Vidyalankar School of Information Technology* we normally use the two mentoring models One-to-one mentoring and Group/Team mentoring in order to appeal to the specific needs of different student groups. We also have Specialist Mentor (Professional Counselor) to assist us and students in case of any requirement.

Due to current lockdown scenario posed by ongoing pandemic COVID-19, we use E-mentoring model to facilitate students. In this E-mentoring model, we also include both the models One-to-one mentoring and Group/Team mentoring according to the need and situation. We also include different activities during the E mentoring model that can be performed virtually like Antakshari, Virtual tour to bird sanctuary, Online games etc. to engage students online and to monitor their psychological status.

## Objectives of the study

The study poses the following research questions:

- a) To identify the positive outcomes of the mentoring activities.
- b) To discuss about further studies or improvements that are required for the mentoring models.
- c) To maintain the progress report of the student during the mentoring sessions.
- d) To suggest the suitable type of mentoring model for the student.

## Research Methodology:

A survey is known as a well-established tool in research that is used for collecting data from a predefined group of respondents. To achieve the objectives stated above, we conducted an online-survey at *Vidyalankar School of Information Technology* for the students-mentees, where different group of mentees have participated. We prepared questionnaire consisted of 15 open-ended questions. This survey was conducted for students of age group between the age group of (18-21) group.

## Results and Analysis:

It is clearly visible in the figure 1 that 59% students were comfortable sharing their thoughts with the mentor. Mentor can make student comfortable during the mentoring sessions and making sure all the students participate in the scheduled activity by conducting various online activities such as playing Antakshari, conducting a virtual bird tour etc.

**Fig1: Comfortable level of students in sharing thoughts with their mentor**

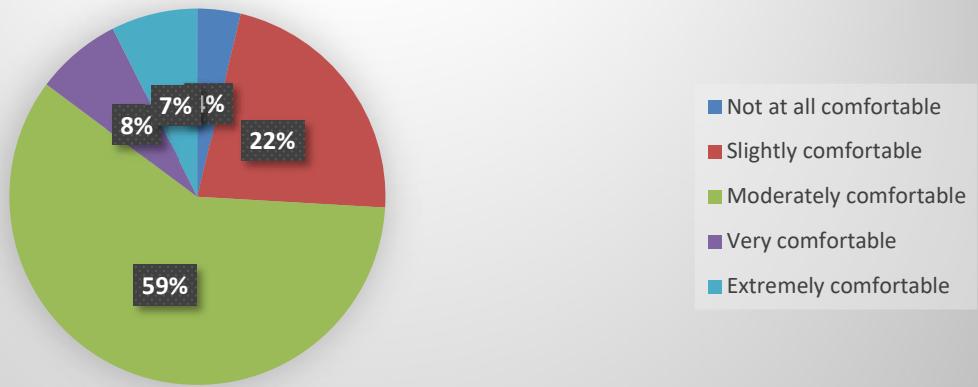


Figure 2 illustrates that 42% students are comfortable sharing their problems with the mentor. Sometimes, it is not mandatory for students to discuss their personal problems with the faculty member if they are not comfortable. Here the role of mentor can be played by the family members or close friends etc. They can seek the help of third parties for solving the problem.

**Fig 2: Comfortable level of students in sharing actual problems with their mentor**

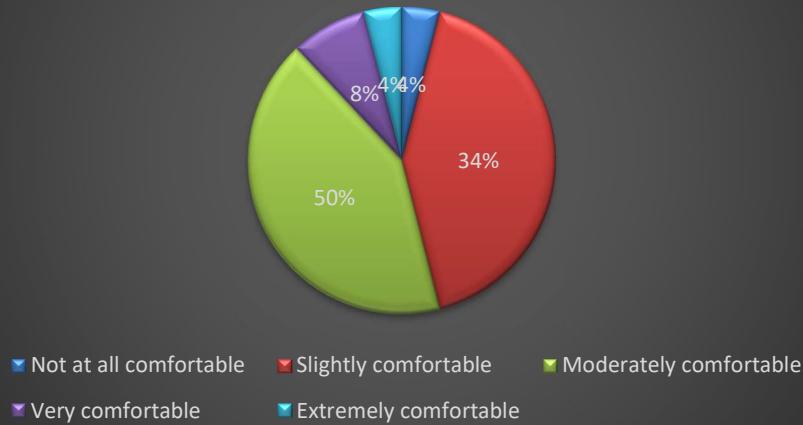


Figure 3 depicts that 35% students find mentoring helpful for solving their problems. If the feedback of the student is collected after mentoring session it will be helpful for the mentor to understand whether the strategy which is designed during the mentoring session is worked properly or not.

FIG 3: HOW HELPFUL YOUR MENTOR HAS BEEN IN PROVIDING YOU THE COMFORTABLE ZONE TO SHARE YOUR PROBLEMS?

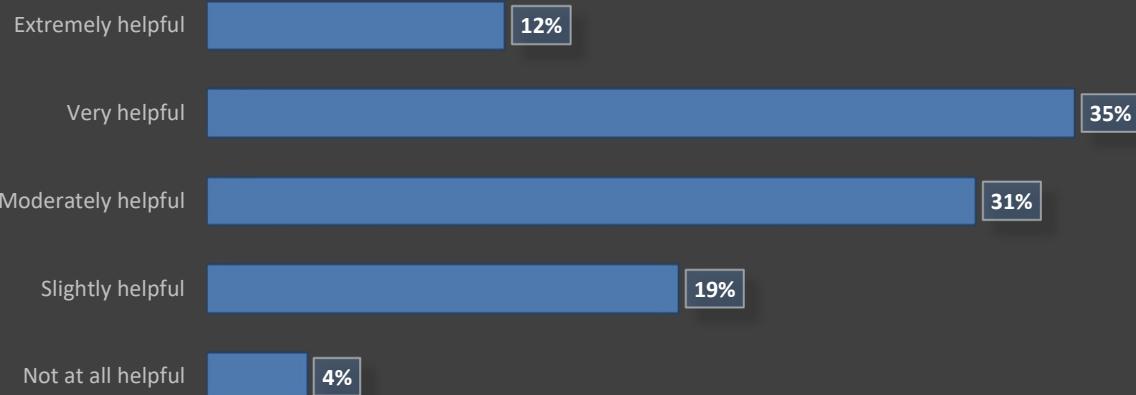
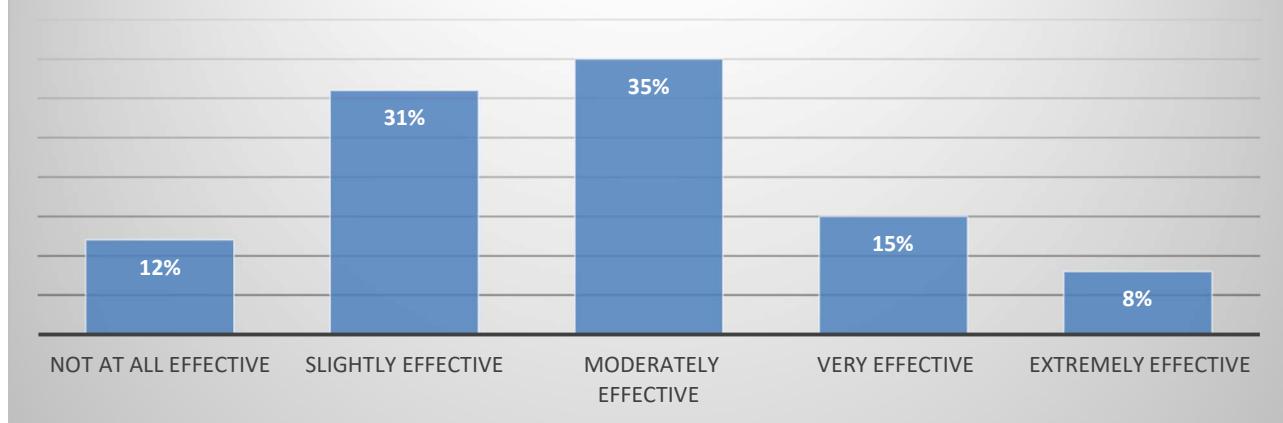


Figure 4 shows that 35% students found online mentoring very effective. During the lockdown imposed by pandemic, virtual mentoring process has been started and it is well appreciated by students because mentors are conducting various activities through online portals.

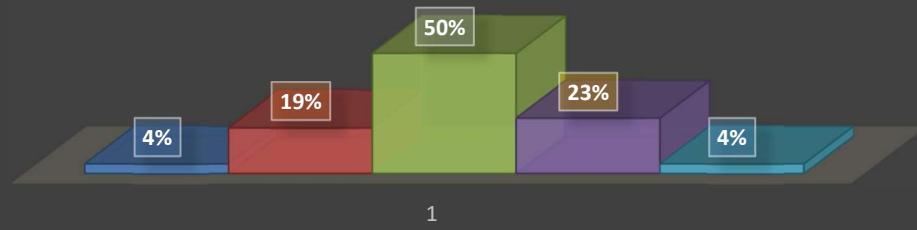
**Fig 4: Effectiveness of the online mentoring according to students**



It is observed through figure-5 that 50% student agreed that they are able to find out the appropriate solution for various problems such as academic, personal etc. through mentoring session.

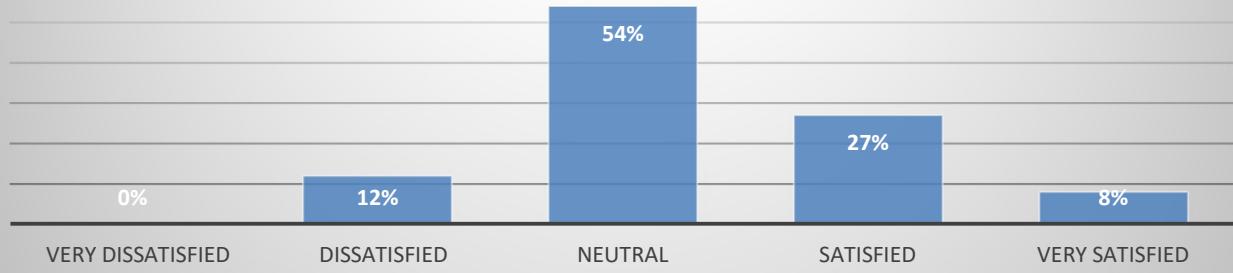
**FIG 5: How helpful is your mentor in solving any general issue raised by you?**

■ Not at all helpful ■ Slightly helpful ■ Moderately helpful ■ Very helpful ■ Extremely helpful



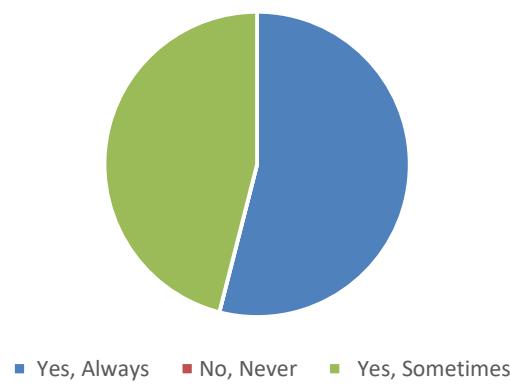
It is clearly observed in figure-6 that the 54% of students' satisfaction level was neutral toward the solution provided by the mentor during the session.

