



# The relationship between organizational change and knowledge management strategies: A systematic review

Surour Slayem Alshamsi and Azzam Othman

20001129@student.buid.ac.ae; 20195909@student.buid.ac.ae

The British University in Dubai, Dubai, United Arab Emirates

**Abstract.** It is evident that organizations applying a knowledge management framework benefit from the data and information required on any occasion while ensuring that all elements, including accountabilities, processes, technologies, and governance, perform accurately. Any changes in the organizational process, project, or service may disturb the knowledge management framework. This study provides a comprehensive analysis of 5 research articles published in conference proceedings and journals from 2000 to 2021 in the context of the relationship between knowledge management and implementing a successful organizational change. Furthermore, this study proposed an extended framework to manage changes in organizations. This study also conducts secondary and primary research to get the opinion of professionals while they face issues in managing KM framework during change management. This study attempts to show the recent research progress in knowledge management during organizational change management and proposed an integrated framework to manage changes under the KM framework so that pitfalls of KM might be reduced during an organizational change.

**Keywords:** Knowledge management strategies, Personalization, Codification, Change management, Interrelationship, Knowledge sharing.

## 1. Introduction

Knowledge management framework can be applied to any organization regardless of its size and economic worth (Al Emran & Shaalan, 2014; Shrafat, 2018; Wahab et al., 2018). But it is essential to understand the difference between data, information, and knowledge (Nonaka, 1994). It is a step-by-step process to understand the difference between data, information, and knowledge. Data is the first instance that becomes information and then transformed to knowledge where data is the observations, recorded facts, or any other techniques to gather it. Information is the combination of different data, or we can say that different kinds of data records are combined together to provide meaningful information. Knowledge is a deep insight with all of the contextual meaning for all information provided. So, it is a simple approach that data and information can be stored easily even though the entities are interrelated. Still, when it comes to knowledge management, things might get broader where all elements of the knowledge management framework, including people, processes, contents, and strategies, are explicitly and implicitly involved (Abousamra & Al Ali, 2017; Arpaci, 2017; Bjørnson & Dingsøyr, 2008).

Organizations have to recognize the KM framework components, at least the most basic ones (Saqib et al., 2017). The first component of the KM framework is to know what is needed. Identifying possible needs and requirements is one of the most important components and is the beginning of KM framework implementation. Once the organization understands the identification of needs, the next step is to recognize and identify the knowledge resources from where the organizations may get the knowledge. The third component of the KM framework is to attain, create, or eliminate (if required) the knowledge-related resources. These might not only be the resources but processes and environments as well. The next step is to understand how to retrieve the knowledge so that all contextual information should also be included, and the last one is the storage methodology (Al-Emran, Mezhuyev, & Kamaludin, 2018).

Even though addressing the basic components of knowledge management, this might create a complex model because of closely related and dependent disciplines because of a wide range of processes and systems. Whenever an organization chooses to manage the KM framework, three questions must be answered. It is very important to implement the KM framework appropriately to get the optimized results when required. The first question for KM framework implementation is what type of knowledge is required and how it should be displayed. In this question, the informational context must be recognized with the relevant stakeholders under specific privileges. The next question of implementing KM framework is to know why such kind of knowledge is required. It is an important query to know before displaying any type of information to any of the organizational stakeholders. It is also obvious to retrieve the relevant knowledge and information on a specific timeline. There are many situations in organizations when the information should not be provided after some deadlines (Davenport & Grover, 2001).

