
The Analysis of Implementation of Information Technology in Knowledge Management Framework

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Abstract: The global market condition and strategies of the organizations have been changing rapidly to cope the fluctuating circumstances of the business world. These changes are being taken place due to the satirical movement or the rapid innovation in almost every sector of the businesses regardless of the size and market capitalization of the businesses. Therefore, it is very necessary for the corporate houses to amalgamate the such technological advancement that have capabilities to meet the current demand of organization to improve the working conditions. The solution of this has stopped at the implementation of the IT based technology or the upgrade the existing technologies with the help of the IT. Thus, outcome of this has emerged as the integration of the knowledge management with the IT and this will assist the managers to reduce the production input, and at the same time increase the productivity and net profit to the organization and even, make the business management easy than ever. This new implementation has been studied in this paper with the implementation of the Knowledge Management System (KMS).

Keywords: Information Technology, Knowledge Management, Framework, Tool, Development.

INTRODUCTION

The rapid growth of information technology (IT) in recent years has made it easier for staff, clients, suppliers besides partners to collaborate when conducting their business purposes; besides, cross-functional partnerships in product expansion, Sales acumen, delivery and purchaser support have become feasible [1]. IT not only facilitates productive company processes, tasks and alliances in the workgroup, and successful commercial decision-making but transforms the way organizations perform. It is also clear that IT is a vital instrument for companies to gain an inexpensive edge and operational revolution.

The implementation outcome of the knowledge management has enhanced at a great margin only because of the amalgamation of the IT innovation in it. The KMS has proved to organize the business know how, business methodologies to be implemented, apart from this, KMS also helpful to maintain and sustain of the bilateral relationship amongst the different business leader to make a global touch to their businesses. The primary purpose of the KMS is to aware the workers and management about the process effectively and also efficiently implement the decide method into the real processing mechanism of the organization. The IT has a capability to process a large amount of the data more effectively and also able to fetch the required data at the right time at right place[2].



Fig.1: Knowledge Management Tool

The special framework of Citibank that identifies atypical expenditure trends in credit cards is another case in point, thus being capable to attentive consumers to the potential loss or misappropriation of their cards. If such information-oriented technical help were not available, organizations would not have a clear concept of knowledge management (KM). In facilitating the development as well as universalization of the field of information and in cumulative the speed of transferability, the maximum value of IT to KM lies [3]. Besides, we can retrieve and store information in individuals or groups using IT, which makes it possible to share this knowledge with other departments of the business associates around world. In addition, IT leads to knowledge addition or even to inspiration of new information.

A long-lasting modest benefit can only be achieved nowadays if enterprises grow into knowledge-creating businesses. Many enterprises, however, have encountered different types of problems in applying KMS. Although information is recorded in documents, it is very difficult to search for, retrieve, or review it, a problem that creates barriers to knowledge dissemination. Thus, in previous periods, whilst managers understood how significant KM was, it had been very difficult to effectively enforce it. Also, by applying IT, the value of a company can be improved.

For instance, many lodging house chains as well as travel corporations record discrete favorites, so that their favorite rooms or seats are automatically given to the customer in the future. In the current business environment, IT concepts are pervasive, but there are also certain intangible aspects to its definition. This research mainly measures IT as a method capable of handling, storing, and transmitting systemic information. It will help us in our efforts to make all workers of a company open to the information contained in the human brain or records. The preoccupation, development, prearrangement, storage, transfer as well as dissemination of information in the KM phase all rely on the assistance given by IT.

It was found out that the introduction of IT to KM's assistance affects the outcomes of the organization's information partnership. Some experts noted that some methods, such as machine learning, can be beneficial to an enterprise in extracting useful data from a database, especially when they are applied to areas such as advertising, customer service (CRM), including e-commerce [4]. Besides, it has also been proposed that both endogenous and exogenous information can be controlled successfully by the application of IT, as well as being able to increase the enterprise's diverse capabilities.

In deciding the success or failure of KMS implementation, IT, therefore, plays an imperative role. In the world of organizations, though, the principles of information encoding besides translation are not entirely new; on the contrary, training has been undertaken for years to encode growth curriculums, administrative policies, routines, procedures, report and instruction manuals, etc. Only by developments in IT can KM's development be given the impetus to speed up. The growth of KM has thus been closely linked to the technology of information in addition communication. It is therefore noticed that in the implementation of KMS, IT plays a major role.

REVIEW OF LITERATURE

Dalkir studied in his paper about the input of the knowledge management and also advocate further study and research work undertaken for the finding the prospectus of the knowledge management. Key them have used in this article are the knowledge as well as the knowledge management and both the term have been clearly defined in the article itself. Apart from these two terms, other terms that are frequently used with knowledge management are intellectual capital .best practices, lessons learned as well as value addition in the process. These all terms are also explained in the context of knowledge management and also highlight the key stage that has come during the implementation of the knowledge management in the production cycle or a service-based organization [1].

