

## Identifying the Impact of Organizational Culture on Knowledge Management

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**Abstract:** Purpose-the purpose of this research is to identify the influence of organizational culture on knowledge management in order to get acquainted with the fundamental items needed for planning future policies and programs with the purposes of extolling competitive advantages. Design/methodology/approach –A sample of 123 experts in the field of automobile industry were selected from Zamyad car manufacturing company exploiting the Cochran formula. For testing the research’s hypotheses the structural equation model was used. Findings – results showed that there exist a significant positive relationship between organizational culture of Zamyad car manufacturing company and the knowledge management process in this organization. Research limitations/implications – by the enhancement of competition throughout the world markets and the inevitable presence of Iran in it, the market activists’ concentration should shift towards paying comprehensive attention to knowledge management and organizational culture. Practical implications –some important issues on planning suitable policies are introduced so that the planners beware of considering the growing knowledge and awareness of staff which increases the pressure on the knowledge management side. There are also some solutions in terms of internal and external organizational factors with regard to the complex nature of competitive environment in automobile industry. Originality/value – the paper provides an examination about the impact of organizational culture on knowledge management.

**Key words:** Organizational culture % Knowledge management

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### INTRODUCTION

Regarding the rapid rate of changes and competition enhancements in today’s environment, implementing the knowledge management process is of great importance for organization’s survival [1]. Knowledge is increasingly playing its fundamental role as a survival element in organizations, at the same time it greatly relies on people and the influence of their collective characteristics in the form of organizational culture. Furthermore it can act as an important factor in accepting or rejecting knowledge management in organizations [2].

Generally speaking, one of the most important influential factors on knowledge management in organizations is the organizational culture [2]. In fact organizational culture is the infrastructure for knowledge management which plays an important role in success or failure of the organization’s strategies. In order for knowledge management to be operational, there must exist

a great coordination between it and the organizational culture, which is because in every organization, there is a unique organizational culture which reflects the perceptions and definitions of its staff towards events. Moreover the supporting role of organizational culture in knowledge sharing is thoroughly examined by knowledge management experts in such a way that they believe the organizational culture is a suitable environment for extending the required skills and knowledge of promoting knowledge management processes [3]. Organizational culture can act as a source of sustainable competitive advantage for its unique quality of inimitability by competitors. It must be kept in mind that in absence of a participatory and trust based culture, knowledge management cannot be used efficiently. If an existing culture does not reinforce knowledge sharing and distribution, knowledge management will face serious challenges in an organization that has this sort of culture [4-6]. A weak organizational culture will result in the

employees' unwillingness to share their knowledge for keeping their personal power base [7]. Also for facilitating peoples' involvement and knowledge creation, organizational culture plays an important role. Thereupon when organizations don't have enough awareness about their own culture and its aspects and indexes, they'll face different problems such as organizational conflict, lack of organizational coherence and performance reduction. Therefore, identification of cultures helps managers to exploit the strength points with complete awareness about the dominant atmosphere of the organizations and also to contrivance the necessary measures and practices for weakness points.

According to previous researches, one of the most important barriers to the deployment of knowledge management in organizations is the organizational culture and changing it is one of the most important aspects of every knowledge management system. After all considering the importance of the introduced factors; we will explore the impact of organizational culture on knowledge management in Zamyad car manufacturing company.

**Literature Review**

**Organizational Culture:** The today's organizations have to match themselves to the agitated and changing environment to achieve their objectives; they also have to identify their own organizational culture.

This identification and evaluation of the potential impact of culture and management results in a better understanding of tangible and intangible influences of culture on management. There exist several definitions for organizational culture from different viewpoints. *Robins* (2005) introduces culture as a system of shared concepts and ideas among an organizations' staff which defines their behavior towards each other and the people outside. *Denison* (2000) [8] points out that organizational culture consists of fundamental values, beliefs and morals which plays a basic role in an organization's management system. According to *Barny* (1986) organizational culture is an important driving force in organizations' movement [9]. *Tsanj* (2010) expresses that organizational culture influences the relations among staff and their values. There have been numerous models presented in this regard which explore the relevant items to organizational behavior and its characteristics.

In the present paper, we exploit *Denison's* organizational culture model (2000) [10] which is more recent and more complete than the other models representing organizational culture.

