



ISSN(Online): 2320-9801
ISSN (Print) : 2320-9798

International Journal of Innovative Research in Computer and Communication Engineering

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Website: www.ijirccce.com

Vol. 5, Issue 12, December 2017

Knowledge Management Process in ERP based Product Companies: Field Experiment

S. Mala

Assistant Professor, Department of Computer Science, M K U College, Madurai. Tamilnadu, India

ABSTRACT: The important factors that are driving the need for KM are organizational survival, competitive differentiation, globalization effects and aging workforce. Considering the management dynamics today, the onus of managing knowledge requires utmost focus as most of the work is information based. It is an undisputed fact that organizations compete on the basis of knowledge, since products and services are becoming increasingly complex. Hence the requirement for a life-long learning has become an unavoidable reality and KM has become important because marketplaces are increasingly competitive and the rate of innovation is rising. Downsizing staff also creates a need to replace informal knowledge with formal methods. KM is also of importance because early retirements and increasing mobility of the work force lead to loss of knowledge while changes in strategic direction may result in the loss of knowledge in some specific areas. In other words, knowledge and information have become the medium in which business problems occur. As a result, managing knowledge represents the primary opportunity for achieving substantial savings, significant improvements in human performance, and competitive advantage.

KEYWORDS: knowledge Management Process, Enterprises, Efficient Knowledge Management, Confusion Knowledge Management.

I. INTRODUCTION

The model developed in the study helped carry out an anonymous survey among employees in enterprise. A group of employees selected for the study comprised of 164 people across various divisions, while the actual survey was carried out in 142 employees that filled out questionnaires appropriately and expressed their readiness to cooperate during an interview.

II. CURRENT KNOWLEDGE MANAGEMENT IMPLEMENTATION

As this experiment is executed, there is no formal framework or tools available in the enterprise. The articles, best practices are documented within their department and very few people aware of such document is available. The larger groups aware curtain documents maintained at their department level. There is no cross functional knowledge sharing process. Most of the groups work in isolation. So, this exercise of evaluation to see the initial KM process and to find out the gaps so that there will be comprehensive KM tools can be suggested and implemented across the enterprise.

III. THE OVERALL ASSESSMENT OF KNOWLEDGE MANAGEMENT AMONG EMPLOYEES

The assessment of knowledge management in the enterprises studied consisted in analysis that focused on an estimative assignment of points made by the respondents, who were managers in enterprises based on knowledge, experience and intuition. During the interview, the respondents assigned weights to individual problems, activities, behaviors and processes per the degree of performance of these tasks.



International Journal of Innovative Research in Computer and Communication Engineering

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Website: www.ijircce.com

Vol. 5, Issue 12, December 2017

Stage	Stage Name	Number of points in individual ranges	Number of Employees
0	Confusion of knowledge	0-100	0
1	Low awareness of knowledge	101-200	11
2	Moderate knowledge	201-300	32
3	Medium state of knowledge management	301-400	53
4	Efficient knowledge management	401-450	41
5	Full, comprehensive and integrated knowledge	451-550	5

Table 1 Results of the overall assessment of knowledge management among employees

Based on the analysis of the assessment obtained from the respondents and specific point ranges, all the employees were divided and qualified for the stages within the Model of Stages in Employee Knowledge Growth, which was presented in the Table 1.

Most the employees were evaluated at the level of the Stage No. 3 that represented the medium stage of knowledge management, with employees acquiring and using knowledge only for current operations, without the processes of knowledge transfer. The enterprise exhibited the awareness of the need for managing employee knowledge resources. However, it is not reflected in noticeable effects of operations. Knowledge in the enterprise is neither exchanged nor disseminated. There is also lack of integration of external knowledge with specific internal knowledge. Knowledge management performance at the level of Stage No. 4 was represented by 41 employees studied. These employees and their division utilize modern information technologies in management of knowledge resources while the employees identify best practices, experiences and acquire, collect, use and develop their own knowledge. Codified knowledge in these employees occurs in the form of paper documents, software and databases. The employees exhibit an effective approach to knowledge management.

The moderate status of knowledge was found in 32 of the employees studied. Employees in these categories are unwilling to share their knowledge with others and they do not appreciate their role of managing knowledge management in enterprise. These employees implement first knowledge-based mechanisms while their potential is not utilized. There were no entities in the group of employees studied that belonged to the Stage No. 0 defined as "Confusion of knowledge", which means that the enterprises show at least basic awareness of this problem, while 11 employees were qualified as the Stage No. 1(low awareness of knowledge). These employees concentrate on tacit knowledge while the knowledge is collected mainly in the written form, without the use of information technology. These employees do not exhibit the need for developing knowledge and its extensive use and no mechanisms of knowledge extraction. While performing, the tasks assigned, employees cannot find specific knowledge in right time, they do not conclude on the projects, repeat their failures and the activities in the field of knowledge are mainly random.

