



KNOWLEDGE MANAGEMENT CASE STUDY ON TATA GROUP

Name	USN
Mahesh H A	PES1201701667
Vaibhav V Pawar	PES1201701131
Vithal P Nakod	PES1201701746
Krishna Jadhav	PES1201701759
K Anil Kumar	PES1201701385
MD Faizan Siddiqui	PES1201701740

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INTRODUCTION:

Tata Group is an Indian multinational conglomerate company headquartered in Mumbai, Maharashtra, India. It encompasses seven business sectors: communications and information technology, engineering, materials, services. Energy, consumer products and chemicals. Tata Group was founded in 1868 by Jamsetji Tata as a trading company. It has operations in more than 80 countries across six continents. Tata Group has over 100 operating companies with each of them operating independently. Out of them 28 are publicly listed. The major Tata companies are Tata Steel, Tata Motors, Tata Consultancy Services (TCS), Tata Power, Tata Chemicals, Tata Global Beverages, Tata Teleservices, Titan Industries, Tata Communication and Taj hotels. The combined market capitalisation of all the 28 listed Tata companies was ₹10.88 Trillion as of 12th Feb, 2019. Tata Group remains a family-owned business, as the descendants of the founder i.e. from the Tata family own a majority stake in the company. The current chairman of Tata Group is **N Chandrasekaran** appointed in January 2017. Tata Sons is the promoter of all the key Tata companies and holds the bulk of shareholding in these companies. About 66% of the equity of the Tata sons is held by philanthropic trusts endowed by the members of the Tata family. The Tata Group and its companies and enterprises is perceived to be India's best-known global brand within and outside the country as per an ASSOCHAM (member of the International Chamber of Commerce, the World Business Organisation) survey. According to the Reputable Institute's survey, Tata is ranked 11th as the most reputable company in the world. The Tata Group has helped establish and finance numerous quality researches, educational and cultural institutes in India. Tata Group was awarded the Carnegie Medal of Philanthropy in 2007 in recognition of its long history of philanthropic activities.

About Tata Group :

The Tata Group is currently headed by Ratan Tata. The Group Executive Office (GEO) and the Group Corporate Centre (GCC) are the two decision-making bodies that define and direct the business endeavours of the Tata Group. Created in 1998/2001, the GEO defines and reviews the business activities of the Tata Group and is involved in implementing programmes in corporate governance, human resources, the environment, etc. The chief objective of the GEO is to make the Tata Group more synergistic and create a shared understanding of the Tata company's current activities, its strengths and its weaknesses. The GEO assesses what unique value a company adds to a particular business sector and, conversely, what unique value the Group can bring to that company. The mandate of the GCC is to guide the future strategy and direction of the Tata Group and to work in close coordination with the GEO. Knowledge management has a history of producing the

kind of change businesses desire in terms of improving the communication of knowledge in order to achieve successful outcomes.

The Tata Group is an Indian multinational conglomerate headquartered in Mumbai, India. It was founded in 1868 and gained international recognition after purchasing several global companies. Tata companies with significant scale include Tata Steel, Tata Motors, Tata Consultancy Services and many more.

Tata Consultancy Services (TCS) is an IT services, business solutions and outsourcing organization which ensures that no other firm can match. A part of TATA Group, TCS has over 324,000 of the world's best trained IT consultants in 46 countries. In 2015, TCS was ranked 64th as World's Most Innovative Companies and is now placed among the 'Big 4' most valuable IT services brands worldwide.

Tata Motors Limited (formerly TELCO, short for Tata Engineering and Locomotive Company) is an Indian multinational automotive manufacturing company. Its products include passenger cars, trucks, vans, coaches, buses, construction equipment and military vehicles. It is the world's 17th Largest motor vehicles manufacturing company, fourth-largest truck manufacturer, and second-largest bus manufacturer by volume.

Tata Steel Limited (formerly Tata Iron and Steel Company Limited (TISCO)) is an Indian Multinational Steel making company. It was the 11th largest steel producing company in the world in 2013, with an annual crude steel capacity of 25.3 million tonnes, and the second largest steel company in India (measured by domestic production) with an annual capacity of 9.7 million tonnes after SAIL.

Today knowledge management has many applications and is useful in most any discipline in an organization. Therefore, in this paper I have presented on the importance and role of Knowledge Management mainly on three (3) subsidiary companies under TATA Group of Company based on the problem statements and questions raised.

Knowledge Management in Tata Chemical

Tata Chemicals Limited is a global company with interests in businesses that focus on LIFE: Living, Industry and Farm Essentials. The story of the company is about harnessing the fruits of science for goals that go beyond business. Tata Chemicals is the pioneer and market leader in India's branded Iodized salt segment. With the introduction of an innovative, low-cost, nanotechnology-based water purifier, it is providing affordable, safe drinking water to the masses. Tata Chemicals is the world's second largest producer of soda ash with manufacturing facilities in Asia, Europe, Africa and North America. The company's industry essentials product range provides key ingredients to some of the world's largest manufacturers of glass, detergents and other industrial products

KM - Strategy :

Tata Chemical Ltd has implemented a Balance Score Card across all its business. KM strategy at TCL is designed in such a manner so that it is aligned with the business objectives of TCL

Knowledge in TCL is classified into three levels,

1. Basic Needs : Delivering basic knowledge needed by the organization to improve operations or solve problems.
2. Enabling needs : Delivering knowledge needed to achieve its tactical goals collecting key business intelligence, promoting reuse, making connections with experts and information as needed, facilitating greater integration and identifying information or knowledge problems related to business processes.
3. Strategic needs : Providing proactive support in guiding senior management to make use of knowledge for management support, decision making and innovation. KM Strategy makes sure that all these needs of the business are sufficiently catered.

KM - Processes :

All the business and support processes at TCL follow Enterprise Process Maps (EPM) methodology consisting of three levels of deployment with a process owner for each of the defined processes. KM processes as per the strategy of the company are a part of continual improvement processes .

There are three distinct EPM level III KM processes :

- Process for Knowledge Identification, Capture & Review
- Process for KnowledgeSharing, Replication and Usage.
- Process for Idea management and Implementation.

Each of the processes is well defined with a set of efficiency and effectiveness measures which are tracked and reported regularly . There are various KM initiatives that target people at different roles/levels in the organization. All the initiatives are regularly monitored and we ensure a process of evaluation and improvement (E & I) methodology is adhered. All the KM EPM processes undergo periodic DEMMI and are thus constantly improved. Further, benchmarking study of KM processes is undertaken with other Tata Group companies and also identified relevant companies from across the globe. This procedure is called BEP (Benchmarking Every Process).each department of TCL has an identified KM coordinator to function as one-point of contact between KM department and his own department. Further, there are a set of Listeners (whose role and responsibility mentioned later) who function as extended KM department members on a voluntary basis.

Each of the Knowledge Managers has the following role and responsibility:

- Spreading the awareness and ensuring effective functioning of KM initiatives within their own business units in line with specific business needs of the BU.
- Accelerating learning processes and identifying best practices through KM practices for improved efficiency.
- Developing KM processes, procedures and applications and implement these in their own work environment.
- Promoting knowledge sharing culture and building collaborative mechanisms to capture and encapsulate knowledge to thrive in the future.
- Ensuring KM Initiatives adherence to plan.
- Track department level KM Activities.
- Coordinating with other business units on KM Activities.
- Facilitating faster knowledge transfer among employees.

