Information and Knowledge Management
ISSN 2224-5758 (Paper) ISSN 2224-896X (Online)
Vol.5, No.12, 2015

The Influence of Knowledge Management on Organizational Performance in Service Organizations in Jordan

Daifallah Olaima Mohammad AL-ameryeen Issam Mohammad Al-Makhadmah
Tourism Management Department, Ajlun College, Al-balqa Applied University

Abstract
The purpose of this paper is to examine the influence of knowledge management on organizational performance among 260 service organizations in Jordan. In the present study, Data were collected from 422 service organizations in Jordan. The present study employs a questionnaire survey approach to collect data for testing the research hypothesis. The response rate was 74 percent. Relevant statistical analytical techniques, including factor analysis, reliability, and regression for analysis were used. The results indicate that all three dimensions of knowledge management (technical knowledge, cultural knowledge, and human knowledge) have positive and significant influence on organizational performance.
Keywords: Knowledge management; Organizational performance; Service organizations; Jordan

1. Introduction

Knowledge management has been become as a vital fundamental in the building block of organization. The concept of knowledge management in organization is a valuable instrument to improve the performance of organization. Liang *et al.* (2007) noted that knowledge management programs have been implementing by the managers for achieving these results, such as advantage, increase productivity, and remain competitive. For the development and competitive advantage sustenance, an ability of organization is to implement knowledge-based activities becomes progressively more important (Grant, 1996). Basically, activities of knowledge can be included the integration and creation, of knowledge, the utilization and accumulation of knowledge, and the sharing and learning of knowledge (Shieh-Chieh *et al.*, 2005). An extensive amount of studies found a positive relationship between knowledge management and organizational performance (Agbim *et al*., 2013; Boumarafi & Jabnoun, 2008; Emadzade *et al*., 2012; Gholami *et al*., 2013; Rasula *et al*., 2012; Seleim & Khalil, 2007; Zaied *et al*., 2012).

Nevertheless, result shows that a lack of clarity regarding the relationship between knowledge management and organizational performance has been still remained. For instance, Davenport (1999) discussed that minority of organizations can establish a casual relationship between knowledge management practices and organizational performance, even if the relationship between knowledge management and performance indicators. Therefore, it can be straightforwardly concluded that at length, the small numbers of companies have been able to set up the relationship. As well, a complex relationship is existed; on the other hand, there are no direct links between knowledge management and business performance (Carlucci & Schiuma, 2006). The study of Zack *et al.* (2009) has been shown that "perhaps the most significant gap in the literature is the lack of large-scale empirical evidence that knowledge management makes a difference to organizational performance". Despite the evidence presented above on the positive relationship between knowledge management and organizational performance, the relationship between knowledge management and organizational performance still remains unclear. Furthermore, most of the studies on knowledge management and organizational performance were conducted in developed countries while limited studies were carried out in developing countries such as Jordan. This gap indicates the need to examine the role of knowledge management on organizational performance and the present study aims to do just that. By doing so, the present study could contribute to the existing body of knowledge by providing empirical evidence on the purported theoretical link.

2. Knowledge and Knowledge Management

According to Buckley and Carter (2002), knowledge plays an important role in an organization because according to Long (1997), knowledge, is a mixture of information and human context that improves the ability to act. Jennex and Olfman (2006) opined that knowledge is only priceless when coupled with human experience and interpretation. Owing to the multi-natured concept and complex meanings of knowledge, researchers have been trying to explore its idea for many centuries (Nonaka, 1994). To this end, several researchers have defined knowledge and knowledge managements concurrently. Among these researchers, Bock and Kim (2002) consider knowledge as what the individual believes in that could help solve organizational problems through synthesis of concepts in both epistemology and psychology. In addition, the author define knowledge management as a program that manages and diffuses a set of activities comprising of knowledge-resources acquisition, creation, and sharing for the purpose of organizational performance improvement and obtaining competitive advantages. According to Demarest (1997), knowledge is the actionable information included in the set of work practices, theories-in-action, skills, equipment, processes and heuristic of firm's employee. To him, knowledge

management is the orderly underpinning, observation, instrumentation, and optimization of the firm's knowledge economies.

The above definition reveals that knowledge management may or may not be what knowledge management personnel might do. Anand, Gardner, and Morris (2007) defined knowledge as thoughts, capabilities, and information that can be enhanced and mobilized to create value. Additionally, the authors considered knowledge management as the development of process that relates knowledge requirements to business strategies, and to facilitate access and representation of individual and organizational knowledge. Nonaka (2007), on the other hand, defined knowledge as a dynamic human process of identifying personal belief toward the truth and referred knowledge management as knowledge conversion activity for knowledge creation.