**Fig 6: level of satisfaction for the timing set for the mentoring sessions**



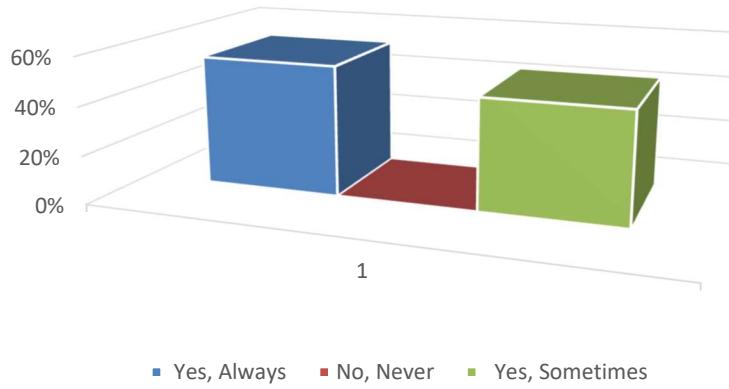
In figure 7, it is clearly visible that most of the students discuss their problems with the mentor directly but few of them are hesitant to share their problems directly with the mentor.

**Fig 7: Do you get a chance to ask questions when you have a problem or question?**



In figure 8 it is clearly shown that the mentor engages the students with the various activities related to his area of interest, which helps to achieve growth in different areas that results in achievements in their career too.

**Fig: 8 Do you think the mentoring sessions will be helpful for the growth in your career?**



According to our survey the guidelines required to be followed by mentor and mentee are as follows:

**Some best practices/expectations for mentors:**

1. Respect your mentee's time. Schedule the meetings frequently if required and maintain a progress report of mentee.
2. Listen to the mentee patiently.
3. Finding out the area of interest of mentee is important.
4. Do not evaluate your mentee based on points discussed with you during mentoring sessions.
5. Give feedback only if mentee requires it.
6. Respect the privacy of your mentee do not discuss the information with others that was meant to be between the two of you.
7. Develop and expand the hidden talent within the students.

**Some best practices/expectations for mentees:**

1. Mentees can discuss various concerns such as academic related issues or any other guidelines he or she wishes to ask the mentor.
2. Mentees must attend the scheduled mentoring meeting on a regular basis.
3. It is not possible to get the ultimate solution by the mentor for all your problems but do not hesitate to discuss your problems with your mentor.

**Conclusion**

We successfully explored different ways of engaging a student in a constructional way which results in an overall growth of a student as a person. Also, through this study we can understand the importance and impacts of mentoring in student's life. We suggested some best practices that must be followed by mentor and mentee during the mentoring process to achieve the progress of students in their respective areas of interest. The study also pointed out various

factors such as role of a mentor in individual's life and interpersonal relationships between the mentor and mentee that are also required for the overall growth of the mentee and to build a successful career. Mentor plays a role of a consultant, cheer leader and counsellor to bring a positive impact on mentees life.

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# A STUDY ON CORPORATE SOCIAL RESPONSIBILITY OF FINANCIAL INSTITUTIONS TOWARDS WELLBEING OF SOCIETY

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## Abstract:

### Purpose

Corporate Social Responsibility can be simply defined as the ethical role towards the welfare of the society. Social responsibility is very much required for business as it overlooks the overall wellbeing of the society.

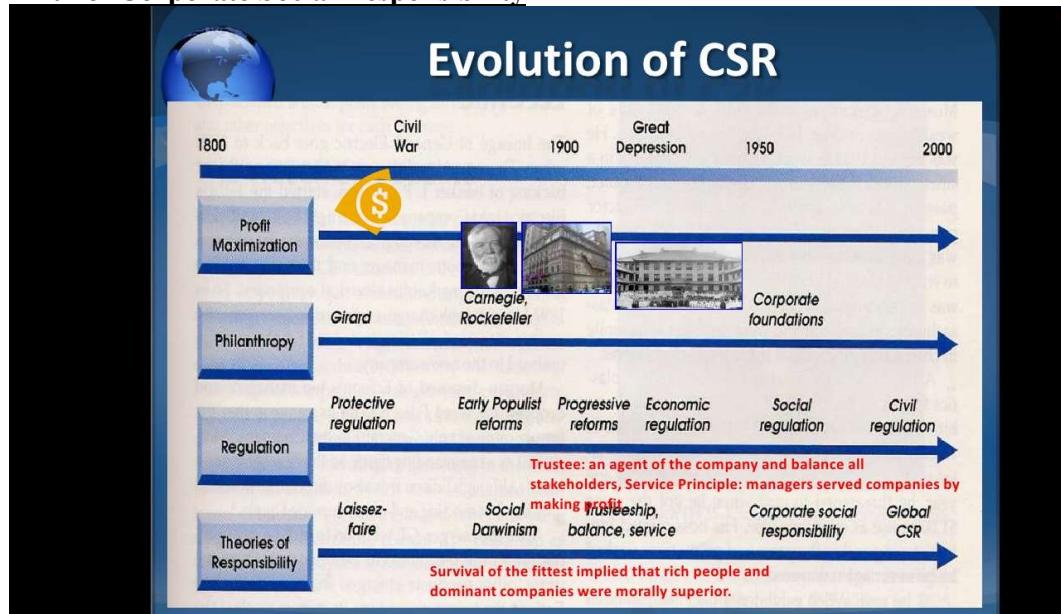
The purpose of this study is to explore the varied definitions and descriptions of Corporate Social Responsibility (CSR), elaborating upon the scope of corporate social responsibility in India by studying the deployment of CSR practices over the Covid 19 Pandemic by BFSI Sector

**Key words:** CSR, Wellbeing, BFSI (Banking and Financial Services and Insurance)  
Approach

**It is a cross-sectional study, which involves qualitative analysis of CSR practices followed by BFSI operating in India.**

### Objectives:

**To study the Contributions of financial industry towards PM care fund towards CSR**  
**Birth of Corporate Social Responsibility**



Source: WK14.1 Agenda News CSR Reading discovery CSR Video clip discovery Summary 2010  
Corporate Social Responsibility has come long way for wellbeing of the people and society.

In today's Scenario CSR programs have their roots from philanthropist activities, Wealthy businessman and philanthropist Andrew Carnegie challenged wealthy people to support social causes, following his belief in the Gospel of Wealth. In the late 1800s, John D. Rockefeller, taking inspiration from Carnegie, followed suit in donating quite half a billion dollars.

In 1914, Frederick Goff, a well-known banker in Cleveland, founded the Cleveland Foundation, a trustee of the Cleveland trust corporation. Its purpose was to offer power to the community by accepting gifts from multiple donors instead of one fortune, who could collectively assess needs and answer the community. This was the first community foundation.

It was not until the 1940s, however, that companies, and not their owners or shareholders, could support charities.

American economist "Howard Bowen" is known as the father of CSR. He is considered as the backbone of societal responsibility and subsequently published a book in 1953.

### **Recent Amendments**

The Ministry of Corporate Affairs has issued a new order replacing the old order notifying the amendments within the CSR rules for companies. The provisions of the 2019 Amendment to the Businesses Act, 2013 concerning Corporate Social Responsibility (CSR) came into force on January 22. "These rules may be called the Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021," a gazetted order released by the Ministry of Corporate Affairs (MCA) of the Government of India stated. The new guidelines say every entity that intends to undertake any CSR activity will need to register itself with the Central Government by filing the shape CSR-1 electronically with effect from April 2021. "Form CSR-1 shall be signed and submitted electronically by the entity and shall be verified digitally... On the submission of the shape CSR-1 on the portal, and the registered number will be generated," MCA added. Besides this, companies undertaking CSR activities will need to share: Impact Assessment for giant CSR projects carry over and set off of CSR expenditure Annual action plan for CSR by company Board year on year addition to CSR policy Tweaks in reporting formats of Board Report Mandatory disclosure of CSR projects and activities on company website Capital Asset acquisition and its holding restricted to three bodies broadly Transfer of unspent amount to government notified Funding the event of the company failing to spend the earmarked two percent of net profits towards CSR, it'll "have to specify the explanations for not spending the amount" and, unless the unspent amount relates to any ongoing project, transfer it to a government notified fund. As per the policy, Companies can engage international organisations for various activities as per the requirement. Addition to that any surplus raised out of CSR activities will not form of business profit.

### **CSR in times of COVID-19**

COVID-19 has been considered a worldwide crisis by the World Health Organization (WHO). The deadly disease rapidly affected socio-economic circumstances of the planet.

Social distancing played a pivotal role in mitigating the spread of this deadly infection. The Government of India and state governments announced lockdowns throughout the country in March 2020 to promote social distancing, which basically directed the public to maintain distance both socially and physically.

Extended lockdowns worsened economic troubles. Densely populated cities and a lack of awareness (due to a lack of education) adverse the problems.

This is how when CSR started playing an important role in the pandemic to reach out to the society in tough times.

CSR is a 'self-regulating business model' that implies the procedures of interaction by a company with its stakeholders and the public at large, creating a scenario of being socially responsible.

A per Section 135 of Companies (CSR) Rules, 2014 as well Schedule VII of Companies Act 2013:

All company with a net worth of Rs 500 crore or more or turnover of Rs 1,000 crore or more or net profit of Rs 5 crore or more during the immediately preceding financial year, must have a CSR committee and spend at least 2 per cent of average net profits earned during three immediately preceding financial years to CSR activities.

In the present era of COVID-19, the govt of India is inspiring companies to supply social support. According to a March 23, 2020 Ministry of Corporate Affairs circular, all expenditures incurred on activities associated with COVID-19 would be added as permissible avenues for CSR expenditure.

Funds could also be spent for various activities associated with COVID-19, under the subsequent items of Schedule VII:

- Eradicating hunger

- Poverty
- Malnutrition
- promoting healthcare, including preventive healthcare
- Sanitation, including contribution to the Swachh Bharat Kosh found out by the Centre for promoting sanitation and making available safe refreshments
- Relief, Renovation, Reconstruction and Rehabilitation activities

Further, A general circular (No. 21/2014, dated June 18, 2014) mentioned that the things in Schedule VII are broad-based and should be interpreted liberally for the aim of donations being made with reference to COVID 19.

**The initiative taken by the ministry was well received by Corporate India.** It created a win-win situation for companies with existing CSR obligation and funds at disposal who wanted to contribute to relief and meet statutory requirements of the businesses Act at the same time.

Overwhelming response for the governments calls, Crores have been donated to various government funds.

