



# A Survey of the Impact of Intellectual Capitals on the Improvement of Knowledge Management Performance

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**Abstract:** *The present study is aimed to evaluate the role of intellectual capital in facilitation of knowledge management in the state banks of west Azerbaijan province. The study population is all managers and experts of state banks of west Azerbaijan as 280. The study sampling method is random stratified. To estimate the sample size, Kerjencie-Morgan Table is applied and for the study population 280, 152 people are selected. The data collection measure is a researcher-built questionnaire with 24 questions (a five-point Likert scale) and validity is of content validity and its reliability is 0.83 using Cronbach's alpha. For data analysis, one-sample t test is applied. The results showed that intellectual capital, organizational capital and human capital played important role in facilitation of knowledge management in the state banks of west Azerbaijan as relatively high.*

**Keywords:** *Intellectual Capital, Human Capital, Organizational Capital, Knowledge Management, State Banks.*

## INTRODUCTION

The specific economic conditions in active companies have caused that the competitive advantage of these companies is not based on its tangible assets. The main thing making these companies as competitive in the present economic arena is intangible assets or their intellectual capitals. These companies can fulfill this goal by establishing suitable communication with customers and achieving the required experience with the reliance on knowledge, organizational techniques and their specialized skills. Today, sustainable profit is achieved at first, the organizations learn the way to acquire knowledge and second, this knowledge is managed and it is turned into knowledge management by the existing processes in intellectual capitals. When the companies move from the industrial economy to knowledge economy, they are encountered with great challenges as dynamics, non-reliability and complexity. In such business environment, we need much awareness about their intellectual capital and their control. The great importance of this issue has caused that the companies make effort to identify their intangible assets and their suitable management. One of the unavoidable issues in the current organizations is the fact that knowledge is considered increasingly as an important asset and it is managed to create competitive advantage in the state and private sectors. It is not clear how the governments execute the knowledge management projects and how they apply the activities of knowledge management in the operating processes of organization. In recent years, many theorists have considered this issue that by knowledge management activities, the governments achieve better managerial efficiency and transfer correct and timely information to people and this increases the managerial satisfaction

levels. The success of organizations is increasingly dependent on this issue that how the organization can effectively aggregate, store and recover knowledge among the employees of the different levels of organizations (Husman et al., 2004).

The organizations have always been under the effect of their surrounding environment and these factors have always been less under the control of organizations. If an organization identifies and control these environmental factors, it can continue its survival better. However, the organizations are instable and complex in terms of scientific and technological changes and this threatens the organization life. Under such conditions, the successful organizations are those improving the organization performance and making it dynamic besides acquiring knowledge and awareness of the environmental factors and their survival. One of the ways to achieve this issue is “knowledge management” (Nemati, 2005).

The organizations can extract their specific benefits based on their performance of knowledge management. This orientation requires a relevant planning consisting of organizational technical tools, intelligent factors, knowledge processing requirements and knowledge management strategy. In this status, the evaluation of organizational arrangement depends mostly upon the organization. In order to adapt its global presentation with the identified needs from the world market, knowledge management creates a framework for guiding the major efforts (Johanson, 1999; Ghahremani et al., 2007).

### **Statement of problem**

The present period of human life is with great changes. As a subset of human life, the organizations should be prepared to face with these great changes, otherwise they should be out of the competitive world. The preparation is not only technological and equipment preparation and the organizations should prepare their employees (main and valuable human capitals) (Abdoldlahi et al., 2006:11). In this varied, competitive and turbulent world, the traditional principles of management and organization including bureaucracy, supervision and control are criticized seriously. The strategies based on close control including the application of rules, instructions are not efficient in knowledge-based economy and the organization can not benefit it and under such condition, labor is the main element in management as considered by the theorists of management in different periods and they don't have the required motivation to actualize their talent, good behavior and creativities. On the other hand, the organization loses the adequate opportunity to use the potential capacities of human capital.

The knowledge-based economy is the one in which production, distribution and application of knowledge is the main source of growth and wealth creation. The current knowledge-based economy has created wide changes under economic, social and technological conditions of economies. Indeed, the organizations are also affected by such changes and they are changed fundamentally. The increasing importance of knowledge as the important factor of success and competitiveness of organizations has caused that the knowledge management is the vital duty and the organizations attempt to be turned into a learning organization via creation, retention, transfer and application of knowledge to improve and change their activities and performance (Lee et al., 2003).

Knowledge management is a new method for thinking about organization and sharing intellectual and creative resources of organization. Knowledge management refers to the efforts being made systematically to find, organize and have access to the intellectual capitals of organization and improving the culture of continuous learning and knowledge sharing in the organization. By focusing on knowledge management and extensive investment, the organizations attempt to have access to the relevant benefits and they attempt to improve their performance by implementation of knowledge management (Rastogi, 2000).