Similarly, Spek and Spijkervet (2005) defined knowledge as the whole set of insights, experiences, and procedures which are referred to as correct and true and in turn guide the thoughts, behavior, and communication of people. According to them, knowledge can be applied to many situations over a long period. They referred to knowledge management as the complete control and management of knowledge within an organization for the purpose of carrying out the company's objectives. Scholars postulate different dimensions of knowledge management in businesses. For instance, Marquardt (1996) identifies for dimensions of knowledge management: knowledge creation, knowledge storage knowledge acquisition, and knowledge application and transfer. Likewise, Zack (1999) reveals four components of knowledge management, such as knowledge acquisition, refinement, storage and retrieval as well as presentation.

Gold *et al.* (2001) contend that organizations should have two fundamental abilities to manage knowledge: the process and infrastructure. The first one refers to knowledge acquisition, its conversion and its application processes while the second one deal with the technology, organizational structure, and corporate culture. In addition, Alavi and Leidner (2001) emphasized the core implementation of knowledge management in an organization in term of creating, storing and retrieving, and transferring and applying knowledge. Gottschalk (2006) identified five indicators of knowledge management, such as, share, capture, creation, understanding and distribution of knowledge. Cepeda and Vera (2007) suggested four divisions of knowledge management namely: knowledge transfer, knowledge creation, knowledge utilization, and knowledge retention. To help achieve organizational objectives via knowledge management (Zaied *et al.,* 2012), knowledge management infrastructures should be in place. Knowledge management infrastructures are the mechanism for the organization to develop its knowledge and also stimulate the creation of knowledge within the organization as well as the sharing and protection of it. Studies have considered structure, culture, technology, and human knowledge as knowledge management infrastructure capabilities (e.g., Gold *et al*., 2001; Lee & Choi, 2003).

Technical knowledge management is the technical techniques within a business that identify how knowledge passes through the organization and how it is utilized. Structural knowledge management is the level of a company's structural predisposition to promote knowledge-related activities. Cultural knowledge management is a range of shared principles, standards and morals, which are primarily possessed by the members of an organization. Finally, human knowledge management represents the degree of employee's expertise in a specific domain and the degree of them exhibiting the potential of using that knowledge to communicate with others.

Several authors have identified four dimensions of knowledge management: technical knowledge management resource, structural knowledge management resource, cultural knowledge management resource, and human knowledge management resource (Agbim *et al*., 2013; Chuang, 2004; Gold *et al*., 2001; Lee & Choi, 2003). Organizations that have accumulated these knowledge management resources are able to: (1) integrate the knowledge management and business planning processes more effectively; (2) develop reliable and innovative applications that support the business needs of the firm faster than competitors; and (3) predict future business needs of the firm (Lee & Choi, 2003). According to Johannessen and Olsen (2003), knowledge management resources offer the type of capabilities difficult to imitate. Based on the various categories of knowledge management, the present study proposes that knowledge management can be classified into four categories: structural knowledge management resource, cultural knowledge management resource, technical knowledge management resource, and human knowledge management resource. These four categories enable an organization to develop and sustain its competitive advantage and improve performance. Because knowledge mainly resides on organization's members, the following section discusses how human resources practices shape knowledge management.

3. Organizational Performance

Organizational performance has been defined in various ways in that both objective and subjective indicators have been used to measure the concept (Apospori *et al.,* 2008). Subjective measures of performance are perceptual performance measures (Huselid *et al.,* 1997). Although such self-evaluations tend to be biased, Dess and Robinson (1984) believed that in when other objective criteria are absent, self-evaluations could be appropriate and reliable. In addition, Bamberger *et al.* (1989) stated that when organizational performance is

influenced by external economic factors, subjective evaluation may be more appropriate than objective measures. Subjective measurements of performance have also been found to have a strong correlation with objective measurements and are often used as a valid indicator of performance (Wall *et al.,* 2004). It cannot be denied that organizational performance has a vital role in strategy research; many views have been put forward on the suitability of the approaches to conceptualize and measure this variable (Venkatraman & Ramanujam, 1986). Based on the fact that this study looked at different service sectors, the researcher used the subjective method to measure performance (Spanos & Lioukas, 2001), as recommended by some researchers when studies are multi-sectorial in nature (Venkatraman & Ramanujam, 1986).

