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The Relationship between Organizational Culture and Knowledge Management Processes A Case Study: The Roads and Urban Development Organization of Chaharmahal and Bakhtiari Province

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Abstract

With the beginning of the knowledge era, the Organizations' knowledge assets have been considered widely as a main key for the ability to create and maintain the competitive advantage and continuous growth. The suitable organizational culture can be very important for knowledge management. Therefore in line with the primary conduct of knowledge managementthe organizations need to recognize and obtain information on the dominant culture in their enterprise and the degree of organizational culture compatibility with knowledge managementactivities.

The main objective of the researchis to analyze the relationship between organizational culture and knowledge management processes. This research was performed in the form of organizational culture and knowledge management literature, which resulted in obtaining a

conceptual model of the research. In this organizational culture research, the competitive values framework model (the clan culture, the adhocracy culture, the market culture, and the hierarchical culture) was used and in knowledge management processes, the knowledge management cycle (knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination, and knowledge application) was used.

This research is descriptive-survey in objective, application, and nature respects. The statistical community of this research was the official employee of The Roads and Urban Development Organization in Chaharmahal and Bakhtiari Province in 2010-2011. The data gathering instrument was questionnaire. To measure the organizational culture and knowledge management processes the assessment in strument for organizational culture of Cameron and Quinn(2006) and the knowledge management assessment in strument of Lawson (2003) were used respectively, and their validity was confirmed by Cronbach's Alpha with 0.886 and 0.889 ratios respectively, and the number of statistical sample was determined 65 people. The descriptive tests, One-sample t-test, Friedman, and Pearson's correlation tests were used to analyze the data and the examination of the hypothesis.

The research findings say that its hypotheses were confirmed and the relation between the organizational culture and knowledge management processes is meaningful. The amount of knowledge creation, knowledge capture, knowledge storage, and knowledge dissemination processes were average and the knowledge organization and knowledge application processes were below the average. The dominant culture in the organization is hierarchical but the corresponding organizational culture with the knowledge management processes is the adhocracy culture; therefore, the successful performance of knowledge management programs depends on the reinforcement of knowledge management processes and emphasizes the adhocracy culture in the organization.

Keywords: Organizational Culture, Knowledge Management Processes, the Competitive Values Framework Model, and Knowledge Management Cycle.

Introduction

Recent developments in Information technology have considerably decreased the data management costs. These developments have brought the concepts of learning organization, knowledge organizations and knowledge management in the literature of management and organization. Using the knowledge management strategies, the organizations provided the possibility of innovation in their processes, activities, products, and services, therefore improve their competitive situation. In the nowadays' dynamic, challenging, and competitive enterprise environment, the organizations movement towards the learning organizations is among the requirements of succeeding in such an environment. Today, the organizations must be able to gain the required knowledge to make innovations in their products and improve their processes, distribute it among their employees, and apply it in all of their daily works. Only through this way they can respond to the requirements of the competitive environment and the customers' highly changing needs (Alvani, Natiq and Farahi, 2007).

It is difficult for each organization to perform and maintain the effective knowledge management programs. The scope that has been estimated for the lack of success of knowledge management programs is between 50% and 75% (Anderson, 2009).Knowledge management is

related to all of the organizational levels and dimensions. Therefore, the individuals' characteristics and cultures, processes and technology, all must be considered in line with the knowledge management systems implementation. On the way to implement the knowledge management processes lots of barriers and difficulties occur. The knowledge management programs' lack of success is related to factors such as organizational guidelines (Raub and Wittich, 2004), organizational culture (Al-Alawi, Al-Marzooqi and Mohammad, 2007), and the lack of a clear guideline in knowledge management programs in line with the organization's aims (Anderson, 2009) and the lack of support from chief executives (Mohammadi, Khanlari, and Sohrabi, 2009).

Meantime, many researchers say that the organizational culture can be one of the most important barriers (Al-Alawi et al., 2007; Chin-Loy, 2004; Janz and Prasarnphanich, 2003; Alavi and Leidner, 2001).In a study performed on the employees of 453 companies, more than a half of them remarked that the organizational culture is the main barrier on the way of succeeding in knowledge management solutions (Ruggles, 1998).

