

Investigation of Relationship between Knowledge Management and Organizational Culture in the National Bank Branches of Mazandaran Province, Iran

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ABSTRACT

The main goal of this research is to investigate relationship between knowledge management and organizational culture in Mazandaran Province National bank branches. This research is a descriptive research and correlation has been used to analyze data. Statistical population of the research is all executive, middle and superior managers (presidents, deputies and internal units' managers) of west Mazandaran national bank branches and 150 people were selected as sample through accidental-categorical sampling method. Data gathering tool was two standard questionnaires. Data obtained were analyzed using Pearson correlation coefficient and multi-variable regression analysis. Results showed that:

- there exists positive and significant relationship between knowledge management and organizational culture.
- there exists positive and significant relationship between socialization and organizational culture.
- there exists positive and significant relationship between externalization and organizational culture.
- there exists positive and significant relationship between combination and organizational culture.
- there exists positive and significant relationship between internalization and organizational culture.

KEYWORDS: knowledge management, organizational culture, socialization, externalization.

1. INTRODUCTION

In recent years, knowledge and its management have received great attention by scientific centers. Knowledge creates competitive advantage and organizations that are not able to obtain knowledge and utilize it to their benefit are prone to frustration. One of the devices that can help organizations with fulfilling such goals is knowledge management (Nazari, 2009). But this is not enough because success in implementing each strategy within an organization is dependent on organizational culture support. Organizations' attempts in converting into knowledge-based organizations will succeed only when necessary cultural infrastructure is present within organizations. Knowledge must be supported by organizational culture if it is intended to be created and shared within the organization. Organizational culture can also be used as a powerful lever in improving organizational behavior (Wang et al, 2003).

Statement of problem

Organizations are always affected by their surroundings that are rarely controllable by organizations. If an organization is able to identify and control such factors, it can continue its life, but nowadays organizations' environment has become more and more complex and unsteady and this threatens organizations' life. In such conditions, those organizations that improve their performance through knowledge achievement and understanding of their environment will succeed (Rahimi, 2007). Until late 1990 a particular organization's value was measured based on its common and deep assets and capital, but in early twentieth century, organizational knowledge was recognized as the main source because of knowledge-based economy introduction. Any organization's success is more dependent on intellectual capitals and knowledge transfer power than on physical resources (Davis et al, 2000). Myers (2000) believes that in current ages, management main challenges are influenced by application of knowledge-based management and also applying intellectual capitals and human resource capabilities. Many specialists believe that organizational culture is the base for knowledge management success and according to Martin (2000), knowledge management effectively depends on organizational culture and knowledge management is a process by which organizations try to learn (internalization of knowledge), code (externalization of knowledge) and distribute and transfer knowledge (Malhotra, 1997). Based on the previous introduction, the current research tries to investigate relationship

between knowledge management and organizational culture in west Mazandaran Province National bank branches.

Research importance and necessity

Knowledge management has a direct relationship with today's organizations' success and knowledge plays a mediating role in organizations' development. Knowledge management provides necessities for improving human resource performance and achieving competitive advantage. Commentators believe that organizational culture has an important role in organizational success. They believe that organizational culture's relation to an organization is similar to personality relation to a person and as personality research is necessary to help grow individuals, organizational success is dependent on research on organizational culture (Sharifzadeh and Kazemi, 1998, 134). Therefore an organization that tries to create new knowledge and distribute it all over the organization and express it in the form of new technologies and products will be successful. The first step in this way is that individuals and knowledge-bearers are prepared to support these individuals and this involves a coordinated culture within the organization (ZareiMatin, 1995, 26).

Research background

Many researchers have been conducted in this field and some of them are reviewed in this section:

Majidian, Adabi and Zorufi (2008) conducted a research titled: "investigation of relationship between organizational culture dimensions and knowledge management (case study: Iran Khodro company)". Results showed that the most powerful relationship existed between job involvement and knowledge management adaptability.

A research (2003) titled: "organizational culture and its relationship with managers and employees work ethics in Shahid Beheshti University hospitals" showed that some dimensions like reward and payment system, goals clarity, control leadership, integration and thinking, can predict work ethics but it is not predictable through risk-taking, initiative, support and relational patterns.

Hashemi's research titled: "relationship between knowledge management and organizational culture indices in Gilan province Payam-e-Nour universities" showed that all four dimensions of Denison's organizational culture i.e. work involvement, adaptation, integration and mission had strong relationship with knowledge management.

SelbWistin (2005) conducted a research titled "impact of organizational culture on knowledge management successful implementation" in turkey and concluded that 7 factors were effective in knowledge management successful implementation: leadership, cultural structure, and knowledge centers, learning culture, latent knowledge, explicit knowledge and knowledge insight.