According to this model, cultural characteristics are: involvement, adaptability, mission and consistency. The definitions and qualities of each one of these items besides their measuring indexes are expressed as follows:

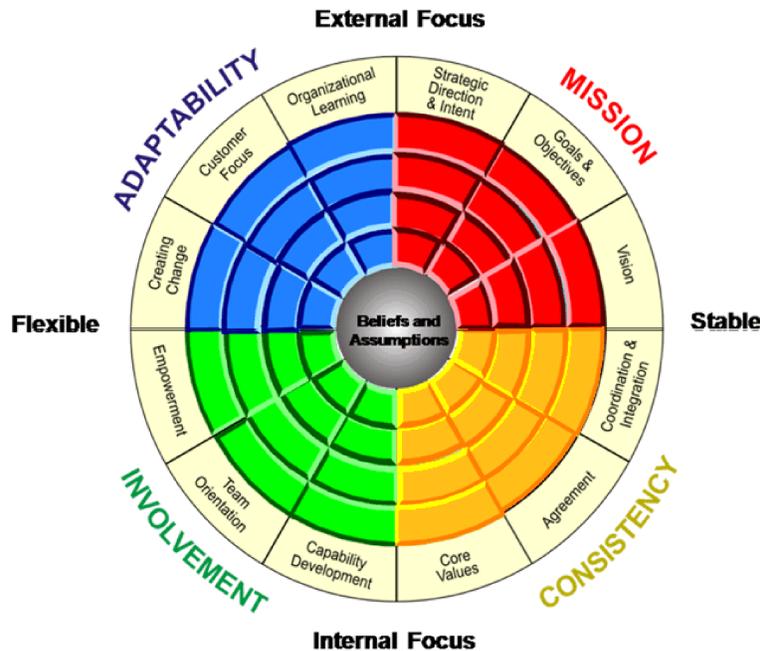


Fig. 1: Denison's Organizational Culture model  
Source: Denison et al. 2000 [8]

**Involvement:** Organizations characterized as "highly involved" strongly encourage involvement and create a sense of ownership and responsibility. They rely on informal, voluntary and implied control systems, rather than formal, explicit, bureaucratic control systems. Out of this sense of ownership grows a greater commitment to the organization and an increased capacity for autonomy. Receiving input from organization members increases the quality of the decisions and improves their implementation.

The indices of the Involvement Trait are:

- C Empowerment: They clarify those areas where employees can make decisions, have input, or those areas that are beyond an employee's scope of responsibility. This promotes 'informed' Empowerment.
- C Teamwork: Teamwork is encouraged so that creative ideas are captured and employees support one another in accomplishing the work that needs to get done.
- C Capability Development: this item is practiced in a variety of ways, including training, coaching and giving employees exposure to new roles and responsibilities.

**Adaptability:** Organizations hold a system of norms and beliefs that support the organization's capacity to receive, interpret and translate signals from its environment into internal behavioral changes that increase its chances for survival, growth and development. Three aspects of adaptability impact an organization's effectiveness. First is the ability to perceive and respond to the external environment. Successful organizations are very focused on their customers and their competitors. Second is the ability to respond to internal customers, regardless of level, department or function. Third is the capacity to restructure and re-institutionalize a set of behaviors and processes that allow the organization to adapt. Without this ability to implement adaptive response, an organization cannot be effective.

The indices of the Adaptability trait are:

- C Creating Change: High-performing organizations welcome new ideas and are willing to try new approaches to doing things. They see CreatingChange as an important part of the way they do business.

- C Customer Focus: Customer Focus is critical. Employees recognize the need to serve their customers – both internal & external. They continually look for new and improved ways to meet and exceed customer expectations.
- C Organizational Learning: 'Thoughtful' risk taking is encouraged. Organizational Learning means we gain knowledge from successes and failures. Our first reaction to reasonable mistakes is not 'Who is to blame?', but rather 'What can we learn?'

**Mission:** Mission tells employees *why* they are doing the work they do and how the work they do each day contributes to the *why*. The indices of the Mission Trait are:

- C Strategic Direction & Intent: this typically refers to the multi-year strategies – high priorities established to 'operationalize' the vision.
- C Goals & Objectives: which are the short-term, specific goals established that help every employee see how his/her daily activities connect to the vision & the strategy.
- C Vision: which is the ultimate reason you are in business – your purpose - what you are ultimately trying to achieve.