The lack of systematic approach to knowledge management is observed in these enterprises. Of the entire group of the employees studied, only 5 were found to use full, comprehensive and integrated knowledge over the period of the



International Journal of Innovative Research in Computer and Communication Engineering

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Website: www.ijirccce.com

Vol. 5, Issue 12, December 2017

study. This knowledge was characterized by high awareness and utilization of knowledge, full involvement of all the employees in the enterprise in knowledge management and efficient performance of all the processes connected with knowledge. The employees in these categories are willing to share their knowledge and experiences, not only with other employees but also with partners, customers and suppliers. These employees often advocate recruiting experts in knowledge management, such as knowledge brokers and they implement integrated systems of knowledge management to support their activities. Knowledge management in the enterprise has become a part of their mission and a natural component of labor.

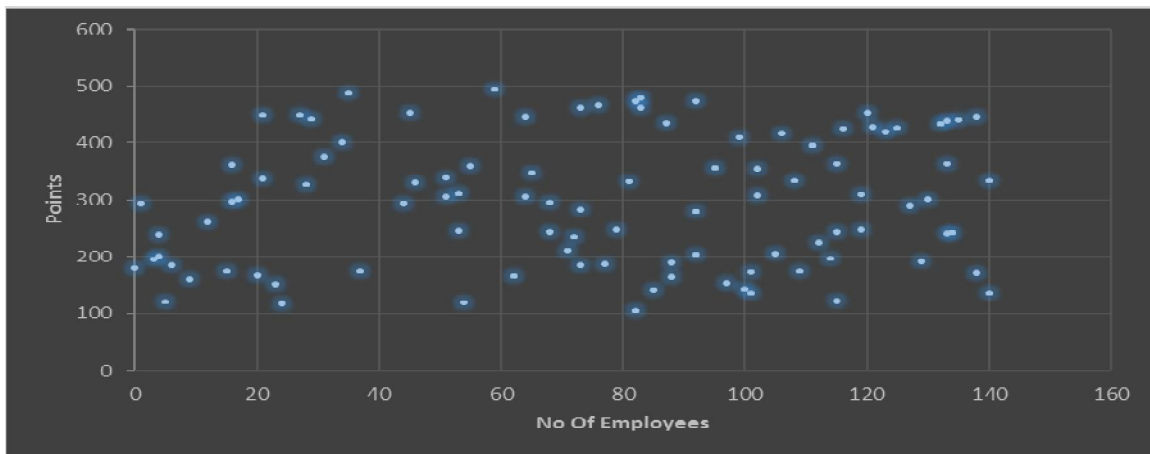


Figure1 Distribution of individual employees with respect to the point score

Graphic representation of the distribution of 142 employees compared to the number of points received for the degree of performing individual activities was presented in Fig. 1.

In order to provide a clear picture of the results obtained in terms of evaluation of knowledge management in employees, Fig. 28 presents graphical percentage-based comparison of the employees studied as classified under individual stages in the Model of Stages in Employee Knowledge Growth.

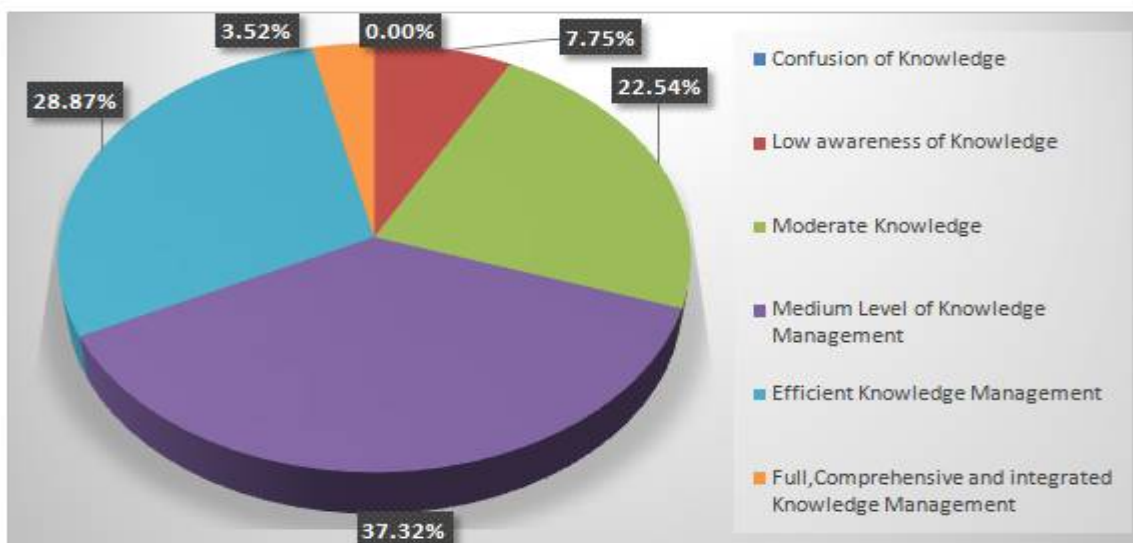


Figure 2 Percentage share of employees qualified under the stages in the Model of Stages in Employee Knowledge Growth



