

# International Journal of Advance Research in Computer Science and Management Studies

Research Article / Paper / Case Study

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## *Creation of Conducive Environment for Knowledge Management – New HRM Dimension*

*(A Case Study of a Government of India Enterprise)*

**Dr. Shweta Mittal<sup>1</sup>**

Assistant professor  
IMR  
Ghaziabad - India

**Dr. Kanchan Bhatia<sup>2</sup>**

HoD, MBA  
SIRT  
Bhopal - India

### I. INTRODUCTION

Human resource is the most important resource of an organization as it is the only resource to have brain. With this brain it gains knowledge, experiences, information much more. The success of any organization depends on how well this brain-the source of immense knowledge is being utilized. To obtain this goal the tool most popularly being used today is knowledge management. Even though knowledge management has gained its popularity recently due to the drastic changes in business ecology, there is still confusion on how to implement the knowledge management strategy successfully. So aim is to investigate and suggest possible ways to communicate the concept of knowledge management more effectively.

To gain an insight about the technique of knowledge management being applied at NTPC the research methodology we adopted is exploratory research. The sample included 153 employees of NTPC. We used probability sampling to choose the samples from sampling unit of the NTPC employees. Used both primary and secondary sources of data. While the primary data was collected by a questionnaire for secondary data we relied on a number of sources like NTPC's official website, journals like HORIZON, Internet and books on the related topic.

### II. RESEARCH METHODOLOGY

This research paper is trying to establish a framework of evaluation and reevaluation of primary and secondary research. The techniques and concept used in primary research in order to arrive at findings, which are dealt with and lead to a logical deduction towards analysis and result.

### III. RESEARCH DESIGN

A descriptive conclusive research design was used to present the study. The research was conducted to study creation of conducive environment for knowledge management at NTPC. Research design indicated a plan of action to be carried out in connection to the proposed research work.

#### Sampling design

- Sampling Technique Used: Probability sampling
- Sampling Unit Available: NTPC employees
- Sample size: 153 respondents

#### IV. METHOD OF DATA COLLECTION

The research tool used was questionnaire. Questionnaire was designed in English Language and consisted of various questions. We Used probability sampling to choose the samples from sampling unit of the NTPC employees. A well-structured questionnaire was prepared for the collection of primary data from the employees at NTPC. Secondary data has been collected filled from the Internet, NTPC's journals and magazines, NTPC's official website, journals like HORIZON, and books on the related topic. Research tool: SPSS and MS EXCEL were used as a data analysis tool.

#### V. OBJECTIVES OF THE RESEARCH

- To know how the employees at different departments feel about the organisation
- To identify the limitations of knowledge management tools.
- To know what is the major source of information flow.
- To know the employees perception towards knowledge management
- To know what are the contributing factors that would help in building up of a conducive environment for knowledge management.

#### VI. KNOWLEDGE MANAGEMENT AT NTPC LEVEL- ORGANIZATIONAL AT NTPC

NTPC received the Navratna status in the very beginning as it was taking full initiatives for the transformation of the experience of the persons involved in the engineering, erection, commissioning and operations department to its other executives within the organization. The various initiatives that were being undertaken under the head of knowledge sharing within the organization were:

- **Seminars, Trainings and Conferences:** The employees undergoing major trainings in their field of study had to give presentations to the rest of their department members in order to share the experience and knowledge gained by them from such educational sessions. It is still a practice in some departments to give presentations on topics that are of importance to them or the organization as a whole. For emerging technologies, the employees are also sent for trainings abroad. As per the company guidelines, all the employees shall undergo at least 7 days of compulsory training in a year.
- **Power Management Institute (PMI):** For the purpose of imparting trainings to employees as well as their families, NTPC had set up a culture of learning through others where people having expertise in their respective fields came to PMI to share their knowledge. All executive trainees are imparted training for a period of one year before they join their respective departments. They are imparted with not only technical trainings but trainings also in the fields of yoga, and other cultural activities. PMI also conducts trainings for employees of other State Electricity Board.
- **Research and Development (R&D):** A separate building in Greater Noida consists of the various testing machines and having a learned staff of executives having their doctorate in specialized fields of metallurgical science. They conduct testing of different materials at various temperatures and different work conditions to select materials for pressure vessels under high temperature workings. They also conduct material tests to know the cause of failure during their working in power plants. This data is helpful for engineering and O&M activities for power plant working and to get higher PLF. The only drawback that could be seen then was that there were less use of computers and no such data storage machines for sharing the know-how were available.

