

Knowledge Management and Measuring its Impact on Organizational Performance

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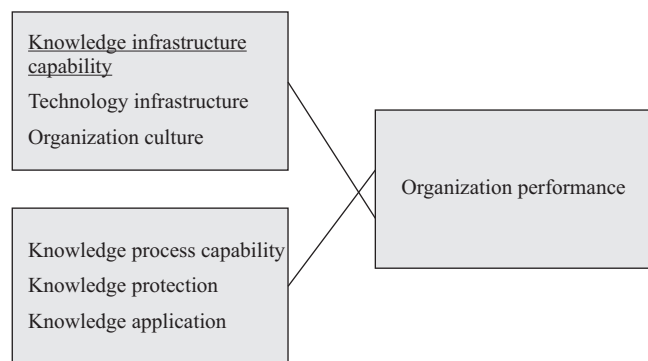
Abstract: To establish a long term competitive advantage from Information technology knowledge management plays a vital role. Due to the knowledge based economy Global rivalry and new challenges of a business are facing huge pressure for their survival. Knowledge based economy is emerging in a long lasting way and Knowledge management is rapidly spreading. Today, it is the responsibility of a company to explore itself in terms of what they know not and what they own. KM is an outcome of management science and has been applied in many business and is yielding successful results. Large MNC's and two sided agencies in simple sense is using organization's knowledge and their ability and potential to capture past experiences and learn from them to yield results in future. The current paper focuses on the implementation of various tools and techniques which helps in capturing the possible gain that may be delivered from KM. The research paper gives an insight into the approaches to evaluate contribution of knowledge management for the growth of an organization. It also evaluates how KM is used for enhancing performance of an organization (IT sector). Through the study it is being inferred that KM infrastructure, Organizational performance & KM processes share a positive relation between each other.

Keywords: Knowledge management, Knowledge based economy, KM infrastructure, Organizational performance & KM processes

I. INTRODUCTION

Dalkir, K. (2005) observed that Knowledge management is a controlled and systematic approach that an organization can take to gain value of knowledge which is available as information objective, document or a report which involves both understanding and experience of people working in an organization. The evaluation of KM performance has become progressively important since it delivers the situation for guiding the organizations to enhance their performance and competitiveness. The value of KM can't be discarded in the environment prevailing today. From the organizational perspective, the measurement of knowledge is regarded as one of the asset (prime). For this purpose, the companies are spending their resource capabilities for proper management so that the relevant knowledge is available as and when it is needed. There are different factors that influence KM like organizational learning, knowledge sharing and organizational change. The research has highlighted two important keywords: the IT resources and the other is Organizational performance. To show that there is a linkage between two keywords there is yet another keyword known as resource based view also known as (RBV). According to the resource based view, it is the company's own resources which can lead them to the competitive advantages/benefits and subsequently help the company in achieving an enhanced/extensive performance. Figure 1, explains the model propounded by Smith and Mills which forms the basis of the current study. It highlights the infrastructural capabilities like: structure, technology process capabilities, knowledge application and protection which affect the organization's performance. The factors and their relationships are shown below.

II. RESEARCH MODEL



Source: Trevor's A. Smith and Annette M. Mills, 2010

III. REVIEW OF LITERATURE

Moballeghi, M and Moghaddam, G.G. (2011) defined Knowledge Management (KM) has been defined in different ways and from different perspectives. It has been described as "a systematic process for capturing and communicating knowledge people can use." Others have said it is "understanding what your knowledge assets are and how to profit from them." Bose 2004 emphasized the importance of standardized KM metrics to quantify knowledge and convince stakeholders of the value of KM initiatives. With the need for standardized KM metrics, he also asserts that unique standards for measuring intellectual capital and KM initiatives need to be created by each company. Del-Rey-Chamorro et al. (2003) present a framework to evaluate the contributions of KM implementations to corporate objectives using a set of key performance indicators.

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Moballeghi, (2011) said that with the increasing recognition of knowledge management, the need for plans for assessing the impacts of knowledge on organizational performance has been recognized by experts. Recent studies of knowledge management and organizational learning, in project environments, have emphasized the difficulties of learning from projects – not only within individual projects, but also across and between projects (DeFillippi 2001).

Each organization consist of different resources and use it differently that jointly to make up their Knowledge capability to enhance performance of their organization. Asoh, D (2003) observed that KM has contributed in world’s economy. Most of the organization uses resource based view to enhance their performance. Gayton (2009) said that the need for the KM in philosophical analysis is also important where policy Analysis studied the relationship management amongst the use of KM systems and the following increase in Knowledge by persons and the rise in performance by organizations. Hence, this study of philosophy helps us to measure the relationship between KM strategies and business performance.

