

A Comparative Analysis of Knowledge Management in Banking Sector: An Empirical Research¹

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Abstract

Knowledge management is defined as the process of creating, storing, transferring, applying and saving organizational knowledge. Especially, in an environment of intensive competition increased with globalization; creating knowledge has been a vital factor for organizations, which want to gain advantage by innovative production. The development of information and communication technologies has accelerated this process. All of these developments attracted attention to the concept of knowledge, and a new period, in which the organizations that can create knowledge and use this acquired knowledge effectively and efficiently, have competitive advantage started. In this process, technology, organizational culture, leadership and measurement became important as basic components to provide effectiveness and efficiency in knowledge management. The main purpose of this study is to examine the basic components of knowledge management in banking sector with an empirical analysis and also to determine whether there is a difference between the private and state banks in the context of knowledge management practices.

Key Words: Knowledge Management, Knowledge Management Components, Knowledge Management Process, Information Technologies, Banking Sector

1. Introduction

Together with the development of chaos and complexity theories, and with them to find an interdisciplinary place; notions of innovation, entrepreneurship, feedback circulations and adaptation have arose and collaboration and network applications have gained a new meaning in this new conceptual framework (Lester, 2001). As a result of all these developments experienced in the field, the importance and value of information have increased, and consequently businesses, which were able to produce information have achieved sustainable success.

Traditional organization theory views organization as a machine that functions, solves problems and receives information from outside, in order to achieve a specific objective. This static and passive understanding of organization fails to catch the dynamic processes, which result from the interaction between the organization, its members and the environment. However an organization does not simply solve problems but creates and defines these problems, creates new knowledge and implements them for solution. An organization is not a data-processing machine, but an entity that creates knowledge as a result of its actions and interactions (Nonaka & Toyama, 2003).

In this context, the aim of this study is to determine the components, which influence the business knowledge management process, and to analyze whether there are differences between the state and private banks with respect to their components of knowledge management, by determining the related skills and level of implementation of organizational knowledge management in the banking sector.

2. Concept of Knowledge and Knowledge Management

Businesses today face the problem of sustainability due to the constant change of environmental conditions and global competition. Therefore, especially after 1990s, the concept of knowledge has been viewed as the most strategic source of the businesses and knowledge management has been frequently studied within the management studies and applications. In order for the concept of knowledge management to be defined in the literature, concept of knowledge is being addressed first. Notion of knowledge includes notions of data and information. In some cases, notions of information and knowledge are used as synonyms by ignoring the difference between them. Information expresses a state of knowing certain things about a phenomenon. Knowledge, on the other hand, expresses the assumption of how a phenomenon may react when exposed to change and the transformation of information to an idea (Geyik and Barca, 2004). Knowledge is defined as data which have been processed in a certain way (Sabherwal and Fernandez, 2003) and as the process of learning, conceptualizing and applying information (Soo et al., 2002). Two kinds of knowledge might be said to exist: implicit and explicit knowledge. Explicit knowledge consists of words and numbers, which are easily accessible, while implicit knowledge is hard to share since it consists of insights and understandings, which are hard to

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access (Balmisse et al., 2007).

Knowledge management is generally defined as the process of producing, presenting, storing, transferring, applying and protecting organizational knowledge (Schultze and Stabell, 2004). In addition, knowledge management is also defined as the activities required, in order to reveal the knowledge sources (Sabherwal and Sabherwal, 2005); the process of collection, distribution and efficient usage of knowledge sources (Davenport, 2001); setting up a system in order to improve the knowledge flow between individuals, coding and sharing the knowledge within the organization and gaining knowledge from outside sources (Birkinshaw, 2001).

In literature, knowledge management is indicated as realizing the organizational learning, thus having a positive influence over the product/service development by providing a more suitable environment for creativeness and innovation (Corso et al., 2001; Lester, 2001; Sherman et al, 2005). In addition to that, empirical studies have verified that knowledge management increases employees' performance, contributes to the improvement of product quality (Sabherwal and Sabherwal, 2005), provides competitive advantage (Roth, 2003) and therefore substantiates sustainable performance for the organization (Bogner and Bansal, 2007).