Change management is one of the crucial tasks in organizations, and many corporate-level organizations follow change management services and standards provided by different certified organizations. In general, there are five significant steps of change management. The first step is to get the organization prepared for change, either a project, process, strategy, or product base change. This is the crucial phase in which the management starts preparing the employees and other stakeholders to understand the importance of current change and make up their minds. Some changes might include financial deviations and time delays that might not get success because of the sponsors' interest. So, it is important when each stakeholder recognizes a change, and each external or internal stakeholder might be prepared for it. The second step is to plan the change, and this change must be addressed to the strategic goals and objectives, performance indicators, stakeholders, and team members, as well as the project scope. Once the change plan is finalized, it is time to implement the change, and to implement the change, all steps should be followed that are outlined for implementation must be followed regardless of the type of change. The change types might be the company's structure, systems, strategies, processes, culture, employees' behavior, or any other type. The most important and challenging step is to embed the change into the organization's culture, and change manager should be very specific and professional to let the culture adopt the change. It is not just the final step to implement the change but also to review the progress and analyze the results is also one of the major tasks to make sure that the change is implemented successfully (Change, 2014).

The need raises of an appropriate method to manage a change, especially for those organizations who already applied knowledge management framework and a change is going to happen because it is a complex situation when all the entities of knowledge management framework may receive the relevant information during the change. There is a high risk during the implementation of a change management service that some of the information may not get processed or stored in a way that is compatible with the knowledge management framework. So, we can say that there are possible pitfalls for KM framework during a change, and it is essential to design a process, procedure, or framework that helps to support the change management services of any type.

Accordingly, the work presented in this study aims to systematically review the impact of technologies on knowledge retention studies in order to provide an analysis of the gathered studies. More in-depth, this review study aims to answer the following research questions:

RQ1: How does Knowledge management affect organizational change?

RQ2: What are the main research methods and outcomes addressed in the selected studies?

RQ3: How are the studies concerned with the relationship between organizational change strategies and knowledge management strategies among countries in which they were implemented and publication years?

## **2. Background**

The increasing use of information technologies and their applications brought a large number of opportunities (Al-Emran, 2015; Al-Emran et al., 2015; Al-Emran & Shaalan, 2017; Salloum et al., 2017). Knowledge management has been commonly employed in many sectors, and its role can not be denied (Al-Emran, Mezhuyev, Kamaludin, & AlSinani, 2018; Al-Emran & Mezhuyev, 2019). There are many organizations in the world that are practicing knowledge management. Still, if we look back, this strategy is not much adopted. Most organizations were not appropriately aware of the benefits of knowledge management just a couple of decades ago even though the term knowledge management official came into reality in the 1990s. The main purpose of this term is to refer to a multi-disciplined approach to receive the strategic and organizational objectives and goals by making the best use of knowledge. This term was first used by Peter Drucker, also called knowledge expert. We know that not for decades but for centuries, the human quest for understanding and gaining knowledge of any type has been the basic behavior and wherever we have reached till now in the field of technology, this is because of the knowledge. Even the

boom of information technology (IT) finally revolves around getting all types of knowledge and using it effectively. Capturing situational information and knowledge, keeping it stored, and getting it retrieved on demand has always been beneficial for organizations (Arpaci et al., 2020).

There are not many recognitions in the field of Knowledge Management and no significant notions used by different researchers or experts, and there is no generation notion accepted so far. But overall, the KM utilizes explicit knowledge using technical approaches, and the main focus of KM systems is the knowledge acquired by people, computer-based information, and knowledge. In order to get this knowledge, different tools and technologies, including operating systems, emailing portals, software systems, online systems, databases, web servers, and application servers, are utilized. However, the information, settled in an appropriate framework where all elements and components of KM framework are connected is the main asset of Knowledge management. So, we can say that there is a systematic management of knowledge that is really helpful. It is possible to differentiate different competitive factors for individuals, corporations, and nations (Wiig, 1997).

Knowledge management helps to achieve the realities from different complex situations and related information alive in such a way that all enterprise' activity areas must be covered (Al-Emran et al., 2019; Al-Emran, Mezhujev, et al., 2021). If we dig deeper, KM also helps get information in more complex situations when management decides to systematically integrate and manage knowledge management-related activities. Each enterprise wishes to be unique and tries to manage knowledge when managing it is a legion. There are other complex situations when customized approaches are to be formed to achieve the best practical solutions. After all these complexities, KM has reached a sophisticated model that offers functional elements with all interrelated components generalized for any organization. KM experts have to focus on specific areas to manage the information so that it provides a body of knowledge as per the standards maintained by KM framework (Scardamalia & Bereiter, 2010).