Generally, lack of attention to the organizational culture individuals' beliefs and values, if not result in the complete failure and lack of access to objectives and perspectives, creates numerous problems in the movement process of the organization and waists lots of energies to solve the created dilemmas by confronting the foreseen objectives, at least.As it is obvious from existing proves, organizational culture is a complicated phenomena that plays an important role in the acceleration of development process and organization change. Therefore, when organizations do not have adequate knowledge about their own organizational culture and its dimensions and characteristics, they face many problems such as organizational conflicts, lack of organizational coherence, and activity reduction. Thus, the recognition of organizational culture helps managers with complete awareness and perspective of dominant atmosphere of the organization to use its strengths and foresee the necessary plans and actions.

Despite many challenges governments are facing in the present era, knowledge management performance in governmental organizations cause better service and objective performance. The knowledge management analysts believe that the improvement in knowledge obtaining, compiling, storing, and sharing in governmental organizations makes them more powerful to perform their mission successfully. This can be achieved without budget reduction, without more and developed organizational equipments, and without the employment of adept and informed human force, through performing knowledge management. One of the reasons that governmental organizations act slowly at all of their organizational levels in accepting knowledge management in their activities is their organizational culture (Mcnabb, 2007).

Based on the same issue, the Roads and Urban Development Organization of Chaharmahal and Bakhtiari Province also is in need of performing knowledge management programs in its organization considering the present competitive environment, and for not falling back from the present society course of changes. Thus, the Authorities of this governmental organization try to become acquainted with the dominant organizational culture of their organization before performing the knowledge management programs, and analyze the compatibility between their dominant organizational culture and knowledge management processes in order not to face failure in performing knowledge management programs in their organization. In order to achieve these aims, the researchsubject was researched.

The advent of knowledge era as a basic part of global economy is making considerable changes in enterprise environment. In this era, knowledge is considered as the greatest value creator factor in organizations (Anumba, Egbo and Carrillo, 2005). Alvin Taffler (1990) remarks that we are now living in a knowledge oriented society in which the knowledge is the greatest source of power (Nonak and Teece, 2000). From the beginning years of the 1990s, knowledge managementhas become a vital factor to achieve compatibility advantage in line with increasing productivityand effectiveness (De Long and Fahey, 2000). knowledge management is a vital trade strategy that enables the organization to optimum use of the sources at its disposal, collective knowledge, potentialities, and experiences, and in this way, increases the amount of using opportunitiesand proper treatment with challenges rapidly (Koulopoulos and Frappolo, 2000).

In the present marketing environment known with characteristics such as market globalization,intensified competition,and high rates of technological changes, the concrete properties such as asset, land, and elementary materials,do not cause the creation of stable competitive advantages for the organization. Today's organizations must base the foundation of their stable competitive advantages on abstract properties and mental assets.This is especially true about industries such as informational and software services based on knowledge. Competitive advantage arises from human force wisdom more than before and human asset has a more important role than physical or financial asset in determining market leaders (Shafi'zadeh, 2007).

Literature Review
Knowledge Management

Considering the importance of knowledge discourse, the management science regards managing the knowledge as one of the essentialities of each organization. Various definitions of knowledge management are stated in the literature of the subject but researchers have not yet agreed on accepting a general definition (Grossman, 2007). Wiig (2000) knows knowledge management as a systematic management of activities, practices, programs, and knowledge related instructions of an organization. Knowledge management is described in Dove (1999) view in the following statement: "getting the right knowledge to the right person at the right time ", and the knowledge cycle can be considered asacquisition, storage, assessment, sharing, and application. The knowledge management systems are related to a category of applicable information in managing the organizational knowledge (Jennex, 2008). Alavi and Lidner (2001)itis relatedto the analysis and discussion on the potential role of information technology in managing the organizational knowledge.

As Lawson (2003) believes, knowledge managementis a continuous process expandedin a spiral way, meaning that knowledge is increasingly augmented and managed throughout time. Lawson remarks that researchers combine different processes to form the knowledge management cycle. He considered 6 processes for knowledge management cycle including 1- creation,2- capture, 3- organization, 4- storage, 5- dissemination,and 6- application. Lawson explains these processes as follows:

1- Knowledge Creation: The organizations consciously try to find and define the related knowledge and its resources in or out of the organization. Knowledge is created

through discovery, i.e. the employees create new ways to do things,or knowledge is brought in from external sources.