Under these conditions, the first efforts are based on achieving productivity and organizational effectiveness on installing hardware and using the modern technologies and as the human and social factors have attracted great attention, some efforts are made for the integrity of software and man power with the pre-defined items.

According to Davenport, T .H .and Prusak (2000), the majority of organizations have taken the initial technological and equipment steps to improve the level of organizational productivity but they have achieved constant condition in which no value added is created for them. The change of this condition requires major changes and concentration on key aspects as culture, structure and other social fields of organization including using organizational capitals (Davenport et al., 2000, 101). The important point here is that achieving competitive advantages and sustainable efficiency in knowledge-based economy requires the change of behavior of all members of company in different levels and this requires the changed of beliefs and attitude of people. We shouldn't forget that behavior change is not fulfilled by simple steps including purchase of technology, requirement and advanced tools and not the change of the names of some traditional phenomena to the new names and pretending to follow the pioneer companies. The best description of this concept is expressed in considering the terms "Intellectual capitals" of organization. As the state banks have been encountered with great and continuous changes due to the type of activity, the managers and experts of state banks of west Azerbaijan have found about the necessity and application of the new methods including the correct implementation of knowledge management and identification of effective factors on facilitation of knowledge management in the organization and have executed it. The present study is aimed to evaluate the role of intellectual capital in facilitation of knowledge management in the state banks of west Azerbaijan province.

### **Significance of study**

The rapid and considerable changes in the environment of organizations and their effort to apply the correct and efficient management of changes show that for accurate encountering with the challenges as considered as a threat for the survival of organization, changing them to growth and development opportunities and increase of efficiency in organizations and equipping the organizations with accurate knowledge and management have evolved the growth trend suitably in the present world changes. Only by knowledge capital, we can change the natural and human capital into wealth and develop the organization with the required capabilities (Bergeron, 2007).

Knowledge management attracts the attention of the managers to what they had but they didn't use it effectively. The most important factors include information and human resources. Also, knowledge management helps the increase of organizational effectiveness and helps people to use the experiences, data and knowledge to improve the performance of organization (Akbarpourshirazi et al., 2007).

Hovisman (2006) believes that knowledge management is a challenging process as its real recognition is difficult and its suitable application is difficult as it creates competitive advantage for the organization. Now, the managers attempt to extract the aggregated knowledge in the mind of the organization members and share it among all people via knowledge management. Thus, the stored knowledge in the system is changed into a permanent source and the sustainable competitive advantage for the organization is provided.

In recent years, different organizations and companies have started joining the knowledge trend and some new concepts including knowledge work, knowledge of work, knowledge management and knowledge organization have indicated this increase of this trend. By using these terms, Drucker indicates a new type of organizations in which instead of power of arm, the power of mind is used. Based on this theory, the communities can expect development and progress in the future with great amount of knowledge (Cited in Abtahi et al., 2006:3).

The competitive future advantage is manifested as the organizations ability in knowledge and information management and the physical and financial capitals are used instead of physical capitals and the power of mind is the dominant power in the global competition field. Under such condition in which knowledge generates wealth, the dominant labor is knowledge-based administrators and the society should have the managers calling them creative creators to win in the global competition.

As entering the fourth economic, social and political development plan of our country, knowledge has been emphasized specifically. Thus, the fourth plan is called “The development of knowledge-based economy with the reliance on the global interaction”. The study of the other factors including the intellectual capital of organization from theoretical aspects can improve the theoretical basics of this new phenomenon and provides good principles to use. As the main purpose of this study is the evaluation of the role of intellectual capitals in facilitation of knowledge management, the present study is an important step to fulfill the goals of state management and state organizations of our country.

#### **Study questions:**

1. What is the role of intellectual capital in facilitation of knowledge management in the state banks of west Azerbaijan province?
2. What is the role of organizational structure in facilitation of knowledge management in the state banks of west Azerbaijan province?
3. What is the role of human capital in facilitation of knowledge management?

#### **Study purpose:**

##### **Main purposes**

The evaluation of the dimensions, components and indices of intellectual capital with the approach of facilitation of knowledge management in the state banks of west Azerbaijan province.

##### **Sub-purpose of study**

Identification and determination of the suitable dimensions, components and indices in intellectual capital  
Identification and determination of suitable dimensions, components and indices of knowledge management  
Determining the type of relationship and the effect of each of above factors on knowledge management process

#### **Study methodology**

Based on the purpose of study to evaluate the role of intellectual capital in facilitation of knowledge management in state banks of west Azerbaijan province, this study is applied in terms of purpose as it is performed with the aim of using the results of study to solve the existing problems in the state banks and it is descriptive in terms of nature as it expresses the study topic and explains the topic via the collection of descriptive data. Also, this study is survey in terms of method and it applies questionnaire to evaluate the opinion of managers and experts regarding the study topic.