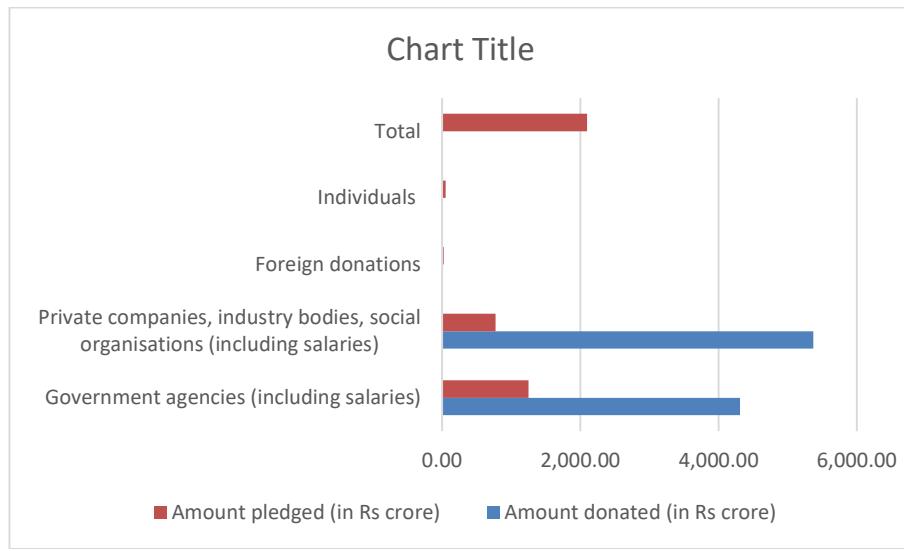
Considering the large sum of funds at stake for the relief efforts, corporates are struggling not just find a reliable implementing partner but also in deciding how to monitor and track the utilization of the donated funds and assessing their impact.

With the announcement by the government that any amount donated by companies in support of the fight against COVID-19 will qualify as CSR, most of the companies either contributed to the PM CARES Fund for preventing hunger and take care of necessities.

Such activities were ethically and morally correct, but the businesses broadly interpreted the circular during a way that might reap indirect benefits to their operations or just contribute to the existing fund.

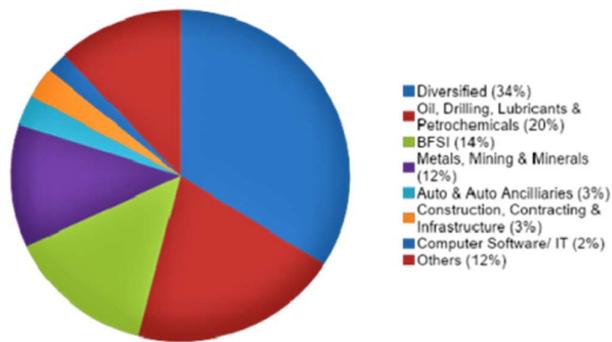
<b>Donation / pledges to PM CARES fund</b>		
Source	Amount donated (in Rs crore)	Amount pledged (in Rs crore)
Government agencies (including salaries)	4,308.3	1,250
Private companies, industry bodies, social organisations (including salaries)	5,369.6	772.4
Foreign donations		22
Individuals		53.77
Total	9,677.9	2,098.2

(Anoo Bhuyan, 2020)



The banking, financial services, and insurance (BFSI) segment is the primary driver of a nation's economy. Companies in the financial services industry manage money. Despite the contributions of BFSI Sector, there always been a criticism from other sectors precisely manufacturing segment. For years BFSI Contribution is always unseen, to break the thought process this paper highlights the contribution of BFSI companies in times of COVID-19.

#### Industry wise COVID-19 response (funds committed)



The table below shows the contributions made by various companies in the BFSI sector in India in the COVID-19 times:

	Company	Action
1	Aadhar Housing Finance Ltd	Donated 28,810 three-ply masks, 10,239 hand sanitisers, 112 hand gloves, 3 carbide nozzles to frontline staff in hospitals and police stations. 1200 kg rice, 1,67,000 meals to labourers who were truck in between the migration process. Contributed Rs 50 lakh to PM CARES. Donated Rs 350,000 to the Bandra Holy Family Hospital for the treatment of COVID-19 patients
2	Arohan Financial Services Ltd	25,000 ration kits were distributed. To highlight women welfare health camps were organised. Promotion of local arts and craft Funded a non-profit for relief to victims of human trafficking.

		Under Arohan's WASH initiatives, partnered 'Friends of Women's World Banking' to providing loans for better sanitation
3	JM Financial Home Loans Ltd	Contributed Rs 15 crore to PM CARES. Healthcare professionals were supported with Rs.15 crore.
4	India first Life Insurance Co Ltd	Contributed to PM CARES
5	IIFL Securities Ltd	Contributed Rs 5 crore to PM CARES. Donated Rs 20 lakh to hospitals and non-profits to provide protective gears to frontline staff and food to migrant labourers
6	DCB Bank Ltd	Set up a Rs 1 crore fund for COVID-19
7	Bharat Financial Inclusion Ltd	Contributed Rs 1 crore to PM CARES. Medical kits, PPE and testing Kits were given to frontline workers
8	Bajaj FinServ	Contributed Rs 10.15 crore to PM CARES
9	India bulls	Pledged Rs 21 crores to PM CARES Fund
10	AU Small Finance Bank	Pledged Rs 5 crore (Contributed Rs 2 crore to PM CARES, Rs 51 lakh each to Delhi and Maharashtra Chief Minister relief funds and provided the Rajasthan government a testing facility in Bhilwara)
11	India Infrastructure Finance Co Ltd	Contributed Rs 25 crore towards PM CARES
12	General Insurance Corp	Donated Rs 22.69 crore to PM CARES
13	DBS Bank India	Committed 2 million meals to the pandemic affected. To provide ventilators, medical supplies and equipment and sponsor free testing for the deprived
14	Kotak Mahindra Bank	Pledged Rs 60 crore (Rs 25 crore to PM CARES; Rs 10 crore to Maharashtra CM Relief Fund)
15	HDFC Bank	Committed Rs 150 crore to PM CARES
16	Life Insurance Corp of India	Pledged Rs 105 crore to PM CARES

17	ICICI Bank	Pledged Rs 80 crore to PM CARES. Committed Rs 20 crore to state governments, hospitals, CISF and police forces for protective equipment. Provided 2.13 lakh surgical masks, 40,000 N95 masks, 20,000 litres of sanitisers, 16,000 gloves, 5,300 PPE suits, 2,600 protective eye gear and equipment (50 thermal scanners, 3 non-invasive category ventilators) to states and hospitals
18	Max Life India	Launched initiative to gather one lakh social isolation pledges. Donated sanitisers, masks, and food Donated Rs 5 crore for COVID-19 testing Basic needs of construction labourers as well for under privileged people
19	Magma Fincorp Ltd	Pledged Rs 5 crore to PM CARES. Provided ration and food to 5,600 families
20	Hero Fincorp Ltd	Pledged Rs 100 crore for COVID-19 relief, half of that to PM CARES

The extended support by most of the corporates in times of the pandemic portray the fact that CSR programs work best when they look and feel authentic.

Precisely the most important thing to remember is that when a company uses corporate social responsibility to build and improve its brand — sincerity is the key. The company's policy towards CSR should be truthful. The initiative taken by any company should develop a faith to its customers. (Ray, 2020)

Some companies performing CSR by promoting social awareness for social distancing: Notably, McDonalds, Audi, Coca-Cola, Volkswagen and many more.

McDonalds had a brilliant idea towards the society is by bifurcating its 'M' logo into 'n – n' to represent social distance. Audi was no lesser it separated the four rings in its logo and explored a tagline to keep distance followed by Volkswagen also presented a new logo with a gap between V and W.

"staying apart is the best way to stay united" - Coca-Cola also introduced spaces between letters in its logo with a message. (Ray, 2020)

### **Conclusion**

Embrace the change – CSR activities have reached to greater heights especially during pandemic. Need of the hour is to formulate strategies effectively and to adopt various instruments according to the company's history and march towards its goals – sustained environmental, social, and economic growth.

The BFSI Sector in India has contributed far from satisfaction.

Many companies implement CSR in adhoc-manner, not being connected with business models and never reveal how much fund has been spent towards CSR activities, Later, voluntary actions are required to be taken by the financial bodies to ensure socio- environmental feasibility projects to be financed.

From the above, it can be concluded that many companies in all the sector play an outstanding role to walk towards the upliftment of the society in terms of education, health, malnutrition etc.

It can also be concluded that there is more media coverage of events, but actual implementation of activities is somehow lacking. Many of the companies have gained confidence from the customers and society by their successful activities in CSR Projects.

BFSI Sector has played a major role in Covid 19 pandemic welfare of the society.

I wish to conclude by saying let companies identify the prime requirements of the society, which in turn will benefit people as well advancement of the country.

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# **A STUDY ON THE USE OF MACHINE LEARNING WITH SPECIAL REFERENCE TO THE FINANCIAL SECTOR**

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“Machine Learning – The Hot Technology Nurturing the Growth of Cool Products ”

## **Abstract**

The world is headed towards the technology to read the inner voice that runs in your mind, to experience the most effective and a faster way to accomplish a task. Machine Learning and Artificial Intelligence are the trends, transforming every industry to use such technologies for a precise business analysis and to optimize operations. No one can deny the fact that we are in an era in which knowingly or unknowingly artificial intelligence and machine learning have become a part of our daily lives. The use of this technology has elevated processes and procedures to an unimaginable level. No a single sector has been left out which does not use machine learning in its functioning and processes. It has made the business process in every sector much more simple as well as much more complex. Algorithms used by these technologies are designed to produce a high-level processing for a machine to handle a huge amount of data and to make decisions based on logic, enabling the machines to learn and to complete the task without any explicit programming. Machine learning is widely applied in Health care services, Retail, Media, Finance, Travel, social media, manufacturing, advertising, legal, agriculture and many more to add. The Researcher being an academician from the financial background is interested in the impact that is being created by machine learning in the field of Finance. Thus, this research paper attempts to study the use of machine learning in financial sector.

**Keywords:** Machine Learning, Artificial Intelligence, Finance

Abbreviations used:

1. ML Machine Learning
2. AI Artificial Intelligence

## **INTRODUCTION**

Meaning and definition of machine learning

Machine learning is the scientific study of algorithms and statistical models that computer system uses to effectively perform a specific task without using explicit instructions, relying on patterns and inferences. It is a subset of Artificial intelligence. The machine learning algorithms build a mathematical model of sample data, known as training data. These algorithms are used in a wide variety of applications such as email filtering, computer vision, where it is not feasible to develop an algorithm of specific instructions for performing the task.

## **REVIEW OF LITERATURE**

Zhang (2014) in his research paper titled “ A review on multi-Label Learning Algorithms” aims to provides a review on multi label leaning studies the problem where each example is represented by a single instance while associated with a set of labels simultaneously.

Huang (2015) in his research paper titled “ Trends in extreme learning machine: a review reported the current state of the theoretical research and practical advances on extreme learning machine. It further states that the technology is extended for clustering, feature selection, representational learning and other learning tasks.

## **OBJECTIVES OF THE STUDY**

- 1) To understand the concept of ML.
- 2) To analyze its utility in our day to day lives.

- 3) To find out its application in the financial sector.
- 4) To study the future of ML

## **RATIONALE OF THE STUDY**

Today, we are living in an era where digitization has changed the entire world and the way we interact and transact. It is difficult to imagine a life without the use of AI AND ML. Thus, the rational of the study is not only to understand the concept and application but also to spread awareness and literacy about this technology to the common man which will make his life more happy and better.

