Kavita Singh et al. International Journal of Institutional & Industrial Research ISSN: 2456-1274, Vol. 1, Issue 2, May-August 2016, pp.6-9

Fusion of IT with Knowledge Management

Kavita Singh[1], Dr. Shweta Hooda[2]

[1]Department of Management Studies, SRM University, Sonipat
[2]Department of Management Studies, BPSMV, Khanpur Kalan, Sonipat

Abstract: **Knowledge is a powerful tool to excel in the market. So, without knowledge it is impossible to get success. As a result, in the present scenario, knowledge is considered as one of the most important and determining assets in national as well as global organizations. IT has become most important mean to gain edge over competitors. So, this study aimed to examine Information Technology as an important tool in managing the knowledge in organizations.**
This research work is restricted to organizations in nearby areas (Delhi and Haryana States only) because of time constraints. For this study data is collected randomly from 100 members. Questionnaires were distributed and collected personally. Only the completely filled questionnaires were retained for analysis. Further, some of the members were also contacted personally to take their views regarding the implementation of IT for knowledge management.
IT may serve as a constructive tool to bring efficiency in the organisation if it is used to manage knowledge. The study findings of the study indicate that implementation of IT may help the organisations and their members to participate in information sharing and better decision- making to come over cut throat competition. Any organisations as well as its members can touch the heights by having proper implementation and use of IT.

Key words: **Effectiveness, knowledge management, IT.**

1. Introduction

Knowledge intensive industries have given rise to the concept "New Economy" because of the high escalation of information technology and internet. So there is growth in recognition of the importance of knowledge as a key resource for contemporary business surroundings. Peter Drucker named it as the emergence of global knowledge based society. This transition of Industrial Age to Information Age and Information Age to Knowledge Age can be considered as an important challenge in 21st Century.

'Knowledge Management (KM)' is not an easy game but it's an issue which requires technology-based exclusive solutions. In reality, knowledge management is not a new problem but it is an old challenge faced by large and small businesses. Knowledge Management and IT are mutually dependent which has become the backbone of all the processes, so there is a need to study the impact of IT in KM also.

As per Hanson and von Oetinger (2001), the important assets of organisation in today's knowledge society, the wealth of know-how, ideas and deferred findings, which are deeply rooted in their organizations for further innovation? In knowledge based economy, faculty members are to be considered as a major plus point in educational institutions. Peter Drucker (2000) had gained the attention because of his views i.e. "The foundation of any organization is not money or capital or technology- it's knowledge and education as rightly stated in human capital, by 2005 the single largest group in the in the labor force will be the knowledge workers" and which has come true and we can realize everywhere in every field.

Need of the hour is that all organizations must focus on how the required level of knowledge is to be build up and used to achieve the objectives with the optimum utilization of IT in it. Knowledge management is the only way to remain alive. If one is able to implement IT in KM it will work like anything. In 2003 it is remarked by Bill Gates (2003) that "Business is going to change in next ten years than it has in the last fifty".

1.1. Relationship between Data, Information, Knowledge and Wisdom

Data are nothing but the statements about reality or statements about other data. To explain these in sequence, Neil Fleming's observation can be considered as a basis which can be explained as follows:

- **Data**: Facts and figures which are raw in nature which leads to information.
- **Information** is associated with description, definition, or perspective (what, who, when, where) which further becomes knowledge.
- **Knowledge** stands for strategy, practice, method, or approach (how) and this approaches to wisdom.
- **Wisdom** includes principle, insight, moral, or archetype (why).

2. Concepts of Knowledge and IT

The concept of knowledge is not new. Nonaka and Takeeuchi (1995) point out that "knowledge should be well-thought as a vibrant human process of mitigating individual belief toward the 'truth'. Prusak and Davenport believes that "Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It comes and applied in the minds of knowers".

The term IT is nothing but it generally refers to electronic technologies for collecting, storing, processing and communicating information. Various tools of IT for KM are Intranets/Extranets, groupware, information retrieval tools, data analysis, data warehousing etc. assists in bringing efficiency and effectiveness.

2.1. Different Forms of Knowledge

There are two forms of knowledge as explicit and tacit knowledge. According to Nonaka and Takeuchi (1995), the knowledge which can be expressed in words and numbers and can be easily communicated and shared in the form of hard data, scientific formulae, codified procedures or universal principle is called explicit knowledge and the knowledge which is cannot be formulized and highly personal in nature and hard to formulize, so difficult to communicate to share with others in the organization is called as tacit knowledge. Furthermore, it is deeply rooted in an individual's action and comes with experience only. It is most valuable asset and is often correlated with power. But KM arena has IT background to exploit the potential of tacit knowledge.

