



KNOWLEDGE ACCUMULATION AND ITS UTILIZATION IN THERMAL POWER STATION NEYVELI LIGNITE CORPORATION INDIA LTD.

Dr.K.Anbzhagan* Dr.K.Sakthivendan**

**Assistant Professor, Department of Business Administration, Annamalai University, Annamalai Nagar.*

***Assistant Professor, Department of Management Studies, Institute of Distance Education, University of Madras, Chennai.*

Abstract

This paper attempts to focus on knowledge accumulation and utilization her this study conduct in thermal power station for knowing the managers knowledge and utilization in working places.

Introduction

The company's original mine, is operated over an area of nearly 17 square kilometers and offers a reserve of nearly 300 million tons. Another mine, first tapped in early 1984 and expanded in the early 1990s, features a reserve of nearly 400 million tons. The total reserves in the Neyveli field are estimated at more than two billion tons. Most of that production is used in NLC's two thermal power generation plants, which combine for a total capacity of 2,070 megawatts. After shutting down its fertilizer and briquette and carbonization plants in the early 2000s, NLC has begun a drive to expand its power generation capacity. In 2003, the company began construction of a greenfield power generation facility in Tuticorin, in Tamil Nadu, with a proposed capacity of as much as 1,000 megawatts.

Review of Literature

Remy Magnier- Watanabe and Caroline Benton (2017). This paper point out the role of tacit and explicit knowledge in translating management innovation into firm performance in Japanese companies. While past research has been inconsistent on the role of management innovation on firm performance, this research considers how management innovation in organizations can promote tacit and/or explicit knowledge creation, and whether this leads to higher firm performance. This research uses a questionnaire survey of employees of Japanese firms and applies conditional process analysis. There was no direct effect of management innovation onto firm performance, and that instead, both tacit and explicit knowledge fully mediated the relationship between management innovation and firm performance. While management innovation programs by themselves did not directly increase firm performance, the alignment of these programs with Knowledge Management initiatives enhanced performance. This highlights the need for management innovation that first considers the type of knowledge needed for enhanced performance. Previous research did not consider the role of knowledge as a means to translate management innovation into firm performance.

Vasanthapriyan, S, et. al., (2017). The author found that Software development is knowledge intensive and a collaborative activity, which mainly depends on knowledge and experience of the software developers. Knowledge Management in software industries aims to create an environment for continuous knowledge sharing and creation to remain competitive. The knowledge synthesis theory is used in this study to synthesize a variety of knowledge, unseen problems, obstructions, and the corresponding underlying reasons in implementing the Knowledge Management practices. Findings of this study emphasized that while

Knowledge Management practices were considered to be important, organizational learning and culture, attitudes and behaviors of employees, information technology infrastructure, and rewards systems were inadequate to address an effective management of knowledge in these three software industries. One of the findings showed that, software developers believe both software engineering knowledge and information communication technology are considered to be an enterprise's strategic asset and a main source to create competitive advantage. Findings also presented a compelling evidence of the soundness for the need of Knowledge. Management practices to manage software engineering knowledge.

Sara Baezat, et. al., (2014) analyzed the relationship between teachers' Knowledge Management and self-efficacy in pre-school centers of Shiraz Educational Organization region 2. The samples were 66 teachers and it was selected randomly based on Krejcey. Morgan Knowledge Management questionnaire self- efficacy was used to conduct this research. Pearson correlation and regression tests were used to analyze the relationship between the teachers' Knowledge Management and their selfefficacy. It is found that all dimensions of Knowledge Management including knowledge creating, organizing, implementing and sharing had a positive and significant relationship with teacher's self-efficacy. Among the dimensions of Knowledge Management, knowledge implementing and knowledge organizing had a significant power for predicting teacher's selfefficacy.

