Critical Appraisal Study of Knowledge Management and its Importance Among Public Sector

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Astract

The aim of this paper is to review the current knowledge management (KM) practices and their importance in the public sector of Saudi Arabia. Using the term "knowledge management in public sector", a search for available works was done in Google Scholar. In the first stage, the search for literature published under anytime choice was done in the first 10 pages of the search engine. Then another nine pages of Goggle Scholar were searched for more recent works published setting the time as 2014 to 2018. The search yielded 37 usable works for this review. The results of this literature search and review indicated that out of the 37 works reviewed, only three works were related to Saudi Arabia. Number of papers on factors of KM were maximum, many of them giving diagrammatic presentation of their results. KM modelling itself is not easy as only very few papers on KM modelling were available. Problems of too much reliance on qualitative data and hypotheses not matching with the literature backgrounds for them were also found. Considering the works related to KM, the number of papers in various categories may indicate the dimensions of KM to be considered when KM is implemented or evaluated in any public sector of any country. This applies to Saudi Arabian public sector organizations also. There is a fertile ground of research waiting to be investigated by researchers in Saudi Arabia.

Keywords: *Knowledge Management, Saudi Arabia, Public Sector*

1. Introduction

In the new globalized economy both challenges and opportunities exist for private as well as public sector. Adoption of new management methods is required to address these challenges. Knowledge Management (KM) provides the opportunity for this. According to Milovanović (2011) knowledge of an organization is unique, valuable, difficult to imitate and is a derivative of the organization's history, structure and culture over time. Social and technological components constitute the total KM system. In a structured review, Massaro, Dumay, and Garlatti (2015) contended that in spite of its growing importance, public sector KM has few specialists in research. Researches on international cooperation and comparisons of KM are very few. There is highly focused research in some geographical regions and some selected topics. This prevents a balanced view of KM in a generalized perspective. Stakeholders and accountability of public sector KM practitioners are different from those of private sector. Connection between research and practice need to be improved by adopting suitable research methodology.

In this background, the aim of this paper is to undertake a structured review of KM in public sector and its importance.

Method

This study has adopted the content analysis is a flexible research method, it is a research tool to determine the presence of certain words or concepts within some given qualitative data.
(i.e.text) researchers can quantify and analyse the presence, meanings and relationships of such certain words, themes, or concepts. Using the term "knowledge management in public sector", a search for available works was done in Google Scholar. In the first stage, the search for literature published under anytime choice was done in the first 10 pages of the search engine. Then another nine pages of Goggle Scholar were searched for more recent works published setting the time as 2014 to 2018. The search yielded 37 usable works for this review. The results of this literature search are given below.

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Results

The distribution of reviewed papers on topics discussed in this paper is tabulated below-

Topic	No of papers
Introduction	2
KM and e-government	1
Other dimensions	12
KM stages and elements	1
KM models	1
Factors and their models	20

Maximum number of papers were re extremely important, but in the absence of varied models of KM itself (only one paper on KM model), relevance of factors may keep on changing as contexts change even in one scenario. The problems relate to the application of various dimensions of KM are also similar. Those topics require immediate research prioritization.

Dimensions and factors of KM in public sector

Many of the works discussed under this section were done on public sector organizations in different countries. But the findings are more generally applicable. Hence they are discussed with respect to dimensions and factors of KM.

KM and e-government

KM was linked to e-government in the case of public service organizations by Arora (2011). KM with ICT strategies facilitate e-government. KM provides the strategic component of e- government for managing its e-content. KM in e-government improves the competence of the government. It helps to raise the service quality. Time and cost-effectiveness are important when KM is used in e-government. The relationship between the two were explained diagrammatically by the author is reproduced in Fig 1.

Figure 1 Relationship between KM and e-government (Arora, 2011)