KM - Culture:

Knowledge Management at TCL is viewed as a major contributor to build intellectual capital in the organization encompassing free flow of knowledge across all geographies it operates in. The intent is to make KM a way of life at TCL and focus on conscious learning through continuous realization of the need to build the knowledge base of the organization. The basis for KM initiative and process design is to consciously identify what knowledge is critical to the organization, what knowledge already exists, what still needs to be known, where to get this knowledge from & how efficiently and effectively this knowledge is put to use to meet organization goals and challenges. The initiatives reinforce conscious learning and improvement philosophy through collaborative approach to knowledge sharing. The reward and recognition around knowledge management activities are structured in a manner to strengthen and nurture the KM culture at TCL.

Key KM Initiatives:

- **Story Capture(Titli) :**

TCL is more than 65 years old company and with this vast experience, what comes naturally is a huge pool of tacit knowledge amongst its existing employees – with experience ranging from a few years to almost 35 – 40 years of hands on REAL experience, All these Knowledge sources – are available for carefully and sensitively “harvesting”, documenting, codifying and making knowledge available for “sharing” and “seeking” to employees across the locations. Titli (a butterfly) is the name for this initiative of capture of tacit knowledge and conversion to useful K-Nuggets. A butterfly stands for many colors and also helps in cross-pollination. Our Titli also is intended for cross pollination of ideas, experiences, and learning’s from each other’s failures and Successes. It also has varied hues of each individual's perceptions of instances in the form of experience or Stories as its core inputs. As a part of this Titli, TCL has developed and implemented a unique concept of Listeners. Those employees who volunteer to be a listener are provided structured training into active

and passive listening. A listener is also trained to capture tacit knowledge in the specified formats and submit to the KM portal or hand it over to the K coordinator of that department. Stories elaborating experiences of employees, their learning's and opinions have been shared since the beginning. Stories are rated on their impact and sustenance of impact, based on whether they have led to process improvements, savings accrual, addition of capabilities, changes in SOPs etc. There is a clear defined process of refinement and distillation of these stories. Accepted stories are being converted into Case studies / Use cases to create a database of distilled stories, best practices and explicit documents, which may be shared cross locations, thereby facilitating best practice sharing and learning. The approved stories with high ratings for ease of reliability,

- **Senior Leader Talks :**

Every month there are talks given by a senior leader from the executive committee to all TCL employees via webex and video conferencing wherein valuable learning and knowledge is shared. These talks provide a platform for knowledge dissemination from the senior leaders.

- **K-Capture from SuperAnnuating Employees:**

A major KM challenge within a large size organization is capture and transfer of knowledge from experienced staff who are about to retire. It is a common organizational observation that when experienced employees superannuate, they create a vacuum behind them that cannot be filled despite the best documentation efforts of their activities and responsibilities. This occurs because documents essentially capture only the manifest information while leaving behind a considerable mass of contextual knowledge, embedded ideas and best practices that together forms the tacit knowledge base of the organization. Because tacit knowledge is carried as individual memory, when employees leave, the overall organizational memory also suffers a setback that eventually causes reduced performance and efficiency. For capturing the tacit knowledge, based on the case a K- capturer is mapped with superannuating employees and on a one-to-one discussion; the outcomes of the same are captured in the explicit form called "Memoirs". TCL has separate processes in place for capture and transfer of knowledge from each employee.

- **Knowledge Sharing Sessions :**

Every department comes up with a calendar of knowledge sharing sessions that it would like to conduct every month. These provide platforms for competency building, brainstorming, in identifying experts and also getting relevant external inputs into the system.

- **Blogs :**

To encourage discussion and open collaboration and brainstorming Blogs have been incorporated into K Connect. Blogs promote expression of viewpoints and ideas. Blogs are also used by a number of departments to share general information about activities being carried out in each department.

- **K Cafe :**

One of the key initiatives of KM around Idea generation is K Café. The K Café is an innovative yet simple methodology for hosting conversations about questions that matter, based on the need of the business. Teams are invited to come together to present ideas. The ideas are evaluated on six criteria, innovation, novelty, actionable, interdisciplinary approach, futuristic and impact on business. All the ideas that are accepted are tracked in terms of its implementation status. K Cafe is also a feature available on K Connect from where one can see the upcoming K Café themes, nominate for participation and also look at the conducted K Cafes ideas and their status.

Innovation and KM:

The tagline of knowledge management @ TCL is "Insight2 Intelligence2 Innovation". Innovation is a key enabler and differentiator for TCL that helps drive learning and innovation in the changing business scenarios. TCL has a world class Innovation center at Pune focusing on Nanotechnologies and Biotechnologies. Centre for Agriculture & Technology (CAT) at Aligarh provides advice on farming practices in general and crop nutrition practices and solutions in particular. All KM Practices in TCL accelerate innovation through effective management of collective ideas, insights, wisdoms and experiences, maximizing on the intellectual capital. Leveraging on the knowledge-sharing culture in the organization, TCL promotes creativity and innovation amongst employees to enhance organizational and personal value and develop competitive advantage. We believe in combined power of people, processes and technology to enhance organizational performance and achieve sustainable innovation.

- **Tata Innoverse:** This is a web 2.0 application of TQMS (Tata Quality Management Services) where challenges can be posted and ideas for these challenges can be received from participating Tata Group companies. TCL has become a part of Tata Innoverse from Jan 2010. Link to Tata Innoverse is through K Connect.
- **Prerana:** This is a suggestion portal open for all employees in TCL for posting a valuable suggestion for any area of concern for TCL. A link to this is also provided through K Connect. Another feature on K Connect is.
- **EurekaOnDemand :** This is a platform for enabling collaborating problem solving approaches across the value chain of the organizational problem solving process – from problem definition, to solution finding. As opposed to our regular or conventional problem solving, in which talent resources of any

given or limited geography are used, in this collaborative approach by connecting dispersed talent resources such as employees of other global locations, retired employees, educational institutions, research organizations, OEM suppliers, vendors and channel agencies every employee has an access to the complete ecosystem of TCL. This application takes care of the type of NDA signed with our external collaborators and suitably involves the stakeholders in problem solving.

Sharing TCL Knowledge with the external world: The KM department started conducting a “K Fair” from the past two years, which is a gateway for TCL to share its internal knowledge with external collaborators like academic institutions, OEM partners, Vendors and suppliers. Further, TCL regularly participates in various technical conferences, industry forums and government regulatory committees.

Kisan Help Line: KM department has developed in coordination with the TCL CAT research center, Aligarh and TBSS (Tata Business Service Solutions) a toll free number based helpline for farmers in the region where TCL sells its Agri Products.