This is the section where we are going to conduct secondary research by reviewing different journals on the related topics. Our topics are related to knowledge management as well as change management, and in this section, we are going to produce rigorous information for the reader to understand both of the technologies and a relationship between them and how our topic is previously researched with what possible outcomes.

## 2.1 KM Framework

As we discussed in the previous sections, KM framework has four main elements and in which people, process, content, and technologies are involved (Salzano et al., 2016). Figure 1 shows the relationship between these elements. It is essential to provide continuous improvement with flexibility and knowledge-driven learning and improvement throughout these elements. There is another aspect to maintain during KM processes to be committed to leadership and promote the culture of knowledge seeking and exchange as well (Eppler & Burkhard, 2007).

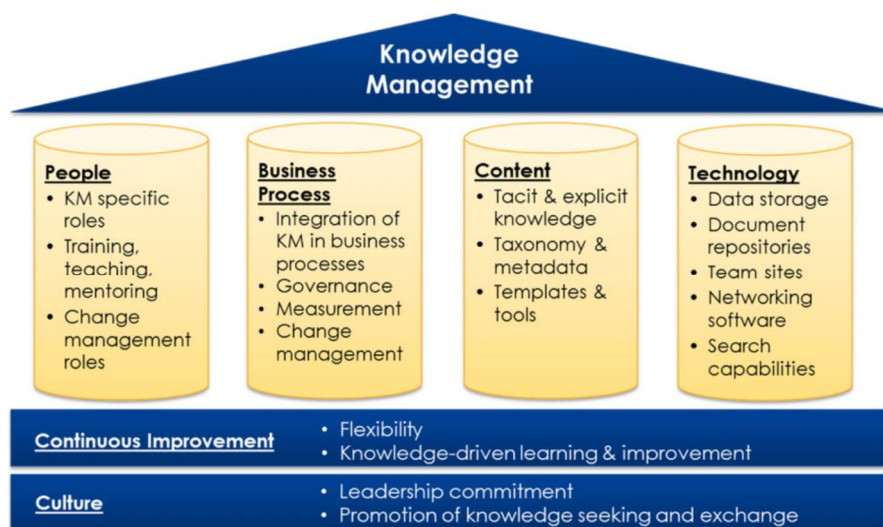


Figure 1. Knowledge management framework

### 2.1.1 Culture

Organizations that try to implement a knowledge management framework encourage to seek and share knowledge. This is the most critical area to gain success in any KM program if implemented in any organization. Here are the dependencies of behavior for all types of entities, including people and other organizational stakeholders. It is not an appropriate approach to believe that different IT-based tools will only help implement an effective KM program (Rai, 2011).

### 2.1.2 Continuous Improvement

The emphasis of any KM program is to make sure that there is a continuous knowledge gaining process and there is an appropriate improvement in each of the processes and procedures because of the application of KM program, and there are innovations in businesses as well found. It is essential that KM program implementation may help evolve the provided changing demands of the enterprises and organizational objectives so that internal and external influential forces may get appropriate knowledge sharing possibilities. If this happens in a sophisticated way may be the pointing factor that the progress towards organizational maturity is happening and in continuous improvement (Beckett et al., 2000). Figure 2 demonstrates the levels of continuous improvements.



Figure 2. Continuous knowledge gaining process.

### 2.1.3 People

Undoubtedly, people are the most essential factor of any KM program. It is much necessary for all the individuals who are internally or externally involved in the organization to accept the KM behaviors of seeking and sharing knowledge and information effectively. Company cultures must be adopted by the KM program elements aligned with the people’s mental approach, and organizational environment should reflect that people are following KM functional areas in a sophisticated manner. People must be provided specific privileges, including different possibilities and levels, to interact with knowledge management programs to ensure that all the information is added to the KM program (Parikh, 2001).