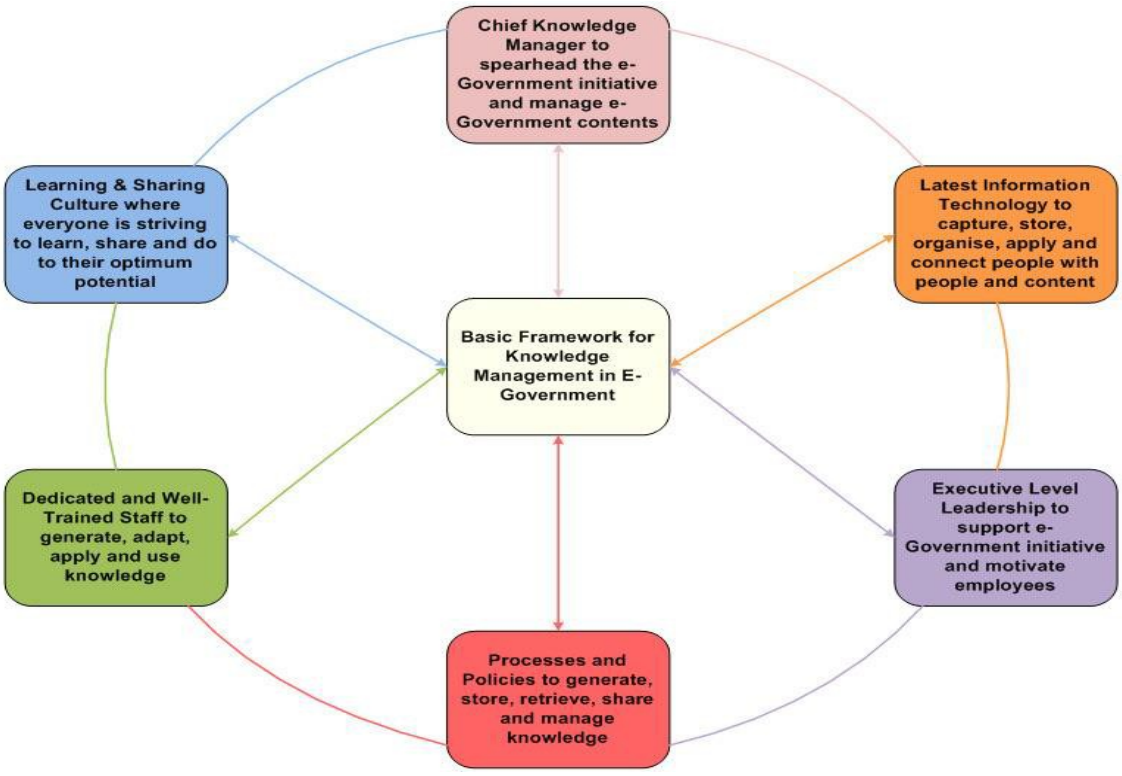

Figure 1 Relationship between KM and e-government (Arora, 2011)

Other Dimensions of KM

A resource-based view was utilised by Pee and Kankanhalli (2016) to explain KM in public sector. Interaction of physical resources of KM with organizational and human resources, the effect of KM in improving effectiveness of public sector, increase of physical KM resources by senior management and suppression of KM resources by organizational structure were identified as interacting factors affecting KM in public sector.

In a doctoral thesis work, Alhamoudi (2010) noted that knowledge management (KM) involves creating value from intangible assets of the company. Knowledge is an intangible asset of the company created through learning processes through its pool of talented employees. Internal leverage within its employees leading to knowledge built into its structure and systems. External leverage occurs on its customers and other stakeholders. The author adapted Balanced Score Card (BSC) system into a Knowledge Management Balance System (KMBS). Using a multiple case approach involving a survey and semi-structured interviews on all the 238 public sector organizations under Institute of Public Administration. As result, 13 critical factors were identified to be important for the success of strategic KM success. These were categorized into four groups, viz. KM strategy and vision, communicating and linking of current knowledge, actual strategic plan, feed-back and needs to learning for more knowledge. A conceptual model of Strategic Knowledge Management System (SKMBS) was proposed and a roadmap to obtain a framework was also proposed.

In his work, Wiig (2002) observed that in public sector, different roles of KM are handled by their different constituencies. All these combine together to become the intellectual capital of the society for the ultimate benefit in terms of effective public decision making and handling of situations. Four areas of importance in KM of public sector are: enhancing internal decision making; enhance effective public participation in public decision making, making societal IC capabilities more competitive and developing a competitive work force, which is knowledge-based.

Organizational culture (sharing and individualism), structure (information confidentiality, communication flow) technology (ICT knowhow, infrastructure, and tools), human resources (posting, training, staff turnover) and political factors were correlated with knowledge assets and transfer in public sector organizations in the studies of Omar Sharifuddin Syed-Ikhsan and Rowland (2004). Noting that adoption of KM itself is an organizational change, Riege and Lindsay (2006) highlighted the importance of stakeholder partnership in KM of public organizations through roles in public policy development, stakeholder management and communication strategies.

According to Cong and Pandya (2003) public sector can learn and adapt successful KM methods from private sector. The authors listed and discussed the need for KM in public sector as the role of KM in enhancing competitiveness, increasing competition from private sector for those products and services hitherto offered by public sector only and harnessing and retaining the high level valuable knowledge of the large number of retiring employees. People, technology and processes were discussed in terms of generic framework of KM in public sector. A more developed KM was noticed in public sector compared to private sector by McAdam and Reid (2000) in their Irish work.

The same authors (McAdam & Reid, 2001) also compared KM in small and medium enterprises (SME) and large organizations. Surveys and workshops with both types of organizations showed that KM is more advanced in large organizations. KM is understanding and implementation for organizational development with both scientific and social elements in the large organization sector. In the case of SME sector, KM was less advanced as their approach to knowledge was more mechanistic approach and there was lack of investment in approaches and systems specifically related to KM. In another Singapore study on KM in SMEs, Menkhoff, Wah, and Loh (2016) used a case study of a small intelligent pest control firm, which made use of development grants of the government effectively. Such grants were meant to transform the SMEs towards official IT-related development strategies. The pest control firm used Enterprise Resources Planning to connect its operations with customers facilitated by knowledge flows. To achieve success, nine knowledge gaps were identified and were addressed systematically by the firm.

Noting that effective knowledge management has become a necessity in today's knowledge- based economies, Omotayo (2015), in a review, reiterated that KM is required for organizational survival, profitability and performance in such an environment. It is necessary to pay full attention on the three critical components of KM: people, processes and technology for good leverage of knowledge. KM can provide the basis of identifying the factors of successful and failed IT outsourcing in public sector. Knowledge drain can be prevented. These observations were made by Beyah and Gallivan (2001).

In a historical sense, traditional government has transformed into e-government and then to open government. This has resulted in creation of a lot of open public data. Recent trends in changing public administration

to make them more efficient and effective resulted in e-government and further to open government. The situation warrants solutions using re- engineering in knowledge recovery and management, especially due to the semantic dimension of such data. A detailed discussion with images on this topic has been provided by Theochari and Tsihrintzis (2016). Such a change required suitable infrastructure, communication technology, inter-connected and inter-operable information systems and processes. Internationalization of e-government/open government requires collective wisdom achieved through international sharing of best practices. Employees leaving an organization do not leave their knowledge gained through experience. It results in lower quality, wastage of time, reduction of efficiency and poor public image. The success of the whole system depends, among other things, on KM. KM involves discovery of methods to identify sources, extraction, use and distribution of knowledge.

