

Knowledge Management and its Role in Promoting Sustainable Development: A Systematic Literature Review

Mohamed Al Ali, Saif Alsabbagh, and Abdulla Almheiri

Faculty of Engineering & IT, The British University in Dubai, Dubai, UAE

20209676@student.buid.ac.ae; 20209837@student.buid.ac.ae; 20001172@student.buid.ac.ae

Article Information

Article type: Review

Article history:

Received: November 28, 2021

Revised: December 29, 2021

Accepted: December 30, 2021

Keywords:

Knowledge management,
Organizational sustainability,
Organizational performance,
Organizational productivity.

Abstract

The Knowledge Management (KM) field has witnessed substantial growth during recent years. Information processing, dissemination, and retrieval have grown to take central importance in the corporate context, which necessitates firms to make sizable investments in improving KM. Moreover, only the firms with the most sophisticated information management processes in place are expected to survive in their respective industries in the future. The current study uses a systematic literature review to prove the connection between KM and organizational sustainability. The literature is chosen from credible peer-reviewed sources, which is expected to increase the research's credibility. In addition, suitable inclusion/exclusion criteria are used to ensure the study's relevance. The objective remains to prove that efficient KM is the key to deriving a competitive advantage for corporations in all industries.

1. INTRODUCTION

The information technology field has been evolving continuously in the new millennium (Abou Samra et al., 2020; Abousamra & Al Ali, 2017; Al-Emran et al., 2015; Al-Emran & Shaalan, 2017, Mufadhil et al., 2018), which has led to numerous developments and implications for corporations. Efficient dissemination and retrieval of information have become one of the key criteria for organizational sustainability; hence, it is imperative for companies to invest heavily in KM (AlAjmi et al., 2021, Arpaci et al., 2020). Firms that have the most sophisticated information processing processes in place are likely to become industry leaders in the future. Sustainability is expected to be the key for business as international markets become more competitive, and it will be imperative for companies to refine their KM protocols to increase their efficiency (Aldheleai et al., 2020, Al-Emran et al., 2018; Al-Sharafi et al., 2019). The research pertains to the unavoidable connection between KM and organizational sustainability. The study will use peer-reviewed literature to prove that KM is the most important ingredient for raising corporate sustainability as the former can lead to an improvement in both efficiency and performance, resulting in minimal resource wastage. The body of the manuscript contains multiple sections describing the main content of the paper (for example, Method, Results, Analysis or Discussion, etc.).

2. RESEARCH QUESTIONS

1. Is efficient KM the key to becoming the industry leader?
2. Is KM the most important ingredient for raising organizational sustainability?
3. Is KM linked with raising a firm's competitive advantage?
4. Will it be possible for firms to retain their business in the future without refining their information management processes?

3. LITERATURE REVIEW

3.1 The Emphasis on Raising Sustainability at the Global Level

Knowledge management is the key to raising both organizational and social sustainability. The United Nations has repeatedly emphasized the importance of strengthening sustainability-driven initiatives for building a stable foundation for future growth. According to Klingenberg and Rothberg, “The United Nations (UN) 2030 agenda for sustainable development issues an urgent call to transition to sustainable business models and lifestyles. Outlining seventeen concrete sustainable development goals (SDGs), organizations and individuals are encouraged to actively participate (United Nations, 2015). However, as of the 2019 report on the SDGs, progress is slow” (136). The efforts at the U.N. add to the calls for sustainability initiatives complement the calls being made by other international civic organizations (Klingenberg and Rothberg 141). Researchers assert that the planet will become unsustainable for supporting human life within 100 years if the present trends continue (Zhang and Venkatesh 1302). Consequently, an urgent need for raising awareness and realigning practices both at the personal and the commercial levels exists.

3.2 Sustainability and Knowledge Management

Sustainability and knowledge management are interconnected principles. Effective sustainability initiatives cannot persist without adequate knowledge management initiatives in place. Consequently, researchers emphasize the importance of implementing knowledge management processes at the organizational level (Xue 38). Promoting effective knowledge management at the corporate level will have a trickle-down effect on the entire society. Klingenberg and Rothberg assert that “Organizations that aspire to be economically viable as well as socially and environmentally responsible global citizens, need to understand what sustainability means and how to institutionalize its principles. This paper posits that some of the underlying reasons for slow progress are lack of full understanding of the required knowledge and its systemic nature, as well as potentially insufficient knowledge management processes” (136). In such a way, managing knowledge and the systems that accompany it is essential for building a competitive and sustainable business advantage.

Knowledge is a primary strategic resource when it comes to raising corporate sustainability. The successful incorporation of knowledge management systems into organizational operations can improve the chances of firms to attain their objectives (Santoro, Gabriele, et al. 351). In addition, such an approach can raise corporate performance, which can lead to higher profitability. Klingenberg and Rothberg mention that “Knowledge is recognized as a key strategic resource (Grant, 1996, Spender 1996). As depicted in Figure 1 below, the knowledge-based view of the firm (KBV) prescribes that successful change to a sustainable business model requires understanding sustainability principles and institutionalizing them throughout organizational processes” (137). Building a sustainable business model is the priority of most firms operating in competitive industries, and refined KM processes can help achieve this objective (Iskandar et al. 76). Companies that continue to evolve through a dynamic strategy are able to keep abreast with the latest challenges arising from changing market conditions, and effective KM processes are most effective for building a sustainable foundation in any industry.

KM should be devoted central focus in any program aimed at raising social or corporate sustainability. Hence, the U.N. has released several documents emphasizing the importance of improving the flow of information for all stakeholders (Moffett 2). The transformation, access, and retrieval of knowledge are considered activities vital to survival in the information age. According to Klingenberg and Rothberg, “De Marchi (2012) and De Marchi and Grandinetti (2013) confirm that a profound internal knowledge base is the prerequisite to address sustainability. Knowledge management (KM) should therefore play a central role in any sustainability program. KM is generally viewed as the management of creating, disseminating, and measuring knowledge (Turner and Minonne, 2010)” (138). In such a way, corporate administrations are responsible for creating and publishing information for the benefit of all stakeholders. At the social level, public and civic organizations have the responsibility of controlling the flow of information. In addition, such bodies are responsible for improving KM to improve the state of consciousness and awareness. In such a way, society can be geared towards sustainable development.