2.2. Elements of Knowledge Management

The elements necessary for knowledge management are technology, human resource practices, organization structure and culture. They should be combined in such a way that the right knowledge may be explored and used at right time. Speh (1997) described knowledge management as the way in which organizations are attempting to capture, enhance and utilize the knowledge necessary for their survival.

2.3. Why IT for Knowledge Management?

Some of the factors which support knowledge management are:

- Money and profit: Makes money and increases profit.
- Bridges gap: Abridges the loss of intellectual capital from retiring, downsizing, attrition and leaving the organization.
- More research work: Results into more research work.
- More publications: Promote and facilitate higher number of publications.
- Knowledge sharing culture: Develops knowledge sharing culture within and outside the organizations.
- Framework of Knowledge Management: Assists to develop the framework of Knowledge Management System to share information quickly across geographically dispersed units to compete globally.
- Good Relations: Helps to build good relations with people across the world.

3. Hypotheses of the study

The firms which are properly implementing IT for knowledge management may be able to handle the cut throat competition in the present dynamic environment. In other words, we expect that IT leads to bring synergy in knowledge management. We, therefore, hypothesize,

$H_0$1: IT has no relationship with knowledge management.

$H_0$2: Knowledge Management does not lead to gain competitive edge.

3.1. Research Methodology

The main aim behind carrying this study is to understand IT as a tool to bring effectiveness in KM?

3.2. Objective of the study:

- To understand the impact of IT in Knowledge management and to know how knowledge management can help to gain an edge over the competitors.

4. Data Sample:

Data for this study was collected through questionnaire survey consisting of 12 statements. Sample for the present study constituted 135 members from various organisations of Haryana and Delhi. Altogether 110 responses were obtained. Only those responses were retained that in which all the questions had been responded so that there were no missing data. This process of selection led to final sample of 100 members.

5. Statistical Analysis:

The collected data was analyzed by finding the mean values of all the parameters used in the questionnaire and by using SPSS (Statistical Package for Social Sciences).

6. Results and Discussion

The modern age is the information age. Information is the root cause phenomenon that has led to man's progress. Various sources of information by using IT provide the services to the different industries. It plays a very important

role in managing knowledge. From table A, as p=0.04 which is less than 0.05 (accepted level of significance). So, null hypothesis of no correlation between IT and KM cannot be accepted. i.e. H_{01} is rejected. Value or r = 0.665, it means there is statistically moderate positive correlation exists between IT and knowledge management. Hence, we can say that usage of IT is useful in KM. KM with the help of IT is becoming a strategic corporate source.

Table A: Results of Correlations

(Effectiveness of IT and some motivating factors behind use of IT in KM)

Correlations			
		Effectiveness of IT	Motivating factors of using IT for KM
Effectiveness of IT	Pearson Correlation	1	.044
	Sig. (2-tailed)	.	.665
	N	100	100
motivating factors of using IT for KM	Pearson Correlation	.044	1
	Sig. (2-tailed)	.665	.
	N	100	100

The Knowledge is universally recognized as the most important asset an organization has (Henczel, 2000), so is Knowledge Management. It would seem that the ability to reason with managing knowledge is becoming the distinguishing factor between being recognized as a leader or being considered a follower. From the above table B, it is clear that the hypothesis $H_0(_2)$ can't be accepted as its value is <.05 (5% which is accepted level of significance.). The value of r = .668 which means there is positive correlation between Km and competitive edge.

Table B: Results of Correlations

(KM leads to enhanced research work and KM provides better prospects)

Correlations			
		KM leads to enhanced research publication	KM provides better prospects
KM leads to enhanced research publication	Pearson Correlation	1	-.043
	Sig. (2-tailed)	.	.668
	N	100	100
KM provides better prospects	Pearson Correlation	-.043	1
	Sig. (2-tailed)	.668	.
	N	100	100

7. Interpretation:

It is having positive correlation with KM. It means the companies which are implementing IT in KM will be better off and will have more opportunities to increase the business and profits. KM is having moderate positive correlation with Competitive edge. It means the organization will be able to beat the competition in the Industry and will have a better

The above findings suggest that KM will proved to a great boon to the industrial productivity by the assistance of IT as it has proved itself as a boon for the world. In order to manage the intangible assets, managers/administrators need to have a sound understanding of the underlying principles, policies and strategies that guide the successful institutionalization of KM. And to have better KM, one should also understand the role of IT for bringing effectiveness in the whole system.