## **CONCEPTUAL CLARITY AND THEORETICAL FRAMEWORK**

The terms AI and ML are interchangeably used in many occasions. Therefore, it becomes very necessary to understand the difference between the two. AI is a broader concept and ML is a subset of AI. In case of AI, explicit programming needs to be given to the AI to give the output. But in case of ML, there is no need to give such explicit programming or instructions, the machine understand from the past behavior or the data fed in the past and makes use of its own intelligence to take decisions just like human beings. It enables the computers to get into a mode of self learning without being explicitly programmed.

## **TYPES OF MACHINE LEARNING**

### ***SUPERVISED LEARNING***

In this type of learning examples are given to the machine to help it build a model to understand what is being fed. It is not only learning but also understanding and reproducing. For e.g. how does a machine differentiates between a cat and a dog. Thousands of images of cats and dogs are fed into the machine and the machine develops its own model to differentiate between the two. Labeling is done in case of this learning. Every time more data is fed, the concept is clearer to the machine. This is known as supervised learning.

### ***UNSUPERVISED LEARNING***

In this case, we do not have a predetermined result in mind. A large amount of data is fed in to the machine and the machine on its own tries to understand the data on the basis of colour, size, shape and other features. Labeling For e.g. many animals images are fed into the machine and it recognizes or identifies the different animals on the basis of data fed.

### ***REINFORCEMENT LEARNING***

In this case the machine develops intelligence from its past experiences and learns and improves the decision making. For e.g a question is asked to the machine and it gives a wrong response, the user marks it as a wrong response, it is registered and next time it does not repeat the same mistake which is exactly what reinforcement learning is.

## **RESEARCH METHODOLOGY**

### ***Data Collection***

Data is mainly sourced from Secondary sources as not many people are aware of the terminology of machine learning. Thus, various articles and websites are referred to give an insight about the concept of machine learning.

## **APPLICATION OF MACHINE LEARNING IN FINANCIAL SECTOR**

### **ML in Insurance sector**

Many a time we get an automated call from our insurance provider or your telecom operator to remind about the payment due date. Well, these are automated calls and some of them use Amazon Polly services which allows companies to render a personalized and natural sounding voice response.

Policy bazaar is one of the insurance service providers using the service. When the required details are fed to the system, it will call the customer, greet with their name, read out the policy number and inform about the due date and the premium they need to pay.

## BANKING SECTOR

Banking sector is going a long way in the adoption of machine learningChatbots/ 24X7 Customer CareChecking and Predicting possible transactionsFraud Detection tools, Robotic trading, Document analysis, Legal and Compliance

## FINANCE

The following are some promising machine learning applications in finance

### Process Automation

Process automation is one of the most common applications of machine learning in finance. The technology allows to replace manual work, automate repetitive tasks, and increase productivity. As a result, machine learning enables companies to optimize costs, improve customer experiences, and scale up services. Chatbots, Call-center automation.,Paperwork automation., Gamification of employee training etc.

### Security

Security threats in finance are increasing along with the growing number of transaction, users, and third-party integrations. And machine learning algorithms are excellent at detecting frauds.

For instance, banks can use this technology to monitor thousands of transaction parameters for every account in real time. The algorithm examines each action a cardholder takes and assesses if an attempted activity is characteristic of that particular user. Such model spots fraudulent behavior with high precision.

### **Underwriting and credit scoring**

Machine learning algorithms fit perfectly with the underwriting tasks that are so common in finance and insurance. Data scientists train models on thousands of customer profiles with hundreds of data entries for each customer. A well-trained system can then perform the same underwriting and credit-scoring tasks in the real-life environments. Such scoring engines help human employees work much faster and more accurately. Banks and insurance companies have a large number of historical consumer data, so they can use these entries to train machine learning models. Alternatively, they can leverage datasets generated by large telecom or utility companies.

### **Algorithmic trading**

In algorithmic trading, machine learning helps to make better trading decisions. A mathematical model monitors the news and trade results in real-time and detects patterns that can force stock prices to go up or down. It can then act proactively to sell, hold, or buy stocks according to its predictions.

### **Robo-advisory**

Robo-advisors are now common place in the financial domain. Currently, there are two major applications of machine learning in the advisory domain.

Recommendation of financial products. Many online insurance services use robo-advisors to recommend personalized insurance plans to a particular user. Customers choose robo-advisors over personal financial advisors due to lower fees, as well as personalized and calibrated recommendations.

## **LIMITATIONS**

- 1.The data is mainly sourced from secondary sources and therefore may not be as reliable and accurate

2. The study has not taken into consideration a time frame within which the study is conducted as every day the trends and technology with respect to machine learning is getting better and improving

## **CONCLUSION**

Financial incumbents most frequently use machine learning for process automation and security. Before collecting the data, you need to have a clear view of the results you expect from data science. There is a need to set viable KPIs and make realistic estimates before the project's start. Many financial services companies need data engineering, statistics, and data visualization over data science and machine learning

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# A STUDY ON RECENT TRENDS OF ENTREPRENEURSHIP DEVELOPMENT: CURRENT STATE AND FUTURE OUTLOOK

**Dr.C.Gajalakshmi**, Assistant professor,PG & Research Department of Commerce, Voorhees College,Vellore.

## ABSTRACT

Entrepreneurship in India has seen a significant growth in the recent years, as per the Economic Survey of 2019-2020. It acts as a catalyst for the economic prosperity of the nation as it leads to contribution in national income, generation of employment, rural development, technological development, industrialization, export promotions etc. In a dynamic world, a huge advancement in technology can be seen. The young generations are showing real enthusiasm towards the new trend of entrepreneurship development. It is about one's readiness to go out and take risks, and handling business by making it a proper structure. However, literature reveals that, entrepreneurs face a number of problems which obstruct the growth of entrepreneurship. Hence, it is suggested that a proper mechanism of monitoring and supervision should be set to analyse the outcome and effectiveness of these initiatives on periodical basis and development of entrepreneurship at initial level should be targeted so as to provide opportunities to the society at large.

**Keywords:** Entrepreneurship, employment generation, industrialization, technology.

## 1. INTRODUCTION

The term 'entrepreneur' was first introduced in economics by the early 18<sup>th</sup> century French economist Richard Cantillon. In his writings, he formally defined the entrepreneur as the "agent who buys means of production at certain prices in order to sell the produce at uncertain prices in the future". Since then a perusal of the usage of the term in economics shows that entrepreneurship implies risk/uncertainty bearing; coordination of productive resources; introduction of innovations; and the provision of capital.



Figure 1: Describes Entrepreneurship act as catalyst for economic prosperity of our nation

Entrepreneurship plays a significant role in the economic development of a country. It is the most powerful weapon in the hands of one to fight against poverty and unemployment. Entrepreneurship acts as a catalyst for the economic prosperity of the nation as it leads to contribution in national income, generation of employment, rural development, technological development, industrialization, export promotions.

## 2. THE CONCEPT OF ENTREPRENEURSHIP

The term entrepreneurship is from French origin, it is derived from the verb 'entreprendre' meaning 'to undertake' pertained not to economics but to undertaking of military expeditions. In today's competitive world day by day entrepreneurs face lots of challenges. Hence, there is a tremendous pressure to continually develop new products, explore the new markets, update technology and find out innovative ways of marketing and so on.

# ENTREPRENEURSHIP

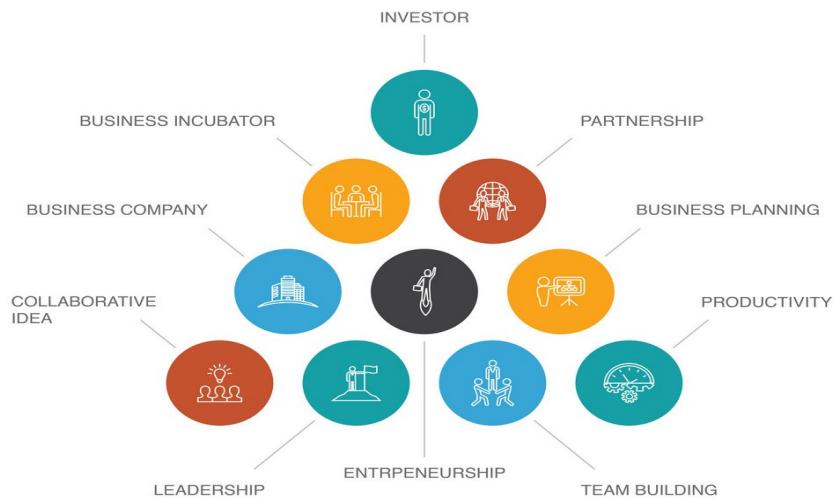


Figure 2:Describes entrepreneurship

### 3. PROCESS OF ENTREPRENEURSHIP DEVELOPMENT

Entrepreneurship development process is about supporting entrepreneurs to advance their skills with the help of training and encourages them to take better judgements for all business activities.

The Timmons Model of Entrepreneurial Process, illustrates how to build an effective entrepreneurship development program for an entrepreneur to organise and launch the new entrepreneurs.

### The Timmons Model of the Entrepreneurial Process

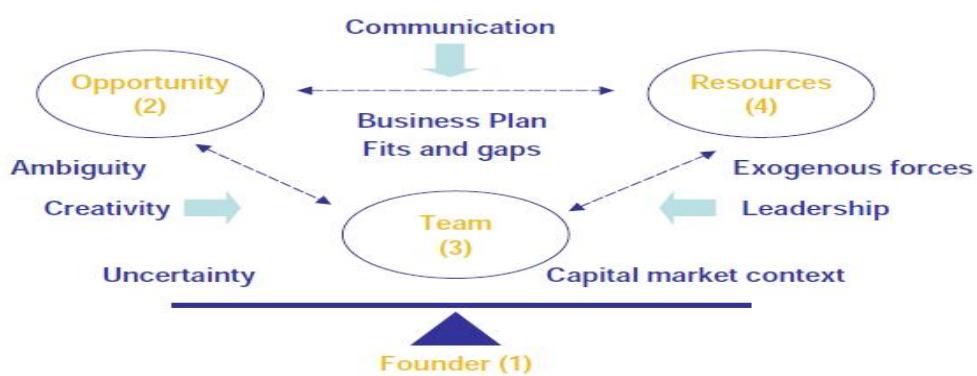


Figure 3: The Timmons Model of the Entrepreneurial Process

#### **4. REVIEW OF LITERATURE**

The literature review of any research study begin with the outcomes of previous researchers and literature sources. Further, it helps to identify the areas where in depth research has not been carried out. The identification of research gap in literature survey facilitates the researcher to expose new and meaningful research.

1. Smallbone and Welter (2001) Entrepreneurs contribute to economic development in terms of job creation, innovation and external income generation depending upon priorities and different stage of market reform. The authors suggested direct support to SMEs to overcome immediate difficulties to strengthen their potential for development and growth.

2. Carland and Carland (2004) studied the impact of entrepreneurship on employment and economic development of United States. They found that firms with less than twenty employees have greatest impact for the decade of 1990's. They suggested that the firm has great potential for future economic development. Also, economic policy changes should be specifically to boost entrepreneurship.

