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Research paper



Proposed Systems for Knowledge Sharing Between the Faculty Concentrating in the Middle East and Gulf Region Area

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Abstract

Knowledge sharing is an imperative aspect of every higher education institution. Among the different parties that require information to be shared among them are faculties because knowledge gained in different faculties are also applicable to others. The motivation for understanding the knowledge sharing behavior in faculties in the Middle East and Gulf Region area is because of the current weaknesses in the current knowledge sharing systems and thus, solutions for these weaknesses are recommended. The aim of this study is to provide an understanding of knowledge sharing behavior in the middle-east region and particular in the gulf region. The level of usage of knowledge sharing systems in the university institutions is the main focus while also determining the factors influencing the same. The advantages and disadvantages associated with knowledge sharing are discussed. Effects of knowledge sharing on students' performance were also assessed. Qualitative research design was used to gather data for this study where secondary sources were used. These included books, scholarly journal articles, reports and credible sources from the internet. From the findings of the research, it was established that factors that affect the knowledge sharing in universities in the Middle East include inadequate capital, technology resources and cultural differences in the region. Several recommendations have been made to enhance knowledge sharing and these include more commitment by the government to support it by allowing more collaboration between the local universities and foreign academicians who are well experienced in terms of information sharing.

Keywords: knowledge management, gulf region, tacit knowledge

1. Introduction

1.1. Background

Dalkir & Liebowitz (2011) stated that in numerous institutions and organization, especially in the developed countries, knowledge sharing has developed to be one of the integral aspects of knowledge management. Knowledge sharing can be carried out between organizations, institutions and individuals. As noted by Holsapple (2013), knowledge sharing is widely defined as the process by which different individuals exchange explicit knowledge as well as tactics with a view of creating knowledge. Several researches have established that lack of knowledge sharing between different parties or even institutions will ultimately lead to the underutilization of the cognitive resources that are available (Hislop, 2013). Knowledge sharing is thus an important team process which requires involvement of all members in sharing of ideas, information and suggestions through numerous interactions. With the advent of social media channels and other efficient communication channels, the aspect of knowledge sharing has attracted a lot of interest from organizations and institutions with the aim of acquiring competitive advantage through application of knowledge sharing.

The problem that is being addressed in this research is about the issues faced in regards to sharing knowledge and information in universities in the Middle East and the Gulf region area. The shortage in information sharing capabilities has adverse impacts on the research capability of tertiary institutions because of the interdisciplinary nature of the faculties in these institutions (Abel & Deitz, 2011). It is therefore vital for necessary measures to be put in place as solutions to this issue because of the importance that higher education has on the overall performance of the economy of any country.

Universities and colleges are increasingly being viewed as the engines for economic development both at the local, national, regional and even global level. The Silicon Valley is for instance a very good case study in relation to this aspect. Conventionally, direct employment and expenditure effects are the approaches that are used in determining the economic activity generated by universities and colleges. However the influence of these institutions on the economy go beyond these standards as these institutions are very much involved in the building of human capital through enhancement of skills and knowledge (Abel & Deitz, 2011). Camelo-Ordaz, et al., (2011) note that knowledge Sharing has a positive influence on innovation capabilities and general institution performances. With the realization of the benefits that are conferred with the use of knowledge sharing process, many governments in the developing countries have invested heavily in terms of money as well as time into knowledge management. The aspect of knowledge sharing has been emphasized by carrying out strategies such as showing people how knowledge benefits them personally, revamping the reward and recognition systems and ensuring that the technology being used is highly efficient for the process (Bartol & Srivastava, 2012).

Knowledge sharing can be carried out either by face to face interaction or synchronous and unsychronous communication, which has been facilitated by the advent of the internet and the internet of



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things. Through this approach, individuals are subsequently able to learn and assimilate new knowledge which can then be used for applications in practical way (Abel & Deitz, 2011). KS can also be formal or informal. In the formal approach, the processes initiated by the institution management and include activities such as mentorship programs and meetings (Dalkir & Liebowitz, 2011). As this research focuses on information sharing, it refers to previous sudies to ensure that best solutions to this challenge are suggested.

