

The Factors Influencing Effectiveness of Knowledge Management (KM) in Organizations

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Abstract

An effort has been made here to identify the various factors influencing the knowledge management effectiveness in the organizations through literature survey. The factors identified are: organizational structure, organizational strategy, organizational technology, organizational culture, leadership and security systems. The factor organizational structure impacts the ways in which organizations carry out their operations and affects the creation of knowledge and sharing of knowledge amongst the employees. The organizational strategy helps in communicating the organizational targets to the employees and the ways in which it is to be attained in the competitive surroundings. The factor organizational technology improves the cost-effectiveness, efficiency, and reliability in the organization. The organizational culture is a powerful factor having innovative potential for sustaining the innovative culture. The important factor leadership and leadership characteristics are the catalyst having traits like, mentoring, providing trust, inspiring, setting examples, instilling a creative and cohesive culture, knowledge sharing, listening, learning and teaching. The knowledge management system should also incorporate the factor, like security measures for preventing any unauthorized access or dissemination of information in an unauthorized way. The organizations can concentrate on these factors to improve the knowledge management effectiveness in the organizations.

Keywords: Organizational Structure, Organizational Strategy, Organizational Technology, Organizational Culture, Leadership, Security Systems, Knowledge Management, KM effectiveness,

Introduction

The most important resource in the age of information is knowledge. The management of knowledge is most important for the success of an organization. There is a need to focus on knowledge management (KM) for the development of a culture which is knowledge-friendly in the social environment and that should be supported by appropriate technologies and methods (Hulse, Galland & Borsato, 2012).

The authors stated that the knowledge itself is the most valuable resource for an organization. KM framework should be based on the concept that it should be created by the people themselves (Hulse, et al. 2012).

The methodology used in knowledge management is gathering, organizing, and disseminating information in the systematic way. It consists of tools and processes for capturing and sharing the knowledge and use individuals' knowledge within the organization most effectively. Knowledge management is sharing of information more freely, so that the organization derives maximum benefit from such openness.

Knowledge workers of an organization utilize their skills in knowledge handling, with the available knowledge at their disposal, to perform the assortment of activities in knowledge by selecting knowledge, acquiring knowledge, internalizing knowledge, externalizing knowledge, and also generating knowledge.

An organization's knowledge activity may be carried out by a computer-based processor or a processor human-based, or a hybrid processor. The objective of the Knowledge Management is to ensure the availability of right knowledge to the right processors, in right representations and at right times, to perform the knowledge activities.

Direct returns are achieved by KM in two dimensions of organizational performance: (i) projection and (ii) learning. Learning and projection help in organization's innovations. For bringing the ideas to market, the management of knowledge is inseparable from the innovation process. The managers view innovation as the greatest payoff for knowledge management, even though KM efforts are generally concentrating on achievement of productivity gains.

For organizational efficiency, KM is an important tool and efficient means for addressing economic issues. Attainment of knowledge management effectiveness can lead to success of organizational projects.

Factors influencing KM effectiveness in organisations

The important factors influencing Knowledge Management effectiveness in the organizations are: Organizational Structure, Organizational Strategy, Organizational Technology, Organizational Culture, Leadership and Security Systems in organizations.

The influence of organizational structure on KM effectiveness

The organizational structure impacts the ways in which organizations carry out their operations and while doing, affects the creation of knowledge and sharing of knowledge amongst employees (Gan, Y, 2006).

The organization structure which is hierarchical in nature affects the individuals with whom they frequently interact, and also likely to affect the transfer of knowledge from one to other. People are the important elements in creation of organizational knowledge and also in creating and sharing knowledge (Wei, 2006).

People in the Organization are the true agents where the intangible and tangible assets are created by human action and the continued existence of these depend ultimately on the people (Erick, 2009).

Any organizational structure portrays the type of authority, roles & responsibilities, and relations of different levels in the organization. It demonstrates how all these are controlled & allocated and how the information is transferred within the management levels (Business Dictionary, 2013).

The decentralized organization helps in internal interaction and inventiveness of higher levels and these positively contribute to the KM effectiveness (Khandwalla, 1977).