Siddike, et. al., (2012) explored the perceptions of information professionals about Knowledge Management in Bangladesh. The study was conducted through survey using a pre structured questionnaire. A short, well-structured both open and close ended questionnaire was sent by post to 80 information professionals who had been working in different libraries of Bangladesh. The respondents were selected from each division of Bangladesh (30 respondents from Dhaka division, 10 each in Chittagong, Rajshahi, Khulna, and Barishal and Sylhet division). The results of the survey showed that 90 percent of the information professionals of Bangladesh first read about KM in literature, but none had taken any courses on Knowledge Management system 43 percent of the respondents agreed that Knowledge Management system is just another fad like total effort management, 50 percent of the information professionals strongly agreed that Knowledge Management system is a new term for what information professionals were already doing.

Wiig (1993) has proposed a four step processes, which are focused on knowledge itself namely, Creation and sourcing, Compilation and transformation, Dissemination and application and value realization. Van de Spek and Spijkervet (1997) have suggested four different activities.

Objective

1. To study the knowledge utilization of employees in neyveli thermal power station-I, limited.
2. To understand the knowledge accumulation process among employees

Analysis

Table 1: Knowledge Accumulation

Statements	Mean	S.D
NLC has corporate database before processing tasks We try to store know-how about new tasks design and development	4.42	0.76
We try to store legal guidelines and policies related to tasks	4.11	0.70
We extensively search the task-related database to obtain knowledge necessary for tasks	4.14	0.770
We document such knowledge needed for tasks	4.10	0.77
We summarize education results and store them	4.01	0.69
We are able to administer knowledge necessary for tasks systematically and store it for further usage	4.08	0.75
Overall	4.14	0.63