## VII. THE KNOWLEDGE MANAGEMENT FUTURE OF NTPC

Broadly the total features and functionality of the Knowledge Management Portal of NTPC can be divided into three parts like.

- **Internal Knowledge Repository:** - This captures the knowledge, experience and learning of employees in different domains and functional area of NTPC. To systematically capture knowledge and make it easily available to users, knowledge domains like Boiler, Turbine, Offsite, C&I, Engg domains, HR, Finance, IT etc have been created. Each of these domains will have domain leaders and affinity group members who will be the key person to help in capture of knowledge.
- **External Knowledge Source:-** This is a knowledge database which will be subscribed from the outside world to fulfill the knowledge requirement of people of various domains. Contents like country reports, industry reports, and collection of e-books, handbooks, journals, and research papers on technical and managerial areas will be part of the external knowledge database.
- **Collaboration tools:** - Apart from the existing knowledge of the organization, there is a constant creation of newer knowledge through collaboration among employees. KM Portal also has this functionality with different kinds of discussion forums, chat rooms and collaboration rooms, where people can form groups and exchange and share ideas and information, hence facilitating the creation of new knowledge.

## VIII. THE PROCESS UPLOADING/SHARING OF KNOWLEDGE PIECES IN THE KM PORTAL

The Affinity group members of the particular domain. The affinity group Member has the right to upload any document to the portal, but it is only the domain leaders of a particular domain who has the right to approve and Publish that particular knowledge piece so that it is visible to all the employees Of NTPC. Figure 1 shows uploading of Knowledge piece.

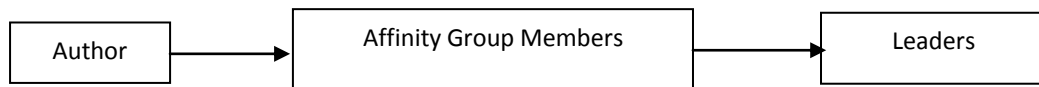


Figure 1: Uploading of Knowledge piece

### Why should employees use the KM Portal

The KM system launched through the portal can result in substantial benefits for the employees as well as the organization. The KM portal launched may not perhaps fulfill the entire knowledge requirements, but can go a long way in making one aware about the best practices, innovations & unique solutions of other locations of NTPC. This can equip one with better skill and capabilities.

At the same time when someone/ borrow solutions developed elsewhere to your problems, you save a lot of time, efforts, money and energy. This can also bring about a cultural change in the organization, with more openness and sharing within the organization.

With sharing of best practices and solutions, the organization can get the benefit of improved productivity and improved process. Ultimately the objective of leveraging the existing knowledge of NTPC can be fulfilled through the use of the system.

### Knowledge Management Portal: K-POWER

A web based Knowledge Management system, “K-Power”, is proposed, which shall be accessible to all across the length and breadth of NTPC through the intranet. K-Power is aimed at connecting people, bringing together dispersed workgroups and creating a culture of sharing knowledge in NTPC. In short, K-Power will be an ‘integrated grid’ of knowledge to make sure each and every part of the system remains connected and enlightened with ‘knowledge power’.

**Elements of k- power**

K- NEWS - Latest news and competitive and regulatory environment

- News bulletin of NTPC
- Press releases and articles
- News about exhibitions and seminars
- What's new in K- Power

K- FORUM - Online discussion platform

- Trouble shooting, problem solving, FAQs with answers
- Sharing ideas and best practices
- Discussions on "Topic of the Week"
- Awards for meritorious contributions

K- TRAINING - Schedule of training programs, workshops and seminars

- Nomination, reporting and participant evaluations
- Web-based virtual classrooms
- Technical videos
- Online tutorials, practice exercises with solutions

K- QUIZ - Interactive Quiz

- Rewards as points earned

K- LIBRARY - Easy access to the warehouse of existing knowledge

- E-archives
- Company policies, benefits, product catalogues and standards

K-TECH - Online information of all technical subjects in web PAEDIA based search format refined with the use of Content Management

- Latest state-of-art technologies
- Data shared and updated regularly
- Information audited by in-house experts

K-DIRECTORY - Intranet based interface via which people register or locate experts

K-HELPDESK - Help topics on how to use K- Power and its various links.

