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ABSTRACT

Purpose: The aim of this study is to explore the knowledge management practices and indicate all their challenges and trends in the Middle East through the previous literature.

Design/Methodology: The methodology used for this paper was structured by exploring an extensive literature of knowledge management practices and case studies from Middle Eastern countries.

Findings: The study shows some improvements for the implementation of knowledge management strategies in Middle Eastern countries. It also shows a need to adopt sustainable development policies for the long term.

Implications: The limitations of this paper have been framed within the reviewed and refereed articles. All implications will be directed to governments in the Middle East as a recommendation on the significance of sustainable development.

Keywords: Knowledge management, Middle East, Sustainable development, knowledge management practices.

Paper Type: Conceptual Paper

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INTRODUCTION

During the past few decades, the significance of knowledge management has been gradually increasing due to the urgency in implementing it as a strategy in modern organizations, whether they are profitable or not, private or public sector, or even if they are sized as MNCs or SMEs. The urgency has been notified by scholars, authors, and practitioners (executives), who are involved in this field by background or profession, to promote in both academic and business areas (Inkinen et al., 2015). In the current era, authors are focusing further on the implementations and impacts of knowledge management on business innovation, business performance, or even profitability (Moustaghfir and Schiuma, 2013). There is a belief among authors that knowledge management serves as a starting platform for companies to utilize knowledge management in their respective organizations correctly and in a beneficial way. Therefore, the more efficient the implementation of knowledge management, the more beneficial an outcome will be achieved, presented by innovation performance as an indicator (Andreeva and Kianto, 2011).

However, the novelty of knowledge management was recently-introduced in the Middle East, transferred by professionals and masters from the Western Community. This delay was incurred due to the era of political unrest, social conflicts, and economic bottlenecks covering the Middle Eastern countries since 1990s. These started with The Gulf War (Historical Events on 30th November), and did not end until the recent era of Arab Spring uprisings in the latter part of 2010 (Ruthven, 2016).

The economic development of Middle East states is still troubled with a mass devastation of inadequate income distribution, poverty, high unemployment, inadequate investments, and ethnic and gender discrimination. The region has been divided into sub-regional groups with a notable gap in terms of income, public expenditure, and purchasing power (Al-Roubaie and Al-Ameen, 2015). Due to all these dilemmas and tensions surrounding the region, awareness on the essence of knowledge management has been totally discarded. Even in predominantly employment intensive industries, such as oil and gas, knowledge management was completely transferred as an explicit knowledge only. This

led to a further lack of innovation, initiatives, and inventions to enrich the level of knowledge management in national industries (Nagesh, 2015).

Recently, it has been reported that the Middle East region needs to employ such management techniques and practices in government bodies, private sector firms, or even NGOs. This is so they can compete with the global level of knowledge of foreign partners, and to suit the level that enhances the ability of Middle Eastern people to initiate on their own and to work independently in this field. Some cases have shown positive evidence of knowledge management implementations in some states, where, according to the Bloomberg Innovation Index 2015, they have reached a firm level of innovativeness (Coy and Lu, 2015). Table 1 shows the position of Arab countries compared to other countries in the stages of development.

Table 1: Allocation of Arab countries to stages of development						
Stage	Arab Countries at this Stage	Non-Arab Countries at this stage	Important areas for competitiveness			
Stage 1 (factor-driven): GDP per capita less than \$2000	Yemen	Bangladesh, Kenya, Pakistan, Vietnam	Basic requirements (60%) and efficiency enhancers (35%)			
Transition from Stage 1 to 2: GDP per capita \$2000-\$3000	Algeria, Egypt, Kuwait, Libya, Qatar, Saudi Arabia	Iran, Venezuela, Brunei Darussalam	Basic requirements (between 40% and 60%) and efficiency enhancers (between 35% and 50%)			
Stage 2 (efficiency-driven): GDP per capita \$3000-\$9000	Jordan, Morocco	China, South Africa, Ukraine	Basic requirements (40%) and efficiency enhancers (50%)			
Transition from Stage 2 to 3: GDP per capita \$9000-\$17,000	Bahrain, Oman, Lebanon	Chile, Poland, Trinidad and Tobago	Basic requirements (between 20% and 40%) and efficiency enhancers (50%) Innovation factor (10% to 30%)			
Stage 3 (innovation-driven): GDP per capita \$17,000 and more	United Arab Emirates	Germany, Korea, Norway, Spain, UK, USA	Basic requirements (20%) and efficiency enhancers (50%) Innovation factors (30%)			
Source: World Economic Forum (2013), the Arab World Competitive Report 2013. Retrieved from Al-Roubaie and Al-Ameen, 2015						

Thus, the aim of this paper is to review the literature covering knowledge management in total and knowledge management practices, namely to highlight the literature on Arab League states as referred to by the Middle East regionally. The paper will be organized as follows: there is a brief literature review of knowledge management practices, followed by a discussion of the framework and the research methodology used to review this literature. Next is a section on the results and the discussion, and finally the conclusions and implications are presented.