From the research that was carried out, it was established that there are several impediments to knowledge sharing in universities in the Middle East. These include shortages of capital to facilitate it, the cultural setup of the region, and lack of the latest technological capabilities to facilitate the knowledge sharing phenomenon in the region. It was also established that there are different ways in which this can be addressed, and these include an increased level of commitment by the institutions and government in supporting knowledge sharing, an improvement in the technological capabilities that facilitate knowledge sharing and liaising with other universities from the first world in order to learn knowledge sharing tactics from them

2. Related Works

2.1. Knowledge Sharing and Systems

Innovation in the current global economy is very important for any institution or organization. In an attempt to ensure that the individuals going into the organizations coming from the institution are well equipped in terms of skill and knowledge, knowledge sharing has been identified as one of the important approaches that can applied to achieve this (Brewer & Brewer, 2010). This has consequently led to more attention being paid to develop as well as improve knowledge sharing systems in various institutions. Informal KS is a result of social networks that exist between various higher learning institutions (García Peñalvo, et al., 2010). Online knowledge sharing is one of the channels and approaches that have gained a lot of fame and support due to the fact that it reduces the costs that are incurred (Hung & Yuen, 2010).

Knowledge sharing systems play a role in supporting the process by which explicit or even tacit knowledge is efficiently communicated to other individuals. The two systems that are explicitly discussed in relation to knowledge management are lessons learned and the expertise locator systems (Wang & Noe, 2010). Classification of knowledge sharing systems is mainly dependent on their attributes. Such include alert systems which were initially intended to give information about negative experience that has occurred or is expected to occur. Best practice databases show the successful efforts normally from reengineering of learning process or a business process. These capture he successful events which may not have been derived from experience. According to Koenig (2012), the lesson-learned systems aim to capture and provide lessons that benefit students that come across situations that closely resemble a previous experience in a similar situation. Expertiselocator systems are knowledge systems that try to identify and organize knowledge through revealing the experts that possess specific knowledge (Koenig, 2012).

2.2. Benefits and Challenges of Knowledge Sharing

There are many advantages that have been linked with knowledge sharing. For instance, Wang and Wang (2012) noted that innovation and creativity are tremendously fostered through knowledge sharing. Modification of some of the ideas shared can be a starting-step in coming up with viable solution to a chronic community problem. Institution performances rely heavily on knowledge that is disseminated hence this is valuable asset. Through the application of knowledge sharing in the learning institutions, the culture is cultivated among the students early on and this ensures that they are more productive and more equipped when they go to work in organizations which have nowadays embraced and emphasized the need for knowledge sharing. Ultimately this helps the organizations to come up with new products, services and processes faster. Knowledge sharing has also been linked to increased efficiency (Zhou & Li, 2012). Additionally there is elimination of duplication of work through members of different departments in a team sharing knowledge. Chen et al. (2012) note that decision making is also improved through application of KS and this is realized in both the learning institutions and the working environment. There is also more students' participation and commitment in the learning process if they are actively involved in the knowledge sharing process (Fullwood, et al., 2013). This is because through them being asked to contribute and getting instant feedbacks they feel that they have a voice which ultimately leads to them being more participative.

According to Li (2010), the process of knowledge sharing has various disadvantages as the systems are complex and may prove hard to understand for an average worker or student. Training individuals to be conversant with these systems can be tedious and also costly for any given organization or institution notes Burke (2011). Extracting information and ideas from students who possess the valuable knowledge in a given discipline or area can be a lengthy and difficult process (Liang, et al., 2010). In some other instances, there is lack of strategy to utilize fully the knowledge pool generated through the process of knowledge sharing. Subsequently such information remains dormant and useless as a result. Outdated or wrong information may be shared in some instances which will have the end result of providing undesired end results in a given innovation or creative process.