4. Knowledge Management and Organizational Performance

To a majority of organizations, to achieve improved performance does not only depend on the successful distribution of tangible assets and natural resources but it also hinges on the effective knowledge management (Lee & Sukoco, 2007). As a result, investments in knowledge management have been reported as constantly increasing in the past few years (Mills & Smith, 2011). In the present economy, organizations believe that knowledge is the key economic resource and is crucial to sustaining competitive advantage. In other words, organizations must have the suitable knowledge in the required form and content for the purpose of achieving success (Anantatmula, 2007).

Knowledge management has become invaluable owing to several reasons. To achieve success in the present ever-changing global economy, organizations need to decrease their cycle times comprising production, carry out operations confined to minimum fixed assets and costs, limit product development time, enhance customer service and product quality, increase and improve employee productivity as well as performance, and lastly, update and restructure business processes and maximize agility and flexibility (Gupta *et al.,* 2004). These crucial business activities call for continued efforts to acquire, create, document, share, and apply knowledge by employees as well as teams comprising the entire organizational levels.

Owing to the importance of knowledge management to success, many organizations have made it a habit to largely invest in it. For this reason, majority of studies have tackled the link between knowledge management and organizational performance. One of these studies is Seleim and Khalil (2007) looked into the relationship between knowledge management and organizational performance in the Egyptian software firms. This study showed that all dimensions of knowledge management influenced organizational performance. Boumarafi and Jabnoun (2008) investigated the relationship between knowledge management and organizational performance in the United Arab Emirates among 89 business sectors comprising banking, manufacturing, investment, insurance, and service sectors. The study revealed that knowledge management was significantly related to organizational performance.

Similar finding was also reported by Daud and Yusuf (2008) in their study involving 100 small and medium enterprises in Malaysia. The study found that knowledge management has a positive significant relationship with organizational performance. In the same vein, Rasula *et al.* (2012) examined the impact of knowledge management on organizational performance in Slovenia and Croatia. The study revealed that knowledge management practices have a positive impact on organizational performance. In a recent study, Zaied *et al.* (2012) examined the role of knowledge management in enhancing organizational performance in Egyptian organizations. The study showed significant relationship between knowledge management elements and performance improvement measures.

The effect of knowledge management resources on organizational performance was also examined by Emadzade *et al.* (2012). The study was conducted in Isfahan and used 245 owners and managers form 86 small sized enterprises as respondents. The study found that knowledge acquisition, knowledge application, knowledge protection, and organizational structure had a positive relationship with organizational performance. However, organizational culture, knowledge conversion, and technology were found to have no effect on organizational performance. Gholami *et al.* (2013) also investigated the influence of knowledge management practices on organizational performance of 282 small and medium enterprises in Iran. Results indicated that knowledge management practices directly influence the organizational performance of small and medium enterprises. Similar finding was reported by Shahbakhsh (2013), who investigated the relationship between knowledge management and organizational performance in the education sector in Iran.

Agbim *et al.* (2013) examined the impact of knowledge management capabilities on organizational performance among 328 employees in the service sector in Nigeria. They found that technical knowledge management resource, cultural knowledge management resource, structural knowledge management resource, and human knowledge management resource were significantly and positively related to organizational performance. Guided by resource-based view of the firm, organizations nowadays are intentionally adopting knowledge management, expecting to acquire and sustain high levels of organizational performance (Anantatmula, 2007). Jantunen (2005) maintained that knowledge of an organization acts as a strategic asset, assisting the firm in the maintenance of its competitive ability in a fast-paced environment. Knowledge

management helps facilitate people to innovate, collaborate and opt for efficient decision. In other words, knowledge management's main goal is propelling people to focus on high-quality knowledge (Du Plessis, 2005). On the basis of the argument of resource-based view and the empirical evidence, the following hypothesis is offered:

H1: There is a positive relationship between knowledge management and organizational performance.

5. Method and Sample

Data were collected from 422 general managers in various service organizations in Jordan. Stratified sample was used to ensure that different types of service organization were represented (Gay & Diehl, 1992). To ensure a higher response rate, we distributed personally 350 questionnaires to general managers. Such method also allowed us to explain the purpose of the study and solicit their participation. They were however told that participation was voluntary and could withdraw from the survey anytime. Out of 350, only 260 were usable for final data analysis due to the excessive missing data or unreturned questionnaires.