### 2.1.4 Business Process

There are critical and different business processes that should be monitored in such a way that all data and information must be captured appropriately, and no doubt that it is a critical step to capture the knowledge integrated with different business processes. However, the KM program is one of the best ways to support any business program, including infrastructure, measurement, change management, and governance, to review the potential improvements in businesses. Suppose that if any small or medium business organization is selected and there is a requirement of a process to be ensured and remained relevant to the changing needs of the organization, then KM program might be very helpful for such a situation. If there are governance-based processes, then we can say that critical decision-making might be very helpful through KM program implementation, and different business goals and objectives might be aligned with the requirements of governance process changing needs (Mahmoodzadeh et al., 2009).

### 2.1.5 Content

There are critical and different business processes that should be monitored so that all data and information must be captured appropriately. Undoubtedly, it is a critical step to capture the knowledge

integrated with different business processes. However, the KM program is one of the best ways to support any business program, including infrastructure, measurement, change management, and governance, to review the potential improvements in businesses. Suppose that if any small or medium business organization is selected and there is a requirement of a process to be ensured and remained relevant to the changing needs of the organization, then KM program might be very helpful for such a situation. If there are governance-based processes, then we can say that critical decision-making might be very helpful through KM program implementation, and different business goals and objectives might be aligned with the requirements of governance process changing needs (Mahmoodzadeh et al., 2009).

It is a very tactical approach to understand the content for any business to implement a KM program. It is required to know what content is needed for a specific business process, role, or any other procedure for the KM program. Learning about the content life cycle is the primary goal during the implementation of KM program implementation, and it is also essential to know who created this content. The people, organizations, or other stakeholders might need the content and KM program requires to know this information in full context. The KM program also requires the procedure of accessing the content. The categorization of the content in a different context, tools, and technologies, search and retrieval process, captured information formats and approaches, and consistency of the content details are the key factors required for KM program implementation (Zhao, 2010).

### **2.1.6 Technology**

Technology is undoubtedly one of the main pillars for implementing KM (Al-Emran, Abbasi, et al., 2021). However, it is not the prime consideration for selecting the strategy and approaches because most of the technologies provide general procedures of data mining, data analytics, queries management, and retrieval and storage procedures. However, these are the rules and regulations defined, specified, and designed by KM programs to implement how the selected tools and technologies will behave to create, process, store, and retrieve knowledge in KM program specifications. These tools and technologies might be including the team sites, networking packages, and other social networks to facilitate the KM program. To bridge the gap between tools, technologies, and people who are going to benefit from the KM program, training sessions are normally introduced to use the technologies effectively so that there should not be any misconception related to the benefits of using technologies as well as all stakeholders should not feel it a burden (Misra et al., 2003).

## **2.2 A Framework for Change**

Change management is a sophisticated process, and more or less, there are more than six processes to follow in order to complete the change management service in any organization. The change might be of any type, and different types may vary one or two processes to be merged with others depending upon the type of change, but the overall process remains the same.

### **2.2.1 Define Change Initiatives**

The first and foremost important step is to define the change initiatives. Here is the time when it is required to analyze the organizational tracks carefully. It is a useful point to define the roles and key responsibilities of all players who are going to be involved in change directly or indirectly, either they are change strategists or implementers. They might be the recipients of the change. Change strategists are the key people, individuals, or factors responsible for the initial type of work where they require identifying the need for change and creating an appropriate vision of the desired outcome of the change. It is also their job to decide what change is suitably feasible to what level and who will sponsor it or who will defend it. Their main role is to support the overall process of change by any means. As long as the change recipients are concerned, these are the people who are going to adapt to the necessary change, and this might be the largest group of the organization. The change initiative must be credible enough for all types of targeted audiences; otherwise, there is no further step to follow, and the change is just dead from the beginning (Kuipers et al., 2014).