2- Knowledge Capture: If the new knowledge is related and valuable, it is recognized for present and future needs. This recognition is itself determined and distributed in a logical process of whether this new knowledge is easily accessible or not.

3- Knowledge Organization: The new knowledge is refined and organized. This is done through filtering to recognize the new useful features of knowledge for different products and services. Knowledge is placed where it can be followed, revised, and kept related and up –to-date.

4- Knowledge Storage: The codified knowledge is stored in a logical form in a way that other members of the organization can access it. The database management and data source technologies can be helpful to this process.

5- Knowledge dissemination: The privatized knowledge is distributed in a proper and useful form to respond to the special needs of users. The knowledge is explained in a common language and some instruments are applied for knowledge distribution and publication that can be understandable for all users.

6- Knowledge application: The knowledge is applied for new conditions that the users can learn and create new knowledge. This must be done in a learning process in which a fundamental analysis and assessment is performed in order to create new models and knowledge to be used in future.

Organizational Culture

With the beginning of progress in humanities researches, organizational culture is considered as a basic feature of organizational activity and a vital factor in organizational effectiveness (Yilmas and Ergun, 2008). Organizational culture is a lasting set of values, beliefs, and hypotheses that describes organizations and their members (Cameron and Quinn, 2006).

Schein (2004) states that organizational culture shows the common understanding of an organization's members that influences their behavior. There are values, symbols, ceremonies, and myths in each organization that change continuously throughout time. These common values determine how employees understand their world and respond to it (Robbins, 2005).

Organizational culture is defined as a set of implied hypotheses accepted by group members that determines the way of behaving and responding to their surroundings. The culture has multiple levels ranging from a visible to an implied and invisible one (Schein, 2004).

A conceptual model of organizational culture used abundantly in primary surveys at organizational environments is Cameron and Quinn's competitive values framework. This framework developed at the beginning from created surveys in relation to organizational effectiveness, determines organizational culture in two main dimensions. These dimensions are drawn from each organization's value tendencies (Cameron and Quinn, 2006). Figures 1-2 display the competitive value frameworks.

Flexibility and Discretion
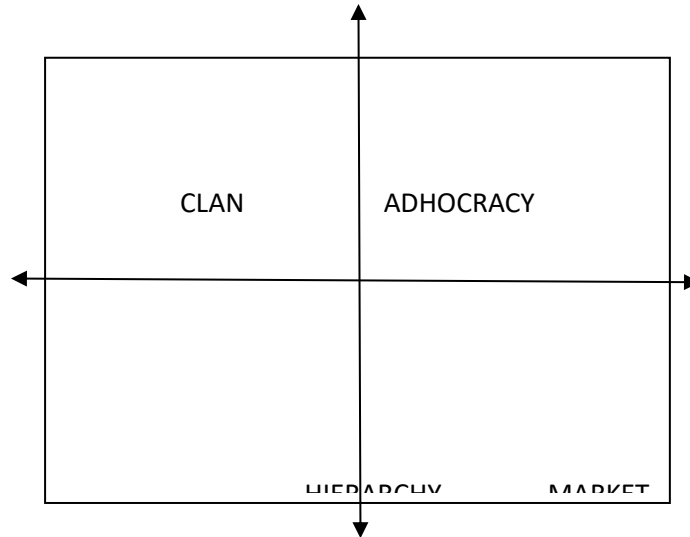
External Focus
Internal Focus and Differentiationand Integration

Stability and Control

Figure 1- The Competitive Value Frameworks (Cameron and Quinn, 2006: 35)

As shown in the figure, in the first two dimensions on the axis, from the flexibility tendency focusing on contrivance, dynamicity, and flexibility to control tendency focusing on assertion, order, and control, all are emphasized. Another dimension is analyzed on a different axis from introspection and integration to extroversion, difference, and differentiation. The flexibility-control axis pays attention to the amount of change or constancy in an organization, and the introspection-extroversion axis differentiates between the emphasis on internal or external activities occurred in an organization. The introspective tendency emphasizes on the organizational maintenance or its survival improvement while the extroversion tendency emphasizes competitiveness, flexibility, and interaction with external environment (Stock, Mcfadden, and Growen, 2010).