3. Naudé (2008) Entrepreneurship has important role to play in fostering from a predominantly traditional / agrarian economy to modern economy. With innovation driven growth productivity is increased in advanced countries. self-employment, startup and credit market determine quantity and quality of entrepreneurship. They found that low entrepreneurial activity contribute to economic stagnation and even developmental gap.

4. Dhaliwal (2016) discussed the role of entrepreneurship in economic development and concluded that entrepreneurship plays a role not only in the development of industrial sector but also in the development of agriculture and service sector. The role of entrepreneurship varies from economy to economy depending upon political system, resources availability and industrial climate.

5. Manjunatha (2017) in his study entitled 'entrepreneurship: a scope for employment in India' stated that economic and social progress of a nation is measured by a strong sector of entrepreneurship. According to him, micro, small and medium enterprises play a significant role in creating job opportunities.

From this review of literature, it is concluded that entrepreneurship plays an important role in the generation of employment opportunities and economic development of an economy. The role of entrepreneurs is varying from country to country depending on the natural resources, social-economic and political environment of a country

#### **5. OBJECTIVES OF THE STUDY**

The objective of the paper is:

- 1) To study the challenges faced by entrepreneurs which obstruct the growth of entrepreneurship.
- 2) To highlight the entrepreneurial development methods used in our country and study the remedial measures taken for the economic development.

#### **6. METHODOLOGY OF THE STUDY**

The data for the purpose of the study has been collected through secondary sources, which mainly include journals, magazines, reports, research papers, and websites.

#### **7. CHALLENGES OF ENTREPRENEURSHIP DEVELOPMENT IN INDIA**

1. Capital: India's per capita income is extremely low when compared to other countries. One of the biggest reasons for this is the investment of capital in unproductive avenues.
2. Technical and vocational education: The youth has limited access to technical and vocational institutions. The general education received in schools is not enough to encourage entrepreneurs.
3. Motivation Centres: The few training centres that exist are mainly in urban areas.
4. Low Spirit: On average, children are told to chase high-income jobs to secure their future. This leads to a minimal desire to be an entrepreneur.

- 5.Competition: Many large businesses have a good stake in the domestic and international market. This is a major obstacle for entrepreneurs. In the public sector, the government gives incentives to public enterprises.
- 6.Corruption: Red tape, delays and ineffective government bodies slows down entrepreneurship, across the country.
- 7.Backward Thinking: A lack of trust in creative ideas has led to hesitation and non-progressive ideology spreading.
- 8.High taxes:Increase in tax rates are one of the challenges faced.
- 9.Complex Legal Formalities: There are many legal formalities carried out in implementing.
- 10.Competition from Multinational Corporations: Every business has its own competitors. Especially it is faced between Multinational Corporations.
- 11.Lack of adaptable environment: Lacking in adapting a new environment is one of the main challenges faced

## **8.ENTREPRENEURSHIP DEVELOPMENT IN INDIA**

An individual who takes financial risks in setting up a business for profit is called an entrepreneur. Today, amidst a struggling economy, India has witnessed many start-up success stories including Flipkart, OYO, Ola Cabs, BookMyShow, Nykaa, Big Basket, and Swiggy to name a few. However, all self-employed people cannot call themselves entrepreneurs. The potential for growth and economic impact is what truly defines an entrepreneurial business. Startups have emerged as engines of growth for our economy. Entrepreneurship has always been the strength of India. Even today, young men and women have given up greener pastures elsewhere to contribute to India's growth. They are risk-taking and come up with disruptive solutions to festering challenges, recognising the knowledge, skills and risk-taking capabilities of youth. He is no longer the job seeker, he is a creator of jobs. Thus, steps can be taken to create more opportunities and remove road-blocks in this path.

Entrepreneurs have faced countless obstacles in the business environment. Extreme harassment from tax officers was an issue that was addressed in the budget. "Our government would like to reassure taxpayers that we remain committed to taking measures so that our citizens are free from harassment of any kind," – Nirmala Sitharaman

The government is now determined to empower Indian society, digitally. Introducing investments, technology, employment and seed funding for ideation and development progress. Crucial moves were also made to defer tax payment on employee stock option plan (ESOP) by five years. This is the best way to entice young start-ups to retain their talented employees during the initial years of business. Now taking more risks when performing on a large scale is possible.

## **9.EDUCATION FOR ENTREPRENEURS**

Despite the challenges, entrepreneurs decide to take the leap and risk everything to make it big. There are several markets to enter. Studying at a good entrepreneurship development institute is the first step in understanding the complex world of entrepreneurs. FORE School of Management, New Delhi offers an entrepreneurship development MDP programme that delves into the understanding of different markets. Local markets, street markets, shopping centres and malls are physical retail outlets. Virtual markets online are another option. Intermediate goods markets have products that are further utilised in other services or goods. Another type is the prediction market, which manages accurate predictions of research of development work.

The Indian Budget 2020 holds a promise for all those who wish to take risks as entrepreneurs. Creating jobs and empowering the economy is the priority for years to come. To be a part of the entrepreneurial development of the country is a bold step. One that must be taken by the sharpest of minds, as they offer a chance at a brighter tomorrow.

## 10.CONCLUSION

The economic development of any country is possible through the vision and ability to bear risk by entrepreneurs. They play a vital role in initiating and sustaining the process of economic development of a nation. Creating jobs and empowering the economy is the priority for the upcoming years. Thus, to be a part of entrepreneurship development, one must be bold enough to face any kind of risks in this area, and enhance their knowledge to face any kind of situations for a brighter future.

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# **A COMPARATIVE STUDY OF COST AVERAGING AND VALUE AVERAGING METHOD OF INVESTMENT IN EQUITY BASED FINANCIAL INSTRUMENTS**

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## **ABSTRACT**

Investment in equity-based instruments is integral part of every financial plan. Due to evolution of technology, access to all financial instruments has become convenient and easy. Retail investors have significant participation in equity market either via direct investment or mutual funds. A retail investor can enter into stock market using various strategies like investing lumpsum amount in stocks or mutual fund or making periodic investment through Systematic Investment Plan (SIP) in Mutual Fund. Investing in minimum amounts in regular intervals refers to 'Cost Averaging' method of investment where investment is done per week, month or once in three months using small amount of money. The investment amount is constant and pre-decided. This is most popular and convenient way of investment among retail investors. 'Value Averaging' investment refers to a strategy to review actual value of investment and accordingly adjusting investment amount to meet the set goal. This paper will further present more details on cost and value averaging investment methods and depicts a comparative study between both of these investment strategies.

**Keywords** :- Retail investors, Stock Market, Cost Averaging, Value Averaging, SIP

## **1. INTRODUCTION**

Indian equity market is considered as one of prominent emerging equity markets in the world and has generated attractive returns in past few years. Transparency, good governance model, easy access and good returns are few factors which appealed retail investors to increase their participation in Indian stock market. Investment in Indian equity market has become easy and convenient due to various online/offline facilities provided by governing authorities. Securities Exchange Board of India (SEBI) has also played a crucial role in monitoring and protecting investor rights in equity market, which brought trust of retail investors. Participation of retail investor has an upward trend in recent years. Retail investors are actively participating in direct investment via purchasing stocks and also via indirect investment through mutual funds and unit linked plans. Establishment of mutual funds has given a trustworthy platform for individuals to participate and gain from stock market. Mutual fund proved extremely helpful to investors who do not possess financial knowledge of shares and securities. Mutual fund offers multiple options to choose appropriate scheme suiting a person's risk appetite and expected returns.

(RG & Sachithanantham, 2020) aimed at finding out investor's choice on SIP while investing in Mutual funds. This study concluded liquidity factors, risks involved and current market conditions are primary factors considered while investing in mutual funds.

(Jha, 2015) critically examined the returns from investment in Mutual funds via SIP and Lumpsum method. Three mutual fund schemes were considered for this study. The study concluded that lumpsum investment is beneficial for long term investment for 10 to 15 years. SIP is beneficial for small investors who do not have large sum for lumpsum investment.

## **2. COST AVERAGING METHOD OF INVESTMENT**

Cost Averaging is a strategy to average out the cost of investment by periodically investing small amounts to cover a time horizon. In this strategy, series of investment are made at designated time intervals to cover price fluctuation and cover maximum market changes. Systematic Investment Plan (SIP) is a prominent example of Cost Averaging, where an individual invests small amounts in Mutual Fund schemes with regular interval to cover maximum investment horizon.

(Manoharan & Nair, 2018) examined returns from Systematic Investment Plan and Lumpsum investment in selected Equity shares and Mutual Funds. Five Mutual fund schemes and five equity shares were selected for this study. The study concluded that four among five Mutual Funds gave higher return through SIP and three among five Equity Stocks gave higher return through SIP.

(GUPTA, 2019) studied SIP method of investing in Mutual funds. The study concluded that SIP is beneficial for retail investors to reduce market risk and participate in equity market with small amount. This is one of best option available for first time investors and salaried individuals.

(UDDIN, 2016) aimed at finding out motivational factors promoting investment in Mutual funds via SIP. Sample of 100 investors from Gandhinagar, Gujrat was considered for this study. The paper concluded that first time investors and salaried investors find SIP as the best option to enter into equity market. Also, small investment amount attracts investors to start SIP in Mutual fund.

(Gowthami & Aruna, 2019) did a study focused on performance of selected large and small cap mutual funds. The study concluded that it's important to consult financial advisor while making any investment decision and the returns also depends on advice received for investments.

Cost Averaging is most popular and convenient method of investing in equity markets especially via Mutual fund. Majority of mutual fund schemes offer SIP as an effective mode to implement Cost Averaging Investment. This method works on simple average principle to average out investment cost by purchasing same financial instrument at various point in time. This method covers most ups and down in market price and thereby providing averaging benefits to investor. With this method investor buys securities/units when the market price is high as well as when the market price drops thereby, averaging its cost. This avoids a major risk of timing an investment. If lumpsum investment is made, investor bare the risk of price locked at a certain point in time. The cost is permanently benchmarked to purchase price and if market price drops, investor suffer huge loss. Cost Averaging method helps to overcome this risk by balancing cost of investment by spreading purchase transactions on different stages of equity market. Below is the calculation table if an investor invests in Mutual Scheme of 'HDFC Focused 30 Fund - Growth Option - Direct Plan' from 01<sup>st</sup> Jan 2020 till 01<sup>st</sup> Dec 2020 using Cost Averaging investment strategy.

