



The Investigation of the Impact of Intellectual Capital on Codification of Knowledge Strategy in Oil Industry

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ABSTRACT

The present study intends to review the previous researches carried out on the field of knowledge strategy codification and investigate