Some other findings reveal that the usage of Internet per day is very high in all the places. The purpose behind using the IT services is the availability of combination of e-books, pleasure, research and accessing online databases.

side as compared to those who are not concentrating or not giving importance to KM. On the other hand, if lesser is the use of IT, lesser will be contribution to KM and hence one can't gain competitive edge which is must to survive and they can become a footnote in the history.

8. Discussion

Effectiveness of IT can be judged on the basis that 61 % of the respondents believe that IT leads to time, cost, and efforts saving.

Moreover, 70% of the persons believe that IT is meant for KM as both seems to be the two sides of the same coin. Existence of one requires existence of the other for better results. The factors which motivate respondents for IT and KM both are: to keep updated information, good networking, research and faster communication.

Among the search engines the highest ranking is given to Google by the respondents. Also maximum responses (82%) state that support of IT in KM is excellent which assists the businesses to keep a good position in the hot marketing

environment and will have a bright position as compared to others. KM leads to more research publications and KM provides better prospects for the growth of respondents as well as the organization by means of attending the development programmes (DP), attending workshops, organizing workshops, guiding research projects, and taking part in different research projects offered by different organizations like- UGC, DST etc.

8.1. Scope of KM and Implications for Employers

Creation of value and value addition in the organizations is possible by knowledge. Knowledge-intensive industries are more successful. The employers must recognize the importance of KM, IT and a combination of both for attaining the competitive edge.

Organisations which have access to research sites and e-journals, their members may excel in the field of research, which in turn will ultimately contribute to the success of organization. So, the organizations need to invest heavily for ensuring the availability of IT enabled services to its members by assisting and supporting them doing the research work, writing the papers, attending seminars and workshops, conferences besides organizing the FDP's and buying journals.

9. Conclusion

Knowledge management is emerging as a strategic parameter in the present dynamic environment. So the old, new and emerging organizations must understand the combined effect of IT and knowledge management to gain competitive edge.

References:

[1]. Arthur, W. B. "Increasing Returns and the New World of Business." Harvard Business Review, July-August 1996, 74(4), pp. 100-109.

[2]. Bair, J., (Sep 22, 1997), "Knowledge Management: The Era Of Shared Ideas," Forbes, 1(1) (The Future of IT Supplement), pp.28.

[3]. Biswas, Ch. Biswas & Saha Biswajit (2003), "Knowledge management: The emerging challenge for the library and information professionals", Library and Information Networking, 219-226.

[4]. Davenport, T.H. (1998), Some Principles of KM. (online available)

[5]. Garg, Babita, (2003), "Application of Knowledge management", Library and Information Networking, Library and Information Networking ,227-240.

[6]. Garg, M.C. (2001), "Knowledge Management: Emerging Perspective", 42(3), 374-379.

[7]. Gilmour, D. (2003), "How to fix Knowledge management", Harvard Business Review 81 (10), 16-19.

[8]. Hansen & Von, Oetinger, March (2003) "Introducing T-shaped managers: Knowledge management's Next Generation, Harvard Business Review, 79(3), 193-200.

[9]. Hamel, G. & Prahalad, C.K. (1994), Competing for the Future, Harvard Business School Press, Boston, MA.

[10]. Malhotra, Y. "From Information Management to Knowledge Management: Beyond the 'Hi-Tech

[11]. Hidebound' Systems," in K. Srikantaiah and M.E.D. Koenig (Eds.), Knowledge Management forthe Information Professional, Information Today, Inc., Medford, NJ, (in press).

[12]. Nithyanand, K., (2000),"Impact of information Technology on Library Personnel", 287-291.

[13]. Ojha, A.K.,(2001), "Gaining competitive advantage through managing knowledge", productivity 42(3), 380-392.

[14]. Naachimuthu, K.P., Spring (2009), "A Study on KM practices among various IT companies", Gurukul Business Review, Vol.5, 92-100.

[15]. Strassmann, P.A., (October 4, 1999), "The Knowledge Fuss," Computerworld.

[16]. Thakur, S.D., & Thakur, S., K., Dec (2003) "Knowledge Management : A growing Discipline", Library Herald, Vol 40 (4), 259-274.Von Krog, G., Nonaka, I. & Aben, M. (2000), "Making the most of your company's Knowledge a Strategic Framework. Long Range Planning, Vol. 34(1), 421-439.

[17]. http://www.kmmagazine.com/currentissue.asp

[18]. http://www.informationweek.com/news/showArticle.jhtml?articleID=166402095

[19]. http://www.accenture.com/Global/Research_and_Insights/Outlook/By_Alphabet/Knowledgevalue.htm