These two dimensions create four cultural tendencies, i.e. 1- the clan culture, 2- the adhocracy culture, 3- the market culture, and 4- the hierarchical culture, that show the four main models in the organizational theory. In the following, an analysis of each of these cultures' characteristics will be discussed.

1- The Clan Culture (Flexibility-Introspective): In this type of organizational culture flexibility, change, strong human relationships, dependence, and concentration on inside of the organization are described. In organizations with clan culture, employees work together in a friendly environment, managers act as supervisors, and suppliers and customers are considered as company associates.

2- The Adhocracy Culture (Flexibility-extroversion): This Culture also emphasizes flexibility but has an extrovert viewpoint. This culture type pays attention to growth, resource acquisition,

creativity, risk acceptance, and external environment adaptation. The organizational leaders have a strong and competitive adhocracy culture.

3- The Market Culture (Stability-Extrovert): In organizations with market culture, emphasize on extroversion, control, and stability. Such organizations value productivity, gaining success with determined aims, and external compete value higher.

4- The Hierarchical Culture (Stability-introspective): It is described with control, stability, and attention to internal environment. This culture is also known by monotony, integrity, coordination, internal utility, and following the rules and regulations (Stock, Mcfadden, and Growen, 2010).

Organizational Culture and Knowledge Management

Each of the employee's cultural values may affect knowledge creation, sharing, relations, and learning in organizations considerably (Hofstede, 1991). Most of the present studies in field of knowledge management discuss the relationship between culture and knowledge management (King, 2007; Chin-Loy and Mujtaba, 2007). The cultural characteristics of each organization raise the successful knowledge management performance (Alavi, Kayworth and Leidner, 2006; De Long and Fahey, 2000: Gold, Malhotra and Segers, 2001) and on the other hand, the organizational culture can be a main restrict in accepting knowledge management processes (De Long and Fahey, 2000; Grover and Davenport, 2001; Ciganek, Mao and Srite, 2008; Al-Alavi et. Al.,2007).Davenport and Prusak (1998) state that the chief executives and organization leaders must evaluate their own organizational culture before performing the starting activities of knowledge management. According to them, the organizational culture has a determining role in managing knowledge and its transmission.

The cultural relationships between organization level and knowledge management have been introduced by De Long and Fahey (2000) and they have shown four ways for organizational culture to effect knowledge management:
1. The culture forms hypotheses about which knowledge is important.
2. The culture creates the relationship between organizational and individual knowledge.
3. The culture provides a ground for social communication.
4. The culture creates processes for the new knowledge creation and acquisition.

Therefore, each action in line with the cultural effect study or knowledge management must focus on recognizing the special values that have an outstanding role in effecting the knowledge management. Sarvay (1999) analyzes the relationship between organizational culture and knowledge management in a survey in counseling companies. He concluded that organizations pay attention to cultural differences in performing knowledge management. It means that culture will effect the directions and knowledge management performance. Lawson (2003) in a study analyzes the relationship between organizational culture and knowledge management cycle in 8 Jamaican organizations. In this analysis, the meaningfulness of the dominant organizational relationship in each of these organizations with knowledge management processes was confirmed. Roman-velazquez (2004) has verified the meaningful relationship of culture and successful activities of knowledge management in governmental and nonprofit organizations with his survey. Jones (2009) with his survey done in an industrial

environment showed that there is a relationship between the dominant organizational culture in an organization and knowledge management processes.

The Research's Theoretical Model:

With the help of previous researches and also considering the offered definitions, the following conceptual model is offered which includes organizational culture constituents (including the tribal culture, the specialism culture, the market culture, and the hierarchical culture) and also the organizational process constituents (including knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination, and knowledge application) (Figure 2).
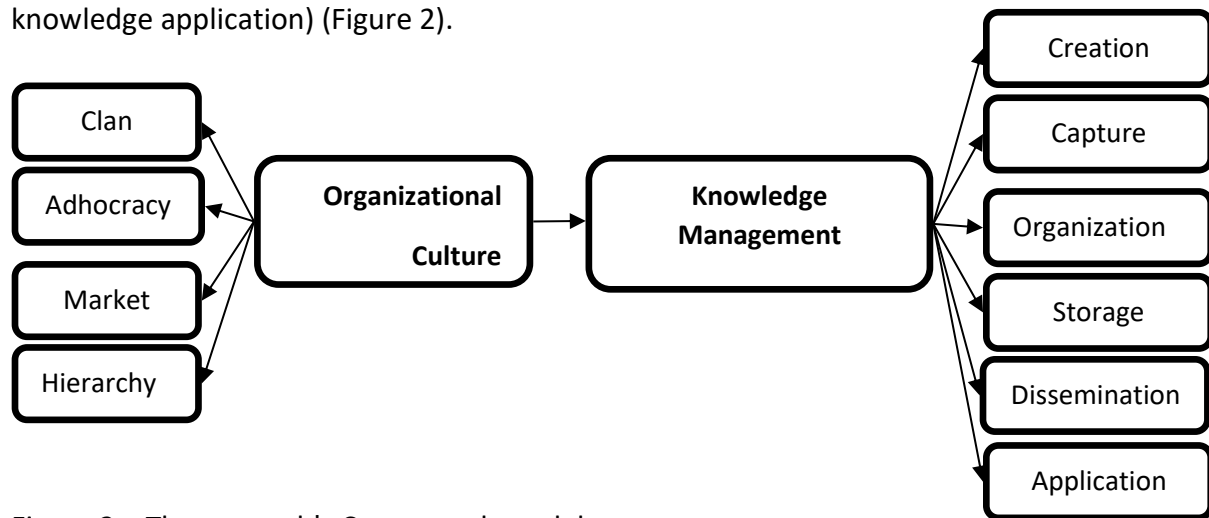
Figure 2: The research's Conceptual model

The Research Objectives
The main Objective:

Determining the relationship between organizational culture and knowledge management processes.

Alternative Objectives

1- Determining the relationship between organizational culture and knowledge creation;

2- Determining the relationship between organizational culture and knowledge Capture;

3- Determining the relationship between organizational culture and knowledge organization;

4- Determining the relationship between organizational culture and knowledge storage;

5- Determining the relationship between organizational culture and knowledge dissemination;

7- Determining the relationship between organizational culture and knowledge application.

Research Type and Method

Regarding that the present research is to discover the existing reality or what exists, the research method is survey among the descriptive research methods, and on the other hand, according to the research objectives, that is determining the type of organizational culture of Roads and Urban Development Organization of Chaharmahal and Bakhtiari Province, also the analysis of the relationship between organizational culture and knowledge management at the Roads Organization of Chaharmahal and Bakhtiari Province level, therefore the research type is operational.

Information Gathering Methods and Instruments:

In this research, the main instrument for gathering information was questionnaire. To measure the organizational culture and knowledge management processes, the organizational culture assessment instrument of Cameron and Quinn (2006) and knowledge management assessment instrument of Lawson (2003) were used respectively. The content validity was used to determine the validity. The primary questionnaire obtained from the literature of Cameron and Quinn's research on the competitive values framework model (measuring the organizational culture), and Lawson's knowledge management cycle model, the organizational culture model with 4 constituents and also knowledge management model with 6 constituents, with a total of 48 questions, was distributed among 15 scholars and experts related to the research subject including university professors (science arena) and The Roads and Urban Development organization experts and authorities (the operation arena), and they were ask to answer these questions, does each of the indexes measure the related scale?

After filling out and gathering the questionnaires, (of 15 sent questionnaires 13 people filled them out and sent them back) and the analysis of primary information, it became clear that of the constituents of the mentioned models were confirmed. And only a few of the indexes were moderated. The number of constituents and indexes confirmed by the expert's shows that the questionnaire has a proper validity. Finally, by doing some modifications in making and formulating the questionnaire, the researchers started to test its stability.

To measure the stability, 30 questionnaires were pretested. The Cronbach's Alpha ratio was used in this research to test the stability. The Cronbach's Alpha ratio for the organizational culture questionnaire was obtained 0.886 and for knowledge management questionnaire was 0.889 that shows a very high amount of stability.

Statistical Community and Sample and the Sampling Method:

The Research's statistical community includes all of the employees of The Roads and Urban Development Organization of Chaharmahal and Bakhtiari Province in 2010-1011, with a community volume of 162 people. The community size was counted 65 people using the restricted community formula and the sampling was performed using simple random sampling method.