2.3. Knowledge Sharing in the University Institutions in the Gulf Region

The process of knowledge sharing has developed in most regions owing to more use of technology and e-learning. In the gulf region this has been the case with plans being put in place to ensure that the citizens are actively involved in the knowledge economy (Sidani & Al Ariss, 2014). The adoption of this approach in the middle-east region has been gradual and there has been great emphasis for this to be carried out in universities. Universities like various other institutions are grappling with the dilemma of the use of technology in learning and teaching with the of taking them forward in a sustainable way while ensuring well equipped graduates are produced. The institutions in the gulf region have not been left behind with respect to this development. The adoption of the knowledge sharing process has been stimulated by establishment of western based schools in the region (Ahmad & Daghfous, 2010). As a result, the western style methodologies and best practices have consequently been employed by some of the native schools. For instance in the U.A.E the government has continued collaborate with various academic institutes in an attempt to improve education level through enhancing knowledge sharing (Ahmad & Daghfous, 2010). Tubaishat & Lansari (2011) note that this has been undertaken with the aim of improving human capital through establishing knowledge based community and a knowledge based economy. However the use of these western methodologies has not come without a price as there is loss of the traditional culture in some instances (Sidani & Al Ariss, 2014). The development of knowledge sharing systems that are in line with our culture can ensure that the high literacy levels are achieved while also ensuring that the important progressive culture is preserved. Erosion of traditional culture can therefore be controlled while ensuring that education essential for economic development and positive social change is upheld. The adoption of some of the western styles in academic learning has led to conflicts in the society between those who feel that change is necessary for progress and those that feel that the use of these western methods is an assault to the society (Fullan, 2014). The use of knowledge sharing with the native traditional culture in mind can help in fostering better university education which can go a long way in helping in economic growth and global competitiveness.

3. Research Problem

In the Middle East and more so in the Gulf region, there have been more efforts to introduce e-learning with the view of enhancing knowledge sharing. The use and growth of knowledge sharing process has been gradual and in the higher education institution it has been noted to have big positive impact. Knowledge management has become a very crucial aspect of any organization or learning institution in their attempt to uphold high quality services and also remain competitive. This study hence aims at identifying the systems for knowledge sharing between faculty concentrating in the Middle East and gulf region area. The specific research questions to help address this problem are:

- i) What is the current level of usage of knowledge sharing systems in universities in the middle as region?
- ii) What systems would the students in these institutions prefer to be used in assisting in sharing of knowledge?
- iii) What are the factors influencing the adoption of knowledge sharing in higher education?

4. Significance of the Study

Kefela (2010) argues that the demand for highly qualified people to drive global growth has increased tremendously with the recent high competition for markets and the volatility of these markets too. As a result, more emphasis has been laid on ensuring that the learning institutions strive to produce sufficiently skilled and knowledgeable graduates who can easily integrate into the working environment. The adoption of these new learning systems in the Middle East region has faced numerous challenges owing to the culture in this region. However the benefits conferred by use of knowledge sharing are very crucial for realization of both economic and social development. Thus the significance of this study is to show that these westernized learning approaches can be integrated in the existing learning criteria without necessarily eroding the culture in the region. The relevant stakeholders in higher education such as the policy makers and the students as well can have a different view on the knowledge sharing systems as a result of this study as it will fill some of the research gaps that exist in relation to this field.

5. Limitations of the Study

Due to the fact that the systems have not been heavily used in the higher education sector, there was the challenge of obtaining adequate data to clearly show the situation that exists in the Middle East region currently. Research on this area is also scanty hence comparison with other researchers' work was limited. Resources to carry out research, especially in other regions such as the developed countries were strained hence this proved to be a challenge in collecting data that would have been very helpful in determining patterns.

6. Operational Definition

There are several definitions on the concept of knowledge sharing. For instance, Rutten et al. (2016) define it as the process through which knowledge is transferred or disseminated from one individual to the other within a group or an organization in a voluntary manner. In another definition by Dong et al. (2015), it is defined as an intentional process of sharing experiences and awareness among interested parties. This is not only for the goal of enrichment of their individual leaning, but also to maintain or create common ordnance of reusable information or knowledge (Olaisen & Revang, 2017). Whilst these definitions of this concept might slightly differ, the bottom line is that there is the passing of information among different parties with the objective or improving each others' capacities. There are several benefits associated with this, and these include increasing the response times of the organization, facilitating innovation and creativity, and increasing efficiency (Majchrzak & Malhotra, 2016).