**Consistency:** Consistency provides a central source of integration, coordination and control. Consistent organizations develop a mindset and a set of organizational systems that create an internal system of governance based on consensual support. They have highly committed employees, key central values, a distinct method of doing business, a tendency to promote from within and a clear set of do's and don'ts.

Consistency creates a "strong" culture based on a shared system of beliefs, values and symbols that are widely understood by members of an organization. Implicit control systems based on internalized values can be a more effective means of achieving coordination and integration than external-control systems that rely on explicit rules and regulations.

The power of this method of operation is particularly apparent when organizational members encounter unfamiliar situations. It enables individuals to better react in a predictable way to an unpredictable environment by emphasizing a few general, value-based principles on which actions can be grounded.

The indices of the Consistency Trait are:

- C Core Values: the values that help employees and leaders make consistent decisions and behave in a consistent manner.
- C Agreement: By engaging in dialogue and getting multiple perspectives on the table they are able to reach Agreement when difficult issues and problems arise.
- C Coordination and Integration: Employees understand how the work that they do impacts others – and how other’s work impacts them. They do not just ‘throw things over the fence’. They make sure that work is coordinated and integrated to serve the organization as a whole [8].

**Knowledge Management** Today’s changing world necessitates organizations to search for modern instruments in order to survive. One of these instruments can be knowledge management which is a process enabling organizations to find, select, organize and publish important information and also is a necessary expertise for problem solving, dynamic learning and making conclusions [8]. Knowledge management can cover a wide range of organizational functions characteristics by empowering it to function more consciously. During the recent years, knowledge management has been considered as a critical strategy to achieve competitive advantage [11]. Researchers have inspected knowledge management from various viewpoints and presented different definitions for it but the important issue about this is the perception of knowledge management’s purpose to improve organizational performance via explicit designing, exploiting implementation instruments, processes, systems, structures and culture for betterment of creation, sharing and enjoying the necessary knowledge for decision making. Knowledge management is about acquiring and keeping staffs’ knowledge and making it available to the others throughout an organization [12]. *Karl Wig* (2002) believes that knowledge management means creating the necessary processes for identifying and attracting critical data and information from internal and external sources of an organization and transferring them to organizational and individual decisions or actions [13]. *Gurtin* (2000) sees knowledge management as a philosophy consisting of a series of principles, processes, organizational structures and exploited technologies assisting people to share and enjoy the capital created from their knowledge or their knowledge based assets throughout an organization [14].

Knowledge management includes human behavior, attitudes, business philosophies, patterns, actions, procedures and complicated technologies [13]. *Van* (2009) and *Rahman et al.* (2010) estate that knowledge management can be used as creating, acquiring, sharing and exploiting knowledge to extoll organizational performance. Knowledge management concerns the identification and presentation of knowledge in such a way that it can be clearly shared and hence be re-exploited [15]. *Dilek & Ars* (2008) defines knowledge management as the process of identifying, selecting, organizing, summarizing and categorizing the vital information for organizations’ business in such a way that it can improve staffs’ performance and organizations’ competitive advantage. According to many researchers knowledge management is transforming data into information and the information to knowledge [16, 17]. *Glott & Terziovski* (2004) describe knowledge management as follows: formality in accessing experience, knowledge and expertise which can create novel capabilities, encourage innovation and augment the customer value. The best definition which is the common point of all other ones, is that of *NASA’s* in which knowledge management is introduced as getting the right information to the right people at the right time and helping people create knowledge and share and act upon information in ways that will measurably improve the performance of the organization and its partners [18].

Generally speaking, knowledge management contains the processes of optimum combination of knowledge and information in an organization with the purpose of creating and sharing knowledge and training creative and innovative human resources [19]. Knowledge management and its related fields emphasis on this fact that in the modern global economic environment, achieving sustainable competitive advantage depends on the organization’s capacity and capability to extoll and make proper use of knowledge based resources inside the organization. In fact knowledge management is the sum of strategic efforts to increase the value of organization’s effectiveness improvement in the turbulences of business and social environment [20].