Data Analysis

In order to analyze the data, the Kolmogorov-Smirnov test was used to check the variables' normality. The results of this test are presented in table 1. Regarding the sig, both

research variables have normal distribution. Thus, the parametric tests were used to analyze the data.

Table 1- The Results of the Kolmogorov-Smirnov test

Variable	Asymp. sig. (2-tailed)	Std. Deviation	mean	Result of test
Organizational culture	0.432	0.825	3.77	normal distribution
Knowledge management	0.538	0.738	2.54	normal distribution

In order to analyze the average of the knowledge management processes in Roads and Transportation office the One-sample t-test was used that its results are displayed in table 2.

Table 2- The Results of the One-sample t-test of Knowledge Management Processes

Process	Mean	S.D	t	Sig	Upper	Lower	Result of test
Creation	2.54	0.825	6.308	0.067	0.034	-0.951	average
capture	2.56	0.862	4.123	0.082	0.057	-0.924	average
organization	2.4	0.634	7.403	0.017	-0.114	-1.085	below the average
storage	2.55	0.681	5.86	0.079	0.053	-.937	average
dissemination	2.68	0.668	6.095	0.182	0.154	-0.787	average
application	2.36	0.825	6.308	0.012	-0.144	-1.122	below the average

Regarding the obtained results from One-sample t-test, shown in the above table, the sig amount for knowledge creation, knowledge capture, knowledge storage, and knowledge dissemination processes is more than 0.05; therefore, the average hypothesis of these processes in The Roads and Transportation office is accepted. But the amount of sig for knowledge organization and knowledge application processes is less than 0.05, and regarding to the amounts of upper and lower that are negative, it becomes clear that the amount of these processes are below the average. The One-sample t-test was used to analyze the organizational culture level that its results are shown in table 3.

Table 3- the One-sample t-test related to organizational culture

Culture	Mean	S.D	t	Sig	Upper	Lower	Result of test
Organizational culture	3.77	0.825	6.308	0.000	1.012	0.522	above the average
Clan	3.76	0.862	4.123	0.000	0.780	0.268	above the average
Adhocracy	3.63	0.634	7.403	0.000	0.881	0.504	above the average
Market	3.75	0.681	5.826	0.000	0.788	0.383	above the average
Hierarchy	3.95	0.668	6.095	0.000	0.799	0.402	above the average

The obtained results from monosample t test for different organizational culture types shows that in a meaningful level of 0.05, The amount of sig for the organizational culture and its types (clan, adhocracy, market, and hierarchical) is less than 0.05; therefore, regarding both the upper and lower being positive, the average for these variables are above the average. And regarding the amount of different organizational cultures obtained from the sample, the hierarchical culture in The Roads and Urban Development organization has the most cultural level.

In order to analyze the situation of The Roads and Transportation office of Chaharmahal and Bakhtiari Province, according to the constituents of the competitive values framework model, the Friedman test was used which is shown in table 4.

Table 4- Ranking the Constituents of the Competitive Values Framework Model
As seen in the above table, the average of the obtained rankings of the competitive values

Row	Competitive Values Framework	Average
1	Clan culture	8.34
2	Adhocracy culture	7.97
3	Market culture	8.40
4	Hierarchy culture	9.16

framework model's standards, according to the Friedman's test, are expressed separately. The averages of the constituents are respectively as follows: hierarchical culture (9.16), market culture (8.40), clan culture (8.34), and finally, hierarchy culture (7.97).

According to the constituents of knowledge management cycle, the situation of Roads and Transportation office of Chaharmahal and Bakhtiari Province was also analyzed using Friedman's test. The outcome of this test is seen in table 5.

Table 5- Ranking the Constituents of the Knowledge Management Cycle Model

Row	knowledge management cycle	Average
1	Knowledge creation	3.28
2	Knowledge capture	3.33
3	Knowledge organization	3.98
4	Knowledge storage	3.62
5	Knowledge dissemination	3.26
6	Knowledgeapplication	3.69

As seen in the above table, the averages of the obtained rankings of the knowledge management cycle model's standards, according to the Friedman's test, are expressed separately. The averages of the constituents (in a meaningful level sig (+.000) are respectively as follows: knowledge organization (3.98), knowledge application (3.69), knowledge storage (3.62), knowledge capture (3.33), knowledge creation (3.28), and finally, knowledge dissemination (3.26).