7. Research Methods and Procedures

7.1. Methodology

This research was carried out using a qualitative research design which involved collection of data from secondary sources. In secondary research as explained by Bryman (2015), data is collected from sources that have already been published by someone else. Thus, in this study, books, journals, credible internet sources like websites, encyclopedias and reports published by other researchers were used. One of the reasons why secondary sources were considered appropriate for this study is due to the fact that they do not consume a lot of time and money to collect compared to primary research. In addition, they are readily available and accessible through online or libraries.

However, according to Silverman (2016), collection of data through secondary research raises some questions regarding the reliability and accuracy of data contained in some of the sources, which can affect the results of the study. Therefore, to ensure reliable and accuracy, the sources selected were those that were published not more than seven years ago. This was to ensure that they contain information that is relevant to the present day situation. In regards to accuracy, since getting sources that contain the exact data required for the study was quite challenging, sources with similar content to the research subject were also used.

7.2 Procedures

Inclusion and exclusion criteria was used to determine the secondary sources that were the most suitable to use in this research in order to draw conclusion. The inclusion criteria include secondary research sources, all publications that are relevant to the research study published from 2010 to current data, sources that contain information regarding knowledge sharing in the Middle East and the Gulf region. Exclusion criteria include sources published earlier than 2010 even if they contain they relevant information, studies that were not ethically gathered and those that were not from recognized sources.

In order to draw conclusions from the selected sources, content analysis method was used. In the first step, the researcher read through the sources, that is, journals, books and reports while making brief notes whenever relevant information was found. In the second step, the different types of information found were listed and put into categories depending on the objectives of the study. The categories that can be linked were then listed as major or minor themes. These themes were compared and contrasted to ensure that they meet the objectives and are relevance to the study. Conclusions were then drawn from the themes obtained.

8. Data Analysis and Results

8.1. Assessment of Level of Usage of Knowledge Sharing Systems in Universities in the Gulf Region

Knowledge sharing is a major process of knowledge management and its strategies are important in institutional as well as individual development (Dalkir and Liebowitz, 2011). In the Gulf region, higher education institutions, students grow based on the knowledge of not only their academics but also the knowledge they share with other students and staff. Thus, in order to ensure better performance and growth among students, universities promote knowledge sharing among the students, staff and academics. Although most of the institutions in the Gulf region have not fully embraced the use of knowledge sharing systems, the education sector in the region and particularly in UAE has witnessed significant investment at all levels mainly from the government in order to promote quality education. One of these investments is the establishment of a ten billion US dollar-project called Mohammed Bin Rashid Al Maktoum Foundation, which is aimed towards promoting knowledge sharing in the region (Muhammad Siddique, 2012). Through this project, universities in the region will be able to develop human capabilities and also keep pace with the international standards in regards to quality of education and performance. Muhammad Siddique (2012) claims that the failure to fully embrace knowledge sharing in the gulf region is due to lack of stringent laws and regulations in relation to technology and cultural aspects.

8.2 Factors Influencing the Usage of Knowledge Sharing Systems in the Universities in the Middle –East

According to Ahmad and Daghfous (2010), factors that influence the usage of knowledge sharing in universities in the Middle East include inadequate capital, technology resources and cultural differences in the region. Ahmad and Daghfous (2010) believe that successful implementation of knowledge sharing programs requires a lot of finances so as to ensure efficiency and overall quality. The GDP of most of the countries in the Gulf region is high owing to the oil resources (Hvidt, 2011). Also, the per capita income has increased in the recent past due to higher literacy levels in the region. However, the global financial crisis has affected funding of public institutions by the government due to lack of finances in the region. For instance, in the Dubai, the government has been forced to reduce its spending and reorganize its priorities. As a result, the high education institutions that rely heavily on government funding have also been affected. This has caused a negative impact on the universities ability to implement knowledge sharing activities.