Source: Primary data computed

Figure 1: Knowledge Accumulation

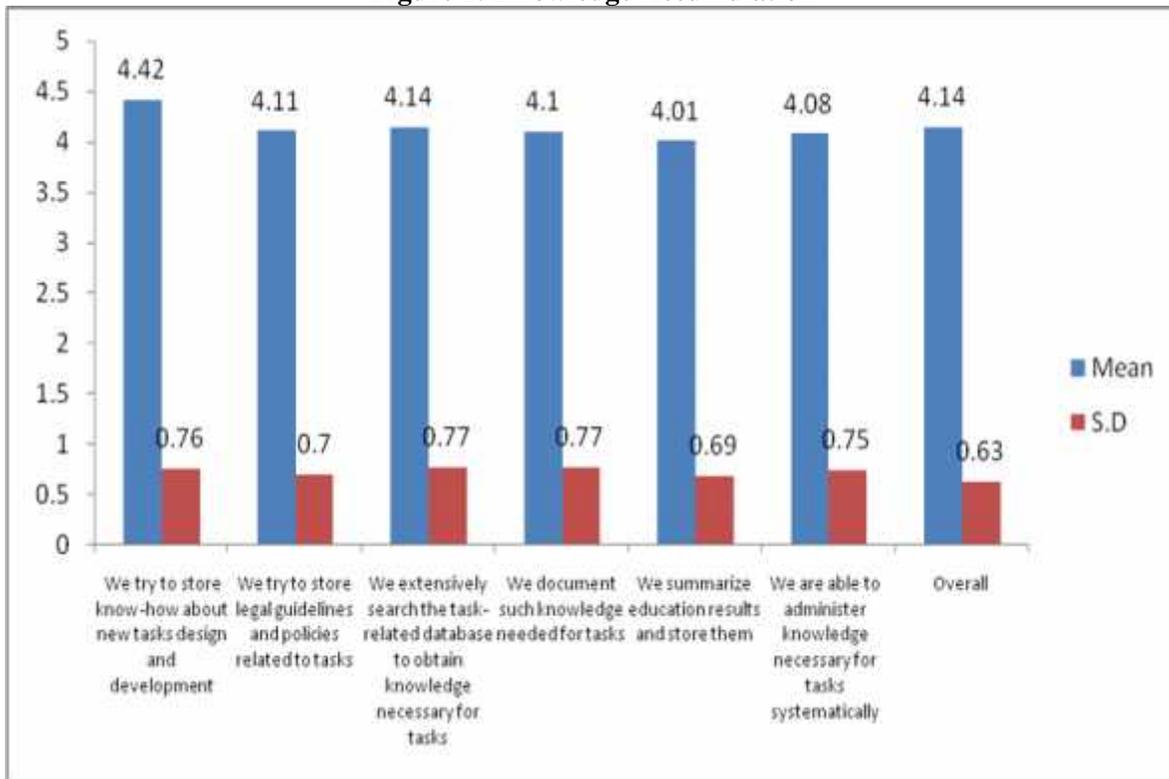


Table 1 the above tables shows that the Managers’ opinion about the implementation of knowledge accumulation practices in NLC. Here, the knowledge accumulation process is measured with six statements. Further, mean and standard deviation values are calculated for each statement. The calculated mean values ranges from 4.01 to 4.42. It showed that the Managers highly rate that NLC has corporate database, before processing tasks they try to store, knowhow about new tasks design and development (4.42), followed by the extensively search the task-related database to obtain necessary knowledge for tasks (4.14), employees try to store legal guidelines and policies related to the tasks (4.11), employees document such knowledge needed for tasks (4.10), employees are able to administer necessary knowledge for tasks systematically and store it for further usage (4.08), employees summarize the education results and store them (4.01). Managers opinion towards the effort of implementing knowledge accumulation process does not vary much, because the standard deviation values are found to be low.

It is found that the NLC managers agree that their organization has the higher level of knowledge accumulation process. Further, it is found that employees make the task design and development based on the corporate data base. Employees try to store the database record and they came to know, how the new task should be designed and developed. They try to store legal guidance and policies related to the tasks.

It is found that the Managers accumulated all relevant information, then they develop the new design. But, when summarized the accumulated result is found to be at a lower level. The respondents collectively perceived that knowledge management tasks are important to the company. The existing knowledge management tasks are positively correlated with the ease of occurrence of knowledge management activities that support those tasks.

Table 2 Knowledge Utilization

Statements	Mean	S.D
Lessons learned from operating experience are incorporated in work practices, manuals, procedures and decision –making	4.39	0.68
The organization is often able to apply its knowledge effectively to solve difficult technical problems	4.14	0.60
Executives are consistently able to make important technical decisions correctly	4.19	0.62
Executives are always aware of and always make effective use of each other's skills and expertise	4.25	0.62
Equipment replacement and design change decisions are based on a risk-informed decision process	4.17	0.54
Work flow diagrams are used for performing task	4.15	0.60
Overall	4.21	0.45

Source: Primary data computed.