### **2.2.2 Evaluate Climate for Change**

Here is the time to review the climate for change that is going to be implemented. This is the time for strategists and implementers to explicitly and implicitly understand how the organization is currently functioning and what environments the organization is facing. SWOT analysis is very helpful in this stage to know the current overall climate of the organization. In fact, such information will be supportive to understand scenarios and to develop alternatives that might support the proposed change of any type. It

will also be helpful for designing an attractive and foolproof implementation plan for change management. In other words, we can say that this is the analysis time when the environment can be analyzed either feasible enough for upcoming change or not (Cameron & Green, 2019).

**2.2.3 Develop and implement a Change Plan**

Once the climate is appropriately evaluated for a change, this is the time to craft the implementation plan for the change management. Here is the time to specify the goals and objectives of the change, and there must be clearly defined roles and responsibilities for strategists, recipients, and implementers at this stage of planning. The process of change during this planning phase must specify the content of the change, procedures to follow, information required to be processed (retrieved, stored, formatted, etc.), and an optimized approach. The plan should be provided in a flexible and straightforward way that all of its relevant stakeholders should understand it without any issue (O’Donovan, 2008).

**2.2.4 Let the Culture Accept the Change**

It is very important that all the change management procedures adopted during the implementation of change management must become the root of the available environment of the organization, and it should be merged into it in such a way that it should provide relevant and renewed culture. It is one of the prominent errors if the change does not get involved and merged in an organization so that it does not become the organization's culture. The change model provided to the organization should be implemented in such a concrete manner that it should seem the rooted part of the organizational functions (O’Donovan, 2008).

**3. Method**

Before conducting any research study, a critical literature review is considered an essential stage of the said research (Al-Qaysi et al., 2020; Alsharida et al., 2021). Literature review sets up the foundation for information collection, which empowers the hypotheses’ expansions and improvements, reveals research areas that have been obliterated previously and seals the gaps in research (Marangunić & Granić, 2015). A systematic literature review should be based on explicit research questions, specifies and investigates related research articles, and specify their quality based on specified criteria (Al-Emran et al., 2018). This study reviews the literature in 4 stages: specifying the inclusion and exclusion criteria, data sources and search strategies, quality assessment, and data coding and analysis.

**3.1 Inclusion/exclusion criteria**

The research studies that will be investigated and analyzed in this systematic review ought to meet the inclusion/exclusion criteria demonstrated in table 1.

<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
Should involve knowledge management strategies.	Knowledge management strategies that are not related to organizational change.
Should involve organizational change strategies.	Knowledge management strategies that are not used within the context of organizational change.
Should be written in English.	Articles written in languages other than English.

**Table 1. Inclusion and exclusion criteria.**

**3.2 Data sources and search strategies**

The data sources that were used to collect studies involved in this systematic review through an extensive search were: Emerald, ScienceDirect, Springer, Wiley, ACM Digital Library, and Google scholar. Searching of the involved articles was conducted in April and May 2021. It is critical to carefully select keywords in a systematic review since they determine the retrieved articles by the search engine (Costa & Monteiro, 2016). Therefore, the search terms include the keywords (("knowledge management" OR "knowledge management strategies") AND ("organizational change" OR "change strategies")). The search results retrieved 125 articles utilizing the previously mentioned keywords. Out of the 125 papers, only 1 was found to be duplicated and was removed. By following the inclusion/exclusion criteria mentioned above, 5 research articles remained to be examined and included in the analysis process. Figure 3

demonstrates the summary of the lookup and reduction stages, which were done according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) (Moher et al., 2009).

