

The Role of Technology in Knowledge Management

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Abstract

Knowledge management is a rising territory which is picking up enthusiasm by both industry and government. As we push toward building knowledge associations, Knowledge management the executives will assume an essential part towards the achievement of changing individual information into authoritative knowledge. The technology assumes a significant function to help the knowledge management executive's measures like the cycles of procurement, change, sharing, usage, and application. The partners of advanced education organizations ought to see the function of data innovation in executing the Knowledge management measures effectively. This paper focuses on the main objective of understanding the importance of various technologies in Knowledge management and highlights the technology to achieve a successful Knowledge management. The secondary data collected for the purpose will be interpreted to draw a meaningful conclusion.

Keywords: *knowledge management tools, knowledge management system, Artificial intelligence, Cloud, Big Data.*

Introduction

Knowledge management is an emerging area which is gaining interest by both industry and government. As we move toward building knowledge organizations, knowledge management will play a fundamental role towards the success of transforming individual knowledge into organizational knowledge. (Liebowitz, J.,(2001) Knowledge acquisition includes complex intellectual processes: recognition, learning, correspondence, affiliation, and reasoning. The term knowledge is additionally used to mean the pure comprehension of a subject with the capacity to utilize it for a particular reason. By definition, knowledge can be partitioned into two sorts: inferred and express knowledge (Jayashri, N., & Kalaiselvi, K.,2018) and Knowledge Management (KM) is getting competitive advantage. Development and sharing of knowledge increase the innovative ability of employees. KM is the creation and application of new knowledge for achieving additional value.The process starts from the individual level and then proceeds towards the organizational level.(Arora, J.,2020) and Information technology and knowledge management are two important matters in the modern organizations of this era. The biggest factor in the success of knowledge management in the present era is the potential that information technology creates for it.(S.Mirakbari, A,et al,2019)

The organizational structure can play a mediator role in the relationship between information technology and strategic knowledge management. On the other hand, information technology, as a moderator variable,can promote the positive effects of organizational structure on strategic knowledge management(Akbari, P., et al,2015) and Knowledge Management (KM) has become the key factor for the success of all organizations. ICTs are technologies which facilitate the management to share knowledge and information. Thus, ICTs have a prominent role in Knowledge Management initiatives. In the current business environment, the implementation of Knowledge Management projects has become easier with

the help of technological tools (Subashini R., et al, 2011) The main goal of knowledge management is to improve an organization's efficiency and save knowledge within the company.
(<https://www.valamis.com/hub/knowledge-management>)

Review of literature

Revilla, E et al (2007) Product development is a knowledge intensive process. It is widely recognized as a mechanism that produces firms to learn, to enter new technological areas, and to deal more effectively with market uncertainty. Since technology management has become ingrained within the field of knowledge management, product development has been viewed and studied from a knowledge management perspective. Jack, A et al (2016) This study investigated the influence of Knowledge Management (KM) systems on Sustainable Competitive Advantage (SCA) amongst Humanitarian Agencies-HAs through the use of IT systems as an enabler of knowledge management. The objective of study was to examine how information technology systems affect sustainable competitive advantage in humanitarian agencies - HAs - in Kenya.

Anderton, A., & Watson, K.(2018) Evaluating the relationship between managing knowledge and innovation are emerging findings associated with the creation or modification of products, goods, or services. The effects of knowledge sharing should be managed in a manner that would motivate workers to share knowledge during the technology transfer process. Panir, M, et al(2019) Findings reveal that there are huge unexplored areas where ICT can be utilized for the creation, storage and dissemination of knowledge. By reducing time, cost & movement ICT-utilized KM can promote ICT-led innovation. The main barrier of ICT-led KM initiatives is the lack of awareness of the government officials. This study is an extension of the previous findings. It contributes significantly to a better understanding of ICT's integration with KM and innovation. It suggests that one of the core functions of ICT in the public offices is to manage knowledge.