Lack of technical knowledge among the staff is another factor that influences the usage of knowledge sharing in universities in the gulf region. Biygautane and Al-Yahya (2011) indicate that organizations in the gulf region rely on sophisticated I.T systems to capture and store knowledge such as data mining and data warehouse. University staff usually has limited knowledge of knowledge sharing systems and tend to believe that that knowledge sharing requires sophisticated technological instruments. A third factor that influences knowledge sharing in the gulf region is culture. Wang and Noe (2010) claim that a cultural context that does not focus on the value of knowledge prevents sharing by hindering vertical interaction and participation in decision making among social and organizational groups. This is because culture sets the stage for social as well as collective orientations thereby promoting the sharing of knowledge. However, in the Gulf region, knowledge sharing in universities is considered a western culture, which contributes to the high resistance of its adoption in the region. This is because the Arabs people feel that the western culture contributes to eroding of morals and this limits the adoption of knowledge sharing as a learning tool in the region. Even though there have been efforts to establish more modernized schools in the region, this move has not been welcomed by majority of the population.

9. Conclusion and Recommendations

9.1 General Conclusion

With the cut throat competition in today's markets, knowledge sharing is one of the approaches that have been identified as helping in acquiring a competitive advantage. Therefore a better understanding of the importance of knowledge from the institution level is fundamental for workflow and workforce of all types of organizations. Sharing knowledge aids in innovation and creativity among workers through generating new processes or replacing the existing ones. Knowledge sharing helps in ensuring that tacit knowledge and expertise is not lost hence creating a competent workforce and hence the importance of this process should be obvious to the higher education institutions than other organizations. This is because knowledge creation, transfer, exchanges and utilization is the core of their work.

9.2 Recommendations

The study recommends that knowledge sharing systems be introduced in more higher learning institutions in the region. This can be achieved through more government support through allowing more collaboration between the local universities and foreign academicians who have experience in relation to this process. The expatriates can further help in honing the skills of the local people who will then be able to establish and carry out these processes when they are gone. Whilst there are strategies in place that are meant to facilitate knowledge transfer, their effectiveness is limited and therefore, this provides a valid reason for considering more advanced systems that have worked perfectly in other countries, especially those that have a reputation for good performance in higher education such as the United States and the United Kingdom. Therefore, comparing the potential performance of these new proposed systems to the existing ones, there is a likelihood of achieving an improved degree of knowledge sharing as compared to relying on the current systems.

There also exist local experts in these areas who can be contacted to help in smoothly establishing the same as they have better prior knowledge about the culture in the area. This will aid in averting any cultural conflicts that may potentially arise from establishing new systems in the schools. Such a process can be easily carried out as the capital available in these countries is efficient to put up the systems that are required. Knowledge sharing confers very many benefits to the students and subsequently the organizations in the economy. The institutions should be actively involved in acquiring these systems that aid in sharing knowledge so as to help in sharing tacit knowledge and skills. More skilled and knowledgeable graduates will be available as a result.

References

- [1] Abel, J. & Deitz, R. (2011). Do colleges and universities increase their region's human capital?.. Journal of Economic Geography.
- [2] Ahmad, N. & Daghfous, A. (2010). Knowledge sharing through inter-organizational knowledge networks: Challenges and opportunities in the United Arab Emirates. European Business Review, 22(2), 153-174.
- [3] Bartol, K. & Srivastava, A. (2012). Encouraging knowledge sharing: The role of organizational reward systems. Journal of Leadership & Organizational Studies, 9(1), 64-76.
- [4] Biygautane, M. and Al-Yahya, K., (2011). Knowledge management in the UAE's public sector: the case of Dubai. In Dubai School of Government, paper presented at the Gulf Research Meeting Conference at the University of Cambridge, Cambridge.
- [5] Brewer, P. & Brewer, K. (2010). Knowledge management, human resource management, and higher education: a theoretical model. Journal of Education for Business, 85(6), 330-335.
- [6] Bryman, A. (2015). Social research methods. Oxford: Oxford university press.
- [7] Burke, M. (2011). Knowledge sharing in emerging economies. Library Review, 60(1), 5-14.
- [8] Camelo-Ordaz, C., Garcia-Cruz, J., Sousa-Ginel, E. & Valle-Cabrera, R. (2011). The influence of human resource management

on knowledge sharing and innovation in Spain: the mediating role of affective commitment. The International Journal of Human Resource Management, 22(7), 1442-1463.