Date	NAV (Net Asset Value)	Cost Averaging Investment Plan			
		SIP Investment	No. of units purchased	cumulative Units	cumulative Portfolio Value
01-01-2020	₹ 82.73	₹ 10,000.00	120.87	120.87	₹ 10,000.00
03-02-2020	₹ 78.09	₹ 10,000.00	128.06	248.93	₹ 19,438.68
02-03-2020	₹ 73.15	₹ 10,000.00	136.70	385.63	₹ 28,209.46
01-04-2020	₹ 54.61	₹ 10,000.00	183.10	568.74	₹ 31,060.98
04-05-2020	₹ 60.86	₹ 10,000.00	164.30	733.04	₹ 44,615.58
01-06-2020	₹ 63.07	₹ 10,000.00	158.56	891.59	₹ 56,231.93
01-07-2020	₹ 68.00	₹ 10,000.00	147.06	1038.65	₹ 70,628.38
03-08-2020	₹ 69.84	₹ 10,000.00	143.19	1181.84	₹ 82,536.38
01-09-2020	₹ 73.68	₹ 10,000.00	135.73	1317.57	₹ 97,074.66
01-10-2020	₹ 70.79	₹ 10,000.00	141.26	1458.84	₹ 1,03,269.51

Table 1: Cost Averaging Investment

As suggested in table 1, monthly investment amount is fixed irrespective of Market Price. Each month Units worth ₹ 10,000.00 are purchased and accumulated till the end of tenure.

Below are the details of this Cost Averaging investment plan

Total units accumulated at the end of tenure :- 1458.84, Total amount invested :- ₹ 1,00,000.00

Portfolio Value as of 01<sup>st</sup> Oct 2020 :- ₹ 1,03,269.51, Total Absolute Gain :- ₹ 3,269.51

Average Cost of investment per unit at the end of tenure :- ₹ 68.54

## 2.1 BENEFITS OF COST AVERAGING METHOD OF INVESTMENTS

- Avoid risk of timing the market :- This strategy avoids investor dilemma of taking decision on when to enter in the equity market. Investments are spread across specific time intervals covering rise and fall of the market price, thereby averaging the cost at the end of tenure.
- Risk Diversification :- With cost spreading across time horizon, the risk of sudden downfall of market is covered. Due to regular purchase at various stages of stock/unit price, market fluctuation risk is considerably reduced.
- Financial Discipline :- Financial discipline is most important factor which ensure long term investment goals are met. This investment model ensures a pre-defined amount is invested on specified date to ensure wealth accumulation at the end of tenure.
- Better Cashflow Management :- In this strategy, fixed amount is invested on specific time intervals. This gives investor enough time to plan his finance of the month accordingly. Also, small investment amount ensures no sudden impact on investors budget.

## 2.2 DRAWBACKS OF COST AVERAGING METHOD OF INVESTMENTS

- Averaging of cost solely depends on market price :- Cost averaging functions works well if the cost fluctuation in certain limits. Any unusual drop in the market price can bring down the value of investment drastically.
- May not work for fixed financial goals :- This strategy is not targeted to achieve a fixed financial goal. This doesn't provide assurance to achieve certain amount in designated time frame. Returns and final portfolio amounts based on the market condition at the time of redemption.

### 3. VALUE AVERAGING METHOD INVESTMENT

Value Averaging investment method is a fairly new method of investing in the stock market. This can be considered as an optimized version of Cost Averaging investment method to further reduce the cost of holdings. The strategy also applies to a variety of investment avenues like shares, mutual funds etc. This is a systematic and calculated way of investing in equity market to lower the cost of investment much more effectively than a normal cost averaging plan. Value averaging concept is built by combining attributes of cost averaging as well as portfolio rebalancing.

In this investment strategy, amount of investment is flexible which varies based on the target returns set and actual returns achieved. Value averaging is an investing plan which works similar to rupee cost averaging by making steady contributions at regular intervals, but significantly differs in approach to the decide investment amount at each interval. Major difference between cost averaging and value averaging is the amount of investment. Considering monthly investment strategy, under cost averaging plan, investment amount per month is constant where as in value averaging monthly investment varies based on returns achieved in last month. In value averaging, the investor decides on a target return rate or growth amount at each time intervals and then adjust the next investment amount according to the actual gain or loss for completed time interval.

The primary goal of value averaging strategy is to make more investment when prices are dipping and make less investment when prices are going up. Value averaging method holds edge over cost averaging in terms of returns generated and assurance of achieving financial target.

Below is the calculation table if an investor invests in Mutual Scheme of 'HDFC Focused 30 Fund - Growth Option - Direct Plan' from 01<sup>st</sup> Jan 2020 till 01<sup>st</sup> Dec 2020 using Value Averaging investment strategy.

Date	NAV (Net Asset Value)	Value Averaging Investment Plan			
		No of Units to be purchased	cumulative Units	Target Portfolio Value	Monthly Investment Amount
01-07-2020	₹ 68.00	147.06	147.06	₹ 10,000.00	₹ 10,000.00
03-08-2020	₹ 69.84	139.32	286.38	₹ 20,000.00	₹ 9,729.85

01-09-2020	₹ 73.68	120.80	407.18	₹ 30,000.00	₹ 8,900.30
01-10-2020	₹ 70.79	157.88	565.06	₹ 40,000.00	₹ 11,175.94
02-11-2020	₹ 71.02	138.95	704.01	₹ 50,000.00	₹ 9,868.34
01-12-2020	₹ 79.93	46.67	750.68	₹ 60,000.00	₹ 3,730.11

Table 2: Value Averaging investment strategy

As shown in above table Target Portfolio value is fixed for each month and at the start of sixth month. Monthly investment amount is adjusted accordingly to ensure target portfolio value is met as planned. In above scenario, Rs. 53,404.55 were invested from 01<sup>st</sup> July till 01<sup>st</sup> December to achieve target portfolio value.

### 3.1 BENEFITS OF VALUE AVERAGING METHOD OF INVESTMENT

- Assurance to achieve end goal :- This is a major benefit of this method as it is planned in such a way to achieve end goal. Value Averaging method ensures the target portfolio amount is met irrespective of market condition. The periodic investment amounts are calculated in such a way that end financial goal is met.
- Profit booking in-between investment horizon :- This method allows investor to book profit in between investment horizon if portfolio value exceeds the target set. As each investment amount is determined at the time of investment, if market exceeds the expected returns significantly then investor gets an option to sell part of investment to book profit which will be an additional gain.
- Inflation can be factored :- Value averaging method starts with determining the rate of return and final portfolio value. An investor can very well factor inflation while determine final portfolio value to decide the path of investment. There is no uncertainty about inflation impact on portfolio value as the value is pre-determined even before investment is made.

### 3.2 DRAWBACKS OF VALUE AVERAGING METHOD OF INVESTMENT

- Uneven cash outflow :- Cash outflow amount is not predetermined in this method unlike Cost Averaging method. The investment amount is dynamic and varies as per actual portfolio value and target value. In adverse market condition this may result in very high investment value which may disturb financial discipline.
- Constant Monitoring :- As the investment amount is determined on the day of investment, constant monitoring is required in the method. Every investment amount needs to be calculated considering target value and accordingly investment needs to be initiated.

## 4. COMPARISON OF COST AVERAGING AND VALUE AVERAGING METHOD OF INVESTMENT

Both Cost Averaging and Value Averaging investment plans are built on the principle of spreading investment cost over a time horizon. Basic averaging principle is applied to build these strategies. Both these strategies are extremely useful for retail investors who cannot afford to do lumpsum investment and rather prefer to invest small amounts in regular intervals. These strategies cover market fluctuation as well as risk spreading throughout investment tenure by increasing investment time horizon.

Major difference among these two approaches is investment amount and target value. In Cost Averaging Method investment amount is fixed whereas in value averaging method target portfolio value at the completion of investment tenure is fixed. In Cost averaging strategy cost of investment is averaged by purchasing same financial instrument on various price whereas value averaging strategy focuses on adjusting current portfolio value to build path to achieve final portfolio value.

In Value Averaging plan a target portfolio value of ₹ 1,50,000 was considered as financial goal at the start of 6 month by targeting 4% monthly growth. The plan started with standard ₹ 10,000 on 01<sup>st</sup> Jan 2020 with NAV of ₹ 82.73. On 03<sup>rd</sup> Feb 2021 NAV was dropped to ₹ 78.09 and accordingly monthly investment was increased to ₹ 10,961.32 to meet Target Portfolio Amount of ₹ 20,400. Similarly, when the NAV was increased on 05<sup>th</sup> May 2021 as related to last month, investment amount was

reduced to ₹ 6838.95. Below is the calculation table if an investor invests in Mutual Scheme of 'HDFC Focused 30 Fund - Growth Option - Direct Plan' from 01<sup>st</sup> Jan 2020 till 01<sup>st</sup> Dec 2020.

Date	NAV (Net Asset Value)	Value Averaging Investment Plan			Cost Averaging Investment Plan	
		No of Units to be purchased	Target Portfolio Value	Monthly Investment Amount	SIP Investment	No. of units purchased
01-01-2020	₹ 82.73	120.87	₹ 10,000.00	₹ 10,000.00	₹ 10,000.00	120.87
03-02-2020	₹ 78.09	140.37	₹ 20,400.00	₹ 10,961.32	₹ 10,000.00	128.06
02-03-2020	₹ 73.15	165.49	₹ 31,216.00	₹ 12,106.00	₹ 10,000.00	136.70
01-04-2020	₹ 54.61	350.81	₹ 42,464.64	₹ 19,159.00	₹ 10,000.00	183.10
04-05-2020	₹ 60.86	112.36	₹ 54,163.23	₹ 6,838.95	₹ 10,000.00	164.30
01-06-2020	₹ 63.07	161.80	₹ 66,329.75	₹ 10,204.29	₹ 10,000.00	158.56
01-07-2020	₹ 68.00	109.81	₹ 78,982.94	₹ 7,467.25	₹ 10,000.00	147.06
03-08-2020	₹ 69.84	157.88	₹ 92,142.26	₹ 11,025.62	₹ 10,000.00	143.19
01-09-2020	₹ 73.68	116.99	₹ 1,05,827.95	₹ 8,619.23	₹ 10,000.00	135.73
01-10-2020	₹ 70.79	259.66	₹ 1,20,061.07	₹ 18,381.38	₹ 10,000.00	141.26
02-11-2020	₹ 71.02	202.86	₹ 1,34,863.51	₹ 14,407.27	₹ 10,000.00	140.80
01-12-2020	₹ 79.93	-22.21	₹ 1,50,000.00	-₹ 1,775.10	₹ 10,000.00	125.11

Table 3: Comparison of Cost Averaging and Value Averaging investment strategy

As shown in above table monthly investment were planned in of 'HDFC Focused 30 Fund - Growth Option - Direct Plan' from 01<sup>st</sup> Jan 2020 till 01<sup>st</sup> Dec 2020.

In Cost Averaging method monthly investment is fixed and number of units purchased varies depending on NAV of the scheme. Below is the graphical presentation of Cost Averaging and Value Averaging investment path.