3. Fundamental Components in Knowledge Management

Four fundamental dimensions are emphasized in literature for an efficient and effective knowledge management. These dimensions consist of technology (Zaim, 2007), organizational culture (Lopez et al., 2004; Janz and Prasarnphanich, 2003), leadership (Jordan and Jones, 1997) and lastly, measurement of the results of knowledge management applications (O'Dell et al., 2003).

Leadership: In line with the objectives and strategy of the organization, realization of the objectives aimed by knowledge management depends on the leader, since he/she is expected to provide facilitating conditions for knowledge management. Leader is needed for sharing knowledge and supporting the climate, applications and motives within the organization (İpçioğlu and Erdoğan 2004). Leaders play an important role in the process of constituting a learning culture within the organization and its dissemination. The leader should help the organization members to adopt the knowledge by ascribing value to it and he/she should encourage them to question and experiment through workforce enhancement applications. In addition, leader is thought to be making important contributions to knowledge management activity by building trust and facilitating access to implicit knowledge (Crawford, 2005).

Culture: Organizational culture is the combination of social norms, unwritten rules, expectations and a common past which effects the behaviors of all the employees (O'Dell et al., 2003). Culture is an important factor in the creation of commitment in employees both for each other and for the objectives of the organization. Therefore, culture has an important status in the process of establishment and achievement of the objectives, decisions, strategies, plans and the policies of the organization (Köse et al., 2001) One of the most required conditions for the knowledge production to take place in the organization is the presence of an organizational culture which does not prevent organizational learning but supports learning with the systems of values, beliefs and work systems and knowledge production and sharing (Janz and Prasarnphanich, 2003).

Measurement of Knowledge Management: Issue of measurement is one of the least developed factors within the components of knowledge management. In order to sustain knowledge management applications, however, senior management has to see material or immaterial measurable results. Best way to measure the effectiveness of knowledge management applications is to measure its influence on the business' performance. Various studies show that the results derived from the knowledge management applications (O'Dell et al., 2003) enable;

- Increased innovation,
- Developed business,
- Improvement of applications and processes,
- Increased customer satisfaction,
- Improvement of the skills of employees.

Information Technologies: Information technologies ensures efficient and effective data recording, data storage, knowledge production after data processing, processes of accessing and transferring this knowledge (So and Bolloju, 2005). Computer software, hardware, databases, knowledge networks, intranet and internet, group softwares are some of the fundamental technological elements which should take part in a successful knowledge management process (Jennex et al. 2007). Information technologies play a key role in efficiency and effectiveness of knowledge management with regard to achieving and producing new knowledge, as well as storing and transferring it (Priestley and Samaddar, 2007). Developments in information and communication technologies are dependent on and supplementary for each other, while information technologies fulfill a supportive function for knowledge production (Balmisse et al., 2007). While information technologies have been perceived as a supporting factor in the past; today they are viewed as elements which reveal creativity and provide competitive advantage (Bensghir, 1996).

3. Methodology

3.1 Research Design

The aim of the present study is to determine the skill and application level of organizational knowledge management in banking sector, analyze the components which influence the business knowledge management process and find out whether there are differences between the state and private banks with respect to their components of knowledge management. In line with this aim, a field research has been conducted in the province of Gaziantep. Population of the research consists of employees of state and private banks operating in the province of Gaziantep. According to the statistical data obtained from The Banks Association of Turkey belonging to the year 2011, there are 144 bank branches and 2109 bank employees in total in Gaziantep. 520 bank employees work at public capital banks, while 1589 are employed in private capital banks (www.tbb.org.tr). Main purposes in choosing the banking sector as the population of the study are the high volume of knowledge management applications, intense competition, priority of customer satisfaction, frequent innovative and creative applications and sector's sensitivity to technological developments. Face to face meetings with managers of region headquarters or main branches of the banks were arranged in order to conduct the questionnaire and their support has been provided in order to distribute the questionnaire forms to the employees. Number of returned questionnaire forms is 270. 80 questionnaire forms were filled out by employees working at state banks and 190 of them were filled out by employees working at private banks.