Phelps, Corey et al. revealed that a broad and increasing body of empirical studies shows that in understanding the mechanisms of knowledge formation, diffusion, diffusion, and usage, interpersonal interactions and the networks that such relationships represent are powerful. The scholars refer to such channels as networks of information. By undertaking this study and study of empirical literature reported on this subject to flourish, psychology, psychology, and economies journals, they develop knowledge of information networks on different levels. The authors create a systematic structure that organizes the literature of the network systems, and they use it to analyze current empirical studies within and across various disciplines and study levels. In scientific constructs and empirical outcomes, they later identified coherence and disagreement at and through levels and recognize emerging trends and potential areas for future study [4].

Nowacki, Robert et al. tell about the goal of the research is to study the scope of creative communication of data. It uses the idea of eight knowledge management systems and defines in an organizational sense three different categories of developments in knowledge management. It aims to check the effects of such creative initiatives. The research analyzed four dimensions of organizational effectiveness: productivity of companies, sales, the satisfaction of customers, and engagement of business partners. The study includes Poland's small, medium and large businesses. The key conclusion is that in the field of information management, the companies examined are little creative [5].

Understanding Difference Involving In Knowledge Management And Information Technology

The figure 1 has been showing a pyramid related to the implementation of the knowledge management in the small and big organizations. This pyramid is the result of the research work of the many domain expert and the professional, and they all done a rigorous job to reached a fruitful outcome of the implementation of the knowledge Management. This studies have focus on the gap of the knowledge management in the implementation of the KMS as a tool in the organizations. The gap of the KMS have been given discussed as:

1. The top management of the organization is very keen to know about the flaws of the organization and also investigate these as the point of the bottle neck in the process of the organizations.
2. The acquired results from the investigation have been implemented in the process to find out the better results for the organization overall.
3. The final decision for the implementation of the KMS practices has been reserved with the top management and they have a detail discussion with other associates.
4. The existing practices and the practices to be implemented in the organization have been analyzed closely to find out the existing gap.
5. The existing gap has a clue about the competitiveness of the organization with the existing players.

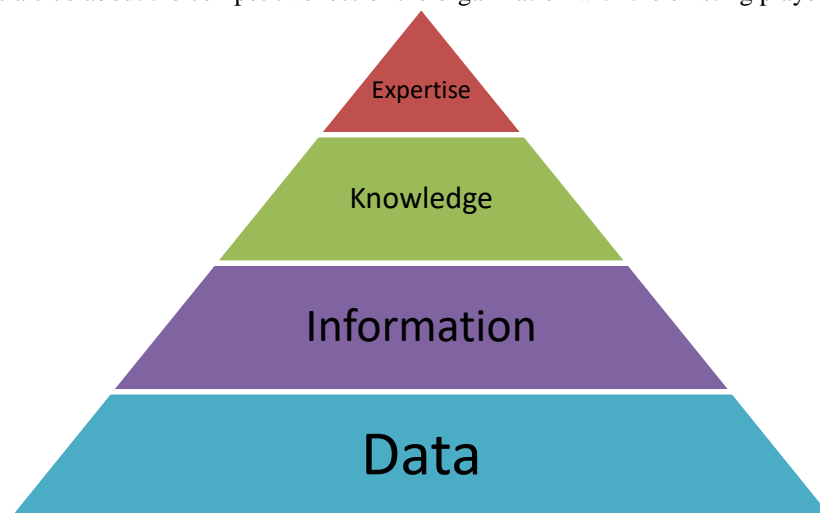


Fig.2: Knowledge Hierarchy

Figure 2 shows the knowledge hierarchy, also, explanations were addressed to determine the authenticity of that gaps, while several important methods were planned to bond these gaps, which could help as valuable guides for businesses in KMS implementation procedure. As a consequence, IT has been reported to be one of most critical variables affecting the scales of these differences. Therefore, it is critical for a business to have well-developed technology that is available and that makes it simple to exploit KM [6]. Then, this study discusses the functions and consequences of IT in implementing KMS for organizations, based on the concept of the five gaps in KMS. The relations between each difference and IT are explained and evaluated by analysis of the literature, expert interviews and questionnaire analyses. In addition, this learning also explores in what way to increase efficiency besides effectiveness of KMS implementation through suitable IT.

Knowledge Management As A Tool

Managers, analysts, IT experts, and consumers believe that also finally found out what builds organizations tick: information—the intangible force that pushes the most profitable businesses to standard market prices that far outweigh their comparative balance sheet's tangible assets. What is the source of this knowledge? The economic balance sheet, which is built on tangible assets like capital as well as equity, does not tell us what we need to know [7]. Yet, as traders and investors plan to increase a company's market value, they invest in the company's unique know-how in order to generate potential cash flows. At its most basic level, the information revolution in administrative thought is about purifying shareholder instructions of thumb into strategies and procedures for organizational information auditing.

This fresh opinion of companies must encourage stockholders to brand their decisions in a more informed manner by relying on a comprehensive, systematic basis. Moreover, managers should be helped to recognize the real faintness and assets of the governments they run as well as set urgencies so that they can grow. The knowledge revolution has thus suggested placing information on the equilibrium sheet in the arrangement of imperceptible assets that account for the intelligent resources of organizations. These intangibles include the competence of the employees; the internal structure of the companies, by virtue of their copyrights, models,

principles and procedures, their administrative framework and IT substructure; their outside structure, by virtue of their customer and supplier relationships, their product names, logos, image as well as credibility.