Figure 2: Implementation of Knowledge Utilization

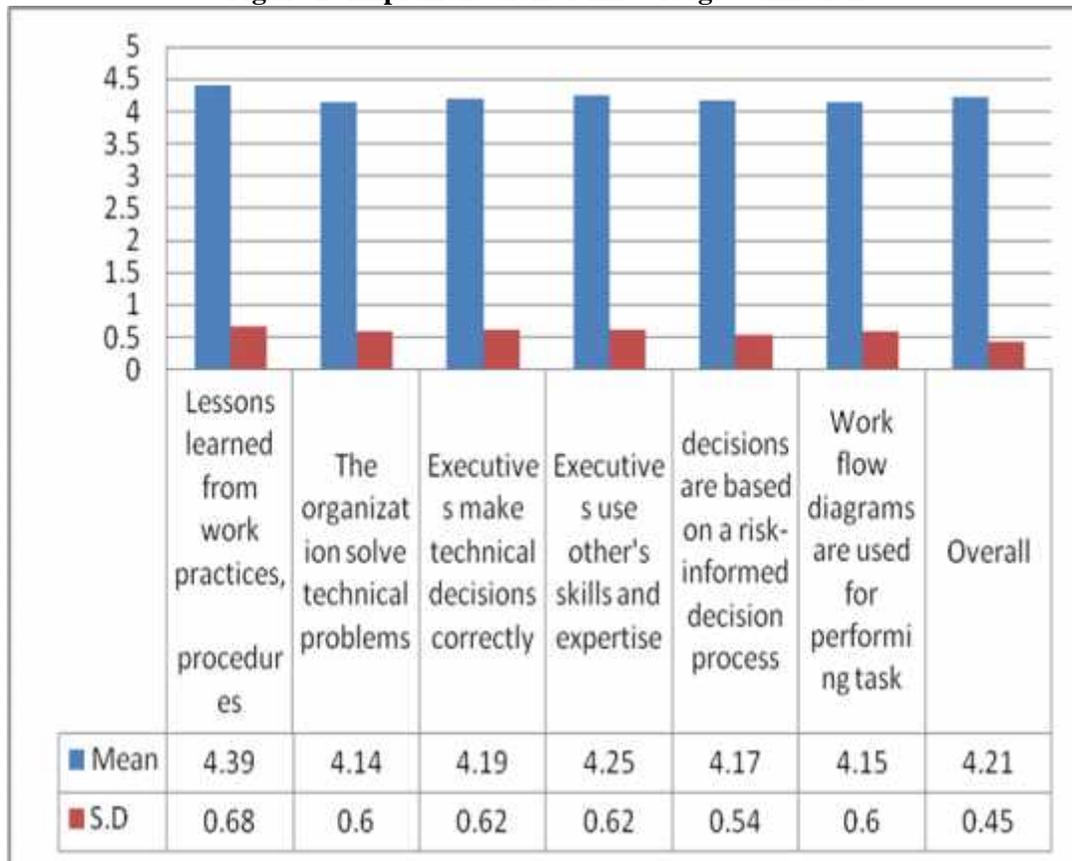


Table 2 portrays that the Managers' opinion about the effort of implementation of knowledge utilization practices in NLC. Here, the knowledge utilization is measured with six statements. Further, mean and standard deviation values are calculated. The calculated mean values ranges from 4.14 to 4.39. It is inferred that the managers highly rated that the lessons learnt from operating experience are incorporated in work practices, manuals, procedures and decision making (4.39), followed by employees are always aware of and always make effective use of each other's skills and expertise (4.25), employees are consistently able to make important technical decisions correctly (4.19), equipment replacement and design change decisions are based on a risk-informed decision process (4.17), work flow diagrams are used for performing task (4.15) and the organization is often able to apply its knowledge effectively to solve difficult technical problems (4.14). From the standard deviation values, it is indicated that the Managers' opinion is not varied about the effort of implementing knowledge utilization practices. It is found that the employees are incorporate their learnt operating experience in work practices, manuals, procedures and decision making. Executives effectively utilize each other's skills and expertise. Knowledge utilization process is found to be high.

Finding

The NLC managers agree that their organization has the higher level of knowledge accumulation process. Further, it is found that employees make the task design and development based on the corporate data base. Employees try to store the database record and they came to know, how the new task should be designed and developed. They try to store legal guidance and policies related to the tasks.

It is indicated that the Managers' opinion is not varied about the effort of implementing knowledge utilization practices. It is found that the employees are incorporate their learnt operating experience in work practices, manuals, procedures and decision making.

Consolation

Employees in Managerial level conducted and revealed that there is a high level of knowledge accumulation to utilize in the working area in this company like manual, procedure and decision making.

References

1. Remy Magnier- Watanabe and Caroline Benton (2017). "Management innovation and firm performance: the mediating effects of tacit and explicit knowledge", Knowledge Management and Research Practices.10.1057/s41275-017- 0058-6.
2. Vasanthapriyan, Jianwen Xiang, Jing Tian and Shengwu Xiong. (2017). "Knowledge synthesis in software industries: a survey in Sri Lanka", Knowledge Management and Research Practices: 10.1057/s41275-017- 0057-7.
3. Sara Baezat, Hossein Aflakifard, Nima Shahidi (2014) "On the Relationship between Knowledge Management and Teachers' Self-Efficacy (Case study: Shiraz Pre-School Centers)", International Research Journal of Applied and Basic Sciences, 8 (10): 1776-1781.
4. Siddike, Md. Abul Kalam & Munshi, M Nasiruddin, (2012). "Perceptions of Information Professionals about Knowledge Management in the Information Institutions of Bangladesh: An Exploratory Study", Library Philosophy and Practice (e-journal). 783.
5. Wiig, K. M. (1993). "Knowledge Management Foundation", Schema Press.