6. Measures

Organizational performance. The researcher measured organizational performance by using six items assessed by the firm for three economic years (2009–2011) compared primarily to its main competitors (Pertusa-Ortega *et al.,* 2009). The six items were: sales growth, employment growth, market share growth, profits before tax, cash flow, and return on investment. A five-point scale, ranging from '1' "well below my competitors" to '5' "well above my competitors" was used. For each indicator, this measure was weighted on a five-point scale, ranging from '1' "not important at all" to '5' "very important" with the corresponding score, according to the degree of importance assigned by the company. The reliability coefficient alpha for this measure was reported to be .736 (Pertusa-Ortega *et al.,* 2009).

Knowledge management. Chuang's (2004) instrument was used to measure KM that consists of four dimensions: structural KM resource, technical KM resource, cultural KM resource, and human KM resource. The instrument has been widely used (e.g., Emadzade *et al.,* 2012; Liao *et al.,* 2010; Zaied et *al.,* 2012) with alphas reported as follows: .81 for the structural knowledge management measure (Chuang, 2004); .68 for the technical knowledge management measure (Chuang, 2004); .81 for the cultural knowledge management measure (Chuang, 2004); .68 for the human knowledge management measure (Chuang, 2004). A five-point Likert scale ranging from '1' "strongly disagree" to '5' "strongly agree" was used.

7. Result

Majority of the participating organizations were locally owned (92.3%) and hospitality organizations (58.8%). On average, the sampled organizations employed 361 employees, had been in operation for 19 years already (mean = 19.41, SD = 6.84), recorded estimated sales turnover of JD14 million (mean = 14.08, SD = 19.53), with profits around JD3 million (mean = 2.86, SD = 2.71). To test the hypothesis, multiple regression analysis was run to test the relationship between knowledge management and organizational performance. Table 1.1 shows that all the dimensions of knowledge management were significantly related to organizational performance.

Specifically, human knowledge management (KM) resource contributed the most (ß = .288, p = .000), followed by cultural knowledge management (KM) resource (ß = .160, p = .013), and technical knowledge management (KM) resource (ß = .131, p = .032). In this study, therefore, all dimensions of knowledge management made a unique and statistically significant contribution to the prediction of organizational performance.

Table 1.1. *Result of Regression Analysis Knowledge Management with Organizational Performance*

Independent variables	Unstandardized beta		Standardized beta	T	Sig.
	B	Std. error			
(Constant)	1.662	.238		6.973	.000
Technical KM resource	.116	.054	.131	2.151	.032
Cultural KM resource	.137	.055	.160	2.499	.013
Human KM resource	.262	.055	.288	4.739	.000

Note. R^2 = .193, F= 20.428, Sig= .000

8. Discussion and Conclusions

The paper contributes to understanding of influence of knowledge management on organizational performance in Jordan. The results of the study offered empirical support for the existence of a positive and statistically significant influence of knowledge management on organizational performance in Jordan. Our study of service organizations in Jordan offered support for the hypothesized positive effects of knowledge management on organizational performance. The results indicate statistically significant relationship of human knowledge

management, cultural knowledge management, and technical knowledge management with organizational performance. This means the application of knowledge management within the organization facilitates superior decision making, and maximizes productivity and profitability (Edvardsson, 2008). The present finding appears to be consistent with previous studies that revealed knowledge management as a crucial factor in acquiring and sustaining competitive advantage (e.g., Anantatmula, 2007; Boumarafi & Jabnoun, 2008; Zack, 1999; Zack et al., 2009), and seems to support the basic premise of resource-based view.

The practical implication of the results is that managers need to actively manage their firm's human capital to stimulate its capability in managing knowledge technical, human, and cultural. Furthermore, research suggests appropriate investments in knowledge management dimensions can enhance organizational performance. These findings can be notable in both sides, it means in practitioners and academics. The applicable results can use to identify and implement knowledge management capabilities with a reasonable expectation based on empirical evidence by practitioners. In addition, initiatives will be in alignment with the organizational strategy. Current study also encourages practitioners to focus the knowledge management initiatives on specific intermediate performance outcomes. Academics should be equally encouraged by these results for no superior reason than the demonstrated effect of knowledge management on organizational performance. Understanding the systemic relationship between these concepts and the value, which can generate in respect of creating and maintaining sustainable competitive advantage for organizations, which is important for knowledge management professionals.