Knowledge is preserved as the main benefits of the firm. Knowledge is a mixture of evidence and practices. Paliszkiwicz (2007) said that this study required examining whether there is a positive contribution of organizational trust (OT) on organizational performance (OP) in many initiatives from the Area of Mazovia in Poland. The tool used in this study included two shares that were used to amount the concepts of OT and OP. The instrument was then managed to 469 directors from 287 businesses. Thus, organizations now have become conscious of the control of knowledge as the maximum valuable strategic resource. Over the past 15 years, knowledge management has grown from a developing idea to an increasingly common purpose in business organization.

IV. RESEARCH METHODOLOGY

Research Objectives:

- To study the role of Knowledge management and its impact on employee performance
- To study the factors involved in implementing KM concept to enhance organization performance.
- To find the relationship between KM infrastructure, KM processes and Organization performance.
- To study the gap between organization performance and KM implementation

Sampling techniques:

Total of 100 employees and managers were selected with the help of convenience sampling. There may be some bias in the responses of the respondents which cannot be administrated out completely.

Data analysis and interpretation:

To meet out the objectives the statistical treatment of the data obtained was carried out from a sample of 100 employees. Confidentiality was ensured and the general feedback of the group results was provided. The data has been analyzed by using Microsoft Excel and Statistical Package for Social Sciences (SPSS).

Table 1 shows the length of service with the current employer.

Table 1: Length of Service with the current Employer

Items	Frequency	Percent	Valid Percent
More than ten years	2	2	2
Between five and ten years	10	10	10
Less than one year.	20	20	20
Between two and five years	26	26	26
between one and two years	42	42	42
Total	100	100	100

Graph 1: Length of Service with the current Employer

Interpretation: According to the responses the researcher got from IT companies most of the employees are from working from one to two years in the Organization.

Table 2: Assumptions about the definition of Knowledge Management

What do you think of knowledge management?			
	Frequency	Percent	Valid Percent
Something they are doing but not under the same name	1	1	1
It is just a management field	2	2	2
Something that could be beneficial for the organization	25	25	25
It is strategic part of their business	72	72	72
Total	100	100	100

Interpretation: According to most of the responses, the employees assumed that Knowledge management is a strategic part of the business which means that it helps in faster decision making and greater opportunity for collaboration and sharing knowledge and information.

Table 3: Current status of Knowledge Management

What is current status of knowledge management in your organization?			
	Frequency	Percent	Valid Percent
Nascent stage	3	3	3
Introduction stage	17	17	17
Growth stage	80	80	80
Total	100	100	100

Interpretation: According to the responses, the employees from most of the IT companies said that they have growth stage of Knowledge management in their organization.

Table 4: Recognition of Knowledge Management as a part of asset base

	Frequency	Percent	Valid percent	Cumulative percent
Yes	97	97.0	97.0	97.0
Can't say	3	3.0	3.0	100.0
Total	100	100.0	100.0	

Interpretation: According to the responses, most of the employees believed that they recognize knowledge management as a part of their asset base. The knowledge that employees possess and disseminate to the organization is beneficial and is counted as asset for organizational development.

Table 5: Appointment of KMO/KM Specialist/Project Manager specially for Knowledge Management

Does your organization have any person specifically responsible for management of KM such as chief KMO, KM specialist, project manager or knowledge team?

	Frequency	Percent	Valid percent	Cumulative percent
Yes	93	93.0	93.0	93.0
No, or not that I am aware of	7	7.0	7.0	100.0
Total	100	100.0	100.0	

Interpretation: According to the responses, most of the employees said that they had a person or a team responsible for managing knowledge that they have.

Table 6: Knowledge management as a tool to improve quality and productivity

	Frequency	Percent	Valid percent	Cumulative percent
A great deal	91	91.0	91.0	91.0
Some	9	9.0	9.0	100.0
Total	100	100.0	100.0	

Interpretation: According to most of the employees said that it is a great deal in respect to their organization to improve quality and productivity of their work.