The influence of organizational strategy on KM effectiveness

Organizational Strategy helps in communicating the organizational targets and ways of its attainment to the competitive surroundings (Daft, 1995). Organizational approach (proactive approach, investigation, and defensiveness) optimistically links to the knowledge management and organizational efficiency. It

thereby helps us understand that there is a positive influence of Organizational Strategy on organizational efficiency, knowledge management and its usefulness (Grant,1996).

The strategy helps in clarifying which KM process or processes, would help to achieve the most important value for the company? With very few resources, the decision of selecting the right option from the available options becomes difficult (Knowledge Management Strategy,2022).

A successful KM strategy should possess the following components:

1. **An Inventory of available knowledge resources** – There must be infrastructure capital, social capital, and knowledge capital.
2. **A description of knowledge-based business issues** – Need for innovation, need to address information overload, need for collaboration, and need to level performance variance.
3. **A stated business strategy and objectives** – It must have mission or vision statement, services or products, distribution or delivery channels, characterization of regulatory environment and target customers.
4. **A research of suggested knowledge control** – Facts that investigate what is the usage of the knowledge and knowledge related objects, data composition of knowledge management ventures which can be undertaken with the intention of increasing the business acumen and ROI.

The strategy for sharing of knowledge shows a collective visioning as to how sharing of knowledge can improve organizational performance. There should be consensus by the senior management that the action involved in sharing of knowledge will be pursued. There should a set of decisions about the knowledge management variety that the organization will pursue, including:

(a) Will knowledge be shared? (b) Why should it be shared? (c) How would it be shared? (d) What part of it would be shared? (e) With whom should it be shared? (Denning, 2021).

The influence of organizational technology on knowledge management effectiveness

Technological advances have contributed to the KM growth (McInerney, 2002). KM has grown as technological systems and improved the cost-effectiveness, efficiency, and reliability (Schneider, 2009). Organizational knowledge can be a utility which could give the right direction to alteration of the degree of knowledge between and within clear and unspecified forms and the digital skills would help to strategize, change, and generate KM solutions as per the model of the author (Nonaka, 1994).

Information technology (IT) accelerates the knowledge transfer and helps knowledge flow through communities and networks (Davenport & Prusak, 1998). IT helps the available work practices and IT strategy to enhance effectiveness. If ICT is used properly, its potential greatly improves knowledge access and combines it. Organizational Technology: IT and ICT provides positive influence on Knowledge Management Effectiveness. There is a need to identify appropriate strategies, processes, methods, and tools to be utilized (Egbu & Botterill, 2002).

As stated by the author, the building of knowledge depends on information technology. To build capabilities for knowledge sharing, there is a need for organization to develop an infrastructure which facilitates different types of knowledge and communication (Kim & Lee, 2004). The building of knowledge depends on IT (Chouride, Longbottom & Murphy, 2003).

A study conducted by American Productivity & Quality Center state that organizations, depend on achieving their knowledge management goals by creating appropriate infrastructure (AP&QC, 1997).

To scale up knowledge management projects, there is a need to invest in IT. To apply information

technology to knowledge management, two factors are to be considered: (i) the awareness of information technology limits and (ii) the available information technologies that have been specifically designed for the knowledge management (Wolf & Reimer, 1996).

The influence of organizational culture on KM effectiveness

The effective KM is the formation of traditions and information-based ideals that motivate people for exchanging knowledge. The traditions and organizational principles have an important impact on the KM effectiveness (Egbu, 2004).

Organizational culture is a powerful factor having innovative potential for sustaining the innovative culture (Ahmed, 1998). Organizational culture is a critical determinant for enabling flow of knowledge within an organization. It allows members of an organization to manage, acquire, share, and create knowledge (Islam, Mahtab, & Ahmad, 2008).

For nurturing the innovative culture, there is a need for organizations to develop an environment that is conducive for members to contribute (Beck, 2004). Organization's innovativeness is the openness to new ideas of a company's culture (Hurley & Hult, 1998).

A creative environment supports the attitude and action of an organization to make people comfortable and it represents the cultural element of an organization (Razak, Ali, Sivadasan, & Vazehi, 2009).