One of the quantitative research methods, survey methodology, is used in this research. "Knowledge Management Measurement Tool" developed by "Arthur Andersen" and "American Productivity and Quality Center" has been used in forming the questionnaire form (O'Dell et al., 2003). The questionnaire consists of 4 multiple choice questions, which aim to obtain the socio-demographic data, and 24 questions with 5 point likert scale, which contain components of knowledge management. The scale related to the factors such as; "knowledge management process", "leadership in knowledge management", "knowledge management culture", "information technology" and "measurement of knowledge management", which are included in the questionnaire form, have been subjected to Cronbach's Alpha test using SPSS version 17.0. Alpha coefficient of the scale related to the dimensions of knowledge management has been obtained as 0.945 at the end of this test. Since this ratio is proven to be above the critical point of 0.70 determined by Nunnally, scale of the questionnaire is considered to be reliable. In addition, the results of the confirmatory factor analysis conducted on the scale have proven the construct validity of the scale.

3.2 Research Question

In literature, the components influencing knowledge management are listed as follows: information technologies (Zaim, 2007), organizational culture (Lopez et al., 2004; Janz and Prasarnphanich, 2003), leadership (Jordan and Jones, 1997) and measurement of the results of knowledge management applications (O'Dell et al., 2003). In this context, main question of the present study seeks to determine the components influencing knowledge management process in banking sector. Below are the questions expected to be answered through the study:

- What is the level of knowledge management application in the banks contained in the scope of the study?
- Which variables are influential in the process of knowledge management in the banks contained in the scope of the study and what are their degrees of influence?
- Do knowledge management components found in the banks contained in the scope of the study show a difference depending on banks' capitals?

3.3 Findings

When socio-demographic distribution of the employees who have participated to the study is analyzed; 30% of the employees are observed to work at state banks, 70% of them at private banks and approximately 31% of them are working at managerial positions. 57% of bank employees have more than five years of experience in this sector and 73% of them had bachelors' and master's degrees.

24 variables found in the questionnaire have been subjected to varimax rotation factor analysis, in order to determine the fundamental components of knowledge management dimension. As a result of the analysis, question number 14 has been excluded from the analysis since it was considered to lower internal consistency. 5 factors and 23 variables belonging to these are proven to explain 72% of total variance. This rate had to be more than 50% in order for it to be statistically significant (Altunışık et al., 2005: 120). The conformance of data to the factor analysis has been measured by Kaiser-Meyer-Olkin (KMO) coefficient and Barlett Sphericity test. Data have been proven to be conforming to factor analysis since KMO has been obtained as 0.872 and Barlett Sphericity test's result has been proven to be significant (2384,581; $p < 0,000$). Table 1 shows factors and variance values belonging to knowledge management variable.

Table 1. Factor Values Belonging to the Main Variable of Knowledge Management

Factors	Eigenvalues	% of Variance	Cumulative %
F1: Measurement of Knowledge Management	11,048	48,037	48,037
F2: Information Technologies	1,642	7,141	55,117
F3: Knowledge Management Process	1,562	6,790	61,967
F4: Leadership in Knowledge Management	1,247	5,421	67,388
F5: Knowledge Management Culture	1,083	4,709	72,097

Table 2. Factor Loadings and Reliability Coefficients Belonging to the Knowledge Management Variable