#### **Data analysis**

The distribution of frequency and percentage of the respondents in terms of gender show that of 100 people, 65% are men (99) and 35% (53) women. In terms of marital status, of 100 study samples, 27.6% are single (42) and 72.4% married (100). In terms of the education of respondents, 5.9% have Diploma (9), 15.8% with associate (24), 71.1% BA (108) and 7.2% MA (11). In terms of work experience, 16% are with the work experience 1-5 year (24), 54% with experience of 6-10 year (80), 21% with the experience 11-15 year (32) and 9% above 16 years (4). In terms of employment condition, 6.6% are managers (10), 93.4% are 142 people.

#### **Inferential analysis**

**First question: What is the role of intellectual capital in facilitation of knowledge management in the state banks of west Azerbaijan province?**

To measure the role of intellectual capital in facilitation of knowledge management in the state banks of west Azerbaijan province, one-sample t-test is used as shown in Table 1.

**Table 1:** The results of one-sample t test regarding the establishment of process-based knowledge management

Sig	df	t	Test Value	SD	M	N	Variable
0/000	151	4/73	24	7/46	26/86	152	Intellectual capital

As shown in Table 1, the variable of intellectual capital with the mean and standard deviation (26.86, 7.46) is bigger than the mean of test (24) and this difference is with the value  $t=4.73$ ,  $df=151$ ,  $p<0.000$  with the probability 99% as significant. As the mean of intellectual capital is bigger than the hypothesis mean, we can say intellectual capital has relatively high role in facilitation of knowledge management in the state banks of west Azerbaijan province.

**Second question: What is the role of organizational capital in facilitation of knowledge management in the state banks of west Azerbaijan province?**

To measure the role of organizational capital in facilitation of knowledge management in the state banks of west Azerbaijan province, one-sample t-test is used as shown in Table 2.

**Table 2:** The results of one-sample t test regarding the establishment of process-based knowledge management

Sig	df	t	Test Value	SD	M	N	Variable
0/000	151	6/85	24	7/21	27/85	152	Organizational capital

As shown in Table 2, the variable of organizational capital with the mean and standard deviation (27.85, 7.21) is bigger than the mean of test (24) and this difference is with the value  $t=6.85$ ,  $df=151$ ,  $p<0.000$  with the probability 99% as significant. As the mean of organizational capital is bigger than the hypothesis mean, we can say organizational capital has relatively high role in facilitation of knowledge management in the state banks of west Azerbaijan province.

**Third question: What is the role of human capital in facilitation of knowledge management in the state banks of west Azerbaijan province?**

To measure the role of human capital in facilitation of knowledge management in the state banks of west Azerbaijan province, one-sample t-test is used as shown in Table 3.

**Table 3:** The results of one-sample t test regarding the establishment of process-based knowledge management

Sig	df	t	Test Value	SD	M	N	Variable
0/000	151	4/39	24	6/96	26/48	152	Human capital

As shown in Table 3, the variable of human capital with the mean and standard deviation (26.48, 6.96) is bigger than the mean of test (24) and this difference is with the value  $t=4.39$ ,  $df=151$ ,  $p<0.000$  with the probability 99% as significant. As the mean of human capital is bigger than the hypothesis mean, we can say human capital has relatively high role in facilitation of knowledge management in the state banks of west Azerbaijan province.

**Discussion about the study questions**

This study attempts to evaluate the role of intellectual capital in facilitation of knowledge management in the state banks of west Azerbaijan province and achieve the important and valuable results. This evaluation is of

great importance as in the 21th century, knowledge-based organizations are placed in knowledge-based economy and they give much attention to the intellectual capital of their organizations. To integrate the intellectual capital and its components with knowledge and management, we should guide the intellectual structures based on the organizational strategic needs to the increase of existing processes in knowledge management. Based on the theoretical studies of the topic, it is shown that intellectual capital and its components can be important factors to facilitate the processes of knowledge management in organizations.

### **The summary of study results**

**First question:** What is the role of intellectual capital in facilitation of knowledge management in the state banks of west Azerbaijan province?

The results of one-sample t test showed that intellectual capital had relatively high role in facilitation of knowledge management in the state banks of west Azerbaijan province.

**Second question:** What is the role of human capital in facilitation of knowledge management in the state banks of west Azerbaijan province?

The results of one-sample t test showed that organizational capital had relatively high role in facilitation of knowledge management in the state banks of west Azerbaijan province.

**Third question:** What is the role of human capital in facilitation of knowledge management in the state banks of west Azerbaijan province?

The results of one-sample t test showed that human capital had relatively high role in facilitation of knowledge management in the state banks of west Azerbaijan province.

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