KM stages and elements in stages

In their work on KM in Albanian firms, Margilaj and Bello (2015) reproduced the maturation guides of KM steps (Robinson et al 2006, as cited by Margilaj & Bello, 2015) (Fig 3), elements involved in KM programme stages (Parlby, 1999, as cited by Margilaj and Bello (2015), and critical success factors suggested by various authors. The critical success factors are: organizational culture, organizational structure, organizational strategy, management leadership, management of human resources, information technology and monitoring and measuring systems.

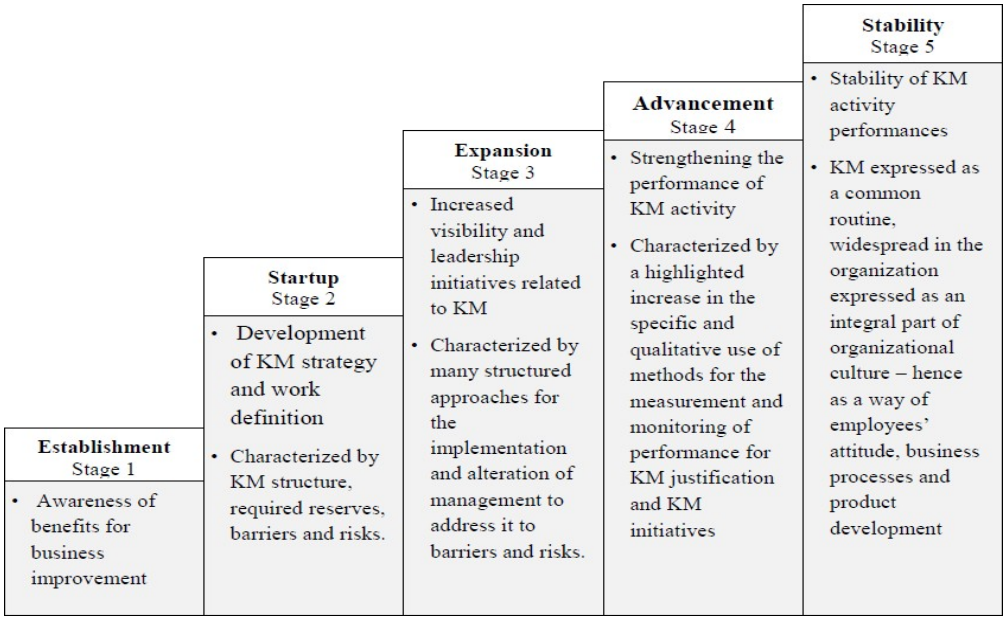

Figure 2 Stages in maturation of KM (Margilaj & Bello, 2015)

KM models

According to the works reviewed by Theochari and Tsihrintzis (2016), KM is applicable in a variety of administrative situations such as: need for specific skill or expertise, experience in solving some specific problems, matching the ability of a person with the job requirement, matching training programs of employees with their identified training needs and knowledge withheld in certain individuals. Value of KM lies in decision making, resource autonomy and learning. The main issues related to KM in public sector are: identification of the knowledge requirement of the organization addressing knowledge gaps, organizational change to a culture of policy changes when required, appropriate technologies, methods to identify sources and organizing knowledge, collaboration methods and tools, evaluation of tools for their effectiveness and decision support systems. A KM template presented by the authors is reproduced in Fig 8. Thus creation or sourcing knowledge, modification if required and using it for the organizational needs are the main steps. Translation, archiving or disposal are other steps.

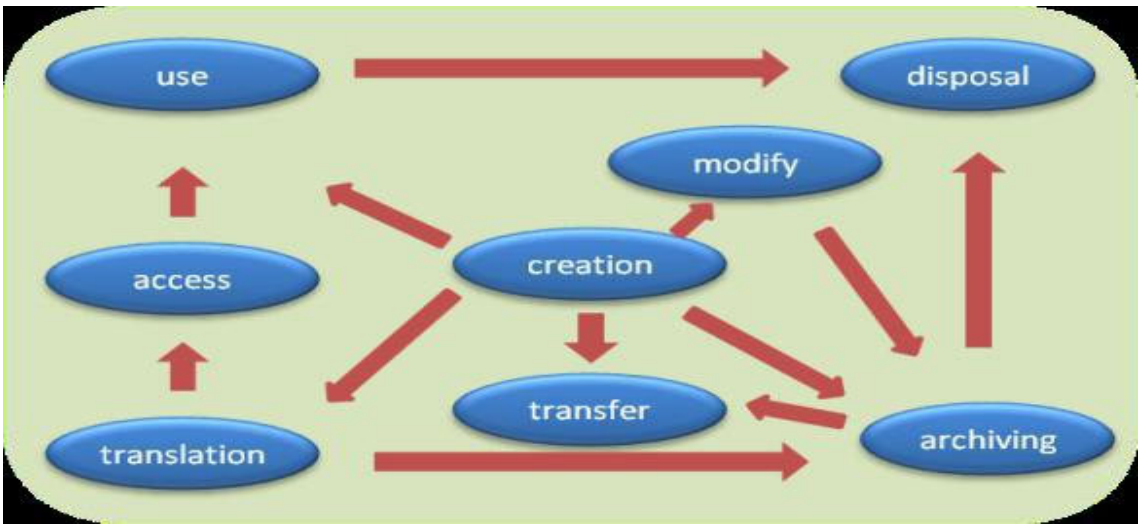

Figure 3 KM template (Theochari & Tsihrintzis, 2016)

Information collected from literature has led Theochari and Tsihrintzis (2016) to propose a structure of the KM system, reproduced in Fig 9. In this system, the inseparability and interdependence of people, content, technology and their interfaces are shown.

