Knowledge Management Process - Awareness, Adoption and Implementation in selected organizations under power sector in West Bengal

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Abstract & Key words

A sound knowledge base, blended with a proper flow of information, is essential prerequisite for the growth of every organization. Today majority of business organizations have Knowledge Management programmes in one form or another. Knowledge Management can be best described as a systematic process for creating, acquiring, synthesizing, sharing and using knowledge & experience to achieve organizational goals with a focus on continual learning. Power sector establishments are no exception. Indian power sector organizations are also feeling increasing need for successful knowledge intervention by having a structured knowledge pool so that power sector activities can be made more rewarding in an inclusive way. Out of such need, some of the organizations in this sector in India have started with Knowledge Management initiatives. This paper is an exploratory survey research which attempts to identify the awareness, adoption and implementation in a few power companies in West Bengal. The focus is on understanding of how the knowledge management implementation process can be driven to derive its benefits. The paper attempts to investigate the scope of effective adoption and implementation of a knowledge management process in the workplace of Indian power sector organizations, with an understanding of level of awareness while providing future directions.

Keywords — Power sector, Information, Knowledge, Awareness.

1. KM Introduction

1.1. Concept: Knowledge Management (KM)

The famous dramatist of the early 20th century, George Bernard Shaw (1856-1950), echoed his thoughts in his unique characteristic style, "If you have an apple and I have an apple and we exchange these apples then you and I still have an apple. But if you have an idea and I have an idea and we exchange these ideas, then each of have two ideas". A concept in which a system consciously and comprehensively gathers, organizes shares and analyses its data in terms of resources, documents and people's skills, is known as Knowledge Management. It was believed in 1998 that few enterprises actually had a comprehensive KM System (by whatever name) in operation. Technological advancements and the way we access and share information has changed that; many enterprises now have some kind of KM framework or the other in place. A range of strategies and practices used in an organization to identify, create, represent, distribute, enable, adoption of insights and experiences forms Knowledge Management. These insights and experiences comprise knowledge, which may be either embodied in individuals or embedded in organizational processes or practice. Karl Wiig is one of the field's most prominent advocates, and is acknowledged as the probable founder of the knowledge management movement.

In the broadest context, knowledge management is the process through which organizations generate value from their intellectual and knowledge-based assets. Rangnerkar, 2001 has stated Knowledge management is the process through which firms create and use their institutional or collective knowledge. "In practice, knowledge management often encompasses identifying and mapping intellectual assets within the organization, generating new knowledge for competitive advantage within the organization, making vast amounts of corporate information accessible, sharing of best practice and technology that enables all of the above"- Barclay & Murray, 1997. Yogesh Malhotra (2001), Brint.com's founder and knowledge architect, defines knowledge management as that which "caters to critical issues of the organizational adaption, survival and competence in face of increasingly discontinuous environmental change. Essentially it embodies organizational processes, the capacity of information technologies, creative and innovative capacity of human being". Further, Grey (1996) envisages that knowledge management is an audit of "intellectual assets" that highlights unique resources, critical functions and potential bottlenecks which hinder knowledge flow to the point of use.

For last few decades, acquisition of data and its management was quite important for business growth. Data can be raw number, image, words, sounds etc. which can be derived from observation or measurement. When the data is organised in a meaningful way, it is called information. Finally, the means through which the information would be analysed and ideas & beliefs provide the guide to meaningful action and thought is called Knowledge. Thus, the process of moving from data to information and from information to knowledge i.e. Data →Information → Knowledge, are interconnected in a hierarchical structure while the data and information forms the base of the building block of knowledge. Donald Hislop (2005) stated, Knowledge has an objectivist character and these indicate:

(i) Knowledge as an entity that people or group possess

(ii) Knowledge is based on a positivistic philosophy as objective facts

(iii) Explicit knowledge is privileged over tacit knowledge

(iv) Knowledge is derived from an intellectual process

1.2. KM as a process

Today, organizations are making a pool of their knowledge and using it to redefine the way works are performed. Because today's activities are often more complex and need the expertise of the many people, organizations are starting to understand how various sorts of knowledge are often wont to improve their efficiency, effectiveness and skill to innovate [Alluri(1999)]. Jhaveri (2001) stated that knowledge management tools run the gamut from standard, off the-shelf e-mail packages to stylish collaboration tools designed specifically to support community building. Generally tools comes under one or more of the subsequent categories: Knowledge repositories; Expertise access tools; E-learning applications; Discussion and chat technologies; Search and data processing tools. What knowledge management process does is, it captures a company's collective expertise wherever it resides in databases, on paper, or in people's heads and distributing it to wherever it can help produce the most important payoff. From the past few decades the literature has provided several benefits of KM (Beijerse, 2000; Quintas et al. 1997; Ruggles, 1998; Sveiby, 2000; Teece, 2000; Wiig, 1997 b) from which we will understand that KM is presented as a group of processes and it aims to make value for the organization. It reflects the dynamic view of KM as a group of processes concerned with the usage, development, renewal and value creation of data (Wiig, 1997 b). Organizational knowledge consists of 4 sets of socially enacted "knowledge processes": (1) creation (also mentioned as construction), (2) storage/retrieval, (3) transfer, and (4) application (Holzner and Marx 1979; Pentland 1995). This view of organizations as knowledge systems represents both the cognitive and social nature of organizational knowledge and its embodiment within the individual's cognition and practices also because the collective (i.e., organizational) practices and culture. Skyrme (2003) is of the view that knowledge management is that the explicit and systematic management of important knowledge and its associated processes of making, gathering, organizing, diffusion, use and exploitation. Any process that bolsters one among four components of KM are often seen as a KM process. Components of KM are knowledge acquisition, retention, exploitation and protection. KM process is about taking advantage of intellectual capital of people for the aim of realizing an organization's innovating capabilities (Swan et al., 2000). Tiwana (2002) identifies fundamentals of KM processes as "knowledge acquisition, knowledge sharing and knowledge utilization".
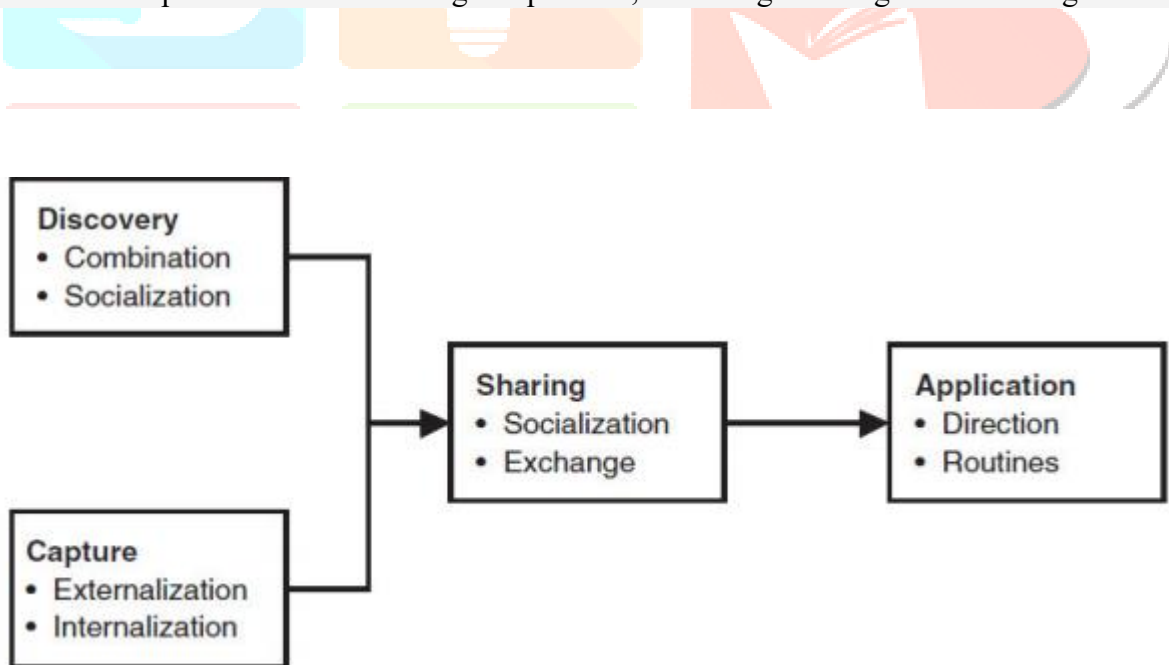

Fig. 1: KM process framework [Becerra-Fernandez & Saherwal (2011)]

Becerra-Fernandez & Saherwal (2011) introduced a KM process framework that contains four main KM processes those are supported by seven sub-processes. the most KM processes are knowledge discovery, knowledge capture, knowledge staring and knowledge application which are supported by sub-processes like combination, socialization, externalization, internalization, exchange, direction and routines. Knowledge Discovery refers as extracting the new explicit or tacit knowledge form the synthesis of the previously identified knowledge (Becerra-Fernandez & Sabherwal, 2011). The knowledge are often discovered through individual process also as by social and collaborative process then shared, justified, intensified and enlarged in organizational settings. Knowledge Capture or Retrieval may be a process of retrieving both explicit and tacit knowledge that are articulated in

people's subconscious or inside documented papers and articles that nobody have previously noticed or shared. Nonaka (1994) identified two sub-processes namely 'Externalization' and 'Internalization' that helps to retrieve explicit and tacit knowledge from the people inside or outside of the organization (Becerra-Fernandez & Sabherwal, 2011). Knowledge Sharing or transfer is that the process by which explicit and tacit knowledge are often communicated with other individuals. Knowledge transfer has several dimensions like knowledge sharing between individuals, individuals to groups, among the groups, groups to organization, organization to group, individual or group to explicit sources, explicit sources to individual or group etc. A firm with knowledge management capabilities, use the organisaional resource more effectively than others who don't have such capabilities (Darroch, 2005). The competitive advantage of the KM don't depend upon the knowledge itself, but relies on how effectively a firm can apply the acquired knowledge in daily application (Alavi & Leidner, 2001). Knowledge management has the direct influence on organisational performance when it's used for deciding and performing activities, but this data application depends on the supply of data through discovery, capture and sharing. this manner, organizations got to prepare themselves internally in order that knowledge can circulate among individuals and, additionally, be utilized in actions that end in some quite improvement.

