Journal of System Management (JSM)
Online ISSN: 2538-1571
Print ISSN: 2322-2301
Vol. 7, No. 3, (27) 2021, pp. 53-65
Research Paper

Prioritizing the Dimensions, Components and Indicators of the Intellectual Capital Model in State Banks with the Competency Approach of Managers

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Abstract **Competency management and development are vital tools to increase competition in organizations and the goal of the competency-based approach is to "determine the competencies needed by top people in key positions across the organization, efforts to close competency gaps through effective selection and training and ensuring that good performance is recognized and rewarded." Now, considering the increasing role of state banks as the most important financial and economic institution in the construction of the country, the present study seeks to provide an intellectual capital model with a competency approach of managers in state banks and intends to enumerate the dimensions of the main and important competencies of the managers of state- banks to help senior executives of state banks identify the right people, with the advent of the information technology revolution, the global economic paradigm changed dramatically after the 1990s. In today's economy, knowledge, as the most important asset, has replaced financial and physical capital. Intellectual assets are non-competitive assets. Unlike physical assets that can only be used to do a particular task at a particular time,**

Received: 21/08/2021 Accepted: 20/11/2021

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intellectual assets can be used simultaneously for several specific purposes. This ability is one of the most important criteria for the superiority of intellectual assets over physical assets.
This research seeks to provide an intellectual capital model with a competency approach of managers in state banks. Based on the findings, intellectual capital can be influenced by the factors of customer capital, social capital, structural and human capital, knowledge capital, foreign capital, domestic capital, spiritual capital, technical capital and communication capital. The components and indicators related to each of the mentioned dimensions have been discussed separately in the previous pages. Based on in-depth semi-structured interviews with experts, it can be concluded that: human capital, structural capital and social capital as the first to third priorities are the dimensions of the intellectual capital model of state-owned banks with the competency approach of managers.

Keywords *Intellectual Capital, Competence of Managers, State-Owned Banks, Dimensions of Intellectual Capital Model*

Introduction

Today, managers of organizations, after years of experience, have achieved the knowledge that pay attention to your most vital organizational task; that is, supporting human resources as the most important resource influencing unplanned change, can lead the organization to achieve a competitive advantage. Therefore, the most important advantage of most successful organizations is the presence of qualified people with appropriate competencies in key jobs that it is difficult for them to find manpower. Now, considering the growing role of state banks as the most important financial and economic institution in the construction of the country, the present study seeks to provide an intellectual capital model with a competency approach of managers in state banks and intends to enumerate the dimensions of the main and important competencies of the managers of state banks in order to help the senior managers of state banks in identifying and identifying qualified individuals. Intellectual capital represents the cumulative knowledge embedded in the employees, the organizational flow, and the network relationships of an organization (Stuart, 1997; Buntis, 2002;

Kung, 2008). According to the findings of a number of researchers in this field, intellectual capital usually includes three main interrelated dimensions; Human Capital (HC), Relationship Capital (RC) and Structural Capital (SC) (Bontis, 1998; Zinkowski, 2000; Ross 1997; Stuart 1997) which collectively represents the intellectual capital of an organization. Intellectual capital is an important resource for organizations to develop in order to achieve sustainable competitive advantage (Chen 2008, Kung and Prior 2008, Shyoma and Leroy 2008).Due to differences in industry, size, life of the organization, different management values, as well as the amount of time, resources and expertise available to the organization, the design of intellectual capital programs will be possible in various forms and the content factors of culture, socio-political, economic and factors related to the management of any organization, in the way of managing the human resources of any organization that intellectual capital with the competency approach of managers is one of its subsystems (Pudelko, 2006).The concept of intellectual capital was first developed as a framework for analyzing the share of intellectual benefits in financial and economic companies but it was soon accepted by public organizations and even non-profit organizations because of its global importance (Ramirez and Gorillo, 2014). Different opinions have been expressed by individuals about the importance of studying the field of intellectual capital and its position, in this regard, Peter Drucker writes about post-capitalist society that intellectual capital will replace tools, capital, raw materials, and physical labor in business activities. In other words, the comparative advantage of another economic organization will not depend on the volume of physical capital such as land, equipment or production facilities. And value creation in organizations is achieved through intangible assets, which we call intellectual capital (Dashti, 2018).