Service organizations should deliberate how knowledge management can be implemented successfully. This would include strategies and plans for implementing knowledge management, and encouraging learning and knowledge sharing among employees. A key factor of knowledge management is to improve the learning capacity of the firm. One way to do so is by building a learning organization, which is more related to designing organizational procedures and routines than it is to managing assets. Accordingly, thinking carefully about what should be meant by "managing" in the context of knowledge management. If "management" refers to an ambition to give managers complete control of what employees learn, "knowledge management" would damage the dynamic performance of the organization. This study is concluding that knowledge management can play an important role in the organizational performance of service organizations in Jordan.

This study has some limitations. The first limitation lies in data collection technique in which questionnaires were distributed to general managers only; future studies can consider using different sources of data such as employees and managers to further corroborate the findings. In other words, future designs incorporating multiple respondents and sources of data would certainly strengthen the validity of the research results. Secondly, the present study utilized a cross-sectional research design and hence inferring causality from the findings may be challenging. A causal inference is impossible to make from the short time period in as much as a longitudinal design is better in testing the causality of the variables. Therefore, a longitudinal research is needed to ascertain the casual extent of the hypothesized relationship.

REFERENCES

Agbim, K. C., Oriarewo, G. O., & Owutuamor, Z. B. (2013). The impact of knowledge management capabilities on organizational performance: A survey of the service sector. *Journal of Business Management & Social Sciences Research, 2(9), 61-67.*

Alavi, M., & Leidner, D. E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly, 25*(1), 107-136.

Anand, N., Gardner, H. K., & Morris, T. (2007). Knowledge-based innovation: Emergence and embedding of new practice areas in management consulting firms. *Academy of Management Journal, 50*(2), 406-428.

Anantatmula, V. S. (2007). Linking knowledge management effectiveness attributes to organizational performance. *Journal of Information & Knowledge Management Systems, 37*(2), 133-149.

Apospori, E., Nikandrou, I., Brewster, C., & Papalexandris, N. (2008). HRM and organizational performance in northern and southern Europe. *International Journal of Human Resource Management, 19*(7), 1187-1207.

Bamberger, P., Bacharach, S., & Dyer, L. (1989). Human resources management and organizational effectiveness: High technology entrepreneurial startup firms in Israel. *Human Resource Management, 28*(3), 349-366.

Bock, G. W., & Kim, Y. G. (2002). Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing. *Information Resources Management Journal, 15*(2), 14-21.

Boumarafi, B., & Jabnoun, N. (2008). Knowledge management and performance in UAE business organizations. *Knowledge Management Research & Practice, 6*(3), 233-238.

Buckley, P. J., & Carter, M. J. (2002). Process and structure in knowledge management practices of British and US multinational enterprises. *Journal of International Management, 8*(1), 29-48.

Cepeda, G., & Vera, D. (2007). Dynamic capabilities and operational capabilities: A knowledge management perspective. *Journal of Business Research, 60*(5), 426-437.

Chuang, S. H. (2004). A resource-based perspective on knowledge management capability and competitive advantage: An empirical investigation. *Expert Systems with Applications, 27*(3), 459-465.

Davenport, T. 1999, "Knowledge management and the broader firm: strategy, advantage, and performance", Knowledge Management Handbook, CRC Press, 1-11.

Daud, S., & Yusuf, W. F. W. (2008). An empirical study of knowledge management processes in small and medium enterprises. *Communications of the IBIMA, 4*, 169-177.

Demarest, M. (1997).Understanding knowledge management. *Long Range Planning, 30*(3), 374-384.

Dess, G., & Robinson Jr, R. (1984). Measuring organizational performance in the absence of objective measures: The case of the privately-held firm and conglomerate business unit. *Strategic Management Journal, 5*(3), 265-273.

Du Plessis, M. (2005). Drivers of knowledge management in the corporate environment. *International Journal of Information Management, 25*(3), 193-202.

Edvardsson, I. R. (2008). HRM and knowledge management. *Employee Relations, 30*(5), 553-561.

Emadzade, M. K., Mashayekhi, B., & Abdar, E. (2012). Knowledge management capabilities and organizational performance. *Interdisciplinary Journal of Contemporary Research in Business, 3(11), 781-790.*

Gay, L. R., & Diehl, P.L. (1992). *Research methods for business and management*. New Jersey: Prentice Hall International, Inc.

Gholami, M. H., Asli, M. N., Nazari-Shirkouhi, S., & Noruzy, A. (2013). Investigating the influence of knowledge management practices on organizational performance: An empirical study. *Acta Polytechnica Hungarica, 10(2), 205-216.*

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems, 18*(1), 185-214.