1.3. Literature Review on KM

Among available researches, two main focus areas could also be located –Success factors of KM and Outcome of KM. However, extensive analysis has also been done by several researchers on what's knowledge, how does it get formulated, how does it get constructed, where does it exist and the way does it get utilized. Knowledge has broad perspectives consisting of whole set of insights, experiences and procedures that are considered correct and true which therefore guide the thought, behaviors and communication of individuals (Uan der spek, R and spijkervet, A, 1997). consistent with Wiig, (1993), "Knowledge consists of truth and beliefs, perspective and ideas, judgments and expectation, methodologies and know-how". Turban (1992), argues that "knowledge is information that has been organized and analyzed to form it understandable and applicable to problem solving and decision making". consistent with Beckman T (1997), "knowledge is reasoning about information and data to actively enable performance, problem-solving, decision-making, learning, and teaching", whereas consistent with Woolf (1990), "knowledge is organized information applicable to problem solving". Natarajan & Shekhar, (2000), defines knowledge as "highly contextualized information enriched with individual interpretation and expertise". Prahalad and Hamel, (1990), define knowledge "as core competency which is predicated on collective learning of organizations. This involves knowing the way to coordinate diverse operational skills and integrated them with multiple strains of distinctive capabilities". Knowledge are often categorized into three forms. the primary consistent with Polanyi (1967), is "Tacit and Explicit Knowledge", second sort of knowledge is that the "Know how, know what, know why, know when, know who" (Wikstrom and Norman 1994), third being "Embedded, embodied, encultured and encoded knowledge" (Blackler 1995). This broad categorization is sort of helpful in understanding the importance and depth of the concept of data.Some people mistakenly assume that knowledge management is about capturing all the simplest practices and knowledge that folks possess and storing it during a computing system within the hope that at some point it'll be useful. In fact, this is often an honest example of what knowledge management isn't about! Good knowledge management is all about getting the proper knowledge, within the right place, at the proper time and utilising those ideas during a befitting manner.The right knowledge is that the knowledge that one needs so as to be ready to do his job to the simplest of his ability, whether meaning diagnosing a drag, making a choice, administering a solution, training a replacement colleague, interpreting a bit of research, employing a computing system, managing a project, handling suppliers etc. Information and knowledge can usually be found during a whole sort of places – research papers, reports and manuals, databases etc. the proper place, however, is that the point of action or decision. the proper time is when one (the person or the team performing the work) needs it.

Rowley, (2000) describes the term Knowledge Management as follows:"Knowledge management cares with the exploitation and development of the knowledge assets of a corporation with a view to furthering the organization's objectives. The knowledge to be managed includes both explicit, documented knowledge, and tacit, subjective knowledge. Management entails all of these processes related to the identification, sharing, and creation of data. this needs systems for the creation and maintenance of data repositories, and to cultivate and facilitate the sharing of data and organizational learning. Organizations that achieve knowledge management are likely to look at knowledge as an asset and to develop organizational norms and values, which support the creation and sharing

of knowledge".Hence, it are often said that Knowledge Management is an orderly process for generating, obtaining, producing, learning, allocating and using knowledge (and its understanding) to realize organizational goals. An appropriate flow of data is indispensable for the event of each organization. Knowledge management are going to be playing an important role, and people organizations that used it early will have a foothold [Charity Ezigbo, 2013]. Knowledge management isn't just a technology or tool. it's more about finest practices and actions instead of pure technology. Therefore, it requires active involvement of data workers and support from concerned management. Effective use can happen only all of them are energetically involved and committed to form it successful. Thus, KM is viewed as a process by different researchers, where many activities are formed to hold out key elements of an organisation's KM strategy and operations. as an example, an organisation must first identify and capture knowledge, then organize it so as to bring knowledge within the organisational boundaries. Knowledge is additionally transferred and shared throughout the members of the organisation using both human and technological means. Through this transfer, the members of the organisation can apply the new knowledge to their tasks/work activities, which may include the utilization of KM systems or developing the business case for an organisation's KM projects. The creation and development of data is a crucial and intrinsic feature of KM (Dul, Ceylan, and Jaspers 2011; Nonaka 1991, 1994; Nonaka and Takeuchi 1995; Pan and Scarbrough, 1999). The creation of data is important for the survival of any organisation. Knowledge creation is an activity that happens throughout daily activities, at work or in social setting. Knowledge creation occurs in many dynamic forms, which might be through humanistic means (such as formal training or talking with people that share similar interests) or technical mechanisms (data mining activities). Knowledge creation is primarily a person's process; technology can facilitate knowledge creation but cannot replace people. Organisations leverage on their ability to make knowledge, innovate, and generate value with new knowledge. this is often knowledge that results in new and innovative products; knowledge that improves internal processes and operations; or knowledge to enhance the strategic decision-making capabilities and direction of the organisation. Hislop (2013) says that the power to make knowledge and generate a competitive advantage is now essential for any organisation that wishes to stay sustainable within its marketplace. the necessity to make knowledge in organisation has been identified above. Knowledge sharing has been described as a key activity of effective KM (Lee and Choi, 2003; Olatokun and Nwafor, 2012; Amayah, 2013; Rabiu, 2009; Epetimehin and Ekundayo, 2011; Oluikpe, 2012; Paquette and Desousa, 2011; Ekeke, 2011). so as for knowledge to be utilised once it's created, thereby providing value to the organisation, it must be shared with colleagues, teammates, and associates. The sharing and transferring of data is extremely vital to KM, given the very fact that organisations struggle with knowledge loss resulting from turnover rate. additionally to retirement, critical knowledge loss occurs by job transfer, mobility and alternative work arrangements.