Factor 1: Measurement of Knowledge Management (Alpha Value: 0,907)	Factor Loadings
1.Our bank has developed methods for achieving monetary results through knowledge.	0,735
2.Our bank has developed a series of specific indicators for knowledge management.	0,771
3.Our bank's measurements have balanced hard and soft indicators as well as monetary and non-monetary indicators.	0,796
4.Our bank allocates resources for actions improving knowledge base in a measurable way.	0,663
Factor 2: Information Technologies (Alpha Value: 0,865)	Factor Loadings
1.Technology binds employees of our bank to each other as well as to proper external resources.	0,508
2.Technology constitutes an institutional memory accessible for the whole bank.	0,765
3.Technology brings our bank close to its customers.	0,779
4.Our bank supports the development of "human-focused" information technologies.	0,558
5.Our bank rapidly provides the technology supporting cooperation for the use of the employees.	0,484
6.Information systems of our bank are in real-time, integrated and smart.	0,489
Factor 3: Knowledge Management Process (Alpha Value: 0,844)	Factor Loadings
1.Knowledge gaps found in our bank are determined in a systematic way and well-defined processes are used in order to compensate these.	0,839
2.Our bank has developed an advanced intelligence compilation mechanism in accordance with developed and ethical values.	0,754
3.Every member of our bank gathers opinions from traditional and non-traditional sources.	0,606
4.Our bank has defined a specific pattern for the process of transferring the best practices including documentation and the lessons learned.	0,823
5.Our bank values the knowledge of its employees which they know but fail to express, and transfers them.	0,483
Factor 4: Leadership in Knowledge Management (Alpha Value: 0,849)	Factor Loadings
1.Organizational knowledge management in our bank constitutes the basis of its institutional strategy.	0,573
2.Our bank is aware of the revenue generation potential of its knowledge assets and develops strategies for marketing these potentials.	0,751
3.Our bank makes use of learning to support the basic competences and skills and to help developing new ones.	0,657
4. Our bank employs, evaluates and pays the individuals according to the extent of their contributions to the improvement of organizational knowledge.	0,762
Factor 5: Knowledge Management Culture (Alpha Value: 0,755)	Factor Loadings
1. Our bank encourages and facilitates knowledge sharing.	0,705
2. Transparency and confidence climate is prevalent in every unit of our bank.	0,504
3. Generating customer value is accepted as one of major objectives of the knowledge management in our bank.	0,634
4. Desire of flexibility and innovation leads the process of learning in our bank.	0,867

Table 2 above contains the factors, factor load values and reliability coefficients belonging to the variable of knowledge management. Reliability coefficients of factors are observed to be over 0.70 and statistically significant.

Table 3. Knowledge Management and Its Main Components

Variables	X	SD	Alpha	1	2	3	4	5
1. Knowledge Management Process	3,42	0,67	0,844	-				
2. Leadership in Knowledge Management	3,76	0,84	0,849	0,692**	-			
3. Knowledge Management Culture	3,72	0,85	0,721	0,486**	0,544**	-		
4. Information Technologies	3,80	0,76	0,865	0,682**	0,632**	0,560**	-	
5. Measurement of Knowledge Management	3,60	0,82	0,907	0,662**	0,666**	0,506**	0,769**	-

**p<0,01

Table 3 contains variables, reliability coefficients, descriptive statistical analyses and correlation values concerning knowledge management process and the components of the knowledge management. When the average and standard deviation values concerning knowledge management components found in Table 3 are analyzed, it can be argued that employees of the state and private banks, who have participated to the research related to knowledge management process, have a perception of an advanced technological infrastructure, a strong leadership, an organizational culture which supports the knowledge management and an effective measurement and evaluation mechanism in their banks. When the correlation values between the variables found in Table 3 are analyzed; it has been observed that there is positive relation on a medium level, in the reliability interval of p=0,01 between the knowledge management processes of the banks and the factors of leadership (r=0,692), organizational culture (r=0,486), technological structure (r=0,632) and measurement/evaluation (r=0,666) found in the banks.

A multiple regression analysis has been conducted in order to determine the variables, which have influence on the knowledge management process. Within this context, knowledge management process has been included in the analysis the dependent variable; and knowledge management culture, measurement of knowledge management, leadership in the knowledge management and information technologies have been included as the independent variables.