Gunjal, B. (2019) This article gives a brief introduction about Knowledge Management (KM), its need, definition, components, KM assets, challenges and processes of KM initiative at any organisation. It also provides a narration on how the KM initiative has been adopted at ICICI OneSource, to support the achievement of its Business Process Outsourcing objectives. Leonardi, P. M. and Treem, J. W(2012) This article explores why it is often difficult for organizations to capture, store, and share employees' individually held expertise. Drawing on studies of the social construction of expertise and theories of transactive memory systems and self-presentation in computer-mediated environments, we argue that knowledge management technologies should be viewed both as stages upon which motivated individuals enact performances of expertise, and as containers that provide visible, communal displays of the expertise of organizational members. Vij, S., and Sharma, D (2011) Based on the review of literature, this study identifies the knowledge management practices in organizational context. A Knowledge Management Orientation Model has been conceptualized and it is suggested that orientation of organisations toward knowledge management be assessed in terms of four variables – 'innovation,' 'learning,' 'knowledge sharing' and 'information technology.'

Methods of Data Collection

Various information has been collected by referring books, newspaper articles, research reports, research papers, and websites. Data collection has been done using Secondary methods.

Knowledge management (KM)

Knowledge management (KM) is additionally a multidisciplinary field. KM includes brain research, epistemology, and intellectual science. The objectives of KM are to empower individuals and associations

to team up, share, make, utilize and reuse information. Understanding this KM is utilized to improve execution, increment advancement and grow what we know both from an individual and hierarchical point of view.

Managing knowledge nowadays has become an important ingredient in enhancing and promoting the efficient role of knowledge within organizations. (Hamad, W. B, 1970) and Knowledge management (KM) is a process that transforms individual knowledge into organizational knowledge. Knowledge is information that is meaningful in cognitive forms such as understanding, awareness and ability. It is typically acquired by experience, information consumption, experimentation and thought processes such as imagination and critical thinking (Sefollahi, N., 2018)

Figure 1: Knowledge management



Source: <https://www.ictinnovations.com/open-source-knowledge-management-applications>

A successful knowledge management program will consider these five areas:

- A. **People:** Your program should expand the capacity of people inside the association to impact others with their insight.
- B. **Processes:** The cycles you set up ought to incorporate prescribed procedures and administration for the effective and exact distinguishing proof, the board and scattering of information.
- C. **Technology:** The innovation you pick should upgrade how you design and use instruments and robotization to empower information executives.
- D. **Structure:** Hierarchical structures ought to change to encourage and support cross-discipline mindfulness and skill.
- E. **Culture:** Your association ought to build up and develop an information sharing, information driven culture for long haul achievement.

Technology in Knowledge Management

Knowledge Management Technologies likewise uphold information the board frameworks and advantage from the information the executive's foundation, particularly the data innovation foundation. KM advancements establish a key part of KM frameworks.

A. Information Communication Technology and Knowledge Management

Innovation plays a fundamental and basic function in the field of information executives. Innovation is the device that empowers information the board to finish its various cycles and offer

its types of assistance to the intended interest group. There is a major cover in the idea of the connection between information on the board and innovation, particularly Information and Communications Technology. The unmistakable and careful comprehension of the part of innovation in the knowledge management (KM) field empowers you to utilize the fitting advancements in this field effectively and all the more productively.

ICT tools need to support this approach, helping people develop appropriate or alternative scenarios and improving the accessibility of information and knowledge for people with different cultural, social, or educational backgrounds(Velden, M. V,2002) In the current business condition, the usage of Knowledge Management ventures has gotten simpler with the assistance of innovative apparatuses. The estimation of Knowledge Management is more when made accessible to the perfect individuals at the perfect time. In this manner, information sharing is encouraged through data and correspondence innovations including PCs, phones, email, information bases, information mining frameworks, web indexes, video-conferencing hardware, and some more. The motivation behind this investigation is to recognize the critical function of data and information and communication technologies (ICTs) in Knowledge Management (KM) activities that lead to hierarchical adequacy.

B. Artificial intelligence in knowledge management

KM and AI at its core is about knowledge. AI provides the mechanisms to enable machines to learn. AI allows machines to acquire process and use knowledge to perform tasks and to unlock knowledge that can be delivered to humans to improve the decision-making process.