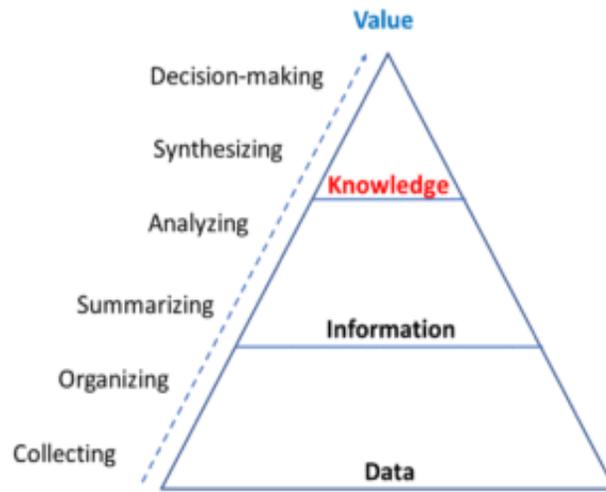


Figure 1. The KM Process (Source – Iskandar et al. 76)

3.3 Building Corporate Sustainability and the Organizational Learning Cycle

Building corporate sustainability is a goal that all firms pursue; however, it is not possible for all companies to survive in the market. According to Khabarov and Volegzhanina, only the firms that utilize information to the fullest are able to create efficient systems that can stand the test of time. Improving the flow of information in a firm can increase corporate performance and assist the company to attain its mission and objectives. Moreover, effective KM systems can raise the level of transparency in an organization, leading to an increase in staff-morale (Kaoud 16). In such a way, KM can result in worker satisfaction as well. Efficient KM is surely the way to build a sustainable competitive advantage.

In addition, all firms go through the organizational learning cycle, which can impact the influence they have in their respective industries. The cycle is also responsible for improving the flow of information within a firm. Klingenberg and Rothberg laud the benefits of KM systems and assert that “An example of this view is the organizational learning cycle proposed by Sanchez (2001, 2005) that enables an organization to embed knowledge into its cultural frameworks, systems, and processes. In detail, the author prescribes 1. Maintain learning loops throughout all processes; 2. Disseminating existing and new knowledge systematically; 3. Applying knowledge wherever possible” (138). The organizational learning cycle can be refined by developing and maintaining loops that can improve the chances of staff members remembering information. Moreover, KM within an organization can be improved if the management knows how to improve access to information (Abubakar et al., 109). Creating user-friendly and easily accessible avenues for employees to retrieve information can be an excellent method to smoothen the flow of knowledge in a firm. In such a way, any firm can improve its KM and hence, its efficiency.

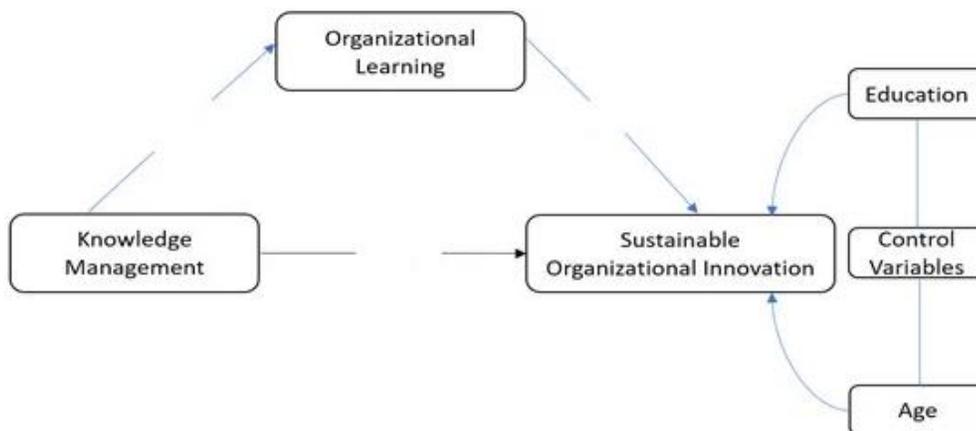


Figure 2. KM and Organizational Learning (Source – Abubakar et al., 110)

Literature on the subject emphasizes a strong connection between KM and sustainability, which signifies the importance of implementing efficient KM systems. Klingenberg and Rothberg mention that “Robinson, et al. (2006) suggest an inextricable link between sustainable development and KM” (140). As exhibited in Figure 2 above, the research proposes numerous initiatives that can be taken at the organizational level to improve the flow of information. Firms that have KM systems in place tend to function smoothly because they have better synchronicity between all departments. In addition, Klingenberg and Rothberg enlist the following measures that can improve KM systems within a firm: “the so-called STEPS maturity roadmap, a five-step process consisting of a) start-up (increased awareness of KM and its benefits); b) take-off (development of KM strategy); c) expansion (change management to increase the visibility of KM); d) progressive stage (measure and monitor to improve KM performance) and e) sustainability stage (sustaining the KM performance)” (140). Firms have to invest in starting KM procedures. The expenditures might be steep at the beginning as numerous systems have to be installed; however, the efficiency rewards to be expected in the future will far outweigh the costs. Moreover, smooth and efficient KM systems will be particularly beneficial during the growth and expansion phases of the company lifecycle. As the business grows, the company will have to grow its operations, and a speedy flow of information will assist the supply chain in accomplishing client orders without any time lags. In such a way, the firm will remain profitable and be able to retain its competitive advantage. In such a way, KM and sustainability are interlinked concepts.