The author has mentioned the need to understand the cultural aspect of an organization for understanding innovation (Jaskyte, 2004). Culture has been considered as an important determinant or backbone to manage knowledge for innovation and knowledge management in an organization (Dasgupta & Gupta, 2009).

study found that organization culture is one major factor promoting knowledge management practices in organizations. The cultural factors as follows give impact to:

1. Shared Vision;
2. Sense of competence and confidence;
3. Willingness for sharing knowledge that includes enjoyment to assist others and self-efficacy of knowledge;
4. Relationship in Organization that includes courage, active empathy, mutual trust, lenient judgment towards participants in team, accessing help from other team members;
5. Culture of participatory nature that includes encouragement of participation, encouragement for sharing information, involvement in decision making and open communication channels;
6. Cooperation and cross-functional communication which makes people's involvement in the business process;
7. Factors relating to human resource that includes learning culture - promoting innovation, through job rotation, delegation of responsibility, interdivisional teams and employee satisfaction (Dasgupta & Gupta, 2009).

There should be high-level of trust amongst the employees within the organizations for transfer of knowledge in the organizations (Goh, 2002). The trust affects the sharing of knowledge across and within the teams in the organizations. When there is more trust among the employees, there will be greater possibility that people would interact and share the knowledge among them. In organizations where trust is there, openness is valued, the culture would allow making open decisions, information would be widely available and accessible to employees and treatment and rewards would be given for shared success (Stoddart, L. 2001).

Another important factor pointed out by the author, is that the culture should encourage problem seeking and solving. The innovative culture should encourage employees to look for problems to improve the organization (Goh,1998).

The authors have found that cultural traits are associated with organizational effectiveness. The organization should adapt and be capable to absorb internal changes based on external conditions. The organizational beliefs and norms should be able to support, receive and interpret signals received from the environment and translate them into structural and behavioral changes. The sense of vision and mission should be created in the organization. The mission of an organization provides influences on the functioning of organization (Denison & Mishra,1995).

The organizational vision drives the change in organizational culture and direct efforts of employees towards innovative work practices and outcomes (Mumford, Scott, Gaddis & Strange, 2002). With the help of direct connection between vision and mission, active participation of employees can be achieved, that will motivate them to investigate their daily work in the larger context, and they will get encouragement towards their work purpose (Johannessen, Olsen, & Olaisen).

Organizational culture is considered as an important contributor for success of knowledge management, as it constitutes an important source for achieving the objectives of the organization and helps organization for competitive advantage (De Long & Fahey, 2000).

The authors pointed out that it is necessary to enhance the organizational competitive capacity with help of development of a "strong" culture which supports organizational competitive strategy. Culture is a pattern of attitudes, values, beliefs and norms that influences the organizational behavior (De Long & Fahey, 2000).

The influence of leadership in KM effectiveness

The important characteristics of leadership is that it is a catalyst with traits, such as, mentoring, engendering trust, inspiring, setting examples, instilling a creative and cohesive culture, knowledge sharing, listening, learning and teaching.

For KM effectiveness, conditions are created by the trained leader which helps participants to cultivate and exercise their knowledge manipulation skills and contribute to the knowledge resources to the pool of knowledge in the organizations and have easy access to the relevant knowledge resources. For success of KM initiatives, it is required that leaders are developed at all levels of functionality and accountability.

In the book titled, 'The Knowledge Executive' for managing knowledge in organizations, the leadership role has been highlighted by the author excellently. He has mentioned the necessity for use of communities of people, teams, and other networks through which the leaders can manage knowledge and information. The knowledge and information are managed by leader through two routes - social networks and technology (Cleveland, 1985).

If knowledge management does not permeate at the top and all levels of the organization, the knowledge management programs will not progress and be effective. In every organization, the leaders should set examples for others, they have direct impact on how the organizations should deal and approach with knowledge management practices and processes (DeTienne, Dyer, Hoopes & Harris, 2004).

The authors have pointed out that it is important for the CEO to be involved in knowledge-sharing processes, while leaders at all levels of organization also have important and unique role in managing knowledge. If the boss takes knowledge management seriously, then the rest of the organization will

follow automatically (Kluge, Stein& Licht, 2001).

The author has stated that even organizations with highly effective incentive programs and promising cultures, will not succeed, if responsible and dedicated managers are not there (Stewart, 1997). The important responsibility of top leadership in the organization for the process of knowledge management, is to motivate all the employees and provide them with developmental avenues and equal opportunities, and scientifically measure and reward those behaviors and attitudes and performances, that are needed for effective knowledge management (Beckman,1999).