Test of Hypotheses

To analyze the research hypotheses, Pearson's correlative test was used that its results are shown in the following table.

Table 6- The Correlation Relationship Matrix between Organizational Culture Constituents and Knowledge Management Processes

Note: ** result significant at $\alpha < 0.01$

	Organizational culture	Clan culture	Adhocracy culture	Market culture	Hierarchy culture
Knowledge management	0.798(**)	0.765(**)	0.781(**)	0.745(**)	0.740(**)
Knowledge creation	0.834(**)	0.887(**)	0.827(**)	0.791(**)	0.831(**)
Knowledge capture	0.874(**)	0.698(**)	0.700(**)	0.666(**)	0.710(**)
Knowledge organization	0.708(**)	0.712(**)	0.712(**)	0.695(**)	0.714(**)
Knowledge storage	0.727(**)	0.716(**)	0.801(**)	0.739(**)	0.654(**)
Knowledge dissemination	0.832(**)	0.809(**)	0.872(**)	0.867(**)	0.780(**)
Knowledge application	0.753(**)	0.764(**)	0.778(**)	0.716(**)	0.756(**)

Research Hypotheses

The zero hypothesis: There is no meaningful relationship between organizational culture and knowledge management: $H_0 : \rho = 0$

The research hypothesis: There is a meaningful relationship between organizational culture and knowledge management: $H_1 : \rho \neq 0$

Considering table 6 as the amount of meaningfulness level (sig) is less than the 5% error, therefore the H_0 hypothesis is denied and H_1 hypothesis is accepted. In other words, it can be said with a 95% certainty that there is a meaningful relationship between organizational culture and knowledge management. The correlation ratio between organizational culture and knowledge management is 0.798 that is a sign of the powerful positive relationship between these two variables.

Alternative Hypothesis:
The First Alternative Hypothesis:

The zero hypothesis: There is no meaningful relationship between organizational culture and knowledge creation: $H_0 : \rho = 0$

The research hypothesis: There is a meaningful relationship between organizational culture and knowledge creation: $H_1 : \rho \neq 0$

As seen in table 6 as the amount of meaningfulness level (sig) for organizational culture and knowledge creation is less than 5%, therefore the H_0 hypothesis is denied and H_1 hypothesis is accepted. In other words, it can be said with a 95% certainty that there is a meaningful relationship between organizational culture and knowledge creation. Of course, this relationship is also meaningful with 99% certainty. The correlation ratio between organizational culture and knowledge creation is 0.835 that is a sign of the powerful positive relationship between these two variables.

The Second Alternative Hypothesis

The zero hypothesis: There is no meaningful relationship between organizational culture and knowledge capture: $H_0 : \rho = 0$

The research hypothesis: There is a meaningful relationship between organizational culture and knowledge capture: $H_1 : \rho \neq 0$

As seen in table 6 as the amount of meaningfulness level (sig) for organizational culture and knowledge capture is less than 5% error, therefore the H_0 hypothesis is denied and H_1 hypothesis is accepted. In other words, it can be said with a 95% certainty that there is a meaningful relationship between organizational culture and knowledge capture. The correlation ratio between organizational culture and knowledge capture is 0.874 that is a sign of the powerful positive direct relationship between these two variables.

The Third Alternative Hypothesis

The zero hypothesis: There is no meaningful relationship between organizational culture and knowledge organization: $H_0 : \rho = 0$

The research hypothesis: There is a meaningful relationship between organizational culture and knowledge organization: $H_1 : \rho \neq 0$

Considering table 6 as the amount of meaningfulness level (sig) is less than 5% error, therefore the H_0 hypothesis is denied and H_1 hypothesis is accepted. In other words, it can be said with a 95% certainty that there is a meaningful relationship between organizational culture and knowledge organization. The correlation ratio between organizational culture and knowledge organization is 0.708 that is a sign of the direct relationship between these two variables.