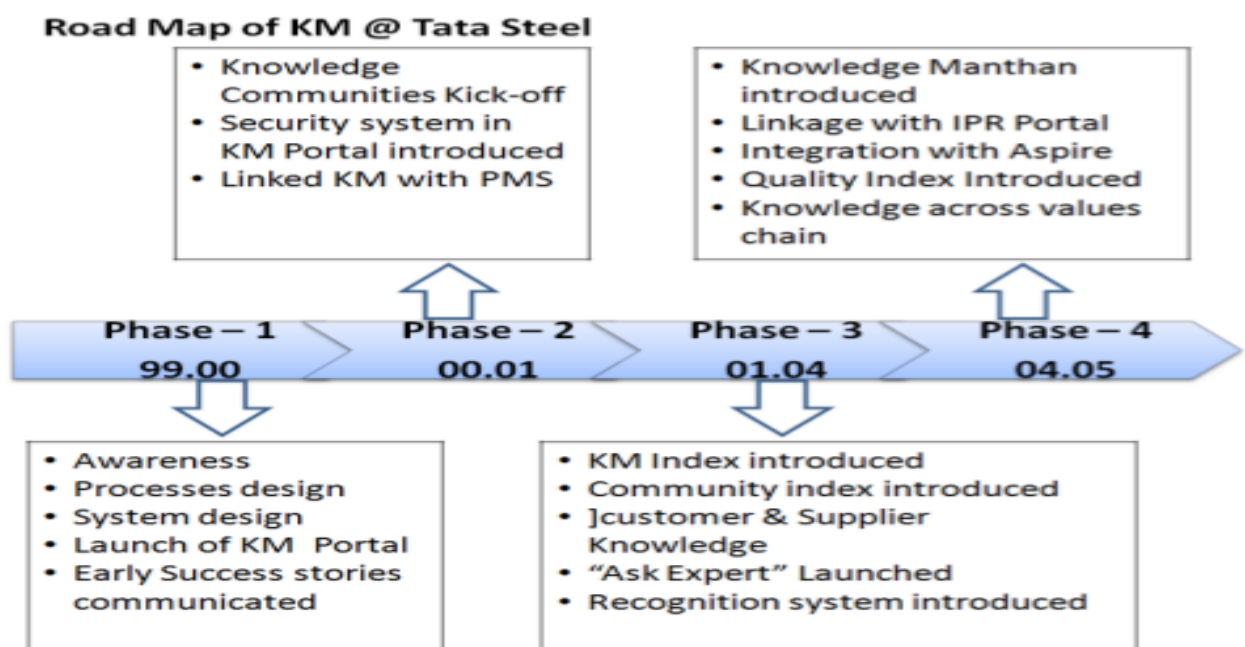
Measuring KM:

Measuring the value of knowledge and ensuring that it is in line with the business objectives is critical. TCL KM framework has evolved to ensure the continuous feedback of results into the system. This allows TCL to continuously refocus the KM strategy, the key business processes and infrastructure. TCL has two focus areas while measuring KM. One is focused on individuals and the other is as a group. Individual KM measured through Privilege points one accrued by his contributions to KM. For measuring group KM, TCL has developed a unique framework to measure the effectiveness of through KM Meter - KMM. The “Knowledge Management Meter” (KMM©.) has been proposed as a parsimonious and useful tool to help TCL gauge its Knowledge management capabilities. It is the first step in understanding the difference between what TCL is currently doing and what it needs to do in order to maintain and improve. At the micro level, it calls attention of the departments to areas needing improvement in current and future knowledge needs. In either case, KMM© provides a robust indicator and basis for decision-making and organizational support and development in terms of knowledge management. KMM© is a comprehensive measure encompassing all the stages of KM life cycle. KMM© is mapped to the five levels of the TQMS Knowledge Management Maturity Model. All the key effectiveness and efficiency measures of Knowledge Management EPM (Enterprise Process Maps) level II process are reported to the EXCOM every month along with trends. (The EXCOM is the top most body of TCL). In addition every business unit reviews knowledge management metrics relevant to it in its monthly review meetings.

Knowledge Management in TATA STEEL:

Tata Steel was established in India as Asia's first integrated private steel company in 1907 at India's first industrial city at Jamshedpur. Tata Steel group is among the top global steel companies with an annual crude steel capacity of 33 million tonnes per annum (MnTPA). It is one of the world's most geographically-diversified steel producers, with operations and commercial presence across the world. The group recorded a consolidated turnover of US \$22.67 billion in the financial year ending March 31, 2019. In 1999, They started implementing Knowledge management strategies and practices. By 2000, 8 divisions were ISO-14001 certified. In 2004, The American Productivity Quality Council (APQC) selected Tata Steel (the only Indian Company) as the "**Best Practice Partner in Knowledge Management**" for its 14th Consortium study. Tata Steel is currently the world's second-most geographically diversified steel producer. They are one of the few steel operations that are fully integrated – from mining to the manufacturing and marketing of finished products. Tata Steel retained the 'Global Steel Industry Leader' position in the DJSI 2018. The Company has been recognised as the Climate Disclosure Leader in 'Steel category' by CDP (2017). The Company also received the 'Most Ethical Company' award from Ethisphere Institute for the eight time (2019), Steel Sustainability Champion (2018) by the World Steel Association, Dun & Bradstreet Corporate Awards (2019), Golden Peacock HR Excellence Award by Institute of Directors (2018), 'Best Companies To Work For' recognition by Business Today, 'Asia's Best Integrated Report' award by the Asia Sustainability Reporting Awards (2017)

Road Map of KM At Tata Steel:



KM Development in TATA STEEL:

Knowledge Management was initiated at Tata Steel way back in July 1999 with an objective to shift the basis of growth from natural resources and physical assets to intellectual capital, which has become a source of innovation, growth and value today. Knowledge Management was brought under the more ambitious change management initiative called ASPIRE (Aspirational Initiatives to Retain Excellence), across Tata organisations in 2000. Tata Steel implemented E-learning with the KM repository and KM communities. Developed an intellectual capital index, network with retired employees to develop employee skills for better externalization of knowledge and integration with the customer's knowledge. In 2004, The American Productivity Quality Council (APQC) selected Tata Steel (the only Indian Company) as the "Best Practice Partner in Knowledge Management" for its 14th Consortium study. Tata Steel decided to embark on a formal knowledge management initiative in the year 1999. The beginning was made in July'99 to place a knowledge management programme for the company to systematically & formally share and transfer learning concepts, best practices and other implicit knowledge. The emphasis on knowledge management was clearly demonstrated in 1999 while coining the vision statement of the company – which read "Tata Steel enters the new millennium with the confidence of learning and knowledge based organization....." Then followed the new vision statement, co-created by the employees in 2001 which again identified 'Manage Knowledge' as one of the main pillars in strategy to become EVA+ by 2007. This clearly indicated the thrust Senior Management wanted on an initiative like KM. The essence of knowledge management is to capture the available abundant knowledge assets either in form of tacit (experience, learning from failure, thumb rules, etc.) or explicit (literature, reports, failure analysis etc.), to organize and transform the captured knowledge, and to facilitate its usage at right place and at the right time. Tata Steel aims at capturing knowledge from various working groups and outside agencies that play a major role in day-to-day functioning. The major stakeholders covered under knowledge management being senior management, officers, employees, customers, suppliers and experts (inside and outside the company). Tata Steel's knowledge management initiative is driven by its corporate KM group which attempts to cover all possible opportunities of knowledge generation in and outside the steel works. The primary sources being day to day operation, learning from failure, published papers by employees, task force, consultant and technical groups. Tata Steel is the world's 6th largest steel company with an existing annual crude steel production capacity of 30 million tonnes per annum. Established in 1907, it is the first integrated steel plant in Asia and is now the world's second most geographically diversified steel producer and a Fortune 500 Company. Tata Steel has a balanced global presence in over 50 developed European and fast growing Asian markets, with manufacturing units in 26 countries. Tata Steel decided to embark on a formal KM initiative in the year 1999. The beginning was made in July'99 to place a Knowledge Management programme for the company to systematically and formally share and transfer learning concepts, and best practices. The various phases of the KM spiral at Tata Steel are shown in Figure above. Knowledge Management has been identified as one of