Table 4: Results of Multiple Regression Analysis (N = 270)

Variables	B	β Values	Standard Error	t	Sig.
Constant	,616		,216	2,851	,005
Leadership in Knowledge Management	,324	,376	,070	4,635	,000
Knowledge Management Culture	,024	,030	,056	,420	,675
Information Technologies	,265	,300	,083	3,184	,002
Measurement of Knowledge Management	,136	,166	,078	1,750	,083

Dependent Variable: Knowledge Management Process R: 767, R²: ,589, Adjusted R²: ,576 F: 46,195 p:,000

When the summary of the model found in Table 4 is analyzed, it has been observed that 58% of the total variation of the dependent variable is explained by the independent variables. When the table of coefficients is analyzed, it can be seen that variables of leadership and information technologies in knowledge management are significant in the reliability interval of 99%; measurement of knowledge management variable is significant in the reliability interval of 90% in terms of explaining the knowledge management process. When Beta value from the standardized coefficients has been analyzed, it has been said that leadership (β=0,376) in the knowledge management with regard to its influence on the knowledge management process is more significant than the information technologies variable (β=0,300) relatively, and the information technologies variable is more significant than measurement of knowledge management variable (β=0,166).

Table 5. Average, Standard Deviation and T Test Results of the Components of Knowledge Management Depending on the Characteristics of the Bank Capital

Bank Capital	N	Knowledge Management Process		Leadership in Knowledge Management		Knowledge Management Culture		Information Technologies		Measurement of Knowledge Management	
		X	SD	X	SD	X	SD	X	SD	X	SD
State	80	3,42	0,71	3,81	0,66	3,81	0,93	3,81	0,76	3,57	0,86
Private	190	3,41	0,63	3,70	0,91	3,61	0,75	3,77	0,78	3,64	0,77
		F: 1,391 t: 0,121 p: 0,240		F: 5,108 t: 0,874 p: 0,025		F: 1,162 t: 1,303 p: 0,283		F: 1,069 t: 0,267 p: 0,303		F: 0,011 t: -0,427 p: 0,918	

T-Test Inter Independent Groups has been conducted in order to find out whether there is a difference between state and private banks regarding the components of knowledge management. Group statistics given in Table 5 shows the frequency distribution, average, standard deviation and standard error statistics regarding the groups in comparison. It might be argued that there are no significant differences between the groups due to the T Test result obtained as $p > 0,05$.

4. Assessment and Conclusion

Today, the course of banking sector has started to change and banks have started to offer many different services apart from their standard products and services with the purpose of gaining competitive advantage. Developments in the sector lead the way for and shed light to the future of banking. When analyzed in a chronological way, it is possible to observe that banking services have begun to occupy quite a big part of people's daily lives. Functions of the branches have started to change. Many transactions done via the branches are now carried on through alternative low-cost distribution channels; thus branches are enabled to offer different services, which would create added value for the customers.

Knowledge management process, which has been briefly defined as the process of transformation of data to information and transformation of information to value generating knowledge, has become an indispensable factor for the banking sector. In this context, banks have been intensely competing to know their customers better, to offer solutions for individual needs, face-to-face if required, and to transform them to their life-long customers. At the heart of all these developments, proper management of knowledge becomes even more crucial and only a mechanism, in which a proper and efficient manner of managing knowledge creates a difference, becomes operative.

The study conducted in this scope has obtained similar results supporting the literature. As a result of the correlation analysis, which has been conducted in order to determine the level and the direction of the relation between the variables, a positive relation on a medium level has been determined between the variables of knowledge management process, leadership in knowledge management, knowledge management culture, information technologies and measurement of knowledge management (Table 3). Therefore, establishing a strong leadership structure, an organizational culture which supports the knowledge management, an advanced technological infrastructure and an efficient measurement and evaluation system would ensure an efficient knowledge management process and would have a positive influence on the performance of the bank. When this finding of the study is compared to the literature, the findings are observed to be in conformance with the literature (Lopez et al., 2004; Janz and Prasarnphanich, 2003). According to the results of the assessment of the study's findings, variables which have an influence on the knowledge management process are determined to be the variables of leadership in knowledge management, information technologies and measurement of knowledge management (Table 4). In this context, bank managers in the study's population are determined to be considering the knowledge management strategies as important, they are observed to know the significance of making a difference with knowledge production and employees are observed to be guided and encouraged in the frame of these strategies. In line with this fact, employees who can generate knowledge and utilize it are privileged. Furthermore, banks found in the present study's population make serious investments in information technologies with the intention of enabling the knowledge management strategies to be efficient and effective, of creating fast and productive knowledge-sharing between the employees and of being one step ahead of the competitors by offering fast and high quality service for the customers. Increasing importance of information