Background

Stuart believes that intellectual capital is a set of organizational knowledge, information, intellectual property, experience, competition, and learning that can be used to create wealth. In fact, total intellectual capital of employees includes organizational knowledge and its ability to create added value and causes continuous competitive advantage (Qelich Lee and Meshbaki, 2013). Bontis defines intellectual capital as a set of intangible assets (resources, capabilities, competition) which are derived from organizational performance and value creation (Bontis, 2006). Edinson and Malone define intellectual capital as "the information and knowledge used to work to create value" (Vasile, 2008). Intellectual capital is an asset that measures an organization's ability to create wealth. This asset has no objective or physical nature and is an intangible asset that is obtained through the use of assets related to human resources, organizational performance and relationships outside the organization. All these features create this value because it is a completely internal phenomenon, it cannot be bought and sold. (Rose and Barrons, 2005). With the advent of the technology and information technology revolution, the global economic paradigm changed dramatically after the 1990s. In today's economy, knowledge as the most important capital has replaced financial and physical capital (Qelich Lee and Meshbaki, 2013). Ahmadi Khalil Mahalleh (2014) has conducted a study entitled The Effect of Business Ethics on the Development of Intellectual Capital (Case Study: Iran Oil Pipelines and Telecommunications Company). He has evaluated the effect of business ethics on the development of intellectual capital in Iran Pipeline and Telecommunications Company. He evaluated the relationship between ethics and intellectual capital, including organizational capital, social capital and human capital and to examine whether the observance of business ethics affects the intangible assets of companies and ultimately the profits of companies? The statistical population of this research is the managers of Iran Oil Pipelines and Telecommunications Company, whose sample size was 135 people.

The data sampling method in this study was cluster sampling and the data were collected through a questionnaire. In this study, structural validity was used to evaluate the validity of the questionnaire. This was done through confirmatory factor analysis. The results of this study show that business ethics affect the development of intellectual capital and all hypotheses were confirmed. Hoshyar (2012) has presented a study entitled "Explanation and model of managers' competencies in the banking system", the purpose of this study is to identify and present the competency model of bank managers, measure the extracted model and prioritize the dimensions and components of the competency model of bank managers. Maditines et al. (2011) examined the relationship between the components of intellectual capital and financial performance and the market in the Greek stock market. To calculate intellectual capital, they have used the method of intellectual value added coefficient, the results show that there is no significant relationship between intellectual capital and financial performance and the stock market, and only the relationship between human capital and return on equity has been confirmed. Draganidis&Mentaz (2006) in a study entitled Competency-Based Management: A framework of systems and approaches examines key concepts of competency management. The results show that standard areas such as competency models, technologies are playing an important role in the development of competency-based management systems.

Method

This research is one of the types of basic-applied studies that in the state banks of the country, intellectual capital management was done with the competency approach of managers, and by examining the model variables and after explaining and establishing the factors and components, an attempt has been made to provide a comprehensive and indigenous model in the field of public banking. To answer question 4, a combined qualitative and quantitative research method was used after

interviewing the experts on the priority of dimensions, components and indicators of the model, a questionnaire to determine the priority and importance of each factor, criteria and indicators was distributed among the statistical sample of the quantitative section. The collected questionnaires were analyzed through factor analysis methods (with SPSS software), and structural equation model (using LISREL software). Qualitative analysis software in this research is MAXQDA software. Advanced software for qualitative data analysis that is widely used in the fields of management, social sciences and humanities. According to the research method, the statistical population can be examined in two areas. In the qualitative stage, the statistical population includes experts and in other words, key experts in the field of intellectual capital with the competency approach of the managers of state banks in the northwest of the country that preferably have expertise and knowledge in connection with the management of banks or a university professor in the field. At this stage, 15 experts were purposefully and non-randomly selected as a sample of research experts. Criteria for selecting experts are theoretical mastery, practical experience, willingness and ability to participate in research and researcher access to them. A noteworthy point in determining the number of experts is to ensure the comprehensiveness of different views and the saturation of the findings. Therefore, the statistical population of the qualitative part of the research includes the groups of scientific experts as ; Leading experts in the field of banking management in the northwest of the country; Experts and professors of higher education in the field of public administration; Heads of bank branches, general manager and relevant deputies; In the second area of the present study, the statistical population includes all heads of branches and deputies of state banks in West Azerbaijan province, which according to Morgan's table, there were 384 of them, as a sample of 384 would suffice for very large communities.