the main enablers to make Tata Steel self reliant in technology. Tata Steel aims at capturing knowledge from various working groups and outside agencies. The major stakeholders covered under KM being senior management, officers, employees, customers, suppliers and experts in and outside the company. On the corporate intranet a KM Portal has been developed to communicate all KM related matters across the company. It provides an online knowledge repository to the users who can submit, search and use knowledge pieces available on it. The portal also provides a virtual forum where employees can invite and involve other fellow employees or lead experts to discuss and solve the problems faced by them. Relevant Indian and international standards, quality system manuals, standard practices and procedures also feature for ready reference of users. Tata Steel follows three strategies for managing organizational knowledge. Knowledge can be contributed either by an individual (codification) or a team or a group of people (personalization). The first two strategies enable capture and systematic storage of knowledge, whereas the third strategy (knowledge diffusion) derives the benefit of replicating best practices identified in the repository and thereby eliminating the 're-invention of wheels'. The above strategies ensure knowledge sharing across the entire value chain from customer to the supplier. Tata Steel has been recognized as the overall (1st place) 2006 Indian Most Admired Knowledge Enterprises (MAKE) Winner compared to its 6th position for the year 2005. Tata Steel, and his management team have pulled off an astounding 'turnaround' victory by

- focussing on operational excellence
- moving from 'price' to 'value to customer'
- showing unwavering personal commitment
- aligning everyone from worker to senior manager with the 'greater cause' of survival and growth.

KM Strategies :

- 1. Codification (tacit – Explicit – Tacit):**
 - a. Capture, Deploy and Use.
 - b. Knowledge Transfer is independent of Time and Space.
- 2. Personalization (Tacit – Tacit):**
 - a. Knowledge Transfer across divisions, departments / Customers/ Suppliers : K-Communities, DVM, RVM, SVM.
 - b. Knowledge Manthan (Churning) for shop-floor employees.
- 3. Knowledge Diffusion.**
 - a. Usage of K – Assets (KP, CoP, Projects . . .)
 - b. K-Debates
 - c. Knowledge Manthan

Explicit knowledge: It is the visible knowledge available in the form of letters, reports, memos, literatures, etc. Explicit knowledge can be embedded in objects ,rules, systems, methods etc.

Tacit knowledge: Transformation of knowledge from tacit to explicit form increases its usability and visibility. Capturing the experts Tacit Knowledge that resides within him in the form of Know-how and insights is a very difficult and challenging task. While tacit and explicit type of knowledge is only a way to dissect the field, in reality the situations are more complicated. The above two categories are so heavily interlinked that such a bipolar map is not easy to draw in practice. For example, to understand completely a written document explicit knowledge, it often requires a significant amount of experience i.e. tacit knowledge. Tata Steel decided to embark on a formal KM initiative in the year 1999. The beginning was made in July'99 to place a Knowledge Management (KM) program for the company to systematically & formally share and transfer learning concepts, best practices and other implicit knowledge. The emphasis on knowledge management was clearly demonstrated in 1999 while coining the vision statement of the company which read "Tata Steel enters the new millennium with the confidence learning and knowledge based organization.....". The essence of Knowledge management is to capture the available abundant knowledge assets either in form of tacit (experience, learning from failure, thumb rules, etc.) or explicit (literature, reports, failure analysis etc.), to organize and transform the captured knowledge, and to facilitate its usage at right place and at the right time. Starting from a small sapling 1999, the KM system of Tata Steel underwent a lot of improvements, and changes. In the process, it passed through many learning phases to reach its current state. The various phases of KM spiral at Tata Steel are shown in the above figure. In its latest phase, Knowledge Management has been identified as one of the main enablers to make Tata Steel self-reliant in technology which will enable the company to become a global player. Tata Steel aims at capturing knowledge from various working groups and outside agencies that play a major role in day-to-day functioning. The major stakeholders covered under KM being: Senior Management Officers Employees, Customers Supplier Experts (In & outside company). Tata Steel's knowledge management initiative is driven by its corporate KM group which attempts to cover all possible opportunities of knowledge generation in and outside the steel works. The primary sources being: Day-to-day operation Learning from failure Published Papers by employees (National and International publications) Task Force/Consultant/Technical Groups Engineering Project Knowledge sharing across the value chain Tata Steel defines its value chain as a connected series of internal and external organizations, resources, and knowledge streams involved in creation and delivery of value to end customers, it includes the organization's suppliers and customers'. In fact, one of the organization's strategic goals is to develop value- creating partnerships with customers and suppliers. Tata Steel developed two programs in particular to help manage knowledge across its value chain: the customer value management (CVM) program and its supplier value management (SVM) program. Tata Steel follows three strategies for managing organizational knowledge. Knowledge can be contributed either by an individual (codification) or a team or a group of people (Personalization). The first two strategies enable capture and systematic storage of knowledge, whereas the third strategy (Knowledge Diffusion) derives the benefit of replicating best practices identified in the repository and thereby eliminating the 'reinvention of wheel'.

Knowledge Contribution by an individual: All contributions are first sent to a set of subject matter experts to check their relevance, correctness of information and utility to the company before being available in a portal for public usage.

Ask Author: A user can put forth his/her queries to the author regarding any particular Knowledge Piece through this route

Ask Expert: A panel of experts is identified area-wise to answer queries of users from all corners of Tata Steel. This feature directs the query to their expert and thus helps the questioner in seeking his answer. The queries also remain open for other users to attempt a reply. Knowledge Usage (III) Any employee can bring about tangible savings in related work areas by using an existing knowledge asset.

Communities of Practice: To encourage knowledge sharing behavior in an informal manner, across the boundaries of departments and divisions, various Communities of Practice or Knowledge Communities are formed. Each knowledge community further consists of certain sub-communities which attempt to focus on smaller functional areas. The knowledge communities continuously look for new benchmarks, identify gaps, set targets and strive to achieve them through experiments and best practice deployment.