K-FEEDBACK - Feedbacks and suggestions of users for making K- Power more effective and user friendly

**More bricks to build a Learning Organization**

- Rewards and Recognitions for Knowledge Sharing
- Standardization of processes to avoid "Reinvention of Wheel"
- Strategic Carrier Opportunities

- Strategic Job Rotation
- Promotion of informal forums like “Communities of Practices”
- Objective evaluation of effectiveness of various training programs
- Corporate Knowledge Management Group headed by a Chief Knowledge Officer reporting directly to the CMD.

#### **IX. FINDING**

- About 96% of the employees were aware that NTPC has implemented SAP / ERP as its Human Resource Management System.
- Only 2.17% were unaware of the KM portal prevailing at NTPC. The rest of the employees had full knowledge of the existence of a KM portal. 93% of the employees knew of NTPC’s vision of becoming a global player by 2017. A few employees of about 6% had no idea about the same
- About 87% of the employees knew that NTPC has already diversified into the field of power distribution. But 13% of the employees were doubtful when asked about this question.
- When asked if the employees were informed through intranet/ emails /circulars about any meetings or important events, about 78% replied in a positive manner. 22% said they were sometimes informed about such events. There was no such employee who replied in a negative way.
- Half of the employees replied that they were only sometimes informed about major organizational changes. 13% reverted to this question in a negative way while only 37% replied in a positive manner.
- On asking about the encouragement given to employees to implement innovative ideas in daily office work, half of the sample said they were allowed to innovate, while 43% of the employees said they were allowed to Innovate only sometimes. Only 6.5% employees said they were not allowed to implement innovative ideas in daily office works.
- When asked about the interaction that took place among the employees in the Work front, 71% of the employees said they had healthy interactions, while 24% said the interaction sometimes did not remain healthy. Only 5% employees believed that their interaction among employees was not healthy.
- 88% of the employees said that their heads of the department knew them by name while only 10% said that the heads sometimes forgot their names.
- 72% employees shared a helping attitude among themselves while only 27% sometimes got a cold shoulder from among the employees when in need of help.
- There was a tough fight with 55% of the employees vouching that duplication of activities does occur at times in two or more departments, while 44% denying any kind of duplication of activities.
- 71% of the employees agreed on mistakes happening due to unavailability of data with the, while 28% of the employees said that such mistakes do not occur.
- It was good to know that most of the employees accepted the fact that sharing of information had nothing to do with reduced importance among the employees. But some employees still held the opinion that sharing of information reduces importance among employees.
- There had been full consent among employees regarding the imparting of training among the employees in their work areas.

- Only a negligible percentage of people were of the view that induction programs should not be imparted to the new recruits in the company. They thought it to be a waste of both time and money, although they did agree that it was an important activity.
- All the employees on having mentoring programs for the employees of NTPC. They also seemed to be happy with the existing mentoring program that is running in the organization.

#### X. RECOMMENDATIONS

- The aim of NTPC can be to manage knowledge by effective people management. As we can't manage knowledge, we can manage the environment in which knowledge can be created, discovered, captured, shared, distilled, validated, transferred, adopted, adapted and applied.