Findings

In this section, the research findings are in line with the research methodology and are presented in two sections (qualitative method and quantitative method). In the first part, the findings of the qualitative section, which were based on data theory and in order to meet the objectives of the research, interviewed experts. And after analyzing the initial interview, the subsequent interviews were conducted continuously and with planning and introduction of the interviewees. This process has continued until the realization of the theoretical saturation of "theoretical adequacy" in the data method of the foundation and the limit of stopping the interviews has been determined by this criterion. Qualitative findings in this study are obtained from qualitative content analysis and interview analysis. Also, in a small part of SPSS software, a single-sample t-test has been used and a small sample has been used to examine the perspective of the sample community in terms of the dimensions of the adaptive model of intellectual capital development with a manager's competency approach. To determine the priority of dimensions, human capital has been selected by 11 experts as the first importance of dimensions and the structural capital dimension has been selected by 6 experts as the second importance and finally the social capital dimension has been selected by 4 experts as the third priority. Therefore, according to the answers, it can be concluded that human capital, structural capital and social capital as the first to third priorities of the dimensions of the intellectual capital model of state banks with the competency approach of managers. Figures related to the first, second and third priorities are shown below.

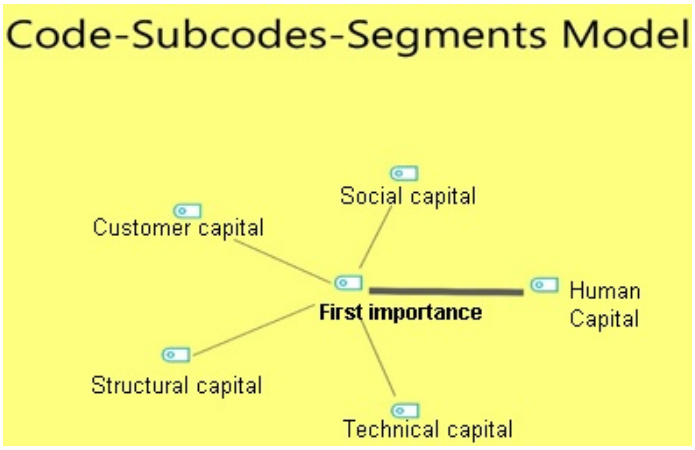

Figure 1

The First Priority of the Dimensions of the Intellectual Capital Model

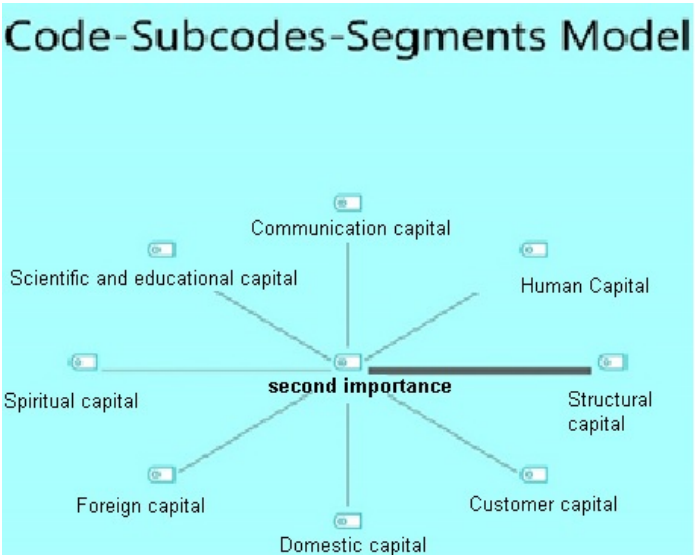

Figure 2

The Second Priority of the Dimensions of the Intellectual Capital Model

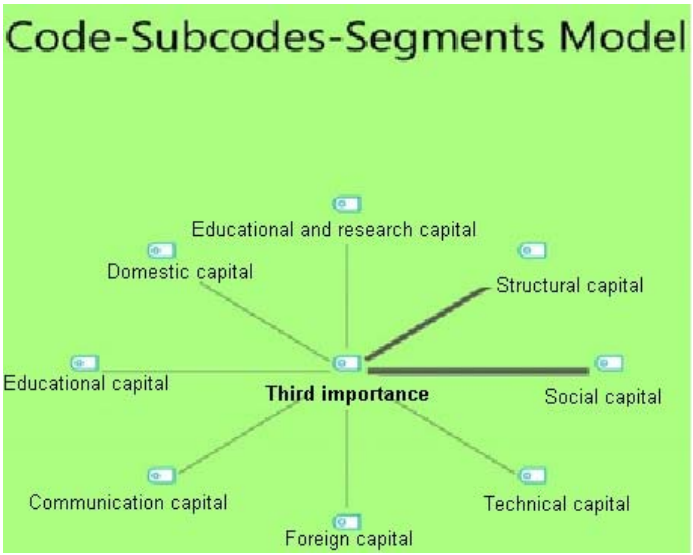

Figure 3
The Third Priority of the Dimensions of the Intellectual Capital Model

The information in the table below is about the gender status of the subjects, it shows that 68.3% of the participants in this part of the research are male and 31.7% of the participants are female.

Table 1
Sociological Information Related to Marital Status

Description	Number	Percentage
Man	198	68.3
Female	92	31.7
Total	290	100

The information in the table below, which is about the educational level of the subjects participating in the quantitative part of this study, shows that, degree 10.7% of the subjects have an associate degree, 52.4% of the subjects have a bachelor's degree, 0.29% of the subjects have a master's degree and 7.9% of the subjects have a doctorate degree.

Table 2
Sociological Information Related to Educational Status

Description	Number	Percentage
Associate Degree	31	10.7
Masters	152	52.4
Masters	84	29.0
P.H.D	23	7.9
Total	290	100

Due to the distance between the ages, the statistics of the mentioned variable are extracted and given in the table below. As the data in the table show, the mean and median of this variable is equal to 0.42, 0.41. Also, standard deviation and variance statistics were equal to 5.3 and 28.8, respectively, and the minimum and maximum values of the mentioned variables were equal to 31 and 54, respectively.