3.4 Knowledge Management Capabilities

It is essential to delineate knowledge management capabilities to encourage leaders to harness related competencies in followers. According to Abdulaali et al., the efficiency rewards of KM systems have forced corporate leaders to realize the benefits that KM initiatives entail. Consequently, a rapidly increasing number of firms are investing in building and implementing sophisticated KM systems. Ekionea and Fillion assert that “Most managers and decision-makers have taken note of the crucial role that good knowledge management can impart to their organizations. Because they are bombarded every day with information such as emails, vocal messages, faxes, reports, memos, etc. in such a repetitive fashion, they found in knowledge management a solution to the massive input overload that they have been subjected to” (392). In such a way, it is essential to segregate crucial and redundant information.

Managers who are able to teach their team members the importance of discarding useless information are able to save precious resources and attain organizational objectives in an efficient manner. Ekionea and Fillion further mention that, “In effect, professionals spend most of their time searching for information they need on the Web, sending emails, making telephone calls, and examining reports both on computers and on paper. The stated problem is again just as severe at the level of healthcare organizations that are preoccupied with good knowledge management to organize and to facilitate” (393). The importance of efficient KM systems is rising rapidly in all industrial disciplines; hence, it is essential for companies to make investments into research and development. In the future, only the companies with the most advanced KM systems will be able to sustain their business in the industry.

In addition, knowledge has emerged as one of the most critical organizational resources in the 21st century (Al-Emran et al., 2019, 2021; Al-Emran & Mezhuyev, 2019). The quality of the creation, dissemination, and organization of knowledge within a firm is what differentiates large and successful and mediocre firms (Colomo-Palacios et al. 188). Under such circumstances, efficient KM is the only method to retain a competitive advantage and build organizational sustainability. According to Ekionea and Fillion, “In the increasingly fierce competitive market environment, researchers believe that knowledge is an important organizational resource, and knowledge administration is deemed to enhance firms' competitive capability” (394). Improving corporate competencies adds to firm value, resulting in higher profitability. Ekionea and Fillion further assert that, “Organizational knowledge management is a difficult task that requires the development of specific organizational capabilities without which the acquiring of competitive advantage and business performance is impossible. In effect, knowledge management is very important particularly in the healthcare sector because of the continuous data flux, information, and knowledge in circulation” (394). Industries that utilize excessive data are bound to benefit from the breakthroughs that are being made in the KM field.

3.5 KM infrastructures, KM processes, and KM competencies

It is essential for organizations to excel in three key departments to build a sustainable business model: KM infrastructures, KM processes, and KM competencies. The infrastructure development aspect might require firms to make excessive investments as well; however, such expenses will lead to long-term benefits (Alajmi and Talal 1850027). Moreover, the initial cost will be offset by incremental efficiency rewards in the future. Infrastructure development might also entail hiring trained personnel or nurturing existing ones. In such a way, companies can improve the KM competencies of the workforce. Setting rules and policies is the final step, which will lead to refined KM processes in the long term. The most successful firms in the current business environment are those that have an optimum flow of information through their ranks (Antunes et al. 144). Thus, more firms must make meaningful investments in KM-related

research and development. Ekionea and Fillion confirm the assertions pertaining to the three key areas in KM in the following words:

The development of organizational capabilities specific to knowledge management (KMC) I defined along three dimensions: KM infrastructures, KM processes, and KM competencies. Observing the efforts or initiatives of developing or improving KMC derives from a learning curve and can only be done through a specific maturity model. In effect, the maturity model evaluates the level of success of one or more general objectives using a scale of 0 to 5 as follows: 0: non-existing; 1: existing but not organized (initiated case by case), 2: practiced (intuitive but reproducible), 3: defined (with documentation), 4: supervised and measured, 5: optimized. The current paper considers a scale of maturity levels from 1 to 5 for each dimension and characteristic of the KMC. The maturity model expresses the level of performance that an establishment can achieve as a function of the level of development of the KMC. The validity of this model in a context particular to the healthcare organizations studied will help to better understand the inclusion of maturity models as a diagnostic tool of KMC, and in the development processes of KMC within an establishment (394).

3.6 Tacit and Explicit Knowledge

Researchers delineate two main kinds of knowledge within an organization: tacit and explicit. As Figure 3 depicts below, the former refers to information that pertains to representations. It is knowledge that can be learned through experience. Ekionea and Fillion explain the phenomenon as: “Tacit knowledge belongs to the knowledge group of mental objects or representations. It encompasses innate or acquired knowledge, expertise, and experience. They are generally difficult to «formalize» as opposed to explicit knowledge” (394). Conversely, explicit knowledge refers to concrete information that has been mentioned in physical and online documents. Ekionea and Fillion explain explicit knowledge as: “Explicit knowledge, contrary to tacit knowledge, is the knowledge that is clearly articulated in written documents or found in IT or computer data systems. This knowledge is physically transferable since it appears in tangible form (paper or electronic data)” (394). It is essential for organizations to manage and control the flow of both kinds of knowledge. A system that incorporates both facets of information can lead to long-term sustainability in the industry.