Some businesses, including the well-known Skandia, a Swedish financial services company, have begun to establish information checking techniques and publish an analytical balance sheet. Because there's more to it than that. Concerns regarding earlier, more methodological models to knowledge, ranging from north - western to quantum computing, the knowledge revolution has raised consciousness that structural knowledge is fundamentally fluid besides elusive, indissolubly connected with individuals to the point where people frequently take it with them when they leave[8]. In precise, we consume educated mean to differentiate between clear knowledge as well as tacit information.

Explicit information is structured data that could be wrapped as data and contained in an organization's documents: papers, articles, handbooks, patents, photographs, imageries, video, software, etc. Tacit data is personal information rooted in the involvement of individuals and is communicated and swapped by direct communication between the eyes. Most straightforwardly and efficiently, implicit information can be conveyed. Explicit knowledge learning, on the other hand, is indirect: it necessity be de-coded as well as re-coded into one's psychological templates, where it is then internalized as implicit knowledge. These types of information are comparable two flanks of the similar coin as well as correspondingly important to an organization's overall knowledge.

Tacit knowledge or the information is the form of the information that have been using like a practical knowledge but it is also a fact that this knowledge has been kept a side in the past and not being used in the real process or methods frequently. But, it has been understood by the management of the organization that tacit knowledge cannot be ignore for a long. The tacit knowledge has been proved to the greatest use when the management shows an intention to cost reduction by laying off the people[9]. Explicit knowledge determines an organization's personality, competencies, and intellectual properties regardless of its workers; as a result, it is organizational knowledge extraordinaire, but it could only evolve and maintain itself with a rich history of conceptual frameworks.

Indeed, the other major revelation of information revolution is this humble observation: information that doesn't stream doesn't evolve, and it gradually ages besides becomes redundant and useless, much as money that's also saved but not capitalized loses its value until it is meaningless. Information that flows, on the other hand, creates new knowledge as it is communicated, gained, and exchanged. Existing important information could be prolonged by socialization in communities of interest and practice, and new important information can be created by learning in addition to training that internalizes explicit knowledge.

When new best practices are chosen from an organization's existing work practices, for example, explicit knowledge could be created by the reformation of tacit knowledge. Current explicit information can be integrated to aid problem-solving as well as decision-making, such as by using data analysis techniques to discover concrete data relationships within organizational databases. Nonaka and Takeuchi have formalized these different stages of the information life-cycle—socialization, internalization, externalization, in addition to combination—in the diagram in Figure 3. Information management, in this context, can be described as the environmental management that allows information to flow across all stages of its life cycle.

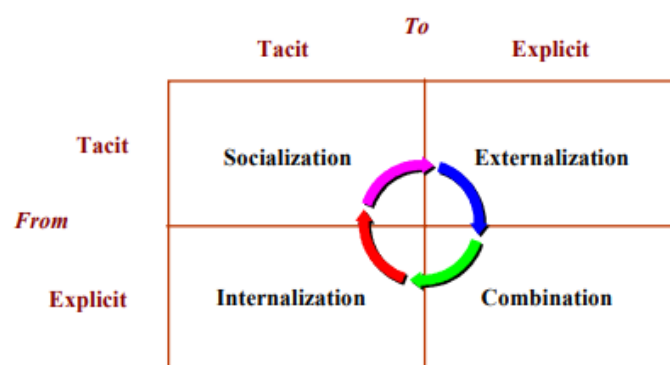


Fig.3: Knowledge Conversion as proposed by Nonaka and Takeuchi (1995)

Information Technology for Knowledge Management

The application of information technology in organizational learning is still a hot topic of discussion. On the one extreme, information technology is commonly used in industries and thus functions as a natural tool for knowledge transfer. According to a recent study by both the American Productivity and Performance Center, organizations that embark on knowledge management initiatives usually depend on the establishment of an efficient IT infrastructure to achieve their goals. Leading information management scholars have cautioned at

the other end of the continuum about the mindset that pushes management in the direction of heavy investments in IT, probably at the cost of human capital reserves.

The danger, according to this perspective, is that IT-driven information treatment plans would end up objectifying through hardening knowledge into stationary, inert data, ignoring tacit knowledge entirely [10]. Knowledge management policies of this type would transport back the ghost of the disreputable, and re-engineering days, when the business motto was “More IT, fewer people!”; Nowadays, technological developments are as much about establishing direct bonds between individuals including applications like e-mail, chat rooms, instant messaging, and other types of deployment tool as they are around preserving data in the database and certain other kinds of repositories.

CONCLUSION

The KMS practices can be fruitfully as tools for exchanging best observation and maintaining the intelligent capital of establishments in the perspective of knowledge management. Generally speaking, to scale up knowledge management programmers, investment in IT appears to be inevitable. A mixture of two factors is likely to be the better means of relating information knowledge with knowledge management: understanding of the limitations of IT and any IT implementation would not accomplish effectively if it is not followed by a worldwide cultural alteration towards knowledge standards; on other side, the obtainability of material that has knowledge values.

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