Choyee and Lee (2003) in a research concerning knowledge management styles and its impacts on organizational performance concluded that from among 4 styles i.e. dynamic style, system style, human-oriented style and static style, dynamic style emphasizing tacit knowledge management and obvious knowledge, had the most influence on organizational performance. Furthermore, human-oriented and system styles showed no impact on organizational performance and static style showed less impact compared with other styles. Therefore, obvious and tacit knowledge influence organizational knowledge investment simultaneously.

Robbins (2003) specified 10 features for organizational culture that exist in a particular organization with different weaknesses and strengths. These features include: individual independence and freedom, management support, coordination and integration, control, payment system, innovation and creativity, system cognition, relational patterns, risk-taking, conflict resolution, values and norms admission.

Research hypotheses

Main hypothesis:

There is relationship between knowledge management and organizational culture.

Subsidiary hypotheses:

1. There is relationship between socialization and organizational culture.
2. There is relationship between internalization and organizational culture.
3. There is relationship between combination and organizational culture.
4. There is relationship between internalization and organizational culture.

RESEARCH METHODOLOGY

Since this research involves investigation of relationship between knowledge management and organizational culture in Mazandaran province national bank branches, it will be of correlation research type. In this research, statistical population includes all superior, middle and executive managers (presidents, deputies and internal units' managements) of west Mazandaran national bank branches and sampling was carried out by means of categorical-accidental sampling method. In this research, sample size was selected to be 150 people by using Kerjisi & Morgan table.

Research findings

In order to test research hypotheses, correlation coefficient results are studied.

Table 1. Correlation coefficient matrix of predicting variables and organizational culture

variable	4	3	2	1
Organizational culture	**0.226	**0.355	**0.256	**0.245
Predicting variables				
1-socialization	**0.494	**0.464	**0.397	-
2-externalization	**0.491	**0.400	-	-
3-organizational combination	**0.433	-	-	-
4-internalization	-	-	-	-

According to table 1 data, research hypotheses are investigated as follows:

First hypothesis: *there is relationship between socialization and organizational culture.*

Correlation coefficient between socialization and organizational culture in P<0.01 level is significant (r=0.254 and p=0.0000). In other words, as socialization increases, organizational culture will also increase.

Second hypothesis: *there is relationship between externalization and organizational culture.*

Related correlation factor for this hypothesis is also significant and this shows that there is significant relationship between the two variables and in other words, as externalization increases, organizational culture will also increase (p=0.000 and r=0.256).

Third hypothesis: *there is relationship between organizational combination and organizational culture.*

Table 1 data show that the concerning correlation coefficient is significant and this shows significant relationship between the two variables. In other words, as environment health increases, organizational culture will increase (p=0.000, r=0.355).

Fourth hypothesis: *there is relationship between internalization and organizational culture.*

Table above shows that the correlation coefficient between the two variables is significant and in other words, as internalization increases, organizational culture will also increase (r=0.226, p=0.000). in order to determine the best predictor of organizational culture, regression model using simultaneous method and partial correlation method were applied. Regression results are summarized below:

Table 2. Multiple Correlation coefficients and multiple correlation square for socialization, externalization, organizational combination, externalization and internalization in organizational culture prediction

Significance level	coefficient F(4,145)	Square of moderated correlation coefficient	Correlation coefficient square	Multiple correlation coefficient	Independent variable	Dependent variable
0/000	6/171	0/122	0/145	0/381	Socialization, internalization, externalization and organizational combination	Organizational culture

Table 2 results show that the relationship between organizational culture and the four dimensions is significant (F_(4, 145)=6.171, p=0.000).

Therefore linear combination of linear values is related to organizational culture significantly. Multiple correlation coefficient is equal to 0.38 and this shows that almost 14.5 percent of organizational culture variance is predicted in linear variables sample of knowledge management (R²=0.145).

Therefore it is concluded that independent variables of socialization, internalization, externalization and combination can predict dependent variable. Therefore, regression equation can be generalized to the whole population.

Table 3 summarizes the results of regression analysis coefficients and significant prediction ability.