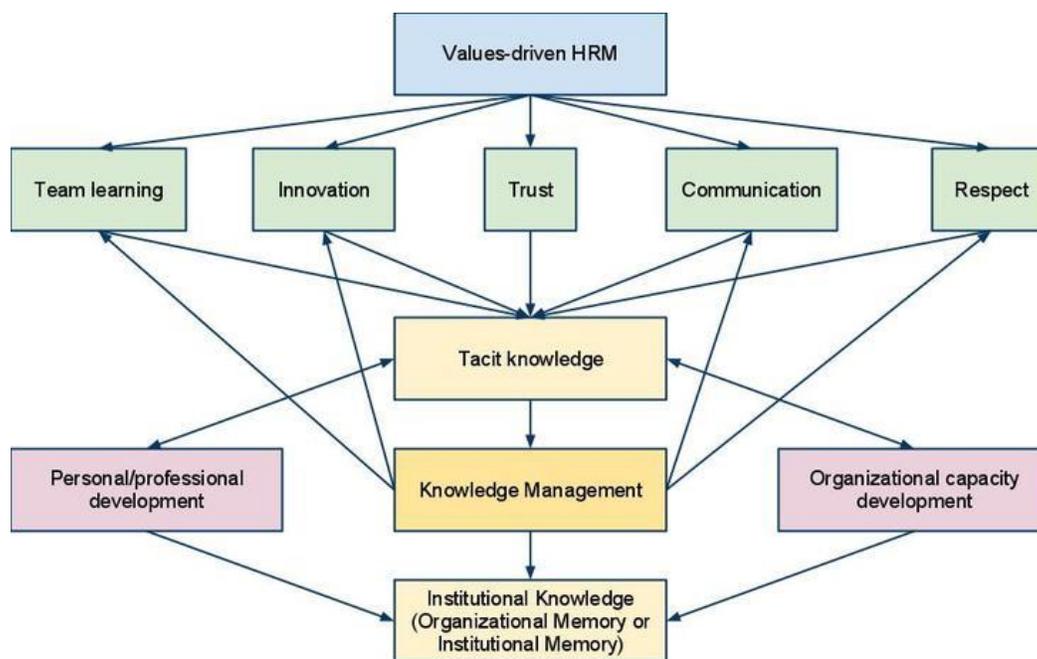


Figure 3. Tacit Knowledge and KM (Source – Dal Mas et al. 199)

It is important to differentiate between different kinds of knowledge because it makes it possible for companies to build KM infrastructure and implement associated protocols. Managers need to understand the need to incorporate KM into the organizational scheme (Bardy et al.). Consequently, firms need to have trained personnel in charge of sophisticated information-related processes. According to Ekionea and Fillion, “Information of raw data is subject to interpretation by computers or human mental functions. Consequently, knowledge is a combination of information or observation, their inherent interpretation by people who summon their personal or collective experience, along with models, theories, or beliefs that together give meaning to the information” (395). A KM system has to be

considered as a whole to give meaning (Al Emran & Shaalan, 2014). Thus, corporate managers should be able to view the holistic picture while building a sustainable business model through the use of KM systems.

Defining knowledge is integral to being able to design and implement systems for its management. Ekionea and Fillion assert that, “The concept of knowledge, therefore, relies on the range of senses, notable notions such as language, semantics, beliefs, and conscience. In effect, we acknowledge that factual information can be easily accumulated and transferred to documents or databases in explicit form, while knowledge, in a strict sense, is an element more humane, subjective, and often tacit” (394). Managers must be able to understand the difference between tacit and explicit knowledge because they might have to design different protocols for disseminating it. In such a way, it can become possible for companies to increase their efficiency and achieve their goals (Mikalauskiene and Atkočiūnienė 154). Moreover, some firms operate on other kinds of knowledge as well. Ekionea and Fillion mention that, “Certain other knowledge-based information is dissimilated throughout the company in support of paper forms and electronic data. This knowledge must be managed to improve the global effectiveness and competitiveness of companies” (394). In such a way, firms can raise their competitiveness as well as their sustainability. Companies that have the most refined KM systems in place are able to build and retain a comparative advantage in their respective industries.

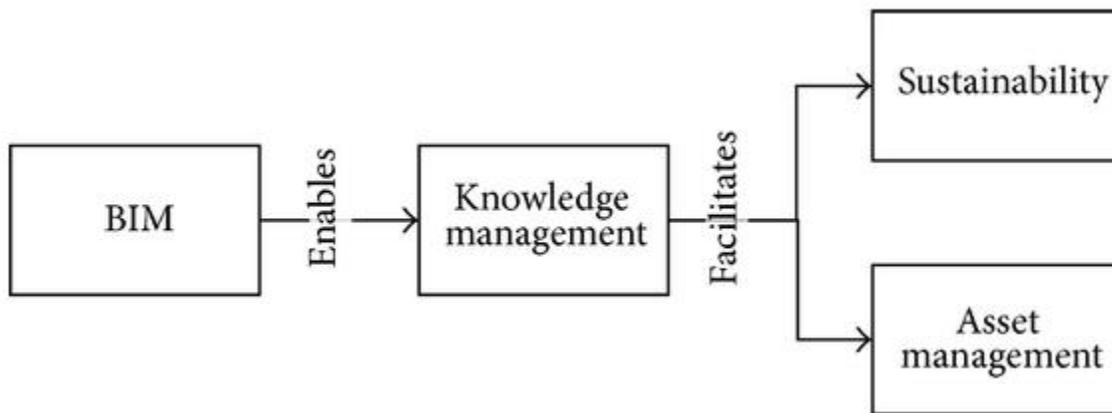


Figure 4. KM Enablers (Source – Dal Mas et al. 198)

KM is integral for sustaining business in the information age where numerous industries have become virtual. It is no longer necessary for companies to have a physical presence to conduct business activities; instead, it is easily possible to survive in a virtual environment (Dal Mas et al. 199). Moreover, companies that operate in the virtual environment have an urgent requirement to efficiently manage the flow of information for all stakeholders involved. Such firms have to disseminate pertinent and reliable information to customers as well, which will form the basis for their business (Demir et al. 6). The 21st century has witnessed numerous firms that excelled in technological aspects climb the success ladders within short spans. This success was built upon efficient management of data. Consequently, more firms must invest into research and development aimed at improving the flow of information within their ranks (Durst and Zieba 6). In such a way, corporations can raise the level of operational efficiency leading to higher profitability. Moreover, companies that have the most sophisticated KM systems in place tend to be the most sustainable as well (Dal Mas et al. 201). Both building and retaining a competitive advantage are linked with the way an organization manages the flow of information.

3.7 The Progression of Knowledge Management

The knowledge management field has witnessed rampant growth over recent years; however, there still exists considerable room for improvement both in implementation and research. According to Córdova and Gutiérrez, numerous corporations at the international level are still in the process of truly adapting to effective knowledge management in its essence (398). The resources required for managing information sources are relatively high-end, which means that sizable financial resources are necessary. Moreover, researchers have also failed to devote as much attention to the area as it requires (Abdulaali et al.). Thus, the corporate community might witness a lot of changes pertaining to the adaptation pertaining to knowledge management during coming years. It is essential for incorporating advanced information management processes for building sustainability (Li et al. 166). Although research clearly emphasizes the benefits of implementing KM protocols, organizational adaptability to related procedures is still lagging (Anupan et al. 147).