**The General Model of Knowledge Management:** *Newman & Conrad* (2000) [21] estate that knowledge flows comprise the set of processes, events and activities through which data, information, knowledge and meta-knowledge are transformed from one state to another. To simplify the analysis of knowledge flows, the framework described in their research is based primarily on the General Knowledge Model. The model organizes

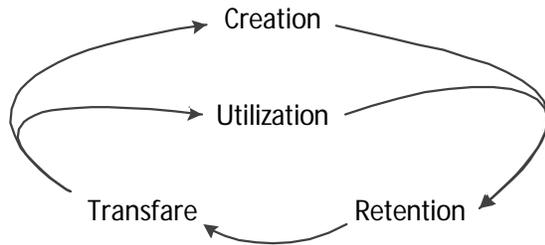


Fig. 2: The general knowledge management model

knowledge flows into four primary activity areas: knowledge creation, retention, transfer and utilization (Figure 2).

**In this Model:**

- C *Knowledge Creation.* This comprises activities associated with the entry of new knowledge into the system and includes knowledge development, discovery and capture.
- C *Knowledge Retention.* This includes all activities that preserve knowledge and allow it to remain in the system once introduced. It also includes those activities that maintain the viability of knowledge within the system.
- C *Knowledge Transfer.* This refers to activities associated with the flow of knowledge from one party to another. This includes communication, translation, conversion, filtering and rendering.
- C *Knowledge Utilization.* This includes the activities and events connected with the application of knowledge to business processes [21].

**Organizational Culture and Knowledge Management:** Organizational culture is one of the aspects of knowledge management. Finding the suitable culture that befits the knowledge management best has been one of the most important issues in knowledge management research [3]. In an organization that team making, involvement in doing the tasks and having trust to each other are known as cultural factors, these items result in a free stream of knowledge throughout the organization. This eventually leads to knowledge creation, acquisition and publication. There upon it can be concluded that the more freedom bestowed to an organizations’ staff the more cooperation they will have in doing their tasks and the more successful the organization will be in creation, development and exploitation of knowledge [2]. *Davenport & Prusac* (1988) estate that considering the objectives and ideals of an organization in knowledge management initiatives is of great importance.

Those organizations that perform well in knowledge management initiatives frequently refer to their inherent culture as their critical success factor [22]. In fact, organizational culture plays an important role in knowledge management with the consideration of organizational objectives and ideals.

There exist several researches that had identified the failures of knowledge management practices and all of them has referred to organizational culture as one of the most critical factors in these failures [23], hence organizational culture can act as a facilitator and also as a barrier to an organization’s success at the same time [2]. The above mentioned researches clearly illustrate the existing relation between organizational culture and knowledge management practices, but it has not yet been explored that which aspects of organizational culture hamper or facilitate knowledge management or have the most influence on success or failure of organizations [4]. Findings of *DeLong & Fahey* (2000) shows that organizational culture can influence on knowledge management in four forms:

- C The role that organizational culture plays regarding the identity and importance of knowledge in an organization.
- C The role that culture plays in making relations between individuals and organizational knowledge.
- C The cultural patterns which identify how knowledge must be exploited in special cases.
- C The process by which knowledge is created, legitimated and is being published in the organization.

Literature review reveals that values, beliefs and norms inside an organization, influence the knowledge management process. Considering the aspects of these two constructs (i.e. organizational culture and knowledge management) the hypotheses are developed as follows:

**Main Hypothesis (H<sub>a</sub>):** The dominant organizational culture influences knowledge management in an organization.

**Subsidiary Hypothesis 1 (H<sub>b1</sub>):** The level of involvement in an organization influences knowledge management in that organization.

**Subsidiary Hypothesis 2 (H<sub>b2</sub>):** The level of involvement in an organization influences knowledge management in that organization.

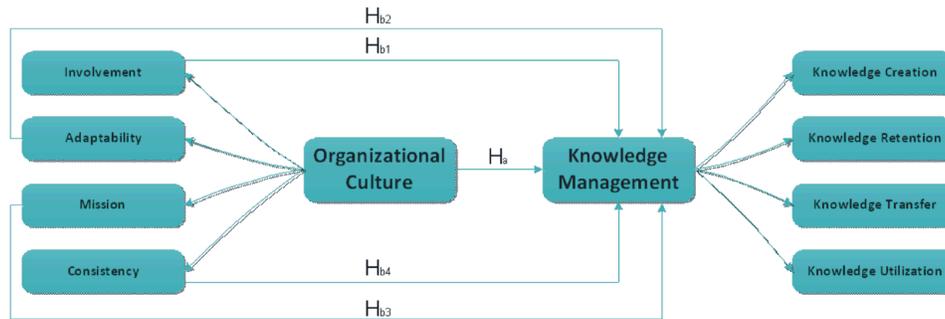


Fig. 3: Theoretical framework

**Subsidiary Hypothesis 3 (H<sub>b3</sub>):** An organization’s mission influences knowledge management in that organization.