technologies for all sectors but particularly for banking sector and considerable investments in this direction require appropriate management of the information technology projects as well. In this context, “Control Objectives for Information and Related Technology” (COBIT), which was published by Information Technologies Governance Institute (ITGI), provides a widely accepted method and a control standard. COBIT is a standard for information systems which includes four main titles consisting of planning and organizing, acquiring and implanting, delivering and supporting, monitoring and evaluating; and 34 main and 318 sub-control objectives in detail (Uyar and Ünlüsoy, 2013). Framework of the COBIT standard consists of three elements consisting of business requirements, resources of information technologies and processes of information technologies (Uzunay, 2007). Regulations of Banking Regulation and Supervision Agency (BDDK) in compliance with COBIT standards are also considered to be influential in the development of information technologies. Influence of measurement and evaluation variable on the knowledge management process also coincides with the related literature (O’Dell et al., 2003). Improving the knowledge management process is closely related to evaluation of the results derived from the knowledge management applications. Contrary to what is expected from the study, knowledge management culture has been determined as having no influence on the knowledge management process.

Another finding of the study has proven that there are no differences between the state and private banks with respect to the components of knowledge management (Table 5). Due to recent developments of globalization and downsizing of the state borders, a stronger emphasis has been put on the efficiency, effectiveness and economy in government policies. Business management mentality and implementations have begun to be practiced also in the public sector. The increasing awareness of customers today compared to the past, and their demand of high quality and fast service forced state banks to reach a competitive level with respect to private banks. Restructuring phase of state banks experienced especially after crisis happened in banking sector in 2001 and the investments in human resources and technology in the last five years have been the most significant indicators of this fact. Therefore the banks have begun to compete intensely with the intention of getting a bigger share from the current market. In this competition, banks have been inclined to make a difference by ensuring the efficiency in the knowledge management.

This study is related to the perception of the employees who work in the banks operating in the city of Gaziantep in Turkey. So, data of the study is limited. The results of the present study are expected to contribute both to the related literature and the implementers. Especially in the future research, the relation between knowledge management of the banking sector and the outcomes may be analyzed from different perspectives. In addition to that, studies concerning establishment of the culture of knowledge management in the banking sector are also predicted to contribute to the literature.

References

- Altunışık, R., Coşkun, R., Bayraktaroğlu, S. & Yıldırım, E. (2005). Sosyal bilimlerde araştırma yöntemleri (SPSS Uygulamalı). Sakarya: Sakarya Kitabevi.
- Balmisse, G., Meingan, D. & Passerine, K. (2007). “Technology trends in knowledge management tools”, *International Journal of Management*, 3 (2), 118-131.
- Bensghir, T. K. (1996). Bilgi teknolojileri ve örgütsel değişim. Ankara: TODAİE Yayın No: 274.
- Birkinshaw, J. (2001). “Why is knowledge management so difficult?”, *Business Strategy Review*, 12 (1), 11-18.
- Bogner, W. C. & Pratima, B. (2007). “Knowledge management as the basis of sustained high performance”, *Journal of Management Studies*, 44 (1), 165-188.
- Corso, M., Martini, A., Paolucci, E. & Pellegrini, L. (2001). “Knowledge management in product innovation: An interpretive review”, *International Journal of Management Reviews*, 3 (4), 341-352.
- Crawford, C. B. (2005). “Effects of transformational leadership and organizational position on knowledge management”, *Journal of Knowledge Management*, 9 (6), 6-16.
- Davenport, T. H. (2001). İş dünyasında bilgi yönetimi. İstanbul: Rota Yayınları.
- Geyik, M. & Barca, M. (2004). “Etkin bilgi üretimi için örgütler nasıl tasarlanmalıdır?”, 3. *Ulusal Bilgi, Ekonomi ve Yönetim Kongresi Bildiri Kitabı*, 409-418, Eskişehir.
- Janz, B. D. & Prasarnphanich, P. (2003). “Understanding the antecedents of effective knowledge management: The importance of a knowledge - Centered Culture”, *Decision Sciences*, 34 (2), 351-384.
- Jennex, M. E., Smolnik, S. & Croasdell, D. T. (2007). “Knowledge management success”, *International Journal of Management*, 3 (2), 1-6.
- Jordan, J. & Jones, P. (1997). “Assessing your company’s knowledge management style”. *Long Range Planning*, 30 (3), 392-396.
- İpçioğlu, İ. & Erdoğan, B. Z. (2004). “İşletmelerde liderlik ve bilgi yönetimi arasındaki ilişkinin incelenmesine yönelik bir araştırma”, 3. *Ulusal Bilgi, Ekonomi ve Yönetim Kongresi Bildiri Kitabı*, 633-643, Eskişehir.
- Köse, S., Tetik, S. & Ercan, C. (2001). “Örgüt kültürünü oluşturan faktörler”, *Yönetim ve Ekonomi Dergisi*, 1 (1),