1.4.   Objective of the study

The study has the following few objectives:

1. To assess the awareness level of respondents regarding KM Process in the selected organizations under study in West Bengal.
2. To assess the practices of adoption & implementation and sharing & dissemination of knowledge management practices amongst the organizations under study

2. Methodology & Sampling

Five organizations have been selected from power industry in West Bengal for the purpose of this study. Out of these five organizations, three are Government whereas two are Private. All these three government companies are from Power Generation and Transmission segment whereas among two private sectors, one is from Power Generation and Distribution whereas other is from Power Infrastructure Development and Solar Power segment.

Sample Organizations: 5(five) major organizations have been selected under power sector in West Bengal, a brief idea about their area of operations are as follows:

Sl. No.	Organization Name	Sector	Area/s of operation
01	Organization -1	Public	Power Generation
02	Organization -2	Private	Power Transmission Sector Infrastructure Development and Turnkey Solution provider
03	Organization -3	Public	Mainly Power Transmission(National Level)
04	Organization -4	Public	Power Transmission (State Level)
05	Organization -5	Private	Mainly in Power Distribution. Also in Generation & Transmission

Table 1: Sample organizations : area of operation

A brief overview of the sample organizations

(i) Number of employees (Engineer & above)

Sl. No.	Organization Name	Total Number of Respondents	Total Employees in Corporate Office/Regional Office	PAN India Employee strength
01	Organization - 1	98	320	Total Sanctioned manpower:19918
02	Organization - 2	70	160	Total Sanctioned Manpower: 2200
03	Organization - 3	70	180	Total existing manpower: 8990(as on 31.03.2020)
04	Organization - 4	51	238	Total Sanctioned manpower: 4231 Total Existing manpower: 2743
05	Organization - 5	32	190	Total Existing manpower: 8400
		321	1088	

Table 2 : Sample organizations: Number of respondents and employee strength

(ii)   Capacity in respective fields of operation

Sl. No.	Organization Name	Area/s of operation	Operational Efficiency: Unit of Measurement	Updated statistics on areas of operation
01	Organization - 1	Generation	Plant Load Factor(PLF)	2100MW (80.2% against the national **PLF** rate of 64.5%)
02	Organization - 2	Power Transmission Sector Infrastructure Development and Turnkey Solution provider including Solar Plant	(i) Plant Manufacturing Capacity (ii) Generation capacity	(i)30000 Metric Ton (ii) 5 MW Installed capacity (agreement with NTPC Vidyut Vyapar Nigam)
03	Organization - 3	Mainly Transmission (National Level)	Transmission System Performance: (i) Availability (ii) CKM	(i) 99.82% (ii) 163695 CKM
04	Organization - 4	Transmission (State Level)	CKM	(i) 509CKM (400KV Line) (ii)927 CKM (220KV Line) (iii)3169CKM (132KV Line) (iv)14 CKM (66 KV Line)
05	Organization - 5	Transmission. Also in Generation & Distribution	MW/CKM	*1. Generation:* **Budge Budge Generating Station** - 750 MW **Southern Generating Station** - 135 MW **Titagarh Generating Station** - 240 MW *2. HT Distribution* 11 & 6 KV UG - 6886 Ckt. Km. 11 & 6 KV OH - 87 Ckt. Km. 3.3 KV UG - 21 Ckt. Km

Table 3 : Sample organizations: Capacity in respective fields of operation

Abbreviations: MW - Megawatt, KV - Kilovolt, UG -Underground, OH - Overhead, Ckt. Km. - Circuit Kilometre.

Sampling Technique : Purposive Sampling technique has been adopted. Those respondents who are familiar & well aware, engaged and involved of the KM interventions of their respective organizations, mainly engineer and above rank, have been selected.

Sample Size : Collected information from a total of 321 respondents

Sample Frame : HR Department has provided the list of employees who have been approached for questionnaire survey

3. Analysis & Interpretation

Mean is a descriptive statistic that researchers commonly use to characterize the data from their studies.

Knowledge Management Awareness

It has been observed that awareness is the most important dimension of KM in the sense that this indicates employees' keenness, maturity and inclination as well as Company's willingness to facilitate those with respect to Knowledge Management. In this study, attempts have been made to assess awareness through the questions on (i) how top management recognises and are linking KM in their corporate strategy (ii) whether knowledge is treated as a key resource by employees of all levels (iii) ranking of level of experience and familiarity of individual employees with KM and (iv) Employees' perception about organization-wide general learning and understanding of KM.