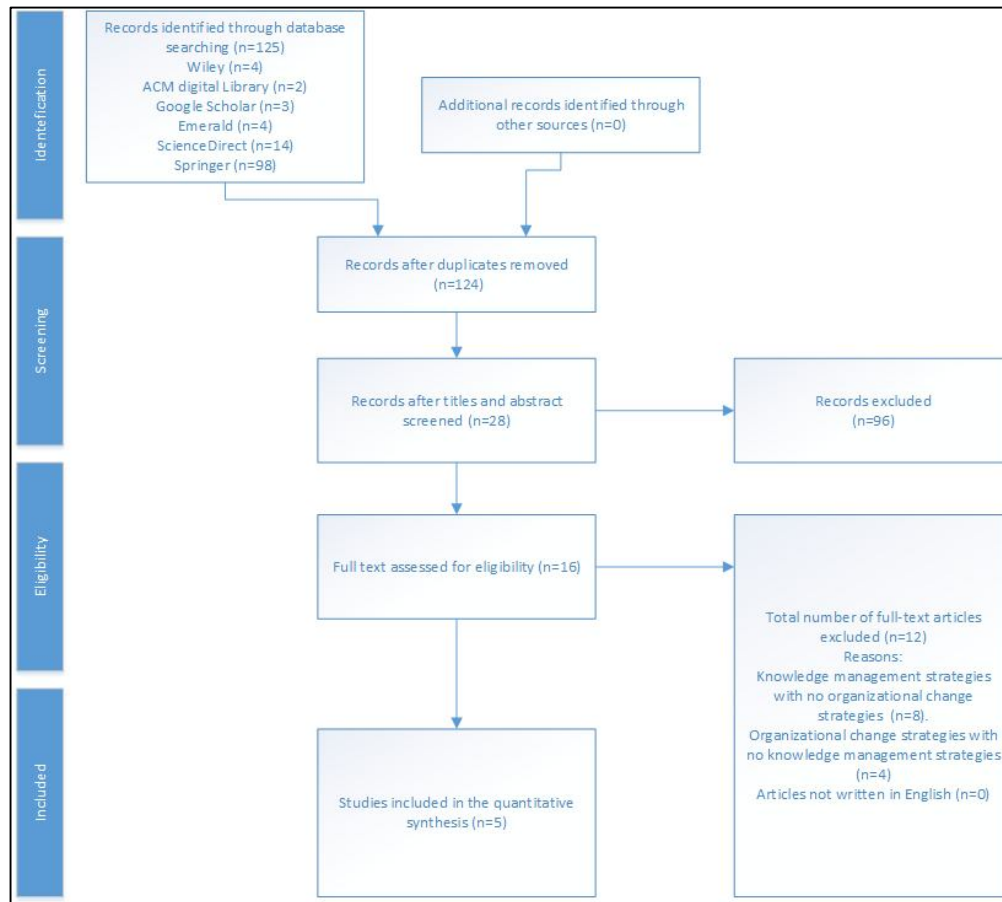


Figure 3. PRISMA flowchart.

### 3.3 Quality assessment

Quality assessment is considered an essential factor when examining a research article (Al-Emran, Mezhuyev, Kamaludin, & Shaalan, 2018). We prepared a quality assessment checklist with 5 criteria and evaluated the quality of the research papers that remained after the refinement process (n=5). Table 2 demonstrates the quality assessment checklist. The items found in the quality assessment checklist were adopted from the work of Al-Emran et al. (2018). They were not intended to criticize the work of the respected authors of the involved research articles.

No.	Questions
1	Did the authors state the research aims clearly?
2	Are the knowledge management strategies clearly specified?
3	Are the change management strategies clearly specified?
4	Did the authors explain the reliability of the measures?
5	Did the authors depict the statistical techniques used in their study sufficiently?

Table 2. Quality assessment checklist.

After assigning the quality assessment checklist, the questions were weighted on a 3-point scale, with a "Yes" weighting 1 point, "Partially" weighting 0.5 point, and "No" weighting 0 point, leading to a total score between 0 and 5. A higher score indicates that the study addresses the research questions more effectively. Table 3 illustrates the results of the quality assessment of the involved research (n=5).

Study	Q1	Q2	Q3	Q4	Q5	Total	Percentage
Danish et al. (2012)	1	1	0.5	1	0.5	4	80%
Imran et al. (2017)	1	1	0.5	1	1	4.5	90%
Ceptureanu et al (2017)	0.5	1	1	1	1	4.5	90%
Bloodgood & Salisbury (2001)	0.5	1	1	0	0	2.5	50%
Imran et al. (2016)	1	1	1	1	1	5	100%

Table 3. Quality assessment results.