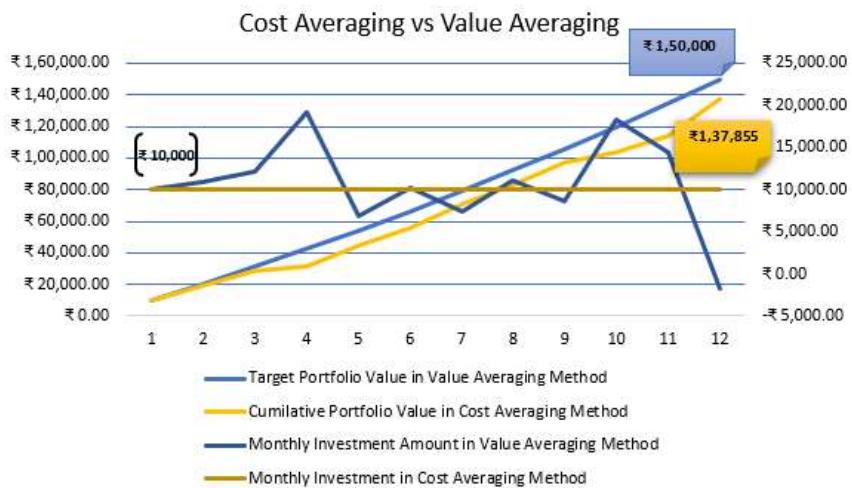


Fig. 1: Cost Averaging vs Value Averaging

As shown in above chart starting point is same for both investment strategies but it changes as time progresses. Comparing the portfolio value, under Value Averaging method total investment amount is ₹ 1,27,395.21 which is grown to ₹ 1,50,000.00 by the start of 6<sup>th</sup> month whereas under Cost Averaging method, total investment amount is ₹ 1,20,000.00 and accumulated units are 1724.75. NAV on 01<sup>st</sup> Dec 2020 was ₹ 79.93 so total portfolio value comes to ₹ 1,37,855.79 [1725.75 X 79.93]. XIRR (Extended Internal Rate of Return) method was applied to know the returns from these methods. The formula is used to find out the Return from investments done at different time periods.

The formula result shows Cost Averaging method gave 34% XIRR where are Value Averaging method gave 39% XIRR for investment made in same mutual fund scheme.

## 5. CONCLUSION

Cost Averaging and Value Averaging methods are very much beneficial for first time investors as well as for retail investors with limited knowledge of share market. These strategies worked in simple averaging principle and bring down the cost of holdings by investing in different time intervals. Cost Averaging method is useful for investors who cannot tolerate cashflow fluctuation and need fixed cash outflow per month. This method purely averages out the cost by making purchases on different market situations. Value Averaging method is dynamic investment model to ensure predefined financial goal is achieved by adjusting monthly investment amounts. This is best suited for investors with fixed financial goals. There is not much difference in the returns generated by these methods but Value Averaging provided slightly higher returns. Both these strategies are extremely useful if selected and implemented with good understanding and individual's needs.

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## A PROPOSED MODEL FOR SMOOTH GOVERNANCE USING CLOUD TECHNOLOGY: DIGITAL HEALTH LOCKER

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### ABSTRACT

Different corporate sectors are highly adapted to the leading edge of technology such as the cloud system and shift their business process with the technology. The goal behind digitisation is to extract information from the current framework. Different business sectors such as finance, insurance, stock market etc. that exist have adapted the technology to its fullest. The technology is highly active but confined to the treatment process in the health sector. In order to add accountability to governance, the automation and incorporation of governance in the health sector needs technical participation. In this paper, we suggest a cloud-based model (digital locker health) for health information. The research covers the digital locker's brief description with respect to its relevant areas.

**Keywords:** health locker, digital medical records, digital patient records, electronic medical records

### 1. INTRODUCTION

The medical history of a patient in the form of medical records, is very important for a meaningful medical diagnosis. Over years a substantial number of reports, prescriptions, hospitalisation records are generated, and the volume of such data constantly increasing. It becomes difficult to organise and maintain this voluminous data. Finding one's all medical records in one location is generally a major hassle. The data like resident relocation, marriage status, improper organisation and maintenance of the medical records, general ignorance and apathy about the need to safeguard medical records right from birth, many a times leads to the entire medical history of a person not being available in one place. This lack of access to, or availability of, all medical records of an individual in bits and pieces can adversely affect the course of future care, especially during an emergency.

A patient's medical records need to be accessed by multiple stakeholders. The employers, medical practitioners like doctors, counsellors, psychologists, pathologists, insurance companies all are valid stakeholders.

Doctors need all the relevant medical evidence in the form of prior prescriptions, reports, medications, existing health conditions to reach a diagnosis. In order to aid or make an accurate diagnosis, doctors frequently rely on various lab reports, made available by pathology labs.

Insurance company is another important stakeholder who may require access to existing medical records in order to determine whether a patient (insurer) is eligible for an insurance policy. Many insurance companies charge a higher premium in situations or deny an insurance altogether where the insurer has pre-existing medical or health conditions. Such conditions increase the possibility of an early or unexpected death, thereby increasing the risk of the insurer. To avoid payment of high premiums, or prevent denial of insurance, many insurers hide their existing health conditions such as heart disease, diabetes, last stage cancer etc.

In this paper, we propose an architecture and model of digital locker for health information along with its benefits to all concerned stakeholders.

### 2. CURRENT SYSTEM

Many smartphone applications have provided digital management of health records in recent times. Digital health wallets lockers have been created and are available on the Google Play Store.

There are many developing countries like Norway, Saudi Arabia, Italy etc who have already implemented the digital locker for health information. In Norway, the electronic health records of citizens over 16 years of age are accessible to patients through the national health portal Helsenorge. Saudi Arabia has a centralised Electronic Medical Record system called The Patient Medical Record, that provides a standardized format for documentation, easy access, and availability. Patient data is available to healthcare workers, administrators. Seamless access has resulted in reduction of hospital costs. Conditions related to drug abuse, allergies are also recorded, allowing preventative and timely intervention. We found that all these systems have some limitations in terms of data processing, business flow and transparency.

The Government of India aims to give Indian people a digital health locker where they can store their medical records online, but there are very nascent developments in this regard.

### **3. TECHNICAL GAPS IN CURRENT SYSTEM**

The apps currently available on the Play Store, rely on the individual person to upload and update his medical records such as vaccinations, allergies, medications, surgeries etc. in the app. Only the 74.4% literate population of India will be able to successfully and effectively maintain the records in these apps, side lining the remaining 25.6% population. These records are accessible only to the doctors registered with the app. Doctor registered on app A will not have access to any patient registered on app B unless the doctor registers on app B too. Practically, it is difficult for a doctor to register on the multiple apps available. Similarly, in case of an emergency, the doctor treating the person may not be registered on the app and therefore won't get access to the medical records, thereby increasing the risks in the treatment. In such a situation, the very purpose of maintaining the records is defeated.

In the current scenario, it is left to the patient to upload these lab reports in the locker. The pathology lab does not have any (temporary) access to upload the reports. Moreover, as there is no centralised system, doctors not registered on the app do not get access to the uploaded reports.

None of the current systems allow access to insurance companies to verify the medical records of the insurer and check the authenticity of the health information provided by the insurer.

Currently there is no secure central repository of medical health records of all the citizens, which can be accessed and updated by the doctor treating the person.

### **4. RESEARCH OBJECTIVES**

- To create a centrally accessible digital health locker system.
- To ensure correctness and transparency by facilitating availability of all the medical records of a patient, digitally.
- To streamline the on-demand accessibility of patient records to all concerned stakeholders.

### **5. PROPOSED STUDY AND MODEL**

Medical history (records) of a patient plays a vital role while making any medical diagnosis. Timely availability, accuracy and simultaneous access of all medical records is very important. We propose a solution wherein all the medical records of a person right from his birth will be stored digitally and centrally. They will be stored in a standardised format and could be accessed simultaneously by select multiple stakeholders. Due to awareness about health and life insurance, many people have subscribed for health as well as life policies. All the health centres are empanelled with the health insurance companies. The current practices of settling the health claim have many lacunas due to semi automation of the process with respect to verification of the patient identity and his medical history. The current subscriber of the health policy may hide his medical history in order to obtain the policy. Currently there is no efficient system that can help the health policy issuing agency track the medical history of the subscriber, thereby increasing the possibility of issuing a policy to undeserving subscribers. There are many disputed cases reported by both the subscriber and the insurance companies regarding the claim settlement. In this context our proposed system can address all these issues and can benefit all the stakeholders.

Figure 1 shows the proposed Digital Health Locker system. Every patient will have his own digital health locker. All such lockers will be centrally stored on the cloud. Every patient who has such a locker will be issued a unique ID. By default, only the patient will have access to the records stored within the locker. In certain situations, as the need arises, the patient may provide the access for select information to certain stakeholders.

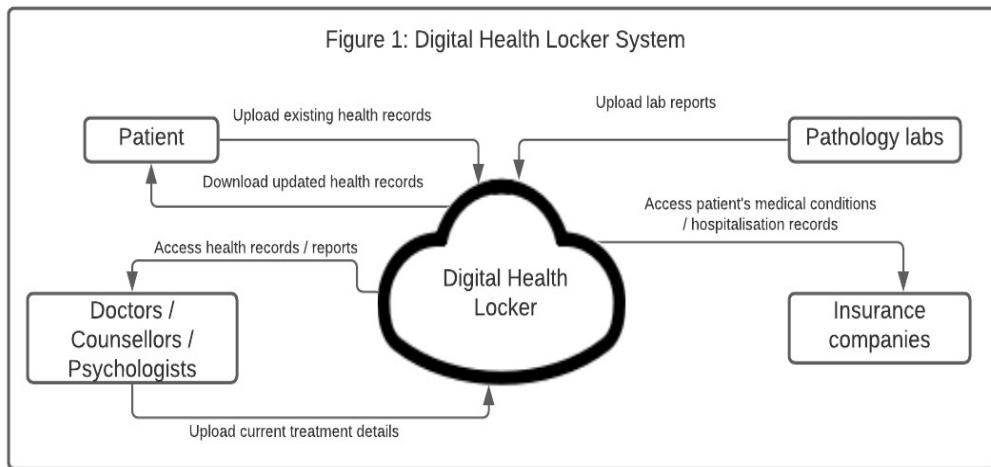


Figure 1: Model for Digital Health Locker

Pathology labs will be able to upload the lab reports of a patient directly into his health locker. Doctors, Psychologists, Counsellors would directly be able to access the uploaded reports and easily identify trends or patterns w.r.t the medical condition (physical or mental).

Through the proposed system, access to a subscriber's digital health locker will be given to an insurance company prior to him buying an insurance policy. The insurance company will not remain in dark about any pre-existing health condition of the insurer and will be able to verify the health information provided by the insurer. In the case of cashless treatments where health insurance claims have to be settled, the insurance company can easily check and verify the hospitalisation records, line of treatment and diagnosis.

## 6. LIMITATIONS

- Accumulation of data with from the existing system
- The study is limited to selected sectors such as hospital and insurance.
- The model proposed based on the current system

## 7. CONCLUSION

The system offers centralised storage on the cloud with secure access to concerned stakeholders. In this proposed system, the entire responsibility of uploading the medical records is not on the patient, as the other stakeholders such as labs, hospitals would be involved in the uploading process. At the same time, the proposed system would seamlessly allow medical practitioners and insurance companies to access the information.

## 8. FUTURE WORK

Medical records accumulated over the years are in a dispersed form. Identification of relevant information from the medical records and storing this information in the form of a concise summary will help in a quick analysis by doctors. Identifying patterns in the line of treatment followed summarisation of reports generated can help result in better, quick and effective diagnosis. It will reduce the time spent by the doctor in sifting through the numerous records, thus improving the quality of doctor-patient interaction. Future work on the proposed system would involve assisting doctors by

sifting through the data to identify related information and identification of patterns and trends in the medical history of the patient.