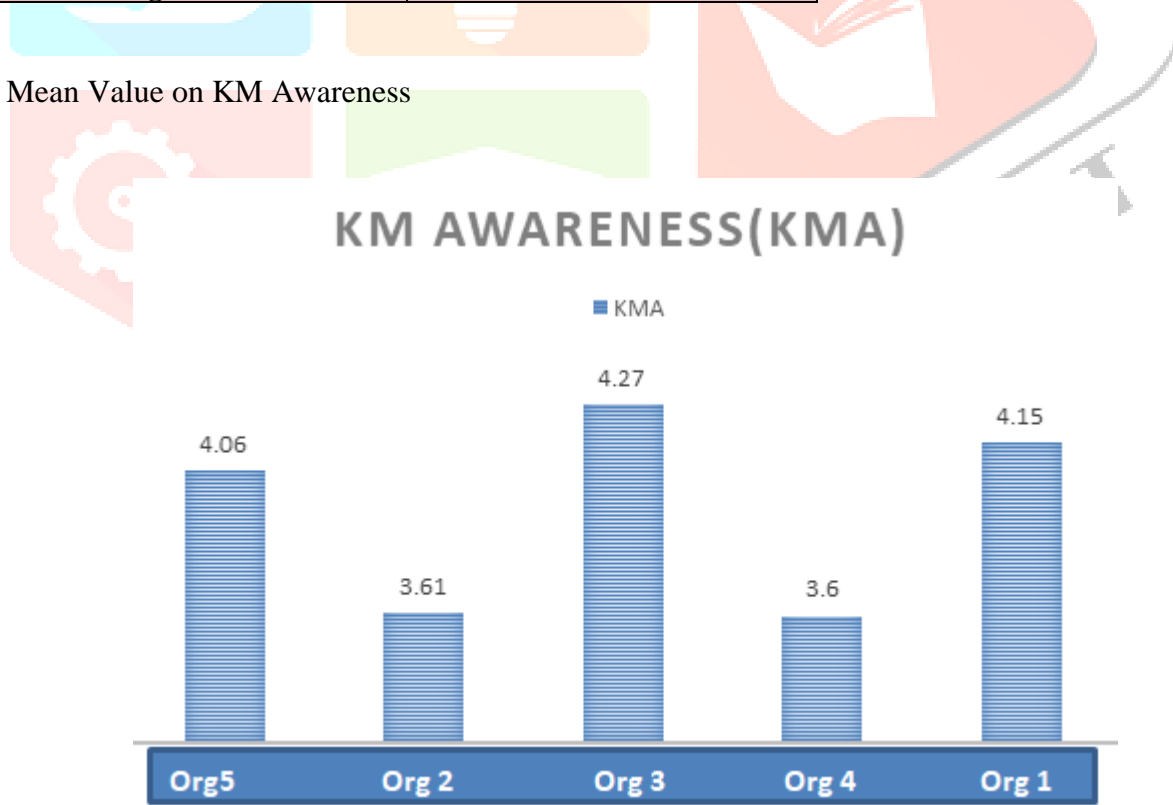| Orgn/Factors	Mean Value on KM Awareness
Orgn.5	4.06
Orgn.2	3.61
Orgn.3	4.27
Orgn.4	3.6
Orgn.1	4.15

Table 4: Mean Value on KM Awareness

Fig 2.: Mean value of KM Awareness- Comparative position

From the above analysis, it has been observed that on the basis of overall KM Awareness, as per performance according to feedbacks received against variables as stated above, Org 3 is of highest level followed by Org 1, Org 5, Org 2 and Org 4 respectively.

KM Process

In the process of knowledge management, these enterprises comprehensively gather information using many methods and tools. Then, gathered information is organized, stored, shared, and analyzed using defined techniques. The analysis of such information will be based on resources, documents, people and their skills.

This way, organizations need to prepare themselves internally so that knowledge can circulate among individuals and, in addition, be used in actions that result in some kind of improvement. In this study, attempts have been made to assess the KM Process through the questions on (i) systematic identification of knowledge gaps and closing them through well-defined processes (ii)acquiring knowledge by use of strategic alliances or partnerships with external agencies (iii) existence of advisory boards and use of internal meetings for exchange of organization-wide knowledge (iv) formalization of processes like transferring best practices and lessons learned along with documentation (v) specific roles & responsibilities for KM activities(vi) existence of formal networks for dissemination of knowledge (vii) spreading best practices and ideas through internal staff rotation (viii) hiring, evaluation and compensation of individuals for contribution organizational knowledge development (ix) invention of ways linking knowledge to financial results (x) development of specific set of indicators for managing knowledge(xi) guidance received during new strategy implementation(xii)systematic assessment of future knowledge requirements(xiii)Legal protection of intellectual assets of the organizations under study.