International Journal of Innovative Research in Computer and Communication Engineering

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Website: www.ijircce.com

Vol. 5, Issue 12, December 2017

Medium state of knowledge management was found in 37.3% of the employees. Furthermore, 28.9% of the entities showed high effectiveness of knowledge management, whereas 22.5% were characterized by a moderate level of knowledge. Low knowledge awareness was observed in 7.7% of the enterprises. Full, comprehensive and integrated knowledge was achieved in only 3.5% of the small and medium-sized enterprises studied. Previous results showed that none of the enterprises were classified at the lowest stage in the Model of Stages in Employee Knowledge Growth. Evaluation of the level of knowledge management based on the same criteria was also presented in Table 2 (with respect to the number of employees).

Stage	Stage Name	Number of points in individual ranges	Number of microenterprises	Number of small enterprises	Number of medium-sized enterprises
0	Confusion of knowledge	0-100	0	0	0
1	Low awareness of knowledge	101-200	11	0	0
2	Moderate knowledge	201-300	30	2	0
3	Medium state of knowledge management	301-400	47	4	2
4	Efficient knowledge management	401-450	30	3	8
5	Full, comprehensive and integrated knowledge	451-550	4	0	1

Table 2 Evaluation of knowledge management with division into micro, small and medium-sized enterprises

The highest number of employees qualified under the Stage3 (medium level of knowledge), which is characterized by diffusion of knowledge necessary for achievement of basic activities in the enterprise and awareness of the need for managing employee knowledge resources that was not reflected by noticeable effects of the activities. This concerned 47 of the employees. Large part of employees was categorized as the Stages2 and 4 (30 entities each), which meant moderate state of knowledge and effectiveness of knowledge management. All the other employees studied were focused around the Stages 2, 3 and 4 with similar number. The group of medium employees was concentrated at three final stages in the Model of Stages in Employee Knowledge Growth. Effectiveness of knowledge management, with employees that identify best practices and experiences and acquire, collect, use transfer and develop knowledge, was found in 8 of the employees studied. Only 1 enterprise in this group met the criteria of the Stage 5, with knowledge management being a natural part of the operations.



ISSN(Online): 2320-9801
ISSN (Print) : 2320-9798

International Journal of Innovative Research in Computer and Communication Engineering

(A High Impact Factor, Monthly, Peer Reviewed Journal)

Website: www.ijirccce.com

Vol. 5, Issue 12, December 2017

IV. FUTURE WORK

Based on the evaluation, there is a need of representing the processes and plan to arrive at comprehensive knowledge management system. The system should be having adaptive workflow so that the system can mature by itself. The adaptive workflow supporting knowledge intensive tasks. The workflow should explain the following important aspects.

- Enriched representation of processes
- Support to capture and maintain knowledge
- Support for knowledge-based decision making
- Aids to synthesize plans and schedules

V. CONCLUSION

The Model of Stages in Employee Knowledge Growth was designed to indicate, to the entrepreneurs interested in implementation of the efficient knowledge management, the areas, processes and aspects connected with this problem and provide them with tools and opportunities for evaluation of actual status and awareness in terms of knowledge management of the employees. The degree to which an enterprise utilizes knowledge management effectively, using the processes of localization, acquisition, collecting, development, sharing, distribution and storage of knowledge, is an indicator of the employee's maturity in this field. Measurement of the maturity of solutions in the area of knowledge management represents a point of reference for improvement in its status. However, in order for the knowledge acquired by an employee to be fully available, one should develop a specific environment, organizational culture and procedures to mobilize and motivate sharing the knowledge at all stages in management of the enterprise.

REFERENCES

- [1]. Haggie, K and Kingston, J. "Choosing Your Knowledge Management Strategy", Journal of Knowledge Management Practice, 4 (June, 2003), <http://www.tlinc.com/jkmpv4.htm> checked on (7/5/2012). 2003.
- [2]. Hahn, J. and Wang, T-W. (2007) Knowledge Management Systems and organizational knowledge processing challenges: A field experiment. Decision Support Systems (2009), doi: 10.1016/j.dss.2009.03.001.
- [3]. Hakkarainen, Kai; Palonen, Tuire; Paavola, Sami; Lehtinen, Erno: Communities of Networked Expertise, Professional and Educational Perspectives, Elsevier Ltd, 2004.
- [4]. Hall, R. (1992) The strategic analysis of intangible resources. Strategic Management Journal, Vol. 13 (1992), pp. 135-144.
- [5]. Hansen, M. T.; Nohria, N. and Tierney, T. (1999) What's your strategy for managing knowledge?, in Cortada, James W., Woods, John A. (Editor): The Knowledge Management Yearbook 2000-2001, Butterworth-Heinemann, 2000, pp. 55-69.