C. Cloud computing in knowledge management

Making the knowledge obtainable, as well as manageable in the virtual form, cloud computing offers a piece of internet space and provides practical management tools(Bhatia, S., & Bhatia, S,2016) and Cloud computing technologie are having a disruptive impact on many aspects of organizations' lives. One of those aspects is in the area of knowledge management (KM), traditionally reserved for well-endowed organizations. Cloud computing technologie are proving to be empowering agents for the implementation of KM projects (Sultan, N,2012)

D. Internet of Things in knowledge management

New disruptive technologies in the context of the Internet of Things (IoT), especially, are changing the manner in which knowledge is managed within organizations, calling for a new and inventive knowledge management system and an open approach, to foster knowledge flows. This pattern expectedly should also enhance the development of internal knowledge management capacity, which in turn is a prerequisite of the firm's innovativeness.

E. Cyber security In knowledge management

Knowledge management (KM) plays important roles in cyber security. This study collects five real-life cases of good practices of KM for the domain of cyber security in businessorganizations.(<https://www.tandfonline.com/doi/abs/10.1080/08874417.2019.1571458?journalCode=ucis20>) and Cyber security is a dynamic knowledge environment, where attracting talented people is paramount. However, current initiatives do not always use mechanisms able to search for suited individuals. Approaching cyber security as an organization can help to manage capabilities and improve domain-oriented talent discovery (M. Fontenele and L. Sun, 2016)

Conclusion

Innovation is the instrument that empowers knowledge management the board to finish its different tasks and offers its types of assistance to the intended interest groups and accomplishes its objectives. As innovation creates, the more noteworthy the chance and adequacy of information the executives in accomplishing its objectives.

Knowledge management contains various cycles and undertakings, and each cycle needs fitting innovation and apparatuses to accomplish its objectives. Knowing the job innovation plays in the field of information the board empowers you to pick the fitting innovation for ideal use in this field. Information technology play a significant function in information the executives, however information the board additionally abuses the advancement made in every other innovation, for example, mechanical gadgets and others that assist them with accomplishing their objectives and encourage their accomplishment.

References

1. Akbari, P., Saeidipour, B., & Baharestan, O. (2015, January 10). The Analysis Impact of Information Technology and Organizational Structure on Strategic Knowledge Management (Case Study: Islamic Azad University, Kermanshah Branch). Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2546847
2. Anderton, A., & Watson, K. (2018, August 30). Knowledge Management: A Technology Transfer Perspective. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3241729
3. Arora, J. (2010, February 08). Knowledge Management: Emerging Practices in IT Industry in NCR. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1545662
4. Article Detail. (n.d.). Retrieved from <http://www.journalijar.com/article/26427/artificial-intelligence-in-indian-banking-sector--challenges-and-opportunities/>
5. Bhatia, S., & Bhatia, S. (2016, June 28). Cloud-Based Knowledge Management Systems: Benefits and Risks. Retrieved from <http://www.smbceo.com/2016/06/27/cloud-based-knowledge-management-systems-benefits-and-risks/>
6. Fintech in India-opportunities and challenges. (n.d.). Retrieved from <https://www.indianjournals.com/ijor.aspx?target=ijor:sjbir&volume=8&issue=1&article=002>
7. Gunjal, B. (2019, June 21). Knowledge Management: Why Do We Need it for Corporates. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3375572
8. Hamad, W. B. (1970, January 01). The Role of ICT in Knowledge Management Processes: A Review. Retrieved from <https://www.semanticscholar.org/paper/The-Role-of-ICT-in-Knowledge-Management-Processes--Hamad/472238a6fc0bc8c2cd27ddef33e892e535a021d6>
9. Jack, A., Kabaji, E., & Muchiri, F. (2016, August 13). Information Technology Systems as an Enabler of Knowledge Management and Effect on Sustainable Competitive Advantage Amongst Humanitarian Agencies. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2807512
10. Jayashri, N., & Kalaiselvi, K. (2019, February 08). Knowledge Acquisition – Scholarly Foundations with Knowledge Management. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3326689
11. Knowledge Management for Cybersecurity in Business Organizations: A Case Study. (n.d.). Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/08874417.2019.1571458?journalCode=ucis20>
12. Leonardi, P. M., & Treem, J. W. (2012, August 15). Knowledge Management Technology as a Stage for Strategic Self-Presentation: Implications for Knowledge Sharing in Organizations.

- Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2129876
13. Liebowitz, J. (2001, January 15). Knowledge management and its link to artificial intelligence. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S0957417400000440>
 14. Panir, M. J., Xiaolin, X., & Zijun, M. (2019, October 11). Integration of ICT With Knowledge Management to Foster Digital Innovation: The Case of Bangladesh Public Sector. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3462359
 15. Revilla, E., Prieto, I. M., & Rodriguez-Prado, B. (2007, August 14). Information Technology as Knowledge Management Enabler in Product Development - An Empirical Evidence. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1006971
 16. S.Mirakbari, A., Abedini, S., & Kamalzadeh, H. (2019, April 01). Study of the Relationship Between Information Technology and Knowledge Management in the Headquarters of Tehran Social Security Organization. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3348300
 17. Sefollahi, N. (n.d.). The importance of ICT on knowledge management in organizations. Retrieved from <https://www.ajol.info/index.php/jfas/article/view/172203>
 18. Subashini, R., Rita, S., & Vivek, M. (2011, December 09). The Role of ICTs in Knowledge Management (KM) for Organizational Effectiveness. Retrieved from https://link.springer.com/chapter/10.1007/978-3-642-29216-3_59
 19. Subashini, R., Rita, S., & Vivek, M. (2011, December 09). The Role of ICTs in Knowledge Management (KM) for Organizational Effectiveness. Retrieved from https://link.springer.com/chapter/10.1007/978-3-642-29216-3_59
 20. Sultan, N. (2012, September 25). Knowledge management in the age of cloud computing and Web 2.0: Experiencing the power of disruptive innovations. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S0268401212001041>
 21. Velden, M. V. (2002, January 15). Knowledge facts, knowledge fiction: The role of ICTs in knowledge management for development. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1002/jid.862>
 22. Vij, S., & Sharma, D. (2011, May 01). Knowledge Management Orientation Model – An Empirical Study. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1826523

23. Web Sources

24. Information Technology in Indian Banking Sector Some Recent Developments. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3514518
25. What is Knowledge Management? its Importance and Benefits. (n.d.). Retrieved from <https://www.valamis.com/hub/knowledge-management>
26. https://www.researchgate.net/publication/338047113_The_Blockchain_Technology_and_Modern_Ledgers_Through_Blockchain_Accounting
27. Fintech in India – Opportunities and Challenges. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3354094
28. (n.d.). Retrieved from [https://www.tlu.ee/~sirvir/Information and Knowledge Management/Framework for IKM/knowledge_management_technologies.html](https://www.tlu.ee/~sirvir/Information%20and%20Knowledge%20Management/Framework%20for%20IKM/knowledge_management_technologies.html)
29. (PDF) Cloud-Based E-Governance in India - ResearchGate." 4 Oct. 2020, https://www.researchgate.net/publication/344454163_Cloud-Based_E-Governance_in_India. Accessed 30 Nov. 2020.
30. Artificial Intelligence, Blockchain Technology, Cloud" <https://worldresearchersassociations.com/mngmntcurrissue/2.pdf>. Accessed 30 Nov. 2020.
31. "E-Commerce on Cloud: Opportunities and Challenges - World" <http://worldresearchjournals.com/mngmntcurrissue/2.pdf>. Accessed 30 Nov. 2020.

32. E-Commerce on Cloud: Opportunities and Challenges - World"
<http://worldresearchjournals.com/mngmntcurrissue/2.pdf>. Accessed 30 Nov. 2020.
33. "M.Elayaraja - Google Scholar."
<http://scholar.google.com/citations?user=ljoCmR8AAAAAJ&hl=en>. Accessed 30 Nov. 2020.
34. "The Blockchain Technology and Modern Ledgers Through" 22 Sep. 2020,
https://www.researchgate.net/publication/338047113_The_Blockchain_Technology_and_Modern_Ledgers_Through_Blockchain_Accounting. Accessed 30 Nov. 2020.