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## MOBILE APP FOR SENSORS STATUS IN INDUSTRIAL AUTOMATION

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### ABSTRACT

This paper presents the use of embedded systems to generate continuous data for few sensors. A simulation of embedded side to be created. Allowed ranges for each of the data values can be specified. Mobile based application to be used to display the current/latest values on the screen. The same application should also allow display of parameters and their values which are outside its allowed range. The approach of monitoring sensor dashboard system at real-time is designed by using DHT11, temperature sensors and microcontrollers based on IoT. Also, the mobile application will regularly update the system through notifications in continuous time stamps. The experimental results show that the Sensors Status and Dashboard for Industrial Automation involves multiple features such as online detection, regular updation and easy system maintenance. This improves the quality of internal factors that influences the environment and reduces manpower and manual attention.

**Keywords:** *Sensor status, dashboard, microcontroller, industrial automation*

### 1. INTRODUCTION

A system used to monitor and log data from production facilities and processes can be designed. With sensor and control devices, multiple monitoring points or communicate with existing instrumentation and sensors to be designed. Monitoring system can be extended with addition of available wireless controls to automate building systems including production machines to maintain product quality. The scalable industrial monitoring and control systems can provide cost effective solutions for both small, large building facilities.(Paragon Robotics, 2021)

Log and track process parameters and ambient conditions with wired and wireless monitoring systems to be created. Monitoring data logging systems are compatible with any process instrument with voltage or current outputs. Controllers to be added to automate process systems based on feedback from sensors and existing instrumentation. This project demonstrates how IoT technology can be utilized in industry for monitoring different parameters. A mobile app is used that receives information from the sensors. This helps to keep the recording of temperature and humidity, regular inspection, and physical conditions in industry. The smart device uses IoT and is cost effective, economical & user friendly.

### 2. BACKGROUND

Automation is the process of changing the manual handling of materials and parts in and out of machines to automatic handling. This technical paper examined the various aspects of automation with respect to one of its sub-systems – Sensors and sensing systems.(Nnamdi Azikiwe University, 2011)

An Industrial IoT platform is a rapidly growing segment of IoT technology comprising a collection of functions for edge device management, IoT data analytics, modern sensor technologies and connectivity solutions that enhance industrial equipment and industrial operations with remote monitoring, predictive maintenance, and extensive device data analytics. On a broader scale, an Industrial IoT platform is a key enabler of Industry 4.0, otherwise known as smart factory, which combines modern cloud computing, IIoT and AI to create intelligent, self-optimizing industrial equipment and production facilities.

When considering the Industrial Internet of Things (IIoT) from a practical business perspective, manufacturing companies that implement IIoT enjoy increased value to customers and improved cost-efficiency of internal operations. For example, devices with smart features minimize field service effort and reduce TCO (Total Cost of Ownership) by allowing for remote performance monitoring, issue investigation, and troubleshooting. Furthermore, in an IoT enabled factory where individual but interdependent components of a production line are aware of each other's activity in near real time, the entire manufacturing process becomes more efficient and much easier to monitor and administer.(IoT dashboard for smart metering, 2021)

### **3. INDUSTRIAL PROCESS**

Some of these benefits that have helped in the creation of sensor status and dashboard are:

- 1) Maintenance of quality of equipment and goods:Temperature and other environmental parameters play a crucial role in maintaining the quality of food items. Food industry thus develops cold storages to increase the life of their products and maintain their freshness for a long time. By using various temperature sensors in the cold storage, the facility can always monitor its temperature.This helps the food industry to maintain the quality of their food items and meet associated regulatory compliance. In a similar manner, the performance and condition of the equipment can be distantly monitored through performance measuring sensors.
- 2) Space utilization and goods allocation:Internet of Things based industry management systems help the managers to optimally utilize the space in their facility to accommodate the maximum amount of goods.
- 3) Reduced labour cost and establishment of workers' safety:Industry spends a lot of their budget on labour. According to study, a typical industry with 100 non-supervisory employees can spend as much as \$3.7 million in labour expenses. IoT has allowed the development of smart infrastructures for warehouses such as automated guided vehicles and a workforce of autonomous material handling robots. These infrastructures are eliminating manual intervention wherever possible and are revolutionizing the operations in a warehouse.

### **METHODOLOGY**

Dashboard of Sensor control systems helps a business monitor and track the various parameters. Businesses rely on the information in the inventory control system to make decisions on stock purchases, production schedules. Accurate industrial monitoring systems help small businesses keep costs low and efficiently deliver products to meet customer demand. An industrial application needs to be very simple – but the scale, the volume of transactions, and the complexity of exactly how those simple things happen have created today's technology-enabled industry environment. Modern industry management systems not only perform the fundamentals but also optimise tasks and operations and collect, sort, and visualise the electronic information needed to achieve and quantify improvements.

The project can be applicable in any field. One module works towards the monitoring and maintenance of the various parameters. The IoT sensors namely temperature and humidity sensor keep the track of the environmental condition settled inside the room and reports the manager accordingly.

Temperature and moisture monitoring system for smart buildings and shopping malls helps you to improve managing your property and reduce costs of operation. Maintaining a consistent warmth in the premises that directly connected to the building development costs. The remote monitoring system helps to detect heating and aeration equipment failures at the early stage. These IoT sensors can be used in hospitals. In hospitals, medical compounding centres, and other vulnerable healthcare

environments, one of the biggest threats to patient health is the disseminated of pathogens. Exposure to germs, bacteria, pollen, and fungi all pose hazards to patients and care providers and can compromise critical spaces like operating rooms and other procedure areas. Relative humidity is the percentage of the partial pressure of water vapor compared to the balance vapor pressure of water at a specific temperature. By adjusting ecological parameters, a healthy and comfortable daily life of the people can be provided, as well as comply to regulatory standards of populated premises conditions.

#### **4. APPLICATION AREAS**

A sensor status system uses IoT, software and another tech to automate workflows and drive efficiency. This way, machines, computing devices, and objects are linked into a single network. Via this network, you can transmit the instantly collected data, analyse it and use it to your benefit.

How an IoT based Sensor status and Dashboard System Works?

Embedded with sensors, RFIDs (radio frequency identification), allows the continuous flow of real-time data such as inventory locations and levels. Different sensors measure attribute associated with the process of industry such as moisture, temperature, and moisture. This data can belong to material management and organization systems, security and building automation systems, and facility managing systems. After the data is gathered from these sensors; a computer analyses, stores, and simplifies it into actionable insights.

#### **Information about embedded objects used:**

**Sensors:** When IoT is enhanced with sensors and actuators, the technology becomes an instance of the more general class of cyber-natural systems, which also include tools with smart things such as smart home, smart grid, smart vehicle etc. All IoT based systems need to have one or more sensors or actuators to gather the data from the environment. Sensors are essential components of smart objects. One of the most important features of the IoT is context awareness, which is not possible without sensor technology. IoT sensors are usually small in size, have low cost, and less power consumption.

**Temperature and humidity Sensors (DHT11):** This sensor captures the Temperature and humidity. The DHT sensors are made of two parts, a capacitive humidity sensor and a thermistor. There is also a very basic chip inside that does some analog to digital conversion and spits out a digital signal with the temperature and humidity. The digital signal is fairly easy to read using any microcontroller.(adafruit, 2020)

Internet of things widely known as IoT is a network of physical objects like devices, vehicles, buildings, etc. embedded with electronics, software, sensors, actuators, and network connectivity that allows the exchange of huge volume of data either through wired or wireless means. How this internet of things work is simple, this is the concept of basically connecting devices to the Internet and let them communicate with other devices, users etc. This IoT structure basically involves sensors, a gateway device, and the cloud server over which the communication takes place. All the devices communicating in IoT network will talk to each other using the same Internet Protocol (IP).

A sensor is fixed at the selected remote location and is connected to the gateway device. Communication establishes through the gateway device in either WAN mode or in the Ethernet mode. WAN mode helps the gateway device to interact directly with the internet whereas, Ethernet mode helps the gateway device to interact with the locally installed devices. Once the communication mode is set and the cloud server is configured, the communication initiates between the sensors and the cloud server. The established communication allows you to monitor the data from any location at your ease.

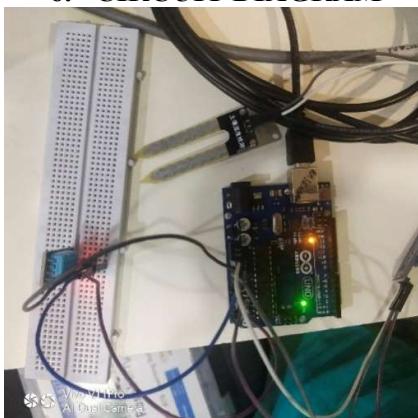
There are sensors all around—in our homes, smart phones, automobiles, city infrastructure, and industrial equipment. Sensors detect and measure information on all sorts of things like temperature, humidity, and pressure. And they communicate that data in some form, such as a numerical value or electrical signal.

All the collected data or information is stored in the cloud. The pre-processing and post processing of information is also stored in the clouds. The cloud information maintenance is done by the cloud service providers. To provide useful information for the end user, the gathered data is transmitted to a cloud-based service where the information coming in from the IoT device is grouped with other cloud-based data. IoT devices can gather data and process the gathered data either locally or send the data to centralized servers or cloud-based application back-ends for further processing.

## 5. WORKING

- This mobile app is a low-cost IT solution preferably around Internet of the things (IoT) sensor and IoT data integration to existing application software. The sensor is expected to auto capture the atmospheric moisture and temperature.
- Based on moisture and temperature data so captured, the software should do appropriate data analytics and send timely alert to concern officials for mitigation and remedial actions arising due to moisture and temperature inside the warehouse.
- This reduces occurrence of human errors, also help the manager to save the time by monitoring the warehouse virtually with more accurate readings.
- Additionally, IoT sensor can also capture fire and can alert the respective nearest authority like Fire Station, Hospital, Police besides alerting officials for mitigation.

## 6. CIRCUIT DIAGRAM



The various sensors are connected to the anduino UNO as show on the circuit diagram.

## 7. USER INTERFACE:



The app needs to be installed from the play store. The authentication will be done using the gmail account. It will continuously display the information on the screen about the

temperature and humidity. If the values are beyond the specified range, it will display a alert message.

## 8. CONCLUSION

This work is designed for managing industrial automation. The safety and nutritional quality of frozen products is to be emphasized only when high quality rawmaterials will be used, good manufacturing practices to be employed in the preservation process, and the products kept in accordance with specified temperatures.

## 9. FUTURE SCOPE

This work can take information from the outside world such as temperature of a liquid, level in a tank, speed of an object, using different forms of connected sensors. Future of industrial automation would be great if automation people use PLC to control processes. However, the real-world signals are transformed into electrical signals by the external sensors and relayed to the PLC that turn processes the electrical signals and uses them to complete its pre-programmed task.

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