Gottschalk, P. (2006). Stages of knowledge management systems in police investigations. *Knowledge-Based Systems, 19*(6), 381-387.

Grant, M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal, 17, 109-122.*

Gupta, J. N. D., Sharma, S. K., & Hsu, J. (2004). An overview of knowledge management. *Creating Knowledge Based Organizations*, 2, 1-29.

Huselid, M., Jackson, S., & Schuler, R. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal, 40*(1), 171-188.

Jantunen, A. (2005). Knowledge-processing capabilities and innovative performance: An empirical study. *European Journal of Innovation Management, 8*(3), 336-349.

Jennex, M., & Olfman, L. (2006). A model of knowledge management success. *International Journal of Knowledge Management, 2*(3), 51-68.

Johannessen, J., & Olsen, B. (2003). Knowledge management and sustainable competitive advantages: The impact of dynamic contextual training. *International Journal of Information Management, 23(4),* 277-289.

Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: An integrative view and empirical examination. *Journal of Management Information Systems, 20*(1), 179-228.

Lee, L., & Sukoco, B. (2007). The effects of entrepreneurial orientation and knowledge management capability on organizational effectiveness in Taiwan: The moderating role of social capital. *International Journal of Management, 24*(3), 549-573.

Liang, T., Ouyang, Y., & Power, D. (2007). Effects of knowledge management capabilities on perceived performance: An empirical examination. *Annals of Information Systems, 2*, 139-164.

Liao, C., Wang, H., Chuang, S., Shih, M., & Liu, C. (2010). Enhancing knowledge management for R&D innovation and firm performance: An integrative view. *African Journal of Business Management, 4*(14), 3026-3038.

Long, D. (1997). Building the knowledge-based organization: How culture drives knowledge behaviors. *Center for Business Innovation, 2*, 1-29.

Marquardt, M. J. (1996). *Building the learning organization: A systems approach to quantum improvement and global success*. New York: McGraw-Hill.

Mills, A. M., & Smith, T. A. (2011). Knowledge management and organizational performance: A decomposed view. *Journal of Knowledge Management, 15*(1), 156-171.

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science, 5*(1), 14-37.

Nonaka, I. (2007). The knowledge-creating company. *Harvard Business Review, 85*(7/8), 162-171.

Pertusa-Ortega, E. M., Molina-Azorin, J. F., & Claver-Cortes, E. (2009). Competitive strategies and firm performance: A comparative analysis of pure, hybrid and 'stuck-in-the-middle' strategies in Spanish firms. *British Journal of Management, 20*, 508-523.

Rasula, J., Vuksic, V. B., & Stemberger, M. I. (2012). The impact of knowledge management on organizational performance. *Economic & Business Review, 14(2), 147-168.*

Seleim, A., & Khalil, O. (2007). Knowledge management and organizational performance in the Egyptian

software firms. *International Journal of Knowledge Management, 3(4), 37-66.*

Shahbakhsh, B. (2013). Knowledge management and its relationship with organizational performance. *Interdisciplinary Journal of Contemporary Research in Business, 5(2),* 141-149.

Shieh-Cheih, F., Fu-Sheng, T., & Kuo-Chien, C. (2005). Knowledge sharing routines, task efficiency, and team service quality in instant service-giving settings. *Journal of American Academy of Business, 6(1), 42-63.*

Spanos, Y., & Lioukas, S. (2001). An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource-based perspective. *Strategic Management Journal, 22*(10), 907-934.

Spek, R., & Spijkervet, A. (2005). *Knowledge management: Dealing intelligently with knowledge* (5thed.). Netherlands: Gegevens Koninklijke Bibliotheek.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business economic performance: An examination of method convergence. *Journal of Management Development, 13*(1), 109-122.

Wall, T., Michie, J., Patterson, M., Wood, S., Sheehan, M., Clegg, C., & West, M. (2004). On the validity of subjective measures of company performance. *Personnel Psychology, 57*(1), 95-118.

Zack, M., McKeen, J., & Singh, S. (2009). Knowledge management and organizational performance: An exploratory analysis. *Journal of Knowledge Management, 13*(6), 392-409.

Zack, M. H. (1999). Developing a knowledge strategy. *California Management Review, 41*(3), 125-145.

Zaied, A. N. H., Hussein, G. S., & Hassan, M. M. (2012). The role of knowledge management in enhancing organizational performance. *Information Engineering and Electronic Business, 5, 27-35.*