219-242.

Lester, M. (2001). "Innovation and knowledge management: The long view", *Creativity and Innovation Management*, 10 (3), 165-176.

Lopez, S. P., Montes Peon, J. M. & Ordas, J. Z. V. (2004). "Managing knowledge: The link between culture and organizational learning", *Journal of Knowledge Management*, 8 (6), 93-104.

Nonaka, I., & Toyama, R. (2003). "The knowledge creating theory revisited: Knowledge creation as a synthesizing process", *Knowledge Management Research and Practice*, 1 (1), 2-10.

O'Dell, C., Grayson, C. J. & Essaides, N. (2003). Ne bildiğimizi bir bilseydik. İstanbul: Dışbank Kitapları - 3.

Priestley, J. L. & Samaddar, S. (2007). "Multi-Organizational networks: Three antecedents of knowledge transfer", *International Journal of Knowledge Management*, 3 (1), 86-99.

Roth, J. (2003). "Enabling knowledge creation: Learning from an R&D organization, *Journal of Knowledge Management*, 7 (1), 32-48.

Sabherwal, R. & Fernandez, I. B. (2003). "An empirical study of the effect of knowledge management processes at individual, group, and organization", *Decision Sciences*, 34 (2), 225-260.

Sabherwal, R. & Sabherwal, S. (2005). "Knowledge management using information technology: Determinants of short-term impact on firm value", *Decision Sciences*, 36 (4), 531-567.

Sherman, J. D., Berkowitz, D. & Souder, W. E. (2005). "New product development performance and the interaction of cross-functional integration and knowledge management", *The Journal of Product Innovation Management*, 22, 399-411.

So, J. C. F. & Bolloju, N. (2005). "Explaining the intension to share and reuse of knowledge in the context of it service operations", *Journal of Knowledge Management*, 9 (6), 30-42.

Soo, C., Devinney, T., Midgley, D. & Deering, A. (2002). "Knowledge management: Philosophy, processes and pitfalls", *California Management Review*, 44 (4), 129-150.

Uyar, S. & Ünlüsoy, E. (2013). Uluslararası eğitim standartları (IESS) ve eğitim uygulamaları açıklamaları (IEPSS) çerçevesinde bilgi teknolojileri ile muhasebe ve denetim ilişkisi, www.suleymanuyar.com.tr/yayinlar/4.doc, [15/02/2013].

Uzunay, V. (2007). COBIT (Control Objectives for Information and Related Technology). İç Kontrol Merkezi Uyumlaştırma Dairesi Yayını, Ankara.

Zaim, H. (2007). Türkiye'de bilgi yönetimi uygulamaları. Sosyal Siyaset Konferansları, Kitap 50, 761-782.

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