Journey of KM in TATA STEEL:

- *Step 1: KM Initiation*
 - a. Bringing people from different fields from within the company.
 - b. Cultural transformation
 - c. Top management support
 - d. Connectivity
 - e. Co-operation
- *Step 2: Establishing Knowledge Repository*
 - a. Sharing experiences on corporate intranet.
 - b. Knowledge piece and query on KM site.
 - c. Integrate the repositories at Division/Department level
- *Step 3: Knowledge Communities*
 - a. Solving the problems using brainstorming
 - b. Sharing tacit knowledge of experts
 - c. Major roles of members of communities such as Lead expert, Project Manager, Practitioner etc.
 - d. Encouraging the employees to browse the Internet in order to gain knowledge.

Success Mantra of KM in TATA STEEL:

- Compulsory for all the employees to understand, participate in the KM strategies.
- Performance assessment program on participation through KM.

- Rewards and recognition for any new ideas that could possibly help in a better way.

Benefits of KM in TATA Steel:

- KM in Tata Steel helps in reducing the costs and increase in revenues by implementing many different strategies.
- Utilizes the existing knowledge and creates a new knowledge which helps in many situations.
- It increases the collaboration and interaction among employees.
- Using KM, the skills of experts are readily available so that others could use that for gaining more knowledge.
- Gains a competitive advantage in the market.
- Mainly the productivity increases.
- Duplication of Ideas are reduced.
- Reduction in Research & Development expenditure

Table A. Diversification pattern of the Tata Group

Industry	Indian operations	Foreign operations	Tata stake	
			1992	2007
Textiles	1874-2001			
Hospitality	1902	1982	41	28.28
Steel	1907	2005	8	30.52 ¹
Power	1910		17	
Cement ²	1912-1990s & 1993-		n.a.	
Soaps and toiletries	1917-1983 ³			
Insurance	1919-1956 ⁴ and 2001	1920		
Printing and publishing	1931-2003			
Aviation	1932-1953 ⁴			
Chemicals	1939	2005	30	31.60
Consumer electronics	1940			
Cosmetics	1952-1998			
Air-conditioning ⁵	1954		22	27.61 ⁶
Pharmaceuticals	1958-1998			
Tea and coffee	1962	2000	30	32.34 ⁷
ICT	1968	2005		81.65
Locomotives	1970			
Watches	1984			47.11
Financial services	1984			
Management consulting	1991	2005		
Auto components	1993		n.a.	
Telecom services	1994	2005	n.a.	50.11
Motor vehicles	1998	2004	n.a.	33.43
Retail (general)	1999		n.a.	

Car components	2005		n.a.	100
Retail (electronics)	2006		n.a.	100 ⁸
Fresh Produce	2007		n.a.	50 ⁹
Real estate	2007		n.a.	

KNOWLEDGE MANAGEMENT IN TATA MOTORS:

Tata Motors was established in 1945, when the company began manufacturing locomotives. In 1945 Tata Sons purchased for Rs 25 lakhs the Singhbhum workshop to set up initially the manufacture of steam locomotive boilers and later of complete locomotives and engineering products. The company manufactured its first commercial vehicle in 1954 in collaboration with Daimler-Benz AG, which ended in 1969. Tata Motors was listed on the NYSE in 2004, and by 2005 it was ranked among the top 10 corporations in India with an annual revenue exceeding INR 320 billion. In 2004, it bought Daewoo's truck manufacturing unit, now known as Tata Daewoo commercial Vehicle in South Korea. It also acquired a 21% stake, giving it controlling rights in the company. After years of dominating the commercial vehicle market in India, Tata Motors entered the passenger vehicle market by launching hatchback car, the Tata Indica. Indica was the first car indigenously designed in India. A newer version of the car, named Indica V2 was a major improvement over the previous version and quickly became a mass favorite. A re-badged version of the car, known as city rover, was sold in the United Kingdom. Tata Motors also successfully exported large quantities of the car to South Africa. The success of Indica in many ways marked the rise of Tata Motors which launched their much awaited Tata Nano, noted for Rs100000 price tag. Tata Motors product range covers passenger cars, multi utility vehicles as well as light, medium and heavy commercial vehicles for goods and passenger transport. Seven out of 10 medium and heavy commercial vehicles in India bear the most trusted TATA mark. It has plants situated at the various places namely Jamshedpur, Pune, Lucknow, Gujarat and Uttaranchal. Among these Jamshedpur is the oldest plant. At Tata Motors, every effort is made to keep up with changing times. Regular modernization drives namely automation of manufacturing processes and up gradation of the technological base helps to maximize productivity on the factory shop floor. Tata Motors Limited is India's largest automobile company, with consolidated revenues of INR 1,88,818 crores (USD 34.7 billion) in 2012-13. It is the leader in commercial vehicles in each segment, and among the top in passenger vehicles with winning products in the compact, midsize car and utility vehicle segments. It is also the world's fifth largest truck manufacturer and fourth largest bus manufacturer. The Tata Motors Group's over 60,000 employees are guided by the mission "to be passionate in anticipating and providing the best vehicles and experiences that excite our customers globally." Established in 1945, Tata Motors' presence cuts across the length and breadth of India. Over 8 million Tata vehicles ply on Indian roads, since the first rolled out in 1954. Following a strategic alliance with Fiat in 2005, it has set up an industrial joint venture with Fiat Group Automobiles at Ranjangaon (Maharashtra) to produce both Fiat and Tata cars and Fiat power trains. The company's dealership, sales, services and spare parts network comprises over 6,600 touch points. Tata Motors, also listed in the New York Stock Exchange (September 2004), has emerged

as an international automobile company. Through subsidiaries and associate companies, Tata Motors has operations in the UK, South Korea, Thailand, South Africa and Indonesia. Among them is Jaguar Land Rover, acquired in 2008. In 2004, it acquired the Daewoo Commercial Vehicles Company, South Korea's second largest truck maker. The rechristened Tata Daewoo Commercial Vehicles Company has launched several new products in the Korean market, while also exporting these products to several international markets. Today two-thirds of heavy commercial vehicle exports out of South Korea are from Tata Daewoo.