The Fourth Alternative Hypothesis

The zero hypothesis: There is no meaningful relationship between organizational culture and knowledge storage: $H_0 : \rho = 0$

The research hypothesis: There is a meaningful relationship between organizational culture and knowledge storage: $H_1 : \rho \neq 0$

Considering table 6 as the amount of meaningfulness level (sig) is less than 5% error, therefore the H_0 hypothesis is denied and H_1 hypothesis is accepted. In other words, it can be

said with a 95% certainty that there is a meaningful relationship between organizational culture and knowledge storage. The correlation ratio between organizational culture and knowledge storage is 0.728 that is a sign of the direct relationship between these two variables.

The Fifth Alternative Hypothesis

The zero hypothesis: There is no meaningful relationship between organizational culture and knowledge dissemination: $H_0 : \rho = 0$

The research hypothesis: There is a meaningful relationship between organizational culture and knowledge dissemination: $H_1 : \rho \neq 0$

Considering table 6 as the amount of meaningfulness level (sig) is less than 5% error, therefore the H_0 hypothesis is denied and H_1 hypothesis is accepted. In other words, it can be said with a 95% certainty that there is a meaningful relationship between organizational culture and knowledge dissemination. The correlation ratio between organizational culture and knowledge dissemination is 0.832 that is a sign of the direct relationship between these two variables.

The Sixth Alternative Hypothesis

The zero hypothesis: There is no meaningful relationship between organizational culture and knowledge application: $H_0 : \rho = 0$

The research hypothesis: There is a meaningful relationship between organizational culture and knowledge application: $H_1 : \rho \neq 0$

Considering table 6 as the amount of meaningfulness level (sig) is less than 5% error, therefore the H_0 hypothesis is denied and H_1 hypothesis is accepted. In other words, it can be said with a 95% certainty that there is a meaningful relationship between organizational culture and knowledge application. The correlation ratio between organizational culture and knowledge application is 0.753 that is a sign of the direct relationship between these two variables.

Discussion and Conclusion

Using the Kolmogorov-Smirnov test, it became obvious that the research variables have normal distribution and parametric test was used to analyze the data. The one-sample t test showed that the amount of knowledge creation, knowledgecapture, knowledge storage, and knowledge disseminationprocesses were average in Roads and Urban Development organization, and they have animproper situation. The amount of knowledge organization and knowledge application processes' domination are less than average, and it is a sign of their very improper situation in the organization. Thus the organization must pays high attention to these knowledge management processes improvement as much as possible specially the knowledge organization and knowledge application processes to perform the knowledge management programs successfully. The Friedman test also showed about knowledge management processes that among different processes, the least attention is paid to knowledge dissemination process in the organization; therefore the organization must pay attention to this vital knowledge management process as much as possible. The one-sample t test results about organizational culture and its different types showed that the amount of these variables were more than

average in the organization,and the dominant culture of the organization is the hierarchical culture. The Friedman test also showed that the least attention has been paid to the adhocracy culture. Pearson's correlation test showed that there is a meaningful relationship between organizational culture and knowledge management processes(the research's main hypothesis).The results of this test correspond with Lawson (2003), Roman-velazquez (2004), and Jones (2009). Pearson's correlation test results with alternative hypotheses also showed that the organizational culture has a meaningful relationship with different knowledge management processes,too. The results showed that organizational culture has a supporting role for knowledge management processes, and the positive strong and relatively strong relationship between organizational culture and knowledge management processes shows that the organization requires awareness and recognition of the dominant culture in its enterprise environment and the degree of appropriateness between organizational culture and knowledge management activities in line with performing the knowledge management programs.Gold et al. (2001) introduced the organizational culture as sub structural compatibilies of an organization to perform effective knowledge management in organizations, and with the results of this research we can say that the improvement of organizational culture in an organization,provides the necessary substructures for the effective knowledge management. Among different culture types analyzed in the research, the adhocracy culture has a more positive degree of relationship than other cultures,but the hierarchical culture that is the dominant culture of the organization, has the least degree of relationship.The Friedman test on different organizational cultures also completesthis subject that the least attention is paid to adhocracy culture in the organization,although it has the most cultural compatibility with knowledge management programs. Therefore the organization must put more emphasis on adhocracy culture and its special characteristics (flexibility, attention to external environment, focus on development, resource obtaining, creation, accepting risks, and adaptation with external environment), because it is the most proper organizational culture for succeeding in knowledge management activities.

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