- [9] Chen, S., Chuang, Y. & Chen, P. (2012). Behavioral intention formation in knowledge sharing: Examining the roles of KMS quality, KMS self-efficacy, and organizational climate.. Knowledge-Based Systems, 31, 106-118.
- [10] Dalkir, K. & Liebowitz, (2011). Knowledge management in theory and practice. Boston: MIT press.
- [11] Dong, Y., Bartol, K. M., Zhang, Z. X., & Li, C. (2016). Enhancing employee creativity via individual skill development and team knowledge sharing: Influences of dual- focused transformational leadership. Journal of Organizational Behavior.
- [12] Fullan, M. (2014). Leading in a culture of change personal action guide and workbook.. New York: John Wiley & Sons.
- [13] Fullwood, R., Rowley, J. & Delbridge, R. (2013). Knowledge sharing amongst academics in UK universities. Journal of Knowledge Management, 17(1), 123-136.
- [14] García Peñalvo, F., García de Figuerola, C. & Merlo Vega, J. (2010). Open knowledge management in higher education.
- [15] Hislop, D. (2013). Knowledge management in organizations: A critical introduction. Oxford: Oxford University Press.
- [16] Holsapple, C. E. (2013). Handbook on knowledge management 1: Knowledge matters. New York: Springer Science & Business Media.
- [17] Hung, H. & Yuen, S. (2010). Educational use of social networking technology in higher education. Teaching in higher education, 15(6), 703-714.
- [18] Hvidt, M., (2011). Economic and institutional reforms in the Arab Gulf countries. The Middle East Journal, 65(1), 85-102
- [19] Kefela, G. (2010). Knowledge-based economy and society has become a vital commodity to countries. International NGO Journal, 5(7), 160-166.
- [20] Koenig, M. (2012). What is KM? Knowledge management explained. KMWorld Magazine.
- [21] Li, W. (2010). Virtual knowledge sharing in a cross-cultural context. Journal of Knowledge Management, 14(1), 38-50.
- [22] Liang, P., Jansen, A. & Avgeriou, P. (2010). Collaborative Software Architectingcollaborative software architecting Through Knowledge Sharing. In Collaborative Software Engineering, 343-367.
- [23] Majchrzak, A., & Malhotra, A. (2016). Effect of knowledge-sharing trajectories on innovative outcomes in temporary online crowds. Information Systems Research, 27(4), 685-703.
- [24] Muhammad Siddique, C., (2012). Knowledge management initiatives in the United Arab Emirates: a baseline study. Journal of knowledge Management, 16(5), 702-723
- [25] Olaisen, J., & Revang, O. (2017). Working smarter and greener: Collaborative knowledge sharing in virtual global project teams. International Journal of Information Management, 37(1), 1441-1448.
- [26] Rutten, W., Rutten, W., Blaas-Franken, J., Blaas-Franken, J., Martin, H., & Martin, H. (2016). The impact of (low) trust on knowledge sharing. Journal of Knowledge Management, 20(2), 199-214.
- [27] Sidani, Y. & Al Ariss, A. (2014). Institutional and corporate drivers of global talent management: Evidence from the Arab Gulf region. Journal of World Business, 49(2), 215-224
- [28] Silverman, D. ed., 2016. Qualitative research. London: Sage.
- [29] Tubaishat, A. & Lansari, A. (2011). Are students ready to adopt elearning? A preliminary e-readiness study of a university in the Gulf Region. International Journal of Information and Communication Technology, 1(5).
- [30] Wang, S. & Noe, J. (2010). Knowledge sharing: A review and directions for future research. Human Resource Management Review, 20(2), 115-131.
- [31] Wang, Z. & Wang, N. (2012). Knowledge sharing, innovation and firm performance. Expert systems with applications, 39(10), 8899-8908.
- [32] Zhou, K. & Li, C. (2012). How knowledge affects radical innovation: Knowledge base, market knowledge acquisition, and internal knowledge sharing. Strategic Management Journal, 33(9), 1090-1102.