In 2006, Tata Motors formed a 51:49 joint venture with the Brazil-based, Marcopolo, a global leader in body-building for buses and coaches to manufacture fully-built buses and coaches for India - the plant is located in Dharwad. In 2006, Tata Motors entered into a joint venture with Thonburi Automotive Assembly Plant Company of Thailand to manufacture and market the company's pickup vehicles in Thailand, and entered the market in 2008. Tata Motors (SA) (Proprietary) Ltd., Tata Motors' joint venture with Tata Africa Holding (Pty) Ltd. set up in 2011, has an assembly plant in Rosslyn, north of Pretoria. The plant can assemble semi knocked down (SKD) kits, light, medium and heavy commercial vehicles ranging from 4 tonnes to 50 tonnes. Tata Motors is also expanding its international footprint, established through exports since 1961. The company's commercial and passenger vehicles are already being marketed in several countries in Europe, Africa, the Middle East, South East Asia, South Asia, South America, CIS and Russia. It has franchisee/joint venture assembly operations in Bangladesh, Ukraine, and Senegal. The foundation of the company's growth over the last 68 years is a deep understanding of economic stimuli and customer needs, and the ability to translate them into customer-desired offerings through leading edge R&D. With over 4,500 engineers, scientists and technicians the company's Engineering Research Centre, established in 1966, has enabled pioneering technologies and products. The company today has R&D centres in Pune, Jamshedpur, Lucknow, Dharwad in India, and in South Korea, Italy, Spain, and the UK. It was Tata Motors, which launched the first indigenously developed Light Commercial Vehicle in 1986. In 2005, Tata Motors created a new segment by launching the Tata Ace, India's first indigenously developed mini-truck. In 2009, the company launched its globally benchmarked Prima range of trucks and in 2012 the Ultra range of international standard light commercial vehicles. In their power, speed, carrying capacity, operating economy and trims, they will introduce new benchmarks in India and match the best in the world in performance at a lower life-cycle cost. Tata Motors also introduced India's first Sports Utility Vehicle in 1991 and, in 1998, the Tata Indica, India's first fully indigenous passenger car. In January 2008, Tata Motors unveiled its People's Car, the Tata Nano. The Tata Nano has been subsequently launched, as planned, in India in March 2009, and subsequently in 2011 in Nepal and Sri Lanka. A development, which signifies a first for the global automobile industry, the Nano brings the joy of a car within the reach of thousands of families. Tata Motors is equally focused on environment-friendly technologies in emissions and alternative fuels. It has developed electric and hybrid vehicles both for personal and public transportation. It has also been implementing several environment-friendly technologies in manufacturing processes, significantly enhancing resource conservation. Through its subsidiaries, the company is engaged in engineering and automotive solutions, automotive vehicle components manufacturing and supply chain

activities, vehicle financing, and machine tools and factory automation solutions. Tata Motors is committed to improving the quality of life of communities by working on four thrust areas - employability, education, health and environment. The activities touch the lives of more than a million citizens. The company's support on education and employability is focused on youth and women. They range from schools to technical education institutes to actual facilitation of income generation. In health, the company's intervention is in both preventive and curative health care. The goal of environment protection is achieved through tree plantation, conserving water and creating new water bodies and, last but not the least, by introducing appropriate technologies in vehicles and operations for constantly enhancing environment care. With the foundation of its rich heritage, Tata Motors today is etching a refulgent future. For the creation and sharing of knowledge Tata Motors is using various tools provided to the people with the help of Intranet. Implementation of knowledge management has helped companies to achieve various benefits: one of them is the enhanced productivity of the organization. Tata Motors believes in a progressive people culture. Tata Motor ensures that a judicious mix of people is maintained in our workforce. This is achieved through hiring multi-skilled people both from within the automobile industry and from other sectors. In addition, a regular and consistent recruitment program at engineering and management institutes ensures a steady stream of high quality people getting inducted to fuel the growth plans. Tata Motors also have ongoing partnerships with Industrial Training Institutes, besides their own professional training centers, to recruit shop floor workforce. A clearly defined HR strategy is based on the premise that people drive annual performance,(a short-term goal), and also strengthen long-term organizational objectives. Programs like mini-assessments and the Fast Track Selection Scheme (FTSS) ensure that talent is spotted early and given an opportunity to mature into leaders. Capability development, spearheaded by the Tata Motors Academy, has enabled knowledge-sharing through initiatives, such as Learning Management Systems (LMS) and iTeach. The former allows employees to take ownership of knowledge accretion, while the latter provides a platform for senior management to share their expertise. Enablers, such as the 'One Tata Motors' culture, leverage interdepartmental synergies. Therefore, greater opportunities to learn from and contribute to the organization are created. Combined with a rearticulated compensation philosophy and reworked variable pay plan, these initiatives ensure that Tata Motors remains performance-oriented and talent-driven. To drive and support business growth, Tata Motors have increased the total workforce to nearly 23,000 people at Jaguar Land Rover. It has recruited over 6,200 Salaried, Hourly and Agency workers during the course of the year (including the highest ever intake of over 330 graduate trainees). Jaguar Land Rover is recognized as a preferred employer in the UK. Increasing numbers of International Service assignments have commenced to support global operations, and a new National Sales Company has been established in China.

KM Strategy in TATA MOTORS:

1. **Community Of Practice (COP):** The concept of community of practice refers to the process of social learning consisting of shared socio cultural practices that emerge and evolve when people who have common goals interact as they strive towards their goals. People have tacit knowledge which is not found in a book . In a COP, members can openly discuss and brainstorm about a project which can lead to new capabilities
2. **Knowledge Booklet:** This helps the employees to solve the difficult problems and can get help for their projects.
3. **Online Knowledge Sharing:** Knowledge is shared with the help of electronic mails.
4. **Vibes:** This is an electronic portal which can only be accessed with the help of Intranet
5. **Competency Mapping:** Employees are accessed by the HR people to know how much they have learned. This further includes appraisal methods.
6. **SCM:** Supply chain management system is helpful for the logistics management and to achieve JIT and quality improvement.
7. **6 SIGMA:** It is the quality practice used to achieve the zero defects in the production processes and the production.
8. **ERP:** System used to bring whole of the organization on the single platform ie .to makes all the departments to work together in an integrated way.
9. **Manuals:** Department manuals have all the information about the working of the Departments.
10. **Rewards:** Incentives increase the efficiency of workers and also help the company to gain the competitive advantage.

KM STRATEGY ACROSS TATA GROUP:

KM Strategy TCL has implemented a Balance Score Card across all its business. KM strategy at TCL is designed in such a manner so that it is aligned with the business objectives of TCL. Strategy of Knowledge Management @ TCL has an LTSP (Long Term Strategic Plan) which is aligned to LTSP of TCL. Knowledge in TCL is classified into three levels, viz: Level 1: Basic Needs: Delivering basic knowledge needed by the organization to improve operations or solve problems. Level 2: Enabling needs :Delivering knowledge needed to achieve its tactical goals, collecting key business intelligence, promoting reuse, making connections with experts and information as needed, facilitating greater integration