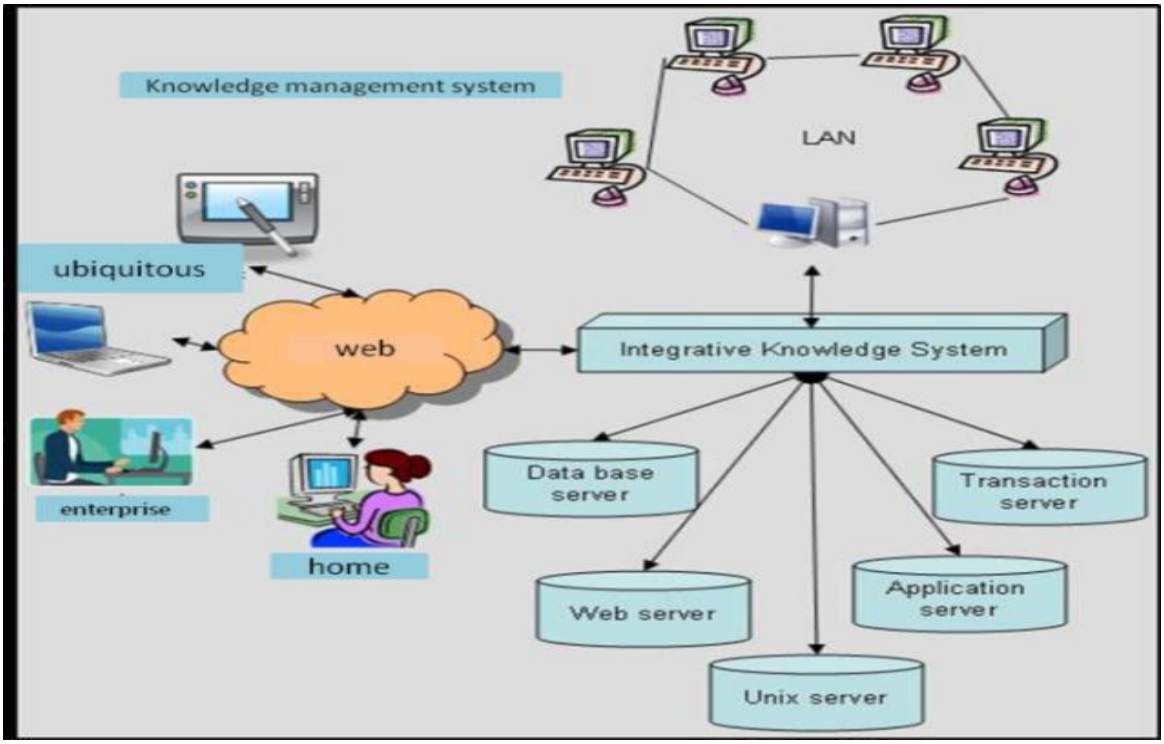

Figure 4 Structure of KM system (Theochari & Tsihrintzis, 2016)

The KM system consists of seven layers as shown in the reproduced Fig 10 from Theochari and Tsihrintzis (2016). The authors used SPARQL Query tab of the Protégé 4.2 to model and extract knowledge in an e-government system. The accuracy and consistency of the ontology were tested using HerniT provided by Protégé.