Table 3. Standard and non-standard regression analysis coefficients for predicting organizational culture

Sig. level	t	Beta standard coefficient	Standard error	Beta non-standard coefficients	Independent variable statistical index	Dependent variable
0/000	5/353	-	4/22	22/582	Constant value	Organizational culture
0/009	2/643	0/248	0/185	0/490	Physical health	
0/991	-0/011	-0/001	0/190	-0/002	Psychological health	
0/165	1/395	0/161	0/182	0/254	Environmental health	
0/219	1/233	0/119	0/244	0/301	communications	

Results of table 3 and F significance in variance analysis table (4-6) and t value show that regression equation with all four knowledge management predictors is significantly related to organizational culture. Considering slope coefficients (column B), regression equation will be as follows:

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + \dots$$

Therefore after substitution of coefficients in above equation, organizational culture prediction equation will be as follows using knowledge management components:

$$\text{Organizational culture prediction} = 90.729 + 3.484 (\text{organizational combination})$$

Considering slope value, as organizational combination value increases, organizational culture will have larger values. Table 4 indices show relative abilities of each predictor.

Table 4. Two-variable and partial correlations of predictors and organizational culture

Partial correlations	Two-variable correlations	variable
0/056	**0/254	Physical health
0/100	**0/256	Psychological health
**0/239	**0/355	Environmental health
0/019	**0/226	communications

As it can be seen, all of the two-variable correlations between knowledge management and organizational culture Values are positive and all four indices are significant ($p < 0.01$). The only significant partial correlation is the correlation between organizational combination and organizational culture. It can be concluded that the only useful predictor from among knowledge management dimensions is organizational combination that predicts 13 percent (R^2) of organizational culture changes. This is while other variables share is only 1.5% (14.5-13). It is difficult to judge about these predictors' relative importance because they all have correlation and the correlation values among knowledge management dimensions ranges from 0.38 to 0.50.

Conclusion

This research investigated relationship between knowledge management and organizational culture in west Mazandaran province national bank branches. Correlation was used to test the research hypotheses.

Statistical population of the research is all executive, middle and superior managers (presidents, deputies and internal units' managers) of west Mazandaran national bank branches and 150 people were selected as sample through accidental-categorical sampling method. Data gathering tool was knowledge management questionnaire with 26 5-choice Likert-scaled questions and Denison's organizational culture questionnaire consisting of 60 5-point Likert-scaled questions. Both questionnaires had enough reliability and validity. In order to analyze data, descriptive statistical indices like frequency, mean, standard deviation, graphs and tables were used and in inferential statistics, Pearson's correlation coefficient and multi-variable regression test was used.

First hypothesis test revealed that the calculated correlation coefficient between knowledge management and organizational culture was positive and significant at 0.01 levels. In other words, increase in knowledge management will lead to increase in organizational culture. The current research's results match with the results of researches conducted by Celep and Cetin (2005), Barhaman (2011), Choi (2003), Mouherman (2001), Khalifeh and Anisalou (2003), and Van Krew (2000). Downpourt and Poursac (2000) believe that organizational culture is an essential factor in measuring knowledge management success in organizations.

Second hypothesis test revealed that the calculated correlation coefficient between socialization and organizational culture is positive and significant in 0.01 levels. In other word, increase in socialization will lead to increase in organizational culture. These results match with researches conducted by Holowki (2002), Celepand Cetin (2005), Barhaman (2011), Wig (2000), Choi and Lee (2003), Kang and Pandia (2003) and Riganz and Mcoili (2002) and results show that society and citizens are important parts of knowledge management process and knowledge production. Therefore presence of a strong culture that supports this process is inevitable and these social factors, social relations network and organizational culture have interactive and mutual relationships with each other.

Results of the third hypothesis test revealed that the calculated correlation coefficient between externalization and organizational culture was positive and significant in 0.01 levels. In other words, as externalization increases, organizational culture will also increase. The current research results match with the results of researches conducted by Walczak (2003), Barhaman (2011), Choi and Lee (2003), Khalifeh and Anisalou (2003) and this means that externalization which is one of the processes of knowledge management which is the very transfer and conversion of knowledge has mutual relationship with organizational culture. In fact, these two variables have positive significant interactive relationship.

Fourth hypothesis test revealed that the calculated correlation coefficient between combination and organizational culture was positive and significant in 0.01 levels. In other words, as combination increases, organizational culture will also increase. These results match with the results of research conducted by Barhaman (2011) and this shows that knowledge processing capacity, namely the ability to receive and convert and apply

knowledge which is somehow the very combination and organizational culture affect knowledge management and there exists a positive and significant relationship between organizational culture and combination power and both variables affect knowledge management in a positive manner.

Fifth hypothesis test revealed that the calculated correlation coefficient between internalization and organizational culture was positive and significant in 0.01 levels. In other words, as internalization increases, organizational culture will increase. These results match with research result conducted by Barhaman (2011), and this shows that there is a strong relationship between knowledge management and organizational culture and a strong culture is necessary to achieve and transfer tacit knowledge which is the very internalization and such a culture will motivate employees to internalize knowledge.

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