The author has stated that the allotment of resources will depend upon the commitment of high-level executives and the allotment of time by them for the members of the organization to conduct sharing and creation of knowledge for the KM programs (Von Krogh, 1998). The authors have stated that there should be ongoing upper-level management support and it should be delivered in the practical manner (Davenport, De Long & Beers, 1998) and (Storey and Barnett, 2000).

The author who believes that the middle managers religiously mediate in-between ‘what ought to be the mindset of the top’ and ‘what is the mindset of the front-line employees. There is a need for trained middle level managers who must play a critical role in eliminating the gaps that may be there between front-line workers and top-level managers (Takeuchi, 2001).

The goal of organization to create and manage knowledge for competitive advantage is facilitated by the leadership practices that are in place. The authors have stated that the organizational success depends on leadership and the success of leadership depends upon the roles assigned to them and how they performed the roles (Asoh, Belardo & Neilson, 2002).

The influence of security in KM effectiveness

Security has become one of the important issues around KMS. KMS should incorporate suitable security measures for preventing unauthorized access or dissemination of information unauthorizedly. To remain competitive, one should be able to acquire information that one may require; at the same time, one should be able to safeguard available information. Organization must balance advantages of openness against the risks involved and should maximize electronic communication efficiency without giving any scope to the intruders.

One should integrate defense and offense with comprehensive strategy and there is a need to integrate security imperatives and intelligence with knowledge management processes and strategies. As there is intranet and Web access, it is important to protect corporate knowledge which is critical, as many people will have access to the corporate knowledge (Barth, 2001).

There should be effective mechanisms to secure knowledge, information and data, including its applications (Thuraisingham, 2004). The security methods for KM systems should have authentication or passwords, access control systems, intrusion-detection systems or cryptography programs. There is insider threat (to protect from malicious insiders), protection of infrastructure (to secure from subversive attacks), to establish correct policies, correctness in databases, refining and enforcing (Thuraisingham, Chadwick, Olivier, Samarati, & Sharpston, 2002).

Knowledge management systems are diverse, providing increased access to organizational knowledge, helping enterprise to be more agile, effective, and connected. While using KM system, there should be balance between knowledge-enabled and knowledge-secure (Cohen, 2003).

Three important aspects in secure knowledge management are as follows: secure content management (SCM), digital-rights management (DRM) and secure languages.

Three Cs as follows can represent secure knowledge-management (SKM) systems: content, collaboration, and communication. SKM systems can act as the gateway of the repository of intellectual content which resides in an organization. SKM systems can provide access to knowledge which resides in more than one machine in an organization or in more than one organization for collaboration. To transfer information safely, secure languages can be utilized. Digital-rights management can be important in transfer of knowledge across organizations. Identity management and access control can play a critical role in securing KM systems.

Organizations are required to use secure languages to collaborate with one another and communicate securely. To enhance the security of knowledge-management systems, the secure languages can be used. By managing identity and access control, security-assertion markup language (SAML) can be used to secure knowledge management system (KMS) from outsider and insider threat. SAML is an extensible markup language (XML) for exchanging security information (Cohen, 2003). Expression of security is in the form of assertions about subjects in SAML. SAML demonstrates how to describe users, identifies what data is required to be transferred and describes the process for receiving and sending authorized data (Cohen, 2003).

Access control and password management provided by SAML is the framework for utilizing 'single sign-on' mechanism, when authentication is required to be shared by multiple systems.

Conclusion

Organizations those are successful have improved profitability, productivity, and rapid response to needs of customer with reduced costs. Organizations those are successful have more manpower with knowledge and the manpower can succeed in dealing with competitive environment, able to change, use technological tools, like - knowledge based, document management systems, collaboration tools and intelligent systems. The needs of users and staff are taken care in their knowledge management system (Drucker, 1999). Sharing knowledge by staff without fear of prosecution and punishment for making mistakes. Appropriate systems are there for the employees and management respects the comments and views of staff. To improve the skills of staff, training is made available for them, like, problem solving and thinking. There are communication networks and suitable systems between the team and the staff

In today's world, the Número uno organization is the one which has the maximum relevant information as compared to its competitors. For effective KM, right use of resources and tools boosts innovation and complete organizational performance. For successful knowledge management in the organization, one should see it holistically. Proper attention should be paid to leadership, organizational structure, organizational strategy, organizational technology, organizational culture, and security systems.

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