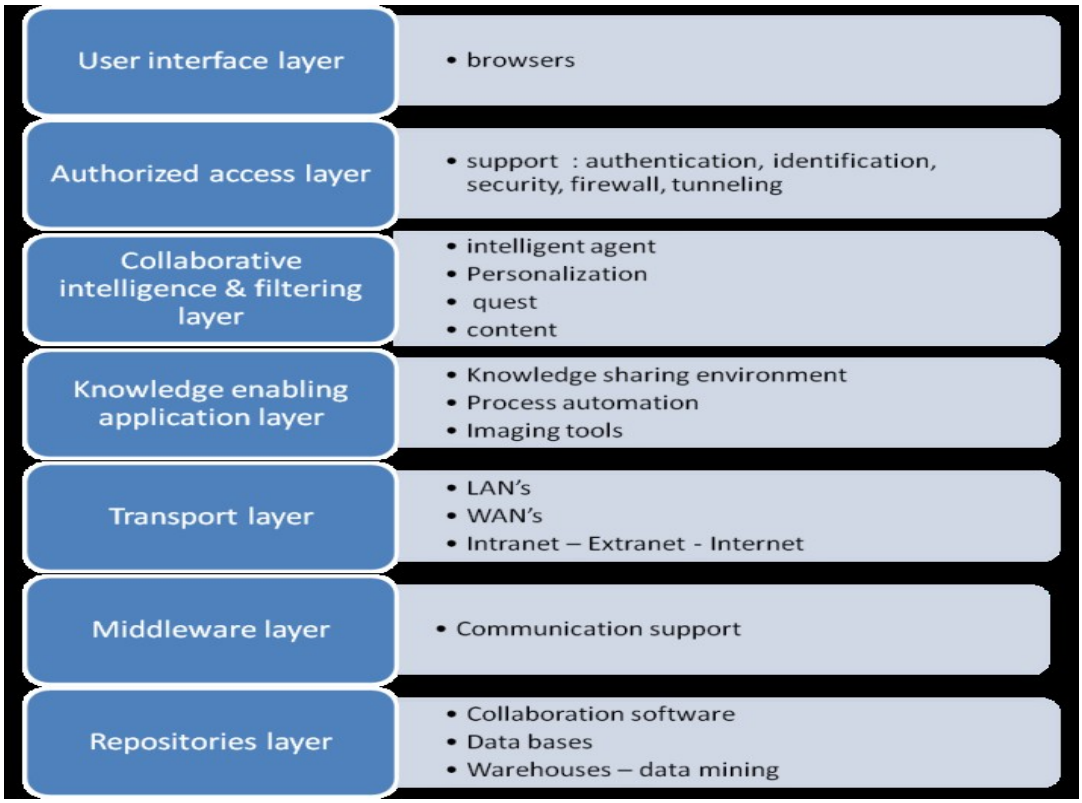

Figure 5 The 7-layer system of KM (Theochari & Tsihrintzis, 2016)

Some factors/components of KM have been variously listed by different sources. A list of seven components in Knowledge Management (2011) is given below-

1. A strong link of KM programs to a business imperative like value proposition, faster time to market new products, enhanced customer service etc. A good measurement system should be in place to evaluate the effectiveness of this link.

2. A good attractive vision and framework to connect with sources of building knowledge to achieve a common language and accelerate change. The key elements of knowledge and core processes of increasing the value of knowledge to contribute to the organizational performance are defined here.

3. Knowledge leadership. There should be a knowledge-expert to lead the KM processes supported by top management. Knowledge itself develops leadership qualities in individuals in the entire organization.

4. A knowledge-creating and sharing culture. There should be an organizational culture of knowledge creation and sharing. This culture empowers individuals. It should support informal networking. Knowledge sharing across organization and geographic boundaries need to be encouraged.

5.Continuous learning. Learning should occur at all times and at all levels. Employees should be encouraged to ask questions, to challenge, discuss and to learn. Mutual learning between teams should occur. Both successes and failures are learning opportunities for the organization. .Learning needs to be shared wherever required.

6. Systematic organizational knowledge processes and practices. The importance of KM is recognized when there is a framework to identify important knowledge relevant to the organization and processes to capture and diffuse them

across the organization in a structured manner. It should be possible to easily identify and access sources of knowledge, whether in human brains or in databases.

7. A well-developed ICT (information and communications technology) infrastructure. Although KM does not require ICT specifically, it facilitates collaboration works if there is goo ICT infrastructure, information databases, communities to practice the acquired knowledge through discussion forums or networking. A good software and tools to support individual knowledge workers are essential. Information systems meant for KM needs to be accessible and easy to use from multiple locations while maintaining essential data security.

Using multi-case study, Akhavan, Jafari, and Fathian (2006) found some critical success factors, with varying levels of implementation in the firms studied. This is reproduced in .Fig 2

Critical success factors of knowledge management systems (main concepts)	Microsoft	Hew let Packard	Siemens	Ernst & Young	Teltech	BusinessEdge Solutions
Training programs	√	√		√	√	√
Knowledge architecture			√	√	√	√
Network of experts		√	√	√	√	
Knowledge sharing		√	√	√	√	√
Transparency		√				
Knowledge strategy	√		√		√	√
Trust	√	√	√			
Organizational structure	√	√	√		√	√
Business Process Reengineering (BPR)		√				
Pilot	√	√				
Knowledge storage	√	√	√	√	√	
Knowledge capturing	√				√	√
Knowledge identification	√				√	
Knowledge audit			√	√		
organizational culture	√	√	√	√	√	√
Support and commitment of CEO	√	√		√		

Figure 6 Critical success factors of KM (Akhavan, Jafari, & Fathian, 2006)

Four categories of success factors of KM were identified by OuYang, Yeh, and Lee (2010) based on a systematic review. These categories are: organizational factors, individual factors, KM capability and organizational performance. Items under each category are also listed. The master thesis of Mathi (2004) listed culture, KM Organization, strategy, systems & infrastructure, effective& systematic processes and measures.

Human and social factors were identified as important factors of KM by Thomas, Kellogg, and Erickson (2001). Kozjek and Ovsenik (2017) considered factors like value added per employee affected by motivation by performance assessment, training, ease of using technical tools, example set by superiors also as factors of KM. The authors provided a table of the link between factors and elements of knowledge reproduced in Fig 4.

Knowledge factor	Knowledge elements
Factor 1: Management leadership and support	Teamwork
	Management support and commitment to the goals
	Transparency, trust and organizational culture
Factor 2: Organizational culture	Climate in the organization
	Organizational structure
	Cooperation and communication
	Awareness and understanding of employees
Factor 3: Information technology	Database and technological tools for knowledge searching
	Information infrastructure
Factor 4: KM strategy	Company's openness for implementing KM strategy
	Knowledge management
	Administrator of knowledge
	Knowledge and measurement of knowledge
Factor 5: Performance measuring	Benchmarking
	Teamwork and problem solving (measuring the effectiveness of cooperation on challenges)
Factor 6: Infrastructure of the organization	Documentation of knowledge
	Knowledge exchanging
	Repositories and transmission of knowledge
Factor 7: Processes and activities	Architecture of knowledge
	Systematic approach to KM
	Creating knowledge
Factor 8: Rewarding and motivation	Human resources management and motivation
	Knowledge and winning organizations
Factor 9: Elimination of restrictions	Job security
Factor 10: Training and education	Continuous learning
	Training and education of employees
Factor 11: Human resources management	Flexible and dynamic organizational structure
	Change management
Factor 12: Comparative analysis	KM integration with existing systems
	Measuring performance
	Structure of knowledge

Figure 7 Link between factors and elements of knowledge (Kozjek & Ovsenik, 2017)

In a comprehensive review, Sedighi and Zand (2012), gave a diagrammatic presentation of internal and external factors of KM, as reproduced in Fig 5. Sub-factors of the internal and external factors have also been tabulated. Most of them conform to the findings of majority of workers, which have been already discussed above.

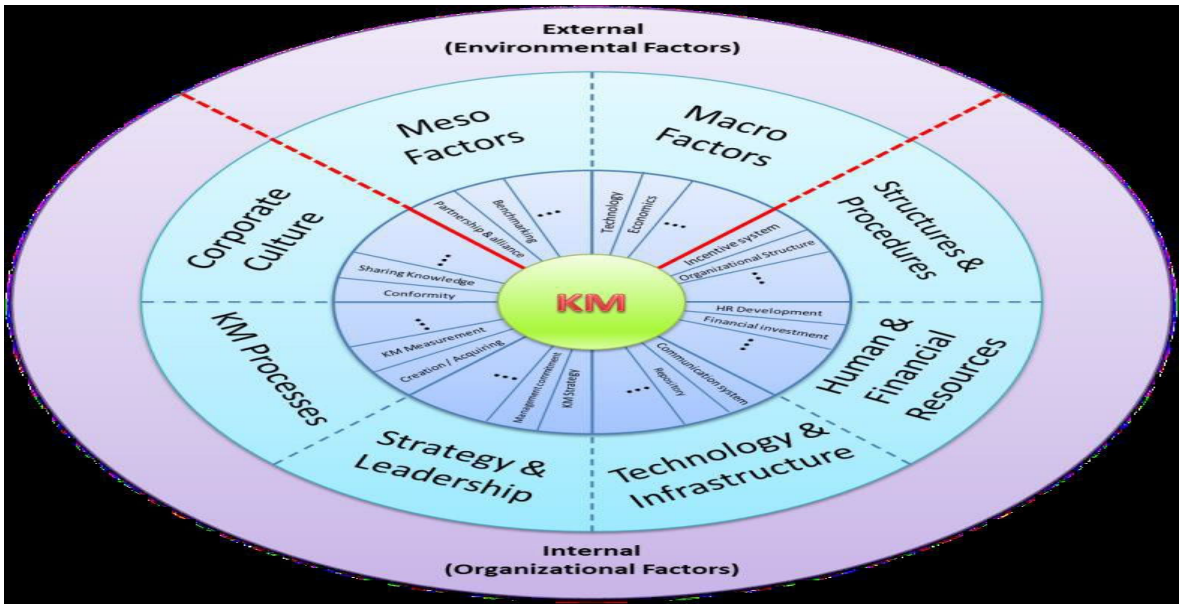

Figure 8 Internal and external factors of KM (Sedighi & Zand, 2012)

MeCTIP model and benchmarking KM were used (Moffett & Walker, 2015) for identification of opportunities, limitations and gaps of implementation in UK public sector. A large survey of UK public organizations was done. Six categories of KM- beginners, laggards, non-viewers, emergers, progressors and achievers were identified progressively. Interviews with participants selected from each category were used for further elucidation of their current KM practices, which led to the categories they belonged to. The MeCTIP framework in Fig 6 reproduced from Moffett (2015) considers two macro-environments, organizational and internal technical climate. Each of these can interact in technical, informational and personal process environments.

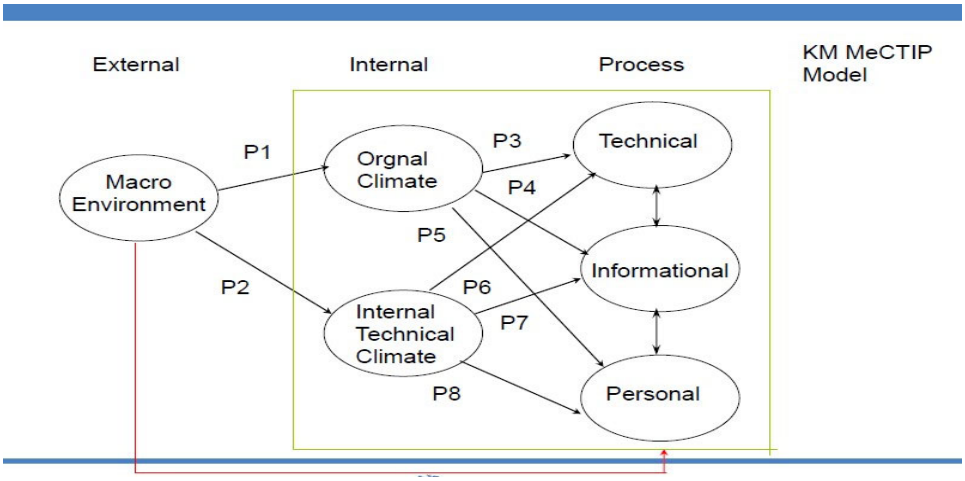

Figure 9 KM MeCTIP model (Moffett, 2015)

In a study using survey of different stakeholders of Indian public sector oil companies, Desai and Rai (2016) observed that KM can facilitate collaborative decision making in the case of both long term and short-term issues of downstream supply chain management. Based on an analysis of the questionnaire responses, the issues were classified as highly critical moderately critical and moderately critical issues. Their conceptual model is reproduced in Fig 7.

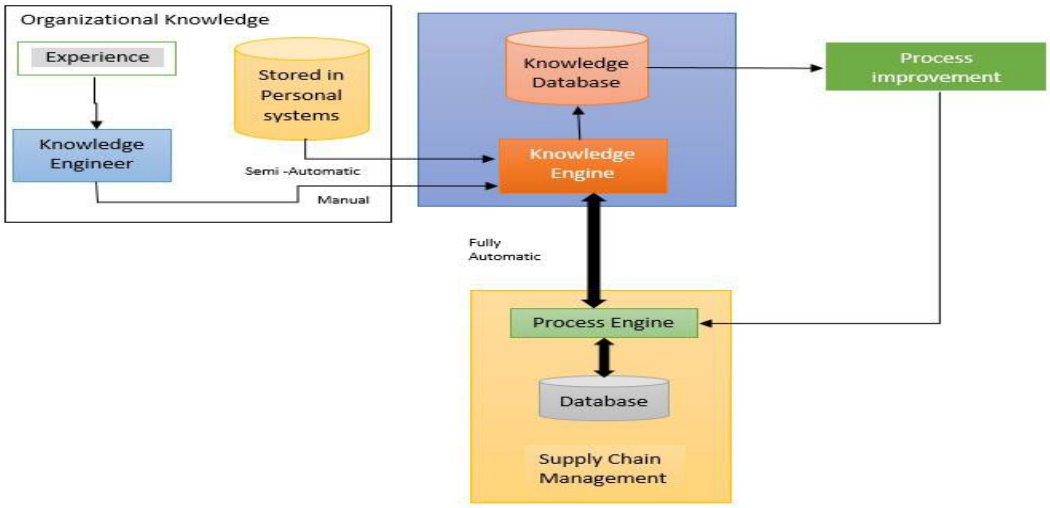

Figure 10 Conceptual model of KM for supply chain management in public sector (Desai & Rai, 2016)

Social software is used by global enterprises for global KM dimensions. When social technologies are used in globally distributed scenarios, both organizations and individuals face several barriers, which have not been identified in current KM literature. Based on a survey of literature, Pirkkalainen and Pawlowski (2014) identified 63 challenges across various disciplines. These challenges can be categorized into organizational, cultural and technical in nature. The relevance of any of the barriers is highly context-dependent, some of which are likely to occur more commonly than the others.

Many other authors have listed one or more of the above factors discussed above Fig 1 and Table 1. They include Lindner and Wald (2011), Creech (2005), Milovanović (2011), Črnjar (2014), Choy and Suk (2005), Valmohammadi (2010), Samad, Kazi,and Raheem (2014), Lee, Kim, and Kim (2014) and Wong and Aspinwall (2005).

Conclusion

Out of the 37 works reviewed, only three works were related to Saudi Arabia. Number of papers on factors of KM were maximum, many of them giving diagrammatic presentation of their results. People, Processes and technology are identified as three critical components of KM. Also, organizational culture, organizational structure, organizational strategy, management leadership, management of human resources, information technology and monitoring and measuring systems are all critical success factors to take under consideration.

KM allows various organizations to conquer multiple challenges and provides many benefits for the public sector for example KM improves the competence of e-government managing e-content. Senior managers and overall suppression of KM in organizational structures also affects KM in public sectors. We also reviewed four areas of importance in KM of public sector: enhancing internal decision making; enhance effective public participation in public decision making, making societal IC capabilities more competitive and developing a competitive work force, which is knowledge-based. According to a large survey conducted in the UK public sectors. Six categories of KM were identified beginners, laggards, non-viewers, emerges, progresses and achievers were identified progressively.

Problems of too much reliance on qualitative data and hypotheses not matching with the literature backgrounds for them were also found. The main issues related to KM in public sector are: identification of the knowledge requirement of the organization addressing knowledge gaps, organizational change to a culture of policy changes when required, appropriate technologies, methods to identify sources and organizing knowledge, collaboration methods and tools, evaluation of tools for their effectiveness and decision support systems.

Based on our research we recommend conducting a large survey in Saudi Arabia to identify KM opportunities and limitations in public sectors.

References

[1] Akhavan, P., Jafari, M., & Fathian, M. (2006). Critical Success Factors of Knowledge Management Systems: a Multi-Case Analysis. *European Business Review Journal, 18*(2), 97-113. doi:10.1108/09555340610651820

[2] Al-Ahbabi, S., Singh, S. K., Gaur, S. S., & Balasubramanian, S. (2017). A knowledge management framework for enhancing public sector performance. *International Journal of Knowledge Management Studies, 8*(3-4), 329-350. doi:10.1504/IJKMS.2017.087076

[3] Alhamoudi, S. A. (2010). *Strategic Knowledge Management System in Public Sector in Saudi Arabia: an adaptation of the Balanced Scorecard.* Business School , Department of Strategy and Business Systems (SBS) . University of Portsmouth. Retrieved May 16, 2018, from https://researchportal.port.ac.uk/portal/files/5315148/Salwa_Alhamoudi_final_CD.pdf

[4] Arora, E. (2011). Knowledge management in public sector. *Researchers World: Journal of Arts Science & Commerce, 2*(1), 165-171. Retrieved May 19, 2018, from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.474.3542&rep=rep1&type= pdf

[5] Beyah, G., & Gallivan, M. (2001). Knowledge management as a framework for understanding public sector outsourcing. *Proceedings of the 34th Annual Hawaii International Conference on System Sciences, Maui, HI, USA, 6 Jan. 2001* (p. 9 pp). IEEE. doi:10.1109/HICSS.2001.927193

[6] Choy, C. S., & Suk, C. Y. (2005). Critical factors in the successful implementation of knowledge management. *Journal of Knowledge Management Practice, 6*(1), 234-258. Retrieved May 18, 2018, from http://www.tlainc.com/articl90.htm

[7] Cong, X., & Pandya, K. V. (2003). Issues of knowledge management in the public sector. *Electronic journal of knowledge management, 1*(2), 25-33. Retrieved May 19, 2018, from https://pdfs.semanticscholar.org/6fb8/c16cdc9d3108bf606fd40d4df84816761b48.pdf

[8] Creech, H. (2005). *Success Factors in Knowledge Management.* International Institute for Sustainable Development. Retrieved May 18, 2018, from https://www.iisd.org/pdf/2006/networks_km_success.pdf

[9] Črnjar, K. D. (2014). Critical success factors for knowledge management implementation in hotel enterprises.

MakeLearn International Conference 2014: Human Capital without Borders: Knowledge and Learning for Quality of Life (pp. 977-984). University of Rijeka, Croatia. Retrieved May 18, 2018, from http://www.toknowpress.net/ISBN/978-961-6914-09-3/papers/ML14-664.pdf

[10] Dawes, S. S., Cresswell, A. M., & Pardo, T. A. (2009). From "need to know" to "need to share": Tangled problems, information boundaries, and the building of public sector knowledge networks. *Public Administration Review, 69*(3), 392-402. doi:10.1111/j.1540-6210.2009.01987_2.x

[11] Desai, A., & Rai, S. (2016). Knowledge Management for Downstream Supply Chain Management of Indian Public Sector Oil Companies. *Procedia Computer Science, 79*, 1021-1028. doi:10.1016/j.procs.2016.03.129

[12] Knowledge-Management. (2011, March 19). *Critical success factors.* Retrieved May 18, 2018, from David Skyrme Associates: https://www.skyrme.com/kmroadmap/csfs.htm

[13] Kozjek, D., & Ovsenik, M. (2017). Model of Knowledge Management Factors and their Impact on the Organizations' Success. *Organizacija, 50*(2), 112-131. doi:10.1515/orga-2017-0008.

[14] Lee, E. J., Kim, H. S., & Kim, H. Y. (2014). Relationships between core factors of knowledge management in hospital nursing organisations and outcomes of nursing performance. *Journal of clinical nursing, 23*(23-24), 3513-3524. doi:10.1111/jocn.12603

[15] Lindner, F., & Wald, A. (2011). Success factors of knowledge management in temporary organizations. *International Journal of project management, 29*(7), 877-888. doi:10.1016/j.ijproman.2010.09.003

[16] Margilaj, E., & Bello, K. (2015). Critical success factors of Knowledge Management in Albanian business organisations. *European Journal of Research and Reflection in Management Sciences, 3*(2), 15-24. Retrieved May 18, 2018, from https://pdfs.semanticscholar.org/52e5/e63092f561d1af4762c277c91e52a3b4684c.pdf

[17] Massaro, M., Dumay, J., & Garlatti, A. (2015). Public sector knowledge management: a structured literature review. *Journal of Knowledge Management, 19*(3), 530-558. doi:10.1108/JKM-11-2014-0466

[18] Mathi, K. (2004). *Key success factors for Knowledge Management.* INTERNATIONALES HOCHSCHULINSTITUT LINDAU. UNIVERSITY OF APPLIED SCIENCES/ FH KEMPTEN, GERMANY. Retrieved May 18, 2018, from http://hosteddocs.ittoolbox.com/KM21105.pdf

[19] McAdam, R., & Reid, R. (2000). A comparison of public and private sector perceptions and use of knowledge management. *Journal of European Industrial Training, 24*(6), 317- 329. doi:10.1108/03090590010346424

[20] McAdam, R., & Reid, R. (2001). SME and large organisation perceptions of knowledge management: comparisons and contrasts. *Journal of Knowledge Management, 5*(3), 231-241. doi:10.1108/13673270110400870

[21] Menkhoff, T., Wah, C. Y., & Loh, B. (2016). Notes from an'Intelligent Island': Towards Strategic Knowledge Management in Singapore's Small Business Sector. *Internationales Asienforum, 35*(1-2), 85-99. doi:10.11588/iaf.2004.35.456

[22] Milovanović, S. (2011). Aims and critical success factors of knowledge management system projects. *Economics and Organization, 8*(1), 31 - 40. Retrieved May 18, 2018, from http://facta.junis.ni.ac.rs/eao/eao201101/eao201101-03.pdf

[23] Moffett, S. (2015). Knowledge Management strategy and implementation. *Knolwedge Exchange Seminar Series (KESS)* (p. 22 ppt). University of Ulster. Retrieved May 21, 2018, from http://www.niassembly.gov.uk/globalassets/documents/raise/knowledge_exchange/presentations/series3/moffett150514ppt.pdf

[24] Moffett, S., & Walker, T. (2015). Knowledge Management in the Public Sector: UK Case Study Perspectives. In B. E, & M. Handzic (Eds.), *Advances in Knowledge Management and Organizational Learning* (Vol. 1, pp. 67-104). Springer, Cham. doi:10.1007/978-3-319-09501-1_4