Table 3
Information on the Age of the Subjects in the Quantitative Section

Description of statistics	Amount
Average	42/0
Middle	41/0
Standard deviation	5/3
Variance	28/8
Least	31/0
Most	54/0

Based on standard factor loads, hidden variables of human capital, structural capital, communication capital, customer capital, technical capital, spiritual capital and social capital, the metrics of these variables have a positive factor load that has supported the validity of the metrics in measuring the structure. Therefore, the factor structure of the questionnaire for these variables can be confirmed. It can be concluded that all the items of the mentioned variables have a positive factor load and the calculated t value is more than 1.96 and indicates the validity of

the items in measuring the structures. A one-sample t-test has been proposed to examine the views of the sample community on the dimensions of intellectual capital. In this section, the researcher intends to review the macro categories identified in the present study in relation to the dimensions of intellectual capital. As can be seen in the following table, the upper and lower limits of the obtained confidence interval for the mean of all variables are higher than zero, it has shown the approval and favorable situation of these categories among the study population. For example, the average for manpower capital is 0.4 and given the upper and lower limits of the confidence interval obtained that both are greater than zero, It can be concluded that the subjects' view of manpower capital is positive.

Table 4
T-test Information Related to the Categories of Intellectual Capital Model

Variable	Statistical t	Degrees of freedom	Significance level	Average	Mean difference	95% confidence level	
						Low line	upper line
Manpower capital	24/7	289	/000	4/0	1/06	/98	1/15
Structural capital	4/72	289	/001	3/21	/215	/12	/30
Communication capital	6/28	289	/001	3/28	/281	/19	/37
Customer capital	4/81	289	/001	3/18	/181	/107	/255
Foreign capital	10/12	289	/001	3/46	/466	/375	/556
Technical capital	3/29	289	/001	3/14	/148	/059	/236
Spiritual capital	7/00	289	/001	3/39	/398	/286	/510
Social capital	7/88	289	/001	3/35	/351	/263	/439

Conclusion

This research seeks to provide an intellectual capital model with a competency approach of managers in state banks. Based on the findings, intellectual capital can be influenced by the factors of customer capital, social capital, structural and human capital, knowledge capital, foreign capital, domestic capital, spiritual capital, technical capital and communication capital. The components and indicators related to each of the mentioned dimensions have been discussed separately in the previous pages, so in this section we will refrain from mentioning them again. Based on in-depth semi-structured interviews with experts, it can be concluded that: Human capital, structural capital and social capital as the first to third priorities are the dimensions of the intellectual capital model of state-owned banks with a competency approach of managers.

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