Table 7: Time taken by the organization to compensate the loss of knowledge once the employee leaves the organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than one week	25	25.0	25.0	25.0
Between one week to one month.	49	49.0	49.0	74.0
Between one month to three months.	20	20.0	20.0	94.0
Between three months to six months	6	6.0	6.0	100.0
Total	100	100.0	100.0	

As per the finding , 49% of the respondents feel that if they have to leave their job or position for some reason s, it will take between one week and one month to compensate for this loss of knowledge.

Table 8: Time taken by the organization to compensate the loss of knowledge once the senior manager leaves the organization

Items	Frequency	Percent	Valid Percent	Cumulative Percent
Less than one week.	1	1.0	1.0	1.0
Between one week to one month	35	35.0	35.0	36.0
Between one month to three months	43	43.0	43.0	79.0
Between three months to six month	15	15.0	15.0	94.0
Between six months to one year	6	6.0	6.0	100.0
Total	100	100.0	100.0	

The analysis reveals that 43% of the respondents feel that, if the senior manager has to leave the organization it would take between one month to three months to compensate for the knowledge that they have.

There are two questions based on raking order from 1-5 so I have found out frequency analysis of each variable where:

- a Variable 1 is by improving competitive advantage
- b Variable 2 is by improving customer focus
- c Variable 3 is Innovation
- d Variable 4 is Cost reduction
- e Variable 5 is improving quality and delivery

Table 9.a : How significant is the role of effective KM to impact the performance of Organization?

Table 9 a: By improving competitive advantage

Items	Frequency	Percent	Valid Percent	Cumulative Percent
5	14	14.0	14.0	14.0
4	16	16.0	16.0	30.0
1	22	22.0	22.0	52.0
3	23	23.0	23.0	75.0
2	25	25.0	25.0	100.0
Total	100	100.0	100.0	

Table 9 b: By improving customer focus

Items	Frequency	Percent	Valid Percent	Cumulative Percent
5	8	8.0	8.0	8.0
3	22	22.0	22.0	30.0
4	22	22.0	22.0	52.0
1	24	24.0	24.0	76.0
2	24	24.0	24.0	100.0
Total	100	100.0	100.0	

Table 9 c: Bringing about Innovation

	Frequency	Percent	Valid Percent	Cumulative Percent
1	15	15.0	15.0	15.0
2	20	20.0	20.0	35.0
3	20	20.0	20.0	55.0
4	22	22.0	22.0	77.0
5	23	23.0	23.0	100.0
Total	100	100.0	100.0	

Table 9 d: Bringing about Cost reduction

	Frequency	Percent	Valid Percent	Cumulative Percent
2	12	12.0	12.0	12.0
1	19	19.0	19.0	31.0
3	22	22.0	22.0	53.0
5	22	22.0	22.0	75.0
4	25	25.0	25.0	100.0
Total	100	100.0	100.0	

Table 9 e: Improving quality and delivery

Items	Frequency	Percent	Valid Percent	Cumulative Percent
3	13	13.0	13.0	13.0
2	18	18.0	18.0	31.0
4	18	18.0	18.0	49.0
1	19	19.0	19.0	68.0
5	32	32.0	32.0	100.0
Total	100	100.0	100.0	

Interpretation: Through frequency analysis , the following results were obtained(i.e who from the 5 variables got highest as rank 1 compare to others)

1. Customer focus got rank 1 i.e 24 employees gave it rank 1 out of all
2. Competitive advantage got rank 2 i.e 25 employees gave it rank 2 out of all
3. Innovation got rank 3 and 24 employees gave it rank 3 out of all
4. Cost reduction got rank 4 and 25 employees gave it rank 4 out of all.
5. Improving quality and delivery got rank 5 as 32 employees gave it rank 5 out of all.

The table 10 reflects the sources that the organizations uses most as a platform to share or extract knowledge.

Table 10: Sources of extracting knowledge

	Frequency	Percent	Valid Percent	Cumulative Percent
Conferences	7	7.0	7.0	7.0
workshop	11	11.0	11.0	18.0
Informal meetings	16	16.0	16.0	34.0
Brainstorming	18	18.0	18.0	52.0
Seminars	23	23.0	23.0	75.0
Presentations	25	25.0	25.0	100.0
Total	100	100.0	100.0	

On the basis of the analysis, it can be seen that the employees believe that organization extract their knowledge through presentations followed by seminars, brainstorming, informal meetings, workshop and conferences, so that they can enhance their productivity and efficiency through employee’s knowledge and innovations.