**Subsidiary Hypothesis 4 (H<sub>b4</sub>):** The level of consistency in an organization influences knowledge management in that organization

**Theoretical Framework:** Considering the main purpose of this research which is to identify the impact of organizational culture on knowledge management and also with paying due attention to research hypotheses, the theoretical framework of this research is presented in Figure 3.

**Design/methodology/approach:** The present paper in its nature is an applied research which is of the exploratory survey type regarding its data collection approach. There upon to prove the hypotheses, surveying the involved people (the informed experts of Zamyad company) has been conducted. Moreover on the basis of the gathered data which are of quantitative kind, experts have been provided with some questionnaires, the results of which are illustrated in the following segments. Furthermore to test the causal relationship among the research’s main constructs and to explore the multifold aspects of our theoretical framework, structural equation model has been used. This model is a suitable instrument for analyzing the researches that causal relations are being studied in them. Structural equation model consists of two parts, namely the measuring model and the structural model and then the variables of models are categorized in two groups of covert and overt variables. Involvement in tasks, adaptability, mission and consistency are the overt variables in this research which are known as organizational culture indexes and in terms of knowledge management, such items as knowledge creation, knowledge retention, knowledge transfer and knowledge utilization are the scales of measuring this notion.

**Target Population/sampling Method/sample Volume:**

The target population of this research contains the informed experts of Zamyad car manufacturing company with the size of 180 people. Different sectors of the company were selected from service & maintenance, quality control and other sectors using stratified random sampling. Then sampling was done randomly from each stratum, according to which 20 to 25 people were placed in each class. To calculate the amount of sample size, Cochran formula was utilized, in which the assumptions were as follows: p=q=50% (based on the possibility method), z<sub>is</sub> the normal distribution standard statistic at significance level of 95% and it equals 1.96, *dis* the estimation error which equals 5% and *Nis* 180 people (formula 1).

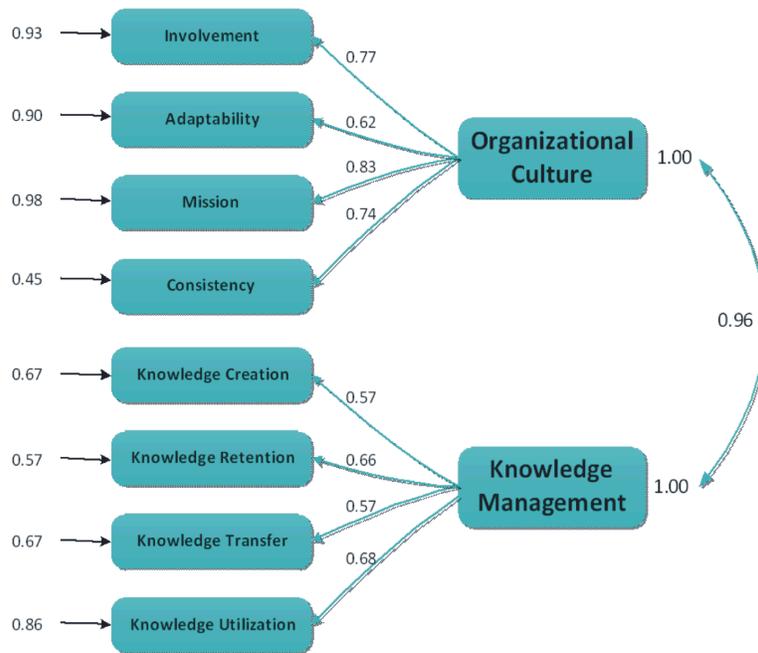
$$= 123 \text{ formula } 1n = (z^2pqN) / (N d^2 + z^2pq)$$

Hence the sample of 123 subjects were determined and to ensure more confidence, 140 questionnaires were distributed, 131 of which were responded to and collected back.