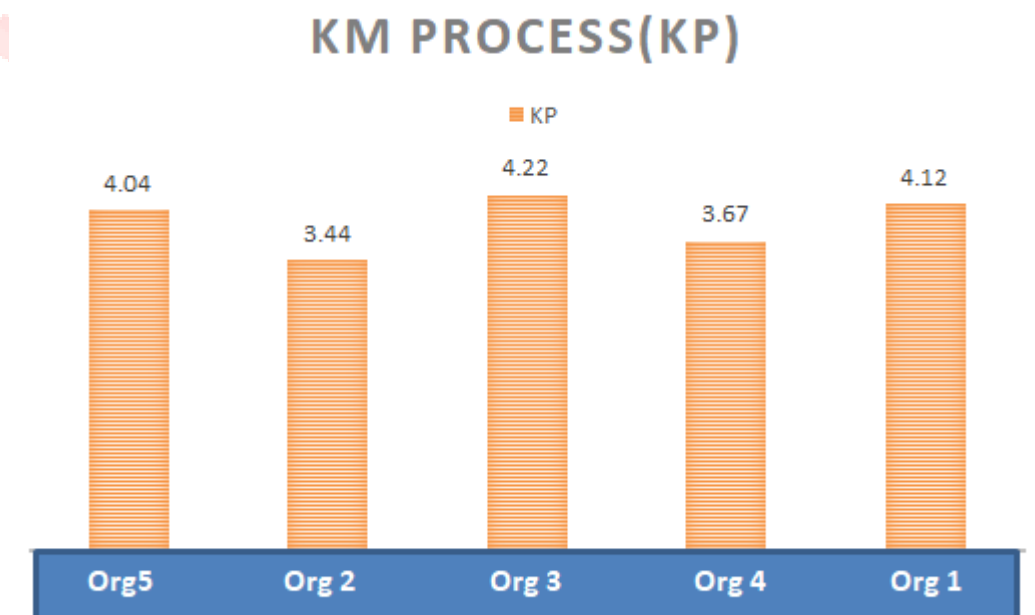| Orgn/Factors	Mean Value on KM Process
Orgn.5	4.04
Orgn.2	3.44
Orgn.3	4.22
Orgn.4	3.67
Orgn.1	4.12

Table 5: Mean value of KM Process

Fig. 3: Mean value of KM Process- Comparative position

From the above analysis, it has been observed that on the parameter of overall KM Process design & practice, as per performance according to feedbacks received against variables as stated above, Org 3 is of highest level followed by Org 1,Org 5, Org 4 and Org 2 respectively.

KM Adoption & Implementation

The business environment is more competitive than ever before. Organizations are facing extensive challenges from their competitors. Only the company who can manage their own resources properly and becoming cost effective or innovative can survive in the long run. Managing and retaining knowledge workers becoming a daunting task for many organizations, especially with the number of companies and number of job offers are being increased for the specialists of any field in recent years. In order to minimize the risk of failure to adopt a KM system, a company needs to choose the system based on functional, non-functional and transitional requirements for the system, as well as organizational strength and capacities.

Orgn/Factors	Mean Value on KM Adoption & Implementation
Orgn.5	4.06
Orgn.2	3.52
Orgn.3	4.12
Orgn.4	3.63
Orgn.1	4.12

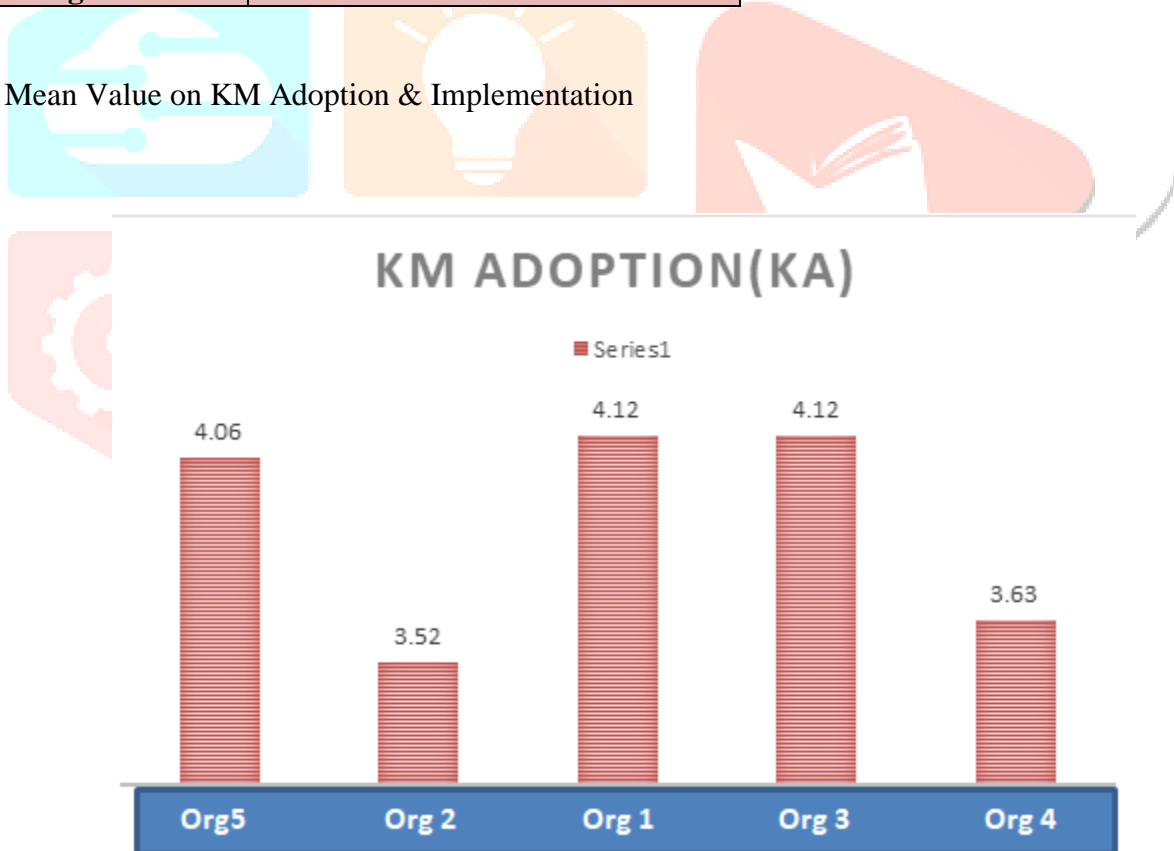Table 6: Mean Value on KM Adoption & Implementation