and identifying information or knowledge problems related to business processes. Level 3: Strategic needs: Providing proactive support in guiding senior management to make use of knowledge for management support, decision making and innovation. KM Strategy makes sure that all these needs of the business are sufficiently catered. KM Processes All the business and support processes at TCL follow Enterprise Process Maps (EPM) methodology consisting of three levels of deployment with a process owner for each of the defined processes. KM processes as per the strategy of the company are a part of continual improvement processes. There are three distinct EPM level III KM processes viz: Process for Knowledge Identification, Capture & Review; Process for Knowledge Sharing, Replication and Usage; Process for Idea management and Implementation. Each of the processes is well defined with a set of efficiency and effectiveness measures which are tracked and reported regularly. There are many KM initiatives at TCL to address KM processes in a systematic and innovative manner to bring out best practices that help in meeting the business needs and challenges. There are various KM initiatives that target people at different roles/levels in the organization. All the initiatives are regularly monitored and we ensure a process of evaluation and improvement (E & I) methodology is adhered. All the KM EPM processes undergo periodic DEMMI and are thus constantly improved. Further, benchmarking study of KM processes is undertaken with other Tata Group companies and also identified relevant companies from across the globe. This procedure is called BEP (Benchmarking Every Process). The core KM team of TCL comprises small dedicated Knowledge Managers representing core business units across all Business Units and support functions. This team has the ability to understand the unique business needs of the SBU and support functions analyze the needs and cater accordingly. In addition to the core group each department of TCL has an identified KM coordinator to function as one-point of contact between KM department and his own department. Further, there are a set of Listeners (whose role and responsibility mentioned later) who function as extended KM department members on a voluntary basis. Each of the Knowledge Managers has the following role and responsibility: Spreading the awareness and ensuring effective functioning of KM initiatives within their own business units in line with specific business needs of the BU. ☐ Accelerating learning processes and identifying best practices through KM practices for improved efficiency. Developing KM processes, procedures and applications and implementing these in their own work environment. Promoting knowledge sharing culture and building collaborative mechanisms to capture and encapsulate knowledge to thrive in the future. Ensuring KM Initiatives adherence to plan. Track department level KM Activities Facilitating department Level and site level KM activities. ☐ Reporting KM data on monthly basis. Conduct monthly review of Dept KM Coordinators & listeners of the business. ☐ K Connect (KM Portal) Management for the business unit. ☐ Coordinating with other business units on KM Activities ☐ Facilitating faster knowledge transfer among employees (specifically targeting Superannuation experts, new joiners and other senior employees). KM Culture Knowledge Management at TCL is viewed as a major contributor to build intellectual capital in the organization encompassing free flow of knowledge across all geographies it operates in. The intent is to make KM a way of life at TCL and focus on conscious learning through continuous realization of the need to build the knowledge base of the organization. The basis for KM initiative and process design is to consciously identify what knowledge is critical to the organization, what knowledge already exists, what still needs to be known, where to get

this knowledge from & how efficiently and effectively this knowledge is put to use to meet organization goals and challenges. The initiatives reinforce conscious learning and improvement philosophy through collaborative approach to knowledge sharing. The reward and recognition around knowledge management activities are structured in a manner to strengthen and nurture the KM culture at TCL.

Key KM Initiatives ∞ **Titli – Story Capture** TCL is more than 65 years old company and with this vast experience, what comes naturally is a huge pool of tacit knowledge amongst its existing employees – with experience ranging from a few years to almost 35 – 40 years of hands on REAL anubhav!! All these Knowledge sources – are available for carefully and sensitively “harvesting”, documenting, codifying and making knowledge available for “sharing” and “seeking” to employees across the locations. Titli (a butterfly) is the name for this initiative of capture of tacit knowledge and conversion to useful K-Nuggets. A butterfly stands for many colors and also helps in cross-pollination. Our Titli also is intended for crosspollination of ideas, experiences, and learning’s from each other’s failures and successes. It also has varied hues of each individual’s perceptions of instances in the form of ANUBHAV or Stories as its core inputs. As a part of this Titli, TCL has developed and implemented a unique concept of Listeners. Those employees who volunteer to be a listener are provided structured training into active and passive listening. A listener is also trained to capture tacit knowledge in the specified formats and submit to the KM portal or hand it over to the K coordinator of that department. Stories elaborating experiences of employees, their learning’s and opinions have been shared since the beginning. Stories are rated on their impact and sustenance of impact, based on whether they have led to process improvements, savings accrual, addition of capabilities, changes in SOPs etc. There is a clear defined process of refinement and distillation of these stories. Accepted stories are being converted into Case studies / Use cases to create a database of distilled stories, best practices and explicit documents, which may be shared across location, thereby facilitating best practice sharing and learning. The approved stories with high ratings for ease of reliability, applicability to TCL and learning value are converted into Case studies/ Use cases and are published quarterly, thus helping the end user of knowledge to quickly identify cases which can be replicated in their respective departments. Case studies / Used Cases mention the area of impact of the improvement made, ensuring effective utilization of the knowledge case. Community of Practices (CoP): There are various CoP’s in TCL. These sponsored CoP’s have a charter and a set of deliverables. Some of the CoP’s have Sub-CoP’s too. The basic charter for all CoP have three major objectives:

- To enable colleagues to learn from one another through the sharing of issues, ideas and lessons learned problems and their solutions, research findings and other relevant aspects of their mutual interest.
- To more broadly share and better leverage the learning that occurs in CoP with others outside the community.
- To generate tangible, measurable, value added benefits to the business. ∞ **Know More Booklets:** Each department comes up with a simple booklet addressing a particular area of

its functioning where in the present practices, the best practice and the learning's that have stimulated improvements are incorporated into the booklets.

These are regularly published along with the help of the KM department. Senior Leader Talks: Every month there are talks given by a senior leader from the executive committee to all TCL employees via webex and video conferencing wherein valuable learning and knowledge is shared. These talks provide a platform for knowledge dissemination from the senior leaders. K-Capture from Superannuation Employees: A major KM challenge within a large organization is capture and transfer of knowledge from experienced staff who are about to retire. It is a common organizational observation that when experienced employees superannuate, they create a vacuum behind them that cannot be filled despite the best documentation efforts of their activities and responsibilities. This occurs because documents essentially capture only the manifest information while leaving behind a considerable mass of contextual knowledge, embedded ideas and best practices that together forms the tacit knowledge base of the organization. Because tacit knowledge is carried as individual memory, when employees leave, the overall organizational memory also suffers a setback that eventually causes reduced performance and efficiency. For capturing the tacit knowledge, based on the case a Kcapturer is mapped with superannuating employees and on a one-to-one discussion; the outcomes of the same are captured in the explicit form called "Memoirs".

TCL has separate processes in place for capture and transfer of knowledge from each employee. \square Knowledge Sharing Sessions: Every department comes up with a calendar of knowledge sharing sessions that it would like to conduct every month. These provide platforms for competency building, brainstorming, in identifying experts and also getting relevant external inputs into the system. \square KAM, Customer/Dealer, Supplier Portals: Key Account Managers workshops(KAM) are conducted regularly to address not only various issues but also look at the K Transfers that are needed for appropriate customer focus and intimacy. There is a CRM & SCM portal which captures customer needs and these are then provided to the concerned departments for action and capability building. KM plays a vital role in the future in terms of identifying and providing the relevant experts and the required knowledge base for the same. K Connect: Given the company's growth rate both in terms of knowledge and people, several collaborative solutions were explored for building a KM portal. In 2007, TCL created K Connect; an interactive web portal that helps manage knowledge assets and run virtual collaboration forums. K Connect helps in connecting people to content and people to people. With key components of K Connect in place, adoption levels of the portal solution have reached new highs year after year. These initiatives promote knowledge sharing and learning among different categories of end users and help create a connected organization promoting creativity and innovation. K Connect has various features like: Post a Document (through this one can post explicit documents to build a knowledge repository for TCL. All the documents posted go through peer and expert rating before being accepted to be considered for knowledge repository), Search a document(normal and advanced search), Browsing Knowledge Pieces (Like RCA's, Best Practices, EPM Improvements, Safety related improvements, etc.), Contribute a Story (here one can contribute his tacit knowledge in terms of his experience, learning, success. The stories contributed go through a refinement and distillation process through an automated workflow in this section), K Champs (here we can find a list of KM

coordinators, Listeners, award winners in various KM programs, etc.), KM Usage (In this section one can login KM usage be it in terms of various parameters like source of learning, area of impact, tangible benefits accrued because of specific KM intervention, etc.), AskTheExpert (is an expert locator that profiles list of self-registered/ nominated experts across the organization who with their expertise aid in speedy resolution of problems. This tool helps locate & contact experts in a wide range of technical & functional areas seeking answers to specific queries).