**Data Collection Instruments, Validity and Reliability:**

*Fey & Denison’s* (2003) [24] standard questionnaire was used for gathering data and for measuring the organizational culture variable, the standard questionnaire of *Prust et al.* (2000) was also used to measure the construct of knowledge management. Formal validity of the questionnaire was reviewed according to experts’ opinions (some of the professors of Tehran University). To calculate the reliability of questionnaires, Cronbach’s alpha coefficients plus composite reliability coefficients were used. The corresponding figures for each one of the aspects are presented in Table 1.

All coefficients being more than 0.70, indicates that the measuring instrument has acceptable reliability [25]. There upon the questionnaire that has been used is of satisfactory reliability. To test the measurement model,



Chi-Square=35.05, df=19, P-value=0.07377, RMSEA=0.011

Fig. 4: The measuring models of research's two main construct

Table 1: Cronbach's alpha coefficients and Composite reliability coefficients for each one of the aspects

	Involvement in tasks	Knowledge transfer	Mission	Consistency	Knowledge creation	Knowledge retention	Knowledge transfer	Knowledge utilization
Cronbach's alpha coefficients	0.74	0.78	0.76	0.82	0.71	0.86	0.78	0.71
Composite reliability coefficients	0.79	0.78	0.79	0.87	0.72	0.87	0.78	0.72

Table 2: The results of testing research's main and subsidiary hypotheses

Hypothesis	Standardized coefficients	t-value statistic amount	Result
Organizational culture 6 Knowledge management	0.78	18.32	Confirmed
<i>AGFI=0.91</i> <i>GFI=0.92</i>	<i>RMSEA=0.041</i>	<i>df=18</i>	<i>X<sup>2</sup>=34.43</i>
Involvement in tasks 6 Knowledge management	0.82	17.72	Confirmed
Adaptability 6 Knowledge management	0.82	17.21	Confirmed
Mission 6 Knowledge management	0.87	16.54	Confirmed
Consistency 6 Knowledge management	0.79	16.76	Confirmed
<i>AGFI=0.91</i> <i>GFI=0.93</i>	<i>RMSEA=0.033</i>	<i>df=16</i>	<i>X<sup>2</sup>=38.87</i>

confirmatory factor analysis was conducted using LISREL 8.8 ©. According to Joreskog & Sorbom (1996) the obtained model enjoys fitting basis. As is illustrated in Figure 4, the amount of p-value equals 0.071, RMSEA statistic is 0.053 and the ratio of chi-square has a less than 3 freedom degree.

Furthermore the other outcomes of LISREL © show that the amount of calculated CFI is 0.954, Zis more than 1.96 and the values of GFI and AGFI are respectively 0.944 & 0.931, accordingly the measuring models of the research's main construct have acceptable fittings.

## RESULT AND DISCUSSION

After testing the measuring models, the cause and effect relationship between knowledge management and organizational culture was evaluated. As can be seen in Table 2, all of the necessary criteria for the model's fitting also apply here. Moreover the relationship between organizational culture and knowledge management is that of direct and positive kind meaning that organizational culture has a positive impact on knowledge management; in other words reinforcing the quadruple aspects of

culture in organizations results in knowledge management life cycle being completely traversed. As is shown in Table 2, organizational culture explains 87% of the knowledge management related variance. On the other hand the  $t$  values which are all significant (being higher than 1.96 and less than -1.96), confirm all of the hypotheses.

### CONCLUSION

As was mentioned in the literature review, with the augmentation of dynamism in environment, organizations have to be more apt for getting adapted to the corresponding environment. An organization's survival in such an environment depends highly on its flexibility and agility. Some of the most important items that organizations' administrators have to beware of are such factors as values, beliefs and existing norms which play a vital role in organizational culture. On the other hand, knowledge that acts strenuously at the time an organization faces a challenge is under the influence of organizational culture and its life cycle depends on beliefs and norms of the organization. In the main hypothesis of the research, it was concluded that the more the paid attention to organizational culture and the more it be in alignment with visions and future programs, the better knowledge management process is implemented in the organization. This conclusion is consistent with those of Jones (2009) [3] and Ciganek *et al.* (2010) [2] findings. Moreover in our subsidiary hypotheses, it was confirmed that all of the aspects of organizational culture namely involvement in tasks, the adaptation rate of the organization, mission and finally an organization's consistency have a positive role in completion of knowledge management cycle. These findings are also consistent with those of Hackett (2000) [22] and Christophine (2008) researches.