Fig.4.: Mean value of KM Adoption & Implementation- Comparative position

From the above analysis, it has been observed that on the parameter of overall KM Adoption, as per performance according to feedbacks received against variables as stated above, Org 3 and Org 1 are highest amongst the organizations under study and performs at the same level, followed by Org 5,Org 4 and Org2 respectively.

Knowledge sharing & Dissemination

Orgn/Factors	Mean Value on Knowledge sharing & Dissemination
Orgn.5	4.125
Orgn.2	3.5
Orgn.3	4.29
Orgn.4	3.7
Orgn.1	4.22

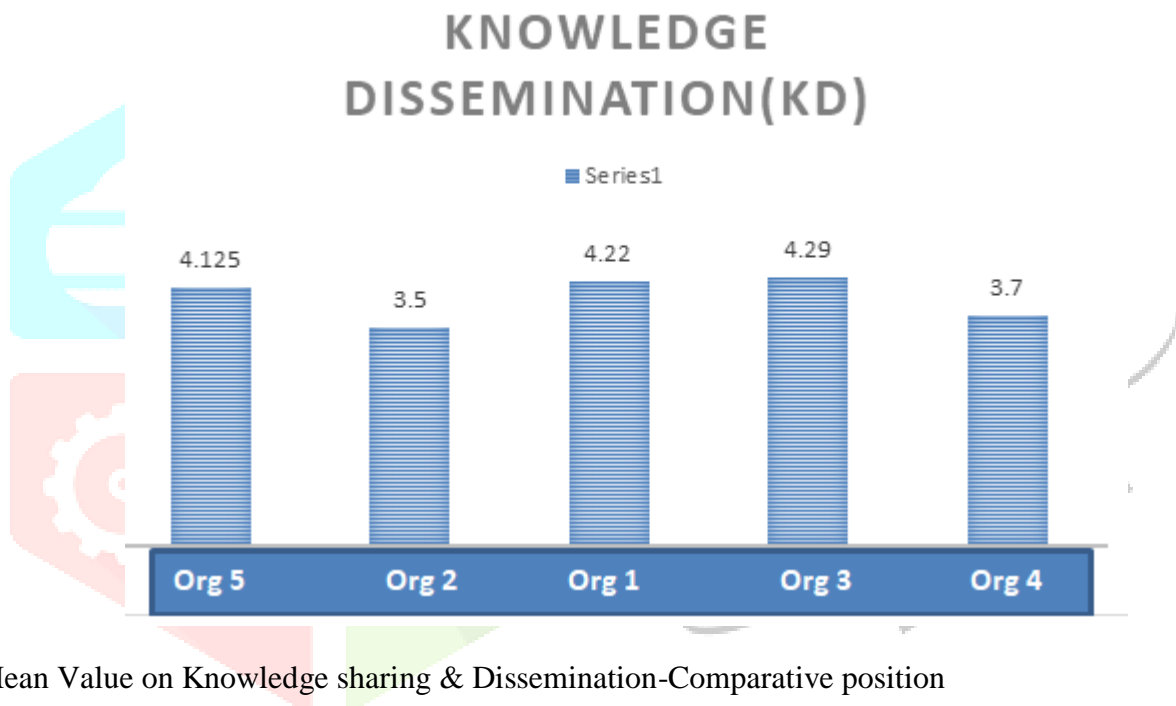Table 7: Mean Value on Knowledge sharing & Dissemination

Fig.5: Mean Value on Knowledge sharing & Dissemination-Comparative position

From the above analysis, it has been observed that on the parameter of overall Knowledge dissemination, as per performance according to feedbacks received against variables as stated above, Org 3 is of highest level followed by Org1, Org 5, Org 4 and Org 2 respectively though there is no major difference in this aspect has been observed

Following table indicates Mean values of all four different factors mentioned above. This descriptive statistics has been used to characterise the data and to understand the comparative positions by using mean values.