### 3.4 Data coding and analysis

The coding of the correlated characteristics to the research methodology included:

- The main KM strategies
- The independent variables of the study
- The method of the research (interviews, survey, etc.)
- Participants
- Country
- Database
- Findings

The analysis of the involved studies was undertaken manually, and the articles that did not depict the influence of organizational change strategies on knowledge management strategies were excluded. Table 4 demonstrates the summary of the collected papers.

Source	KM strategies	Independent variable	Research method	Country	Participants	Database	Findings
Danish et al. (2012)	Knowledge management	<ul style="list-style-type: none"> <li>• Knowledge sharing</li> <li>• Organizational change</li> <li>• Organizational learning</li> </ul>	Survey	Pakistan	financial services sector and telecommunication sector	Google Scholar	The results showed a remarkable relationship of variables and positive effect on organizational performance.
Imran et al. (2017)	Personalization and codification	Successful change implementation	Survey	Pakistan	196 executives of the national bank of Pakistan	Emerald	The main findings suggest that both KM strategies have a significant positive effect on successful change implementation.
Ceptureanu et al (2017)	Personalization and codification	<ul style="list-style-type: none"> <li>• Organizational change</li> <li>• organizational learning</li> <li>• change readiness</li> </ul>	Survey	Romania	252 responses from end users of the HR departments.	Google Scholar	The outcomes pinpointed how energy organizations can execute an Enterprise Resource Planning-based change viably through KM strategies.
Bloodgood & Salisbury (2001)	<ul style="list-style-type: none"> <li>• knowledge creation</li> <li>• knowledge transfer</li> <li>• knowledge protection</li> </ul>	<ul style="list-style-type: none"> <li>• reconfiguring with existing resources</li> <li>• reconfiguring using new resources</li> <li>• acquire resources and not reconfigure business as usual approach</li> </ul>	Research	Not specified	Not applicable	ScienceDirect	The authors suggest that distinctive change strategies center around various blends of tactic and unequivocal knowledge that make particular kinds of IT more fitting in certain circumstances than in others.
Imran et al. (2016)	Personalization and codification	<ul style="list-style-type: none"> <li>• organizational learning</li> <li>• change readiness</li> </ul>	Survey	Pakistan	206 end users from the banking sector of Pakistan	Emerald	The results indicate that KM strategies indirectly affect successful organizational change through organizational learning and change readiness.

Table 3. Summary of analyzed studies.



#### **4. Results and discussion**

The systematic review of the respected 5 research articles about the relationship between knowledge management and organizational change strategies is reported based on the three research questions.

##### **4.1 How does Knowledge management affect organizational change?**

Through the analysis process of the selected 5 papers, it was evident that the effective application of knowledge management strategies positively affects implementing a successful organizational change. The most studied knowledge management strategies were personalization and codification. According to Imran et al. (2016), personalization knowledge management refers to a strategy in which change individuals embrace socialization features and communicate information individually or in a group. On the other hand, codification strategy means that the effective transfer of knowledge is accomplished through documents such as images, text, video, and audio files. The work of Imran et al. (2016), Imran et al. (2017), and Ceptureanu et al. (2017) suggest that a personalization strategy is highly valuable in comparison with codification strategy to achieve a successful organizational change. Danish et al. (2012) argued that a remarkable relationship exists between knowledge management, organizational change, and organizational learning and suggest that they lead to better organizational performance. While the previously discussed studies were quantitative in nature and involved surveys and statistical analysis, the work of Bloodgood & Salisbury (2001) provided an insight on the influence of organizational change strategies on knowledge management strategies qualitatively. The authors have investigated the significance of corresponding IT endeavors with key change endeavors in associations. In particular, they have depicted the connection between change strategies and knowledge management strategies. They have surveyed the level of fit among IT and the different sorts of vital change and knowledge management strategies. Furthermore, they have depicted how certain IT employments might be more normal for specific kinds of key change and knowledge management strategies than others and the conditions under which a given IT use would undoubtedly be utilized. Added costs, absence of sufficient knowledge creation and move, and impersonation of knowledge by contenders would all happen when IT endeavors are not adequately planned with vital change exercises, considering knowledge management issues. At long last, the authors have distinguished how future observational exploration can be intended to examine the connections among change strategies, knowledge management strategies, and maintainable leads over competitors.