### REFERENCE

1. Fong, P. and C. Kwok, 2009. Organizational culture and knowledge management success at project and organizational levels in contracting firms. ASCE, Journal of Construction Engineering and Management, 135: 12.
2. Ciganek, A.P., E. Moa and M. Srite, 2010. Organizational culture for knowledge management systems: a study of corporate users. International Journal of Knowledge Management, 4: 1.
3. Jones, M., 2009. Organizational culture & knowledge management an empirical investigation of U.S, manufacturing Firms. Doctoral dissertation. Nova Southeastern University.
4. Davenport, T. and L. Prusak, 2009. Working knowledge: how organization manage what they know. Boston: Harvard business school press.
5. Abou-Deif, M.H., M.A. Rashed, M.A.A. Sallam, E.A.H. Mostafa and W.A. Ramadan, 2013. Characterization of Twenty Wheat Varieties by ISSR Markers, Middle-East Journal of Scientific Research, 15(2): 168-175.
6. Kabiru Jinjiri Ringim, 2013. Understanding of Account Holder in Conventional Bank Toward Islamic Banking Products, Middle-East Journal of Scientific Research, 15(2): 176-183.
7. Wang, C. and A. Perveiz, 2003. Structure Dimensions for Knowledge Based Organizations. Measuring Business Excellence, pp: 278-294.
8. Denison, D., 2000. Organizational culture, Can it be a key lever for driving organizational change. London: John Wiley & Sons.
9. Wang, D., Z. Su and D. Yang, 2011. Organizational culture and knowledge creation capability. Journal Of Knowledge Management, 15(3): 363-373.
10. Davenport, T., 1997. Ten principle of KM. Knowledge and Process Management, pp: 149-158.
11. Yang, J., 2010. The knowledge management strategy and its effect on firm performance: A contingency analysis. Houston School of Business Administration, University of Houston-Victoria.
12. Holt, D., S. Bartczak and M. Trent, 2007. The development of an instrument to measure readiness for knowledgemanagement.
13. Wig, K., 2002. Egov. Retrieved from [www.egov.pl/-baza-analizy-km-pub](http://www.egov.pl/-baza-analizy-km-pub).
14. Bukowitz, W. and R. Williams, 1999. The Knowledge Management Fieldbook, Pearson Education Limited, London challenges and benefits. Journal of Management Information Systems, 7(1): 1-25.
15. Sinotte, M., 2004. Exploration of the field of knowledge management for the library and information professional. Libri, pp: 190-198.
16. Vaccaro, A., R. Parente and F. Veloso, 2010. Knowledge Management Tools, Inter-organizational Relationships, Innovation and Firm Performance. Technological Forecasting & Social Change, pp: 20-34.
17. Gottschalk, P., 2007. Sharing Knowledge in law Firms. Journal of Innovation and Learning, pp: 255-273.

18. Jafari, M., M. Fesharaki and A. Akhavan, 2007. Establishing an integrated knowledge management system in iran aerospace industries organization. *Journal of Knowledge Management*, pp: 127-142.
19. Davenport, T., 1997. *Secrets of Successful Knowledge Management*. Austin Texas.
20. Joo, J. and S. Lee, 2009. Adoption of the Semantic Web for overcoming technical limitations of knowledge management systems. *Journal of Expert Systems with Applications*, 7318–7327.
21. Newman, B. and K. Conrad, 2000. A Framework for Characterizing Knowledge Management Methods, Practice and Technologies, in: *Proceedings of the Practical Aspects of Knowledge Management*. The Knowledge Management, pp: 16-33.
22. Hackett, B., 2000. *Beyond knowledge management New ways to work and learn*. New York. TheConference Board.
23. Alavi, M., R. Smith and E. Leidner, 2009. *Knowledge management systems*.
24. Fey, C. and D. Denison, 2003. Organizational culture and effectiveness: Can an American theory be applied in Russia?, pp: 686-706.
25. Nunnally, J., 1978. *Psychometric Theory*. New York McGraw-Hill.