The importance of KM has grown in all industrial sectors in the new millennium. According to Martins et al., “The use of knowledge management in the context of sustainability has been increasingly important over the years. Despite this importance, it is observed that this area is still little explored and there are many possibilities of academic research” (489). Thus, it is essential for more researchers to devote attention towards highlighting the advantages that KM can bring for raising corporate performance. Moreover, the benefits related to building a sustainable business model must be highlighted. Martins et al. further assert that, “Following a structured research protocol, the authors of this article performed a systematic review of the literature and identified plausible gaps to be explored in the development of future research. These gaps are presented in relation to the themes, strategies, objectives and research approach” (489). The article surveys the most important themes in relation to KM protocols in MNCs. A systematic literature review follows, and the conclusion clearly emphasizes the absolute importance of all firms to invest heavily in KM.

3.8 KM and its Ability to Drive Sustainability

In addition, effective KM has an undeniable connection with sustainability. Martins et al. mention that, “From the point of view of the themes, there are opportunities related to the study of sustainability in small and medium enterprises,

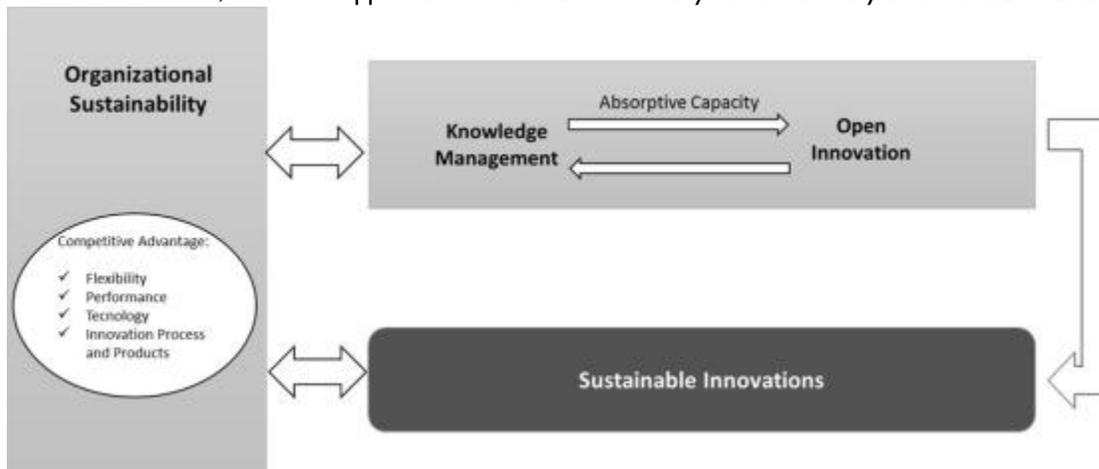


Figure 5. KM and Sustainability (Source – Boella et al. 250)

in relation to the potential of universities as engines for the generation of knowledge and in concerning the insertion of knowledge management to propose guidelines for obtaining productive systems” (490). In such a way, the authors praise firms that are investing in KM and assert that these companies are likely to be most sustainable in the future. The productivity-related benefits of KM are bound to force small and medium-sized enterprises to invest in KM in the future as well (Raudeliūnienė et al. 546). Martins et al. confirm this belief in the following words: “Regarding research strategies, the lack of studies that use action research as central focus stands out. Focusing on the objectives, there are many research approaches used with the goal of developing models and specific tools directed to the sharing of information. Finally, regarding the approach, there are few studies with a quantitative approach. We believe that the information presented here can contribute to the evolution of knowledge management focused on sustainability” (489). In such a way, the available literature clearly indicates the importance of knowledge management for sustainable development. It is time for all global companies to begin devoting resources to efficient management of information for organizational goals attainment in a competitive environment. True sustainability can only result from implementing efficient KM protocols (Kireev et al.).

In addition, companies that are able to implement KM processes tend to operate profitably in competitive industries. In such a way, KM directly contributes to the ability to create a competitive advantage, leading to long-term sustainability (Orenga-Roglá and Chalmeta 200). Thus, investing in creating and maintaining productive information processing mechanisms, which aid in driving firm-productivity, is imperative. Martins et al. relate KM and sustainability in the following words:

The KM used in the context of sustainability results in a change in the position of the organization, where the concern with social and environmental responsibility assumes equality of importance with the economic viability. KM may be used as the basis for sustainable development practices. Such a union is important because of the complexity of complying with the sustainability guidelines. Therefore, organizations need to increasingly rely on their knowledge-generating resources. In the context of sustainability, KM is treated as a new paradigm of development that aims to enhance compliance with the guidelines of economic, environmental and social sustainability” (490).

KM is the key towards building a sustainable future for companies in the competitive global landscape; hence, a rapidly increasing number of companies are investing into research and development into the field (Boella et al. 251). In the future, only the companies with the most sophisticated information processing and dissemination protocols will be able to survive in their respective market.



Figure 6. Building Organizational Sustainability (Source – Fidel et al. 1429)

The field of KM has witnessed rapid developments during the last two decades, which signifies the importance of investing heavily in installing advanced systems for information processing. In addition, the internet and social media revolution has coincided with breakthroughs in KM, which has made it easier for companies to connect their information sources (Santoro et al. 351). Inter-departmental information retrieval has improved manifold during recent years due to the improvements in KM (Fidel et al. 1430). The knowledge that is pertinent to one firm is no longer its sole property as it can be easily displayed over the internet. However, companies still maintain the right to keep sensitive information under the confidentiality cloak to protect corporate assets (Lopes et al. 478). Martins et al. assert that, “Along with its expansion in various sectors of society, sustainability has also been gaining increasing importance for organizations aimed at achieving competitive advantage. In this context, Knowledge Management (KM) may play a relevant role. The reason for it is the fact that KM has been consolidating as an essential resource to ensure and consolidate competitive advantages for companies” (491). In such a way, KM and its associated systems pave the way for raising corporate competitiveness in industries that are nearing the saturation point (Cerchione and Esposito 280).