In TCL we have identified 487 areas of concern for business), Senior Leadership Speak (This section has transcripts and recordings of all senior leadership talks for reference), KM Help Desk (any question to or need to be addressed by the KM department is posted here for immediate attention), My K Connect (It is a personal space for every employee to share their profile, their interests, and areas of expertise. Each individual also gets a view of their contributions and collaboration on Connect portal). FIBERS: Fact and Information Based Reverse Engineering of Strategy is a portal for structured ways to capture competitor information and then use it to reverse engineer the key processes to adapt to the change. Fibers is an integral feature of K Connect. This is one of the key ways in which KM actively helps in the strategy of TCL. MySethu: Since Safety is a Key focus area and a value in TCL, this section in K Connect provides a way to login all learning's, best practices etc., specific to Safety. OTIS is an online engineering design document library which is available across locations for select users and has around 80,000 documents. A link to this repository is also available on K Connect. Recognizing that Knowledge is the guiding force for our business, we have rapidly adopted social networking to facilitate connections between people who share similar interests and pursuits. This builds an inclusive knowledge-sharing and learning culture, in which employees are empowered to address their development needs making cross-organizational connections with one another regardless of role, Department or location and engage in informal learning. The following collaboration portals offer services to create, use and share information. ∞ MyCoP Section on K Connect (every CoP is provided a portlet which is managed by the CoP members themselves to interact with each other and share information within themselves. These special interest groups that promote and fuel common interest among employees across technical, domain and functional areas. It is an open forum to debate, discuss, clarify, share information, seek answers or solutions and collaborate in any way to share knowledge). ∞ Blogs: To encourage discussion and open collaboration and brainstorming Blogs Have been incorporated into K Connect. Blogs promote expression of viewpoints and ideas. Blogs are also used by a number of departments to share general information about activities being carried out in each department. Wikis Are used by the IT department to distribute information regarding the IT environment and fixes. All the users get points based on the activities he undertakes on K Connect. These My Privilege points can be encashed based on the reward scheme that is available on K Connect and can be seen on My Account section.

KNOWLEDGE TYPES:

Explicit knowledge: It is the visible knowledge available in the form of letters, reports, memos, literatures, etc. Explicit knowledge can be embedded in objects ,rules, systems, methods etc. Tacit knowledge: Transformation of knowledge from tacit to explicit form

increases its usability and visibility. Capturing the experts Tacit Knowledge that resides within him in the form of Know-how and insights is a very difficult and challenging task. While tacit and explicit type of knowledge is only a way to dissect the field, in reality the situations are more complicated. The above two categories are so heavily interlinked that such a bipolar map is not easy to draw in practice. For example, to understand completely a written document explicit knowledge, it often requires a significant amount of experience i.e. tacit knowledge. A diagram of machines is indecipherable without an engineering background. The central theme of Knowledge Management is to leverage and reuse knowledge resources that already exist in the organization so that people will seek out best practices rather than reinvent the wheel. Knowledge Management is a process that, continuously and systematically, transfers knowledge from individuals and teams, who generate them, to the brain of the organization for the benefit of the entire organization .It is the systematic, explicit

CONCLUSION:

Since the opening of the Indian economy in 1991, Tata has been subject to global competition, making it imperative for the group to become competitive in India against the new entrants. To gain scale, reduce their exposure to the cyclicity of India's economy, survive and achieve a sustainable competitive position in industries that are globalizing, most of the Tata companies then looked overseas. Tata's recent experience is an excellent case for analyzing, accelerated internationalization' (Matthews 2002). As it pertains to a challenger conglomerate from formerly peripheral areas that internationals in order to access resources, the Tata group has been driven by multiple factors, including the need to access new markets (e.g., in BPO services), the opportunity to integrate the value chain (e.g., in steel), and the quest for brand control (e.g., in tea). This strategy proved feasible because Tata possesses strong leadership combined with vision; can exploit the possibility of leveraging increasingly developed financial markets in India, a large domestic market, and global liquidity; and reacted fast to the opening of specific opportunities at given times. The process of growth, especially when it takes form through international acquisitions, has considerable consequences on the nature of corporations, their internal characteristics, and their relationship with stakeholders. Changes take time to unravel and loops may originate whereby target companies pass their DNA to the acquirer and modify the latter's basic features. Such transformational dynamics is likely to be more complex in the case of emerging economies' multinationals. On the one hand, these companies may use acquisitions in order to access resources they do not have, rather than to deploy un-imitable ones in the way that is predicted by the standard models of traditional multinationals. On the other hand, for this very reason emerging economies' multinationals are likely to conclude their deals in more developed economies, where firms are not very amenable to adopt management methods and values developed in poorer countries. Operating across borders and time zones and integrating diverse management teams and corporate governance practices do not seem to have modified the Tata imprinting. Of particular interest is the fact that Tata has not blindly embraced ready-made recipes to face the challenges of multinational management, preferring instead organizational solutions aimed at fostering mutual recognition and knowledge exchange within the multinational conglomerate. A praise for this way of managing the group came from Standard &

Poor's, that in December 2006 expressed the view that the —policy to support its companies and the improved financial profile of its entities also enhances the overall financial flexibility of Tata Motors.¶ In the case of VSNL, a strategic link with TCS has given the advantage of offering customers a single partner option that can deliver a combined IT and telecom solution. Another Tata advantage is the fact of being run by a very successful minority, the Parsees, without stirring anger amid the majority of the population (as is tragically common in other countries, see Chua 2002). This gentle approach may distinguish Tata from counterparts that produce much noise in their expansion. The process of internationalization of large corporations from non-Western countries – be they in some kind of East like China, India, or Russia, or in some kind of South like Latin America, South Africa, or Turkey – is more than a passing fashion. Future research will inevitably focus on detailed case studies of key firms, to analyze a broad variety of issues, from management practices and industrial relations, to the organization of R&D function and innovation. Mimicking the trajectory of the history of industrial nations' business, the issue of hybridization – i.e. the process whereby corporate models, far from converging on a single model, take multiple and diverging roads to innovate and become increasingly open to the global economy – will figure prominently in the research agenda. Tata Steel retained the 'Global Steel Industry Leader' position in the DJSI 2018. The Company has been recognized as the Climate Disclosure Leader in 'Steel category' by CDP (2017). The Company also received the 'Most Ethical Company' award from Ethisphere Institute for the eight time (2019), Steel Sustainability Champion (2018) by the World Steel Association, Dun & Bradstreet Corporate Awards (2019), Golden Peacock HR Excellence Award by Institute of Directors (2018), 'Best Companies To Work For' recognition by Business Today, 'Asia's Best Integrated Report' award by the Asia Sustainability Reporting Awards (2017). This paper has offered a first modest contribution in this direction, especially in analyzing the time and geographic dimensions of diversification.