

A Study of Knowledge Management Systems in Software Companies in Chennai

V. Aruna, Research Scholar, Guide:
Dr. N. Rajalingam, Assistant
Professor,

Department of Management Studies,
Manonmaniam Sundaranar
University, Tirunelveli

ABSTRACT

Knowledge Management System (KMS) is becoming an important tool for the organizations. Organizations invest significant IT resources to support acquisition, storage, sharing, and retrieval of knowledge. KMS plays a critical role in organizations that rely primarily on intellectual capital, such as software development companies. KMS facilitates acquisition, access, updation, storage and retrieval of knowledge with a goal to promote knowledge growth, communication, preservation and sharing (O'Leary and Studer, 2001). Sharing knowledge in today's economy where 'globalization' seems to be the mantra for success and the physical location of the resource should not affect in the knowledge sharing process of any system. IT helps people from different time zones and locations to come together and discuss

lively and contribute towards the development.

Key words: Knowledge Management (KM), Knowledge Management System (KMS)

INTRODUCTION

In today's competitive business environment, many organizations are struggling to meet or keep up with the demands of their clients, competitors, investors and regulators. Managers all over the worlds are realizing that knowledge in the form of expertise and competence is the organization's most important assets and its quality and availability can help them to face this situation. This phenomenon leads to introducing a new business philosophy, namely KM which directs decision on where, how, when to create, accumulate, update and account for knowledge. Knowledge management (KM) is emerging as a key management



responsibility and consequently organizations are investing significant resources in information technology (IT) to support acquisition, storage, sharing, and retrieval of knowledge. The term KM refers to a concerted effort by an organization to manage knowledge held within and outside the organization.

REVIEW OF LITERATURE

Iuliana (2009) investigated the importance of KM in software engineering using SECI model. Data Collection is done by conducting Interviews and questions are rated using Likert Scale. This study found that for most employees necessity is the primary motivation for sharing Knowledge. Email, Instant Messaging, Internet, Magazines are used for extracting Knowledge. Culture, Leadership and Technology are identified as important Knowledge Enabler.

The exploratory research paper by (Singh & Soltani, 2010) analyzed the best practices in knowledge management and investigated the awareness and implementation of KM principles and practices in Indian Information Technology companies. A purposive sample of 10 IT companies was chosen for

study and a survey was conducted. The main objectives in the study are to understand the KM Concepts, to identify the role of Culture and the Obstacles in the generation of Organization Knowledge. The various phases of knowledge management were studied and data were interpreted on the basis of weighted scores for each parameter at each phase. It is found that Individuals are not clearly rewarded for Knowledge Sharing.

OBJECTIVES OF THE RESEARCH

1. To analyse the understanding of employee's of Software Industry on KMS
2. To study the existing KMS and its functioning in Software Industry.
3. Understand the Knowledge sharing habits of Employees in Software Industry

RESEARCH METHODOLOGY

This research is a descriptive research aiming at describing how Software Companies are working with knowledge management system. The study attempts to describe the perception and practice of the employees on how



knowledge is captured, spread and reused, and on the effectiveness of KMS in the Organization. The Population for this research work includes all the employees of Software Industry ranging from Software Engineers to Senior Project Managers and more. The number of employees in Software Industry is large. Employees vary in their designations from low level cadre to high level. Some of them also work in different shift as required by their clients. Hence Purposive Sampling is used to choose the respondents. Each respondent may refer their friend or colleague to continue the data collection. Questionnaire was filled by interviewing the employees of Software Industry for a period of 1 year. The completely filled questionnaire was 300 from where the research is carried out. Frequency Count and Graphical presentation of Data is used to analyse the data.

FINDINGS AND OBSERVATIONS

The Findings and Observations of the research are discussed here under.

RECOGNITION OF KMS

The recognition of KMS plays an important role in any organisation as retrieving knowledge, in time during the decision making process is crucial. The pie chart clearly shows that 70.7 per cent of the respondents recognize the existence of KMS in their organisation followed by 26 per cent of the respondents state they cannot say and 3.3 per cent of the respondents do not recognize KMS.

Table 1 Recognition of KMS

Recognizing KMS	Frequency	Per cent
Yes	212	70.7
No	10	3.3
Can't say	78	26
Total	300	100

Source: Primary Data

TIME TAKEN TO GET RELEVANT KNOWLEDGE

Organisations productivity increases only when the projects are completed within the stipulated time. For this, the availability of required knowledge for completing it becomes crucial. From the chat it is inferred that 53 per cent of the respondents take a few days to get the relevant knowledge to do their day to day work followed by 23 per cent of the



respondents taking a few hours, 15 per cent of the respondents a week or more, and 8.7 per cent of the respondents it is only few minutes

Table 2 Time taken to get relevant knowledge

Time Taken	Frequency	Per cent
A few minute	26	8.7
A few hours	70	23.3
A few days	159	53.0
Week or more	45	15.0
Total	300	100

Source: Primary Data

TECHNOLOGIES AVAILABLE IN THE ORGANIZATION

Organizations use various technologies for implementing KMS. Commonly used Technologies for implementing Knowledge Management in the Organization are charted out. It is inferred that 78.3 per cent of the respondents use Intranet for implementing KM followed by 67.7 per cent of the respondents use Internet. 29.7 per cent use WWW Server. Self Designed KM software is used only in few companies.