KM has numerous advantages for companies in addition to increasing their sustainability (Lubberink et al. 721). For instance, readily available information raises the probability of firms attaining organizational objectives. Martins et al. mention that, “The incentive for the search, absorption, and sharing of knowledge has contributed considerably to the achievement of organizational goals. KM is considered a key strategic resource for organizations of all sizes” (491). Although large MNCs have currently installed KM processes, it is likely for small and medium-sized firms to follow suit in the near future (Omotayo 7). Currently, such companies might lack the resources required to implement sophisticated information processing protocols; however, it might become feasible to install KM systems for smaller firms in the future (Caiado et al. 895). With rapid advancements in information processing, it might become cheaper to implement advanced systems, which will make it easier for companies with lesser resources to benefit from them (Aarseth et al. 1080). Overall, most industries will have to accept the change in information dissemination and retrieval.

Although information appears as an abstract resource, its management is expected to be the key variable contributing to corporate sustainability. Martins et al. assert that, “It is worth mentioning that because it is intangible, knowledge is characterized as complex to understand, to share and to root among the sectors of the organization. Using knowledge effectively and consistently is an important way to gain competitive advantage. Investing in KM is ensuring the use of all the knowledge available in an organization” (489). In such a way, companies that have sophisticated information management systems in place are likely to have a higher level of sustainability as compared to firms that do not. In addition, Martins et al. state that, “Among the applications of KM, it is pointed out in the literature its role in the optimization of approaches related to sustainability, as a way to manage this complex concept. In this sense, the maturation of the use of KM as a strategy allows the recognition of the necessary competencies to become an innovative organization of thought and learning, with the capacity to put the principles of sustainability into practice, needing to develop appropriate measures that reflect the objectives of sustainability” (490). Corporate managers that wish to raise the sustainability of their firms must strive to incorporate sophisticated information processing protocols into the organizational milieu (Ahmed et al. 85). Such an approach is the only method to accomplish corporate goals and retain a competitive advantage in a rapidly evolving market (Trindade et al. 11).

4. METHODOLOGY

The methodology for the research relied on using peer-reviewed literature to answer the research questions. Consequently, a systematic literature review has been conducted on the topic of KM and its relation with raising organizational sustainability. We followed the procedures specified in prior relevant reviews (Al-Emran, 2015; Al-Qaysi et al., 2020; Al-Saedi et al., 2019). The literature review was essential in filling the gaps in the arguments stemming from the research questions. Other intricacies of the employed methodology are mentioned below.

4.1 Inclusion/exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Research paper topic should include KM	Research paper was published before 2015
Research paper topic should include sustainability	Research paper title did not mention KM
Research paper should focus on organizational development	Research paper title did not mention sustainability
Research paper should have been published after 2014	Research paper was published in a language other than English

Table I. Inclusion/exclusion Criteria

4.2 Data Sources and Search Strategies

The data sources relied on such peer-reviewed journals as the Journal of Information & Knowledge Management, Polish Journal of Management Studies, Journal of Innovation & Knowledge, Electronic Journal of Knowledge Management,

and the International Journal of Information Management. In addition, the index words used to search the articles included “knowledge management and sustainability,” “organizational knowledge management,” and “knowledge management for the future.” The main database used to retrieve the articles, all of which were rated Q1 or Q2, was scimagojr (SJR). In such a way, the research used credible literature obtained from scientific sources.

4.3 Quality Assessment

The researcher used the following three fundamental questions to assess the quality of the surveyed literature:

- Did the research paper have a clear aim?
- Did the article devote ample focus to KM in the organizational context?
- Did the paper prove the connection between KM and corporate sustainability?

5. RESULTS AND CONCLUSION

A significant body of research literature was examined on the topic of knowledge management and its relation to raising organizational sustainability. Most of the studies confirmed the essential relationship between the two concepts. According to literature, KM leads to cultural evolution in firms, which is necessary during evolutionary market phases. Moreover, KM assists companies to organize and integrate processes in a manner that facilitates organizational goals’ attainment. Hence, it is imperative for all large MNCs to continue heavy investments into incorporating KM into the organizational milieu. In addition, small and medium-sized companies must also begin accepting the essential change in information dissemination and retrieval for them to survive in the market. The literature also included multiple case studies, which confirmed the advantages that organizations can bear through the successful adaption of KM. In the future, only the companies with the most sophisticated information management processes in place will be leading their respective industries.

The surveyed literature was instrumental in answering all the research questions. The criteria for selecting articles has already been explained in the methodology section. The emphasis remained to choose only credible articles, which have been published in peer-reviewed scientific journals. In such a way, the study relies on authentic information, which clearly indicates the absolute importance that KM entails for raising organizational sustainability. Companies that adopt sophisticated information processing and dissemination systems are likely to retain a competitive advantage in the future. In addition, the only limitation that the research has is that it does not devote sufficient focus to how small firms will raise the necessary capital to implement KM processes. Several options are available in this regard, which can be elaborated upon in future researches. Whatever the avenue is chosen, incorporating KM will be essential for corporations in the future to build and maintain sustainability in competitive industries.