##### **4.2 What are the main research methods and outcomes addressed in the selected studies?**

After the 5 research articles were systematically reviewed, it was revealed that the most used research method in the context of the relationship between knowledge management and organizational change was surveys and statistical analysis of the collected data. The studies utilized descriptive statistics (mean and standard deviation) and provided a reliability test of the collected data, except for the study conducted by Bloodgood & Salisbury (2001), which was qualitative. The authors developed several hypotheses to achieve suitable conclusions about the relationship between the variables involved in their studies. Danish et al. (2012) developed three hypotheses involving the three independent variables and how they affect knowledge management. It was revealed that a strong correlation exists between knowledge management, knowledge sharing, organizational change, and organizational learning. The high means of the variables in Danish et al. (2012) work indicate that most participants approve the significance of knowledge management, knowledge sharing, organizational change, and organizational learning. The work of Imran et al. (2017) involved developing four hypotheses the investigate the relationship between personalization KM strategy and successful change implementation, the relationship between codification KM strategy and successful change implementation, the mediation of readiness for change between personalization KM strategy and successful change implementation and lastly, the mediation of readiness for change between codification KM strategy and successful change implementation. The respected study results indicate a positive relationship between knowledge management strategies and the implementation of a successful change, with personalization strategy being more effective than codification. Moreover, it was found that readiness for change partially mediates the relationship between personalization strategy and successful change implementation and partially mediates the relationship between successful change implementation and codification strategy. Ceptureanu et al. (2017) have investigated the impacts of using knowledge management strategies on successful organizational change among energy companies in Romania. The researchers have developed a total of 8 hypotheses to conclude the relationship between two KM strategies (personalization and codification) and organizational change, organizational learning, and change readiness. They provided insight into the reliability of the data and descriptive analysis (mean and standard

deviation). The researchers revealed that personalization strategy is greatly valuable to implement successful change in comparison to the codification strategy. The work of Bloodgood & Salisbury (2001) described the relationship between knowledge management strategies and change strategies qualitatively. The authors have evaluated the fitness between IT and multiple types of KM strategies and change strategies. By describing how specific uses of IT might be more common for specific types of KM and change strategies than others, they suggested what strategies would most likely be suitable for IT uses.

#### **4.3 How are studies concerned with the relationship between organizational change strategies and knowledge management strategies among countries in which they were implemented and publication years?**

The research articles involved in this systematic review were mostly conducted in Pakistan (n=3), followed by Romania (n=1), and the work of Bloodgood & Salisbury (2001) did not specify a specific country since their research was qualitative in nature. All quantitative studies had positive outcomes and relied on surveys for data collection. Regarding the year of publication, studies ranged from 2001 to 2017, with the most recent 4 studies being quantitative in nature and relied on data collection and statistical analysis.

### **5. Conclusion**

Previous studies investigating the relationship between knowledge management strategies and organizational change provided an appreciated insight into this specific research tendency. A systematic review has been carried out in the present study to analyze the relationship between the two variables and examine to what extent knowledge management strategies affect organizational change. The studies relied on surveys and were mostly based in Pakistan providing positive outcomes and indicating a positive relationship between KM and successful implementation of organizational change.

It is concluded that KM framework itself is a comprehensive technology to manage all types of data, information in such a way that any contextual knowledge is also available to any of the stakeholders of an organization where required precisely, timely, and with the completely demandable format. KM framework also supports the change management services somehow. Still, there are situations where KM framework cannot support and might be bulked with the information that does not mean valuable to the organization during change management services. So, in this situation, the requirements of proposing an integrated solution by implementing the AI-based latest technologies and tools might help the organizations for a better KM program implementation. Organizations that manage their knowledge for all kinds in all situations are the main target for such an integrated framework.

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