#### NTPC would have to create:

- Right Conditions: by way of common reliable infrastructure
  - Right Means: through common model, tools and processes
  - Right Actions: where people instinctively seek, share, and use knowledge
  - Right Leadership: where learning is rewarded and contributions acknowledged.
- The ideal outcome is that people manage knowledge as a part of their daily business, without thinking of it as an extra task above their routine official work, and that Leadership of the company and the company processes reinforce this. NTPC should strive to achieve "Unconscious Competence". For attaining the unconscious competence, following suggestions can be beneficial for NTPC to attain a surety of succeeding in the KM initiative.
  - NTPC can lay stress on having a strong leadership that communicates and asks for collaboration from its employees.
  - KM will be best implemented with determined champions and top management commitment. NTPC would have to design the environment in such a manner that organizational culture is open to all the levels. By encouraging best-practice sharing, NTPC would aim at grasping the knowledge within the employees and also bring change in the organization's processes. In this way, NTPC would successfully use the employee input and knowledge that might produce a strategic advantage.
  - NTPC can introduce KM only when it is ready for the change. At present, NTPC needs to condition its People-Process-Technology. This is a task without which NTPC's environment will not be apt for Knowledge Management and the initiative can lead to loss of time and funds. Spurred by the paradigm shift in our economy, many corporations pursue KM without evaluating whether they are organizationally ready. NTPC being a PSU has been working on the lines of classical management principles and cannot be successful in adopting KM without major changes in culture, management attitudes, and communication skills.
  - NTPC would have to make changes in its Compensation System. To encourage employees to contribute towards knowledge management, NTPC should have a system of rewarding people who Exhibit the right behaviors.
  - Recognition is the most powerful motivation; Receiving acknowledgement for the contributions of the employees makes a difference. NTPC can use more innovative ways like having "MOST HELPING EMPLOYEE OF THE MONTH" with regular Notice Board entries to it. Also, such initiatives of helping colleagues can be made a part of the annual appraisal. Instead of knowledge hoarding knowledge dissemination and imparting can be made part of the appraisal criteria.

- NTPC would have to build an atmosphere of trust and mutual understanding amongst the employees. NTPC needs to develop new ways of developing mutual trust and knowledge sharing reciprocity. Instead of sharing knowledge via web, i.e. without meeting face-to-face, NTPC can also make a system of sharing know-how.
- NTPC can encourage people to give and receive challenges. Challenging the assumptions or firm beliefs takes some effort, as does receiving such a challenge. Employees should be encouraged to exchange knowledge through various activities like Job Rotation, Benchmarking, Scenario And Simulation Techniques.
- NTPC can implement "Redundancy Approach". Redundancy can be important as it encourages frequent dialogue and communication. This creates a "common cognitive ground" among employees and facilitates the transfer of tacit knowledge. Redundancy also spreads new explicit knowledge throughout the organization so that the employees can internalize it.
- The Mentoring System is a good and efficient way of sharing tacit knowledge. NTPC may also identify mentors from the corporate world and encourage sharing of knowledge between mentors-mentees.

## XI. CONCLUSION

Through the analysis, it could be concluded that the employees have a sense of job security. The groundwork to be done by the organization is basically related to the people aspect. Though NTPC has a very low attrition rate, but a lot of employees were of the perception that sharing of critical information among employees would hamper their chances of progress/promotion, as all would be at par with same knowledge gained from others. While interviewing, the employees exhibited a sense of fear as they felt that sharing of critical knowledge and know-how or helping their colleagues is not acknowledged in the organization. By augmenting the organizational awareness and organizational communication at NTPC, the knowledge awareness, sharing and transfer efficiency can also see an upward trend.

The organizational environment influences the attitude of the employee towards organizational knowledge. By improving the organizational environment, there can be a positive change made in the knowledge aspect of the organization. The aim of NTPC or any organization implementing a KM strategy is to design a methodology that is in sync with the mission, vision, values and culture of the organization. To change the culture and the attitude of the employees is a difficult task. People resist change and any coercion done by the organization can ruin the work balance of the employees. Due to poor communication and lack of commitment and motivation on the part of employees and management the organizational awareness suffered. The various departments had a very different pattern of responses. The Finance, Information Technology, New Business Development departments agreed towards the stronger side of the knowledge duplication happening in NTPC. They agreed to mistakes happening because of the information being unavailable at the right time. On the other hand, the Human Resource Department differed on this ground. The HRMS-SAP/ ERP have reduced the duplication of information and data redundancy to its minimal level.

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