References

- Aarseth, Wenche, et al. "Project sustainability strategies: A systematic literature review." *International Journal of Project Management* 35.6 (2017): 1071-1083.
- Abdulaali, Aymen Raheem, Alhamzah Alnoor, and Bilal Eneizan. "A multi-level study of influence financial knowledge management small and medium enterprises." *Polish Journal of Management Studies* 19 (2019).
- Abou Samra, R., Al Sharari, N., & AlTunaiji, S. (2020). Conceptual Model for Challenges and Succession Opportunities for Virtual Project Teams in the GCC. *Future of Information and Communication Conference, 1130 AISC*, 328–340. https://doi.org/10.1007/978-3-030-39442-4_25
- Abousamra, R., & Al Ali, A. (2017). Qualitative Analysis of the Innovative Knowledge Creation Style of Project Managers and its Relationship with Performance Stability in IT Projects. *International Journal of Information Technology and Language Studies*, 1(2).
- Abubakar, Abubakar Mohammed, et al. "Knowledge management, decision-making style and organizational performance." *Journal of Innovation & Knowledge* 4.2 (2019): 104-114.
- Ahmed, Yunis Ali, et al. "Social media for knowledge-sharing: A systematic literature review." *Telematics and informatics* 37 (2019): 72-112.
- Al Emran, M., & Shaalan, K. (2014). E-podium technology: A medium of managing knowledge at al buraimi university college via m-learning. *BCS International IT Conference*, 1–4. <https://doi.org/10.14236/ewic/bcsme2014.14>
- Alajmi, Bibi, and Talal Alhaji. "Mapping the field of knowledge management: bibliometric and content analysis of Journal of Information & Knowledge Management for the period from 2002–2016." *Journal of Information & Knowledge Management* 17.03 (2018): 1850027.

- AlAjmi, Q., Arshah, R. A., Kamaludin, A., & Al-Sharafi, M. A. (2021). Developing an Instrument for Cloud-Based E-Learning Adoption: Higher Education Institutions Perspective. In *Advances in Intelligent Systems and Computing* (Vol. 1158). https://doi.org/10.1007/978-981-15-4409-5_60
- Aldheleai, Y. M., Tasir, Z., Al-Rahmi, W. M., Al-Sharafi, M. A., & Mydin, A. (2020). Modeling of students online social presence on social networking sites with academic performance. *International Journal of Emerging Technologies in Learning*, 15(12). <https://doi.org/10.3991/ijet.v15i12.12599>
- Al-Emran, M. (2015). Hierarchical Reinforcement Learning: A Survey. *International Journal of Computing and Digital Systems*, 4(2), 137–143.
- Al-Emran, M., & Mezhuyev, V. (2019). Examining the Effect of Knowledge Management Factors on Mobile Learning Adoption Through the Use of Importance-Performance Map Analysis (IPMA). *International Conference on Advanced Intelligent Systems and Informatics*, 449–458. https://doi.org/10.1007/978-3-030-31129-2_41
- Al-Emran, M., & Shaalan, K. (2017). Academics' Awareness Towards Mobile Learning in Oman. *International Journal of Computing and Digital Systems*, 6(1), 45–50. <https://doi.org/10.12785/IJCDS/060105>
- Al-Emran, M., Abbasi, G. A., & Mezhuyev, V. (2021). Evaluating the Impact of Knowledge Management Factors on M-Learning Adoption: A Deep Learning-Based Hybrid SEM-ANN Approach. In *Recent Advances in Technology Acceptance Models and Theories* (Vol. 335, pp. 159–172). Springer, Cham. https://doi.org/10.1007/978-3-030-64987-6_10
- Al-Emran, M., Mezhuyev, V., & Kamaludin, A. (2019). An Innovative Approach of Applying Knowledge Management in M-Learning Application Development: A Pilot Study. *International Journal of Information and Communication Technology Education (IJICTE)*, 15(4), 94–112.
- Al-Emran, M., Mezhuyev, V., Kamaludin, A., & AlSinani, M. (2018). Development of M-learning Application based on Knowledge Management Processes. *2018 7th International Conference on Software and Computer Applications (ICSCA 2018)*, 248–253.
- Al-Emran, M., Zaza, S., & Shaalan, K. (2015). Parsing modern standard Arabic using Treebank resources. *2015 International Conference on Information and Communication Technology Research, ICTRC 2015*. <https://doi.org/10.1109/ICTRC.2015.7156426>
- Al-Qaysi, N., Mohamad-Nordin, N., & Al-Emran, M. (2020). Employing the technology acceptance model in social media: A systematic review. *Education and Information Technologies*, 1–42. <https://doi.org/10.1007/s10639-020-10197-1>
- Al-Saedi, K., Al-Emran, M., Abusham, E., & El-Rahman, S. A. (2019). Mobile Payment Adoption: A Systematic Review of the UTAUT Model. *2019 International Conference on Fourth Industrial Revolution, IC FIR 2019*. <https://doi.org/10.1109/ICFIR.2019.8894794>
- Al-Sharafi, M. A., Arshah, R. A., Abu-Shanab, E. A., & Alajmi, Q. (2019). The Effect of Sustained Use of Cloud-Based Business Services on Organizations' Performance: Evidence from SMEs in Malaysia. *5th International Conference on Information Management, ICIM 2019*, 285–291. <https://doi.org/10.1109/INFOMAN.2019.8714699>
- Antunes, Helder de Jesus Ginja, and Paulo Goncalves Pinheiro. "Linking knowledge management, organizational learning and memory." *Journal of Innovation & Knowledge* 5.2 (2020): 140-149.
- Anupan, Anuchit, Prachyanun Nilsook, and Panita Wannapiroon. "A framework for a knowledge management system in a cloud computing environment using a knowledge engineering approach." *International Journal of Knowledge Engineering* 1.2 (2015): 146-149.
- Arpaci, I., Al-Emran, M., & Al-Sharafi, M. A. (2020). The impact of knowledge management practices on the acceptance of Massive Open Online Courses (MOOCs) by engineering students: A cross-cultural comparison. *Telematics and Informatics*, 54. <https://doi.org/10.1016/j.TELE.2020.101468>
- Bardy, Roland, Arthur Rubens, and Gerhard Pelzmann. "Using an Intellectual Capital Statement to Deploy Knowledge Management: The Example of an Austrian Chamber of Agriculture." *Electronic Journal of Knowledge Management* 14.1 (2016).
- Boella, Guido, et al. "Eunomos, a legal document and knowledge management system for the web to provide relevant, reliable and up-to-date information on the law." *Artificial Intelligence and Law* 24.3 (2016): 245-283.
- Caiado, Rodrigo Goyannes Gusmão, et al. "Towards sustainable development through the perspective of eco-efficiency-A systematic literature review." *Journal of Cleaner Production* 165 (2017): 890-904.
- Cerchione, Roberto, and Emilio Esposito. "A systematic review of supply chain knowledge management research: State of the art and research opportunities." *International Journal of Production Economics* 182 (2016): 276-292.
- Chen, Le, and Patrick SW Fong. "Evaluation of knowledge management performance: An organic approach." *Information & Management* 52.4 (2015): 431-453.
- Colomo-Palacios, Ricardo, et al. "A case analysis of enabling continuous software deployment through knowledge management." *International Journal of Information Management* 40 (2018): 186-189.
- Córdova, Felisa M., and Felipe A. Gutiérrez. "Knowledge management system in service companies." *Procedia computer science* 139 (2018): 392-400.