KNOWLEDGE MANAGEMENT PRACTICES IN THE MIDDLE EAST

In recent years, the awareness and initiative have been observed in order to promote knowledge management to Middle Eastern states. It has frequently been reported that Middle East institutions and educational parties suffer from a lack of global cooperation, global reputation, and strategic alliance with global universities around the world. This led to insufficient implementation of information technologies and structure, and higher business costs in order to train staff individually due to the lack of innovation and research evaluations (Lord and Alnajjar, 2008), in contrast with other successfully-emerging markets such as Brazil, Singapore, Rwanda, and Panama.

Economic and Organizational Challenges:

In certain cases, Middle East countries were able to outsource explicit and tacit knowledge through vendors from overseas. Some authors

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have suggested that this could be achievable by converting to knowledge-based economies (Al-Obaidy, 2012). This knowledge-based economy has been defined as the knowledge that is created, acquired, and transmitted and used more effectively by enterprises, organizations, and communities individuals for areater economic and social development (Dahlman and Andersson, 2000). This style of economies urge for four entities as follows:

- an institutional system that provides the efficiency to use the current available knowledge, or that needed in future;
- 2. it helps to change demographically by enhancing educative and entrepreneurial individuals in society;
- a dynamic ICT platform to effectively utilize communication and the process of information:
- an efficient innovation system, including companies, research and development centres, education services providers, and professionals to interact and cooperate in order to grow the level of knowledge.

Since the lack of knowledge leads to further reflections on lifestyle standards, authors have focused on the reasons behind this lack in order to fix and maintain the challenge from its source. Many of these reasons referred to the shortage of strategic plans for sustainable development. Most Middle East countries are suffering from population over-growth, water scarcity, energy pollution, soil degradation, urbanization, and poverty (Al-Roubaie, 2013). Societies require reliable academic institutions that are able to utilize research, knowledge, creativity and innovation in order to solve and troubleshoot challenges locally through affordable sources.

Another route for Middle Eastern countries is to receive supplies of transferred knowledge, mainly tacit, through implementing sustainable development (Al-Roubaie, 2013). This has been interpreted by the call for Middle Eastern nations to obtain tacit knowledge outsourced by others and modify it locally to be adaptive with the environment. According to the author in this paper, the World Bank has suggested that Middle

East nations attract tacit knowledge by following any of the following recommendations:

- by adapting knowledge from any source in the world, using it in the correct way at the correct time;
- to obtain this knowledge through overseas education and investments in lifelong learning;
- by enriching communication spaces to allow knowledge to flow among the population.

Moreover, since Middle Eastern states are potential users of knowledge, some alternative ways could be useful in enriching the knowledge gap by international trade, foreign investment (both inward and outward), and liberalization.

Although the trend is heading towards the conversion to knowledge-based economies, the mission seems uneasy and requires a long chain of initiatives before proceeding with this knowledge management model (Ali, 2016). The author compiled the four pillars that form the knowledge-based economy, referring to the methodology from the World Bank. This mapping was done based on the Sudanese status and on the Erkowit Conference of Development (Ali, 2016). The mapping is formed as follows:

Table 2: Mapping the four pillars of the knowledge economy to Erkowit topics						
Knowledge Economy Pillars	Discussed topics on Erkowit	The percentage at Erkowit				
	Economics	46.6 %				
Pillar 1	Public administration	4.6%				
Economic and institutional regime	Trade	0.31%				
	Agriculture	10.4%				
	Law	0.6%				
Pillar 2	Education	4.0%				
Education and skills	Human resources	9.5%				
Pillar 3 Information and communication	Transportation and Communication	3.4%				
Infrastructure	Journalism	0.31%				
Pillar 4 Innovation system	No paper discusses the innovation system	0.0%				
Source: World Bank (1966-2000) – Compiled and arranged by Ali (2016)						

Cultural and Social Challenges:

Another challenge that affects the effectiveness of knowledge management in the Middle East is the common usage of social networks and their references to work connections, referred to hereafter as Wasta (Tlaiss and Kauser, 2011). This started based on the core culture whereby families are centralized forming a hierarchy structure. Authority in decision making is always given to the older, more knowledgeable and educated, and individuals in government, relating to family circumstances and issues among their peers. The current trend of Wasta has been modified over time, covering wider economic benefits to certain people to gain advantage or in the hope of gaining favour. This includes recommendations for jobs and companies' matching in both the public and private sector. Therefore, huge numbers of workers were misdirected to unsuitable positions, including knowledge-related posts. There was unfairness

and inequity in employment distribution based on qualities and qualifications, and this has led to the discarding of knowledge practice of ensuring that innovative and productive knowledge workers were employed in organizations.

Furthermore, one of the cultural-based challenges is the impact of gender on the labour force in the region. The literature examined the significant impact of the avoidance of using females in decision-making positions, which has reduced the possibility and variance in merging suitable qualifications in knowledge-based jobs (Sikdar and Mitra, 2012). The literature suggested that culture is the main issue here rather than religion. This is because Islam is the main religion in the region and has introduced cases where females were businesswomen and entrepreneurs in their era, Prophet Mohamed's wife Khadija for instance (Brand, 1998). Also this avoidance of females in decision making roles has been reported in other regions in Africa and Asia.

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METHODOLOGY

The research methodology comprised an in-depth and focused review of the literature review of novel knowledge management, in addition, cases from various parts of the Middle East countries were also reviewed. The research adopted in this study is exploratory and descriptive in nature, aiming to indicate the challenges that face knowledge management practices and knowledge workers. In addition, current and future trends of converting Middle Eastern economies into knowledge-based economies and form a sustainable development growth were identified.

The main tool for reviewing the literature was the adoption of the principles of systematic review. This requires a skimming process to cover the field in general, then the performance of a comprehensive search for topics using a specific range of keywords. Also, the tool needs to qualify the assessment of the selected choices in order to extract suitable data. Finally, the ideas were synthesized based on their uniqueness; they were then listed in order (Jesson *et al.*, 2011).

DISCUSSION AND RECOMMENDATIONS

Business incubators have been real cradles of knowledge where the levels of productivity and innovation are higher. In some cases, industrial parks or innovation spaces have been reformed as knowledge-transfer platforms locally or globally: Silicon Valley and Bangalore Tech Park are clear examples of this. In the Middle East, especially in Gulf Cooperating Council (GCC) countries, the impact of industrial and creative parks has been clearly inspected through the literature. Al-Mubaraki and Schrödl (2012) have explored the role of business incubators through five cases in GCC countries: Bahrain, Saudi Arabia, Qatar, UAE and Oman. The business incubators were totally managed, maintained, and serviced by the government of the host country, regardless of whether it was wholly national or created as a joint venture with an overseas partner. For example, the government of Oman offered business start-ups and entrepreneurships a package of incentives through their strategic programme of The Knowledge Mine (TKM). This was where tenants were provided with subsidized offices

and utilities as a part of value creation in terms of R&D activities (Al-Mubaraki and Schrödl, 2012).

There is some evidence of improvements in knowledge that Middle East countries have achieved during the last decade. The literature has shown a measurement on the period of 2000-2012 and listed the countries from highest to lowest. These are Saudi Arabia, Oman, Algeria, Tunisia, UAE, Yemen and Sudan (Satti Osman Mohamed Nour, 2014). At the same time, the position of other countries in the region has deteriorated. These are Kuwait, Jordan, Lebanon, Morocco, Egypt, Qatar, Djibouti, Bahrain and Syria. Among the whole Arab territory, UAE has been ranked as the top of the knowledge index and knowledge economy, Bahrain was ranked first in terms of education quality and indicators of mentorship, and Qatar was ranked as the most competitive Arab nation for economic incentives.

The literature has suggested further recommendations to be implemented in Middle East countries. This should be done through a framework of knowledge management tools and concepts to pursue better sustainable policies (Rizk, 2012). This paper suggests the following six points:

- enhancing a better rule of law and anticorruption agencies to improve institutional quality;
- 2. avoiding the misallocations away from the actual targets, mainly in the health sector;
- subsidize education as this leads indirectly to the reduction of poverty, as the higher investment is allocated to education the higher reduction in poverty;
- societies have to be well-balanced in terms of gender distribution among primary and high schools to keep equal and fair access for all;
- higher investment in female education has a direct effect on productivity and economic growth, in addition to reducing fertility that is referred to an indebted nation;
- implementation of development aid to lead to poverty reduction, this requires a continuous existence of the government against corruption.