Table 11: Most important factor involved in enhancing employee performance using KM

Items	Frequency	Percent	Valid Percent	Cumulative Percent
Information management practices	13	13.0	13.0	13.0
Staff training and development	13	13.0	13.0	26.0
Delegation/participation	14	14.0	14.0	40.0
Resource Utilization	17	17.0	17.0	57.0
HRM practices	20	20.0	20.0	77.0
Technology	23	23.0	23.0	100.0
Total	100	100.0	100.0	

As per the analysis, the most important factor involved in enhancing employee performance using KM is technological factors i.e. Data warehouse, extranet, decision support system, web conferencing etc. followed by HRM practices, resource utilization, delegation, staff training and development and then information management.

Table 12: Most preferred technology implemented in the organization which to increase performance?

	Frequency	Percent	Valid Percent	Cumulative Percent
Intranet	7	7.0	7.0	7.0
Internet	8	8.0	8.0	15.0
Data warehouse	8	8.0	8.0	23.0
e-commerce	12	12.0	12.0	35.0
Automated management system	12	12.0	12.0	47.0
Knowledge management software	14	14.0	14.0	61.0
Data management system	17	17.0	17.0	78.0
Decision support system	22	22.0	22.0	100.0
Total	100	100.0	100.0	

As shown in Table 12, the most preferred technology is Decision support system(22%). , while the role of intranet (7.0%), internet (8%); Data warhouse (8%). With e-commerce, the performance has been indicated to have increased (12%). As e-commerce, the automated management system and knowledge management has been reflected as the preferred technology. However, the decision support system has emerged as the most preferred technological tool for knowledge management.

Table 13: Descriptive Analysis to analyze likert scale questions.

Descriptive Statistics				
	N	Minimum	Maximum	Mean
Do you believe that current status of knowledge management in your organization is upto the mark?	100	3	5	4.12
Do employees use relevant KM to increase performance in your Organization	100	3	5	4.21
Do you think your organization is best to create innovative knowledge through technologies and resources?	100	3	5	4.15
Do you think your organization is best in finding, documenting, and managing the knowledge they have?	100	3	5	4.14
Do you think your organization can gain knowledge from outside source such as products and consultants?	100	2	5	4.3
Do you think the new knowledge that you have will enhance your competitive advantage over peers which lead to promotion, rewards, recognition and opportunities?	100	3	5	4.24
Do you think you are able to present and share all the knowledge you possess which is relevant to your job?	100	3	5	4.42
Is the Knowledge management facility provided to you by government association?	100	1	5	3.43
Are you satisfied with the policies, procedures and knowledge management possess by your organization?	100	3	5	4.32
(list wise)	100			

interpretation: According to all the responses the employees are biased about their views regarding their organization.

1. Most of the employees believe that current status of knowledge management in their organization is up to the mark (Mean = 4.12)
2. Most of the employees use relevant KM to increase performance in their Organization. (Mean = 4.21)
3. The employees believed that their organization is best to create innovative knowledge through technologies and resources.(Mean = 4.15)
4. The employees believed that organization is best in finding, documenting, and managing the knowledge they have (Mean = 4.14)
5. The employees believed that their organization can gain knowledge from outside source such as products and consultants. (Mean = 4.15)
6. According to responses most of the employees feel that the knowledge gained will enhance the employee’s competitive advantage over heir peers which will lead to promotion, rewards, recognition and opportunities. (Mean = 4.3)
7. The respondents believed that most of them were able to present and share the knowledge based on skills. (Mean = 4.42)
8. The respondents believed that government’s association does not provide any kind of knowledge management facility.(Mean = 3.43)
9. The respondents believed that they are satisfied with the policies, procedures and knowledge management possess by their organization.(Mean = 4.32)

V. CONCLUSION AND RECOMMENDATION

On the basis of the analysis, it is concluded that the organization is at par in enhancing knowledge through customer interaction. Knowledge management enables them to deal with them closely; to solve their problems and providing them best service and delivery. Knowledge management facilitates transparency and flexibility in their organization, innovation, communication between management and employees, use of new technologies for technical improvements, sharing knowledge skills and abilities within as well as outside the organization, use of HRM practices such as recruitment, selection, rewards, recognitions, retirement benefits Incentives and performance appraisal. However, on the basis of the results, it is recommended that the management must strongly emphasize on linking knowledge management with promotions, rewards, recognition and opportunities (Mean =4.3), which will promote work culture and motivate the employees to make a rapid use of Knowledge Management to improve their performance. On the basis of the findings, it is recommended that the employees in the IT companies should use new and innovative technologies like data ware house to manage unstructured data into structured form.

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