Table 3 Technologies available in the Organization

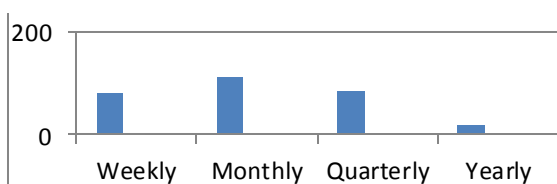
Technology	Frequency	Per cent
Internet	203	67.7
Intranet	235	78.3
Extranet	65	21.7
Groupware	57	19.0
WWW server	89	29.7
Data Warehousing Hardware	25	8.3
Self Designed KM software	25	8.3
Data Mining tool/software/Knowledge	60	20.0
Total	300	100

Source: Primary Data

FREQUENCY OF KNOWLEDGE UPDATION

KMS is updated in the Organization on a regular basis. Frequency of updation depends on the employees and their organisation. It is revealed that 37.7 per cent of the respondents that KMS is updated on Monthly basis in the Organization followed by 28.3 per cent of the respondents that KMS is updated on Quarterly basis, 27.3 per cent of the respondents that KMS is updated on weekly basis in the Organization and 6.7 per cent of the respondents that KMS is updated on Monthly basis in the Organization.

Figure 1 Frequency of Knowledge Updation

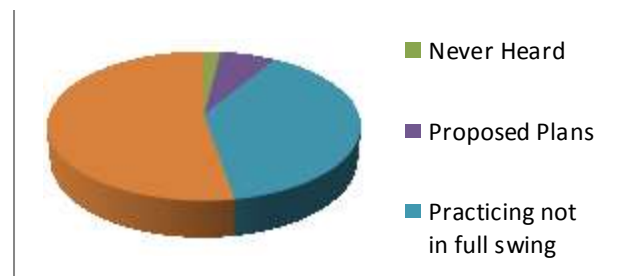


AWARENESS ABOUT KMS

It is inferred that 53 per cent employees in the Organization state KMS as Strategic part followed by 35 percent

employees claim practicing KMS but not in full swing. 20 per cent of the employees state the organization have proposed plans for KMS while 6 per cent of the employees have not heard about KMS.

Figure 2 Awareness about KMS



KNOWLEDGE SHARING OF EMPLOYEES

Socialization presents a process of tacit knowledge sharing between individuals working in the same environment and understanding it. Knowledge sharing among employees takes place using various socialization methods and the preferred methods are determined.

Socialization is effected through Team meeting (69 per cent of the respondents) followed by

Videoconferencing (54.3 per cent). Around 42.7 per cent of the respondents use Lecture Session and 32 per cent of the respondents use Coaching.

Table 4 Knowledge Sharing of Employees

Socialization	Frequency	Per cent
Lecture Session	128	42.7
Simulation	14	4.7
Role Play	26	8.7
Demonstration	65	21.7
Job Rotation	75	25.0
Trial and Error Method	13	4.3
Audio Visual Techniques	86	28.7
Case Study	48	16.0
Business games	16	5.3
Grapevine	6	2.0
Coaching	96	32.0
Team Meeting	207	69.0
Videoconferencing	163	54.3
Total	300	100

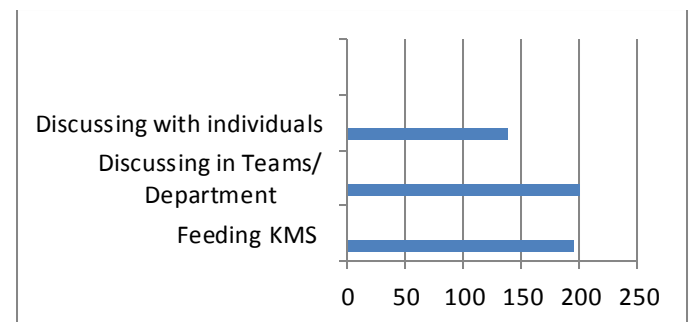
Source: Primary Data

KNOWLEDGE SHARING

Knowledge is shared by employees. Some employees like to share knowledge directly in KMS while others

prefer to share with their teams or to individuals. It is inferred that 67 per cent of the respondents share knowledge by discussing in Teams/ Department followed by 65.3 per cent of the respondents share knowledge by feeding KMS and 46 per cent of the respondents share knowledge by discussing with individuals.

Figure 3 Knowledge Sharing



CONCLUSION

The IT industry is resource - oriented and it becomes quite important to ensure that knowledge in the minds of human resources is safeguarded. There have been many instances where the learning and knowledge is lost when human resources move to newer roles, or leave the organization. IT organizations major assets are not plants, buildings, or expensive machines but its intellectual capital. The major problem with

intellectual capital is that it drains with employee turnover. Many IT organizations face the challenge of sustaining the level of competence needed to win contracts and fulfil undertakings. Knowledge has become increasingly important, as operations may need to be carried out from different locations with different persons. So storing the expert knowledge become extremely important as it is the main asset of a company's business model. Thus for an organization to be successful, being better than the competition in obtaining, developing and sharing knowledge is key, or in other words being better in knowledge management (KM) results in being successful in the market.

SUGGESTION

It takes few days to get the relevant knowledge from the KMS. This shows the efficiency of KMS is slow and it has to be improved. Also most of the knowledge is not updated weekly basis. This has to be improved. So that the organization can ensure getting knowledge in the right time and also prevent knowledge loss in course of time.

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