- Dal Mas, F., et al., 2020. Knowledge Translation in the Healthcare Sector. A Structured Literature Review. *The Electronic Journal of Knowledge Management*, 18(3), pp. 198-211.
- Demir, Ahmet, et al. "Links between knowledge management and organizational sustainability: does the ISO 9001 certification have an effect?" *Knowledge Management Research & Practice* (2021): 1-14.
- Durst, Susanne, and Malgorzata Zieba. "Mapping knowledge risks: towards a better understanding of knowledge management." *Knowledge Management Research & Practice* 17.1 (2019): 1-13.
- Ekionea, Jean-Pierre Booto, and Gérard Fillion. "Assessing KM capabilities in two African healthcare organizations: case study." *Electronic Journal of Knowledge Management* 18.3 (2020): 392-406.
- Fidel, Pilar, Walesska Schlesinger, and Amparo Cervera. "Collaborating to innovate: Effects on customer knowledge management and performance." *Journal of Business Research* 68.7 (2015): 1426-1428.
- Iskandar, Karto, et al. "Current issue on knowledge management system for future research: a systematic literature review." *Procedia computer science* 116 (2017): 68-80.
- Kaoud, Menatalla. "Investigation of customer knowledge management: A case study research." *International Journal of Service Science, Management, Engineering, and Technology (IJSSMET)* 8.2 (2017): 12-22.
- Khabarov, Valeriy, and Irina Volegzhanina. "Knowledge management system of an industry-specific research and education complex." *IOP Conference Series: Earth and Environmental Science*. Vol. 403. No. 1. IOP Publishing, 2019.
- Kireev, V., A. Silenko, and A. Guseva. "Cognitive competence of graduates, oriented to work in the knowledge management system in the state corporation "ROSATOM"." *Journal of Physics: Conference Series*. Vol. 781. No. 1. IOP Publishing, 2017.
- Klingenberg, Beate, and Helen N. Rothberg. "The Status quo of Knowledge Management and Sustainability Knowledge." *Electronic Journal of Knowledge Management* 18.2 (2020): 136-148.
- Laihonen, Harri, and Sari Mäntylä. "Strategic knowledge management and evolving local government." *Journal of Knowledge Management* (2018).
- Li, Yinhao, et al. "IoT-CANE: A unified knowledge management system for data-centric Internet of Things application systems." *Journal of parallel and distributed computing* 131 (2019): 161-172.
- Loon, Mark. "Knowledge management practice system: Theorising from an international meta-standard." *Journal of Business Research* 94 (2019): 432-441.
- Lopes, Cátia Milena, et al. "An analysis of the interplay between organizational sustainability, knowledge management, and open innovation." *Journal of Cleaner Production* 142 (2017): 476-488.
- Lubberink, Rob, et al. "Lessons for responsible innovation in the business context: A systematic literature review of responsible, social and sustainable innovation practices." *Sustainability* 9.5 (2017): 721.
- Martins, Vitor William Batista, et al. "Knowledge management in the context of sustainability: Literature review and opportunities for future research." *Journal of cleaner production* 229 (2019): 489-500.
- Mikalauskienė, Asta, and Zenona Ona Atkočiūnienė. "Knowledge management impact on sustainable development." *Montenegrin Journal of economics* 15.4 (2019): 149-160.
- Moffett, Sandra. "Editorial-Learning and Unlearning for Sustainability." *Electronic Journal of Knowledge Management* 15.1 (2017): pp1-2.
- Mufadhal, M. E., Sahabudin, N. A., & Al-Sharafi, M. A. (2018). Conceptualizing a Model for Adoption of Online Social Networks as a Learning Tool. *Advanced Science Letters*, 24(10), 7747–7750. <https://doi.org/10.1166/asl.2018.13011>
- Omotayo, Funmilola Olubunmi. "Knowledge Management as an important tool in Organisational Management: A Review of Literature." *Library Philosophy and Practice* 1.2015 (2015): 1-23.
- Orenga-Roglá, Sergio, and Ricardo Chalmeta. "Methodology for the implementation of knowledge management systems 2.0." *Business & Information Systems Engineering* 61.2 (2019): 195-213.
- Raudeliūnienė, Jurgita, Vida Davidavičienė, and Artūras Jakubavičius. "Knowledge management process model." *Entrepreneurship and Sustainability Issues* 5.3 (2018): 542-554.
- Razmerita, Liana, Gloria Phillips-Wren, and Lakhmi C. Jain. "Advances in knowledge management: an overview." *Innovations in Knowledge Management* (2016): 3-18.
- Santoro, Gabriele, et al. "The Internet of Things: Building a knowledge management system for open innovation and knowledge management capacity." *Technological forecasting and social change* 136 (2018): 347-354.
- Trindade, Evelin Priscila, et al. "Sustainable development of smart cities: A systematic review of the literature." *Journal of Open Innovation: Technology, Market, and Complexity* 3.3 (2017): 11.
- Xue, Colin Ting Si. "A literature review on knowledge management in organizations." *Research in Business and Management* 4.1 (2017): 30-41.
- Zhang, Xiaojun, and Viswanath Venkatesh. "A nomological network of knowledge management system use: Antecedents and consequences." *MIS quarterly* 41.4 (2017): 1275-1306.