Orgn/Factors	Mean Value on KM Awareness	Mean Value on KM Process	Mean Value on KM Adoption & Implementation	Mean Value on Knowledge sharing & Dissemination
Orgn.5	4.06	4.04	4.06	4.125
Orgn.2	3.61	3.44	3.52	3.5
Orgn.3	4.27	4.22	4.12	4.29
Orgn.4	3.6	3.67	3.63	3.7
Orgn.1	4.15	4.12	4.12	4.22

Table 8: Mean Values for factors under consideration

7. Conclusion and Suggestion

As knowledge-based economy grows exponentially, the knowledge assets become invaluable to the organizations. Effective use of knowledge has been crucial to the organization's survival and success in competitive global markets and has a strong potential to problems solving, decision making, organizational performance enhancements and innovation . From the above discussion it may also be mentioned that power industry managers both HR and other line and staff managers play a key role in making knowledge management successful in an organisation .However senior managers and specially the HR group can think of the following steps:

(i) Conducting a knowledge Audit
The term "Knowledge Audit" is in some ways a bit of a misnomer, since the traditional concept of an audit is to check performance against a standard, as in financial auditing. A knowledge audit, however, is a more of a qualitative evaluation. It is essentially a sound investigation into an organization's knowledge "health".

The knowledge audit provides an evidence-based assessment of where the organization needs to focus its knowledge management efforts. It can reveal the organization's knowledge management needs, strengths, weaknesses, opportunities, threats and risks.

The essential elements of such knowledge audit are : Identifying knowledge needs, Drawing up a knowledge inventory, Analyzing knowledge flows, creating a knowledge map.

(ii) Developing a knowledge management strategy
A knowledge management strategy is simply a plan that describes how an organization will position and manage its knowledge better for the benefit of that organization and its stakeholders. A good knowledge management strategy is closely aligned with the organization's overall strategy and objectives.

(iii) Full integration of information
The life blood of every modern enterprise is information and its proper flow. In addition to the internal information related to finance, marketing, production and personnel functions, an organization keeps collecting more and more information from different external sources and applications. The information collected from sources such as documents, libraries,
spreadsheets, e-mail and instant messaging archives, electronic forms and records, publicly available web pages and commercial information services are generally unstructured. Each data source has its own organization and format. Thus, these data files are independent of one another, and don't easily work well together. If this data is fully integrated into a single,
universal database or data warehouse, it becomes much easy to retrieve and can be used as information for decision making. Regular update of this information assists managers in making better and faster decisions.

(iv) A focused approach to innovation

There is an emerging need for a focused approach towards innovation in power sector. Innovative approaches include use of IT enabled technologies like CAD/CAM in tower design, use of GIS/GPS software in survey, introduction of new form of GIS Sub-stations, Helicopter method of stringing, use of SCADA in distribution and so and so forth. All of them are having a core focus of better service delivery.

Conclusion:

When Karl-Erik Sveiby (1997) created the first framework defining intellectual human capital, he defined three elements:

1. *Employee competence* (the capabilities of people in an organization – its human capital);
2. *Internal structure* (structured or organizational capital, including patents, documented processes, computer-based data, and the vision, strategy, and policies created by leadership); and
3. *External structure* (customer or relationship capital – the value of a firm's relationships with the people with whom it does business).

Integration of the above stated elements and by implementing the following steps will leverage power of Knowledge Management for sustainable growth & development of Human capital in Indian Power sector organizations.

Step 1: Knowledge Management Vision Development

- Understanding where the organisation is now in terms of Knowledge Management
- Identifying where the organisation wants to be
- Using the Knowledge Management vision framework to identify a strategy

Step 2: Knowledge Assessment

- Identify the areas of knowledge most important to the business or service
- Which knowledge assets would be of most value to the business to better develop and leverage
- Assessing the organizational readiness

Step 3: Knowledge Management Strategy and Framework development

      -Prominent Knowledge Management strategies

-Review of different Knowledge Management frameworks

-Development of Knowledge Management strategies and frameworks for the organization concerned

Step 4: Knowledge Management Business Case Support

-Why a business case is needed

-What are the essential components to include in business case

Step 5: New Knowledge Management roles and responsibilities

-What are the new Knowledge Management roles and responsibilities

-Knowledge architecture

-Rewards and recognition

Step 6: Implement Knowledge Management processes and technologies

- Knowledge Management enabling the processes

-Available Knowledge Management technologies

Step 7: Measure and improve

-7 steps for developing measurements

-Knowledge asset accounting

-Starting the Knowledge Management initiative

Considering those above stated aspects, it can be said that with successful application of the above stated suggestions, the quality of human capital will be improved in terms of enhanced employee competence whereas with the improvement of both internal as well as external structures, an overall development in the knowledge management scenario in the Indian Power sector vis-à-vis in West Bengal will be observed that will not only benefit the power sector people with enhanced level of awareness , but also with improved level of process adoption and implementation that will benefit the entire industry.

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