Within recent papers on knowledge management in the Middle East, there was clear evidence of the urgency to achieve real change in the evolution of the term knowledge management actively in region; academia should take its role in this implementation. Also, studies showed how industries and companies were keen to take their place in any suggested paper for the sake of contribution. A study on evaluating knowledge-oriented management in the UAE has shown that 129 firms were able to participate as a part of the study, identifying the knowledge management practices in the industrial sector. The paper indicated that respondents believed that the level of knowledge management, in terms of management perception, firm's attitudes, firm's mission and vision, firm's system and human resources, was more challenging than other indicators (Al-Rawi et al., 2012). The authors have proposed that industrial companies were managing knowledge as a way of doing business and approaching the organizational objectives. However, it was recommended to improve and enrich the organizational structure and operational process. Moreover, knowledge management. in addition to knowledge creation, utilization, and transformation, existed even though it was developing slowly.

The trend also shows some initiative to shed light on the role of knowledge management, mainly in the Middle East. This lack is due to several periods of political unrest for over three decades. As the UAE are pioneers in this field, one of these initiatives has been the holding of the Knowledge Management Conference, *KM Middle East*, on an annual basis since 2012. The conference focuses on the future by hosting world-class experts from all over the world, aiming to shift the views from researching and reviewing the past and the present to consider the future to draw horizons for the next generation of leaders (KM Middle East, 2016).

On the other hand, outsourcing from overseas companies to transfer knowledge was a workable solution to increasing the level of knowledge within the company and its affiliated individuals (Al-Salti and Hackney, 2011). The study took place in Oman, covering eight government sector bodies with various specializations. However, it is common knowledge among authors and scholars that knowledge transfer is especially significant

in technology-based organizations. At the same time, the transfer process confronts challenges, for example, the level of new tacit knowledge might not be suitable for the knowledge client, and this can create mass confusion among new technology users. Furthermore, the knowledge receiver may not be as absorptive as expected in order to gain new experience in running the newly-transferred technology. Thirdly, the new knowledge vendors (providers) have to be reliable, capable, and trustworthy sources to make sure that the newlytransferred technology is persuasive. Finally, it is important that the relationship between the vendor and the client is well-established, and that both parties are willing to solve all obstacles that could face this relationship, such as language and communication challenges, time-zone variance, and mutual understanding.

Lastly, the efforts of scholars and academicians have indicated the significance of this field and its impact on the industry as well as the academia level. These leads were shown-off through postgraduate and education individuals by establishing the International Journal of Innovation and Knowledge Management in Middle East and North Africa (IJIKMMENA) which is based in the United Kingdom, and edited by a group of Arab scholars from all over the world: the journal is managed by the World Association for Sustainable Development (WASD). Another example is the initiative of Arab research in Malaysia. In 2016 the first platform for Arabicspeaking researchers who are based in Malaysia was started under the name of Arab Researcher ID (ARID). The centre is in the University of Malaya in Kuala Lumpur campus (ARID, 2015).

CONCLUSIONS

This paper attempted to explore KM practices in the Middle East through an extensive literature review carried out on various publications on the region. The term knowledge management is becoming well-known in the region because of attempts to implement KM practices in firms and government bodies. However, implementation is not an easy mission to accomplish, especially with political unrest in most Middle Eastern countries since early 2011. There is considerable room for improvement in the adoption of knowledge management; this is mainly country-based before

it can be developed in-depth, concentrating at the industry level.

However, and since the Middle East combines a complicated mixture of ethnic and religious groups, the examples carried out in the literature proved that the inter-change itself is manageable. The results highlighted very positive implications in countries such as UAE, Oman, or Bahrain, while other regions with an intensive population density were expected to contribute more to the field of knowledge management; this included the Levantine countries, e.g., Algeria, or Egypt.

From a personal point of view, the most significant contribution should be managed and maintained by small or individual initiatives; these should give support to local or internationally-based journals to become active in the region. It requires extra effort from Middle Eastern scholars, who are affiliated to many educational institutions in Asia and Western countries, to revise their papers or reviews according to the culture or the place to which they belong, with the new technologies and learning methods in their current country of residence becoming available in order to contribute to their home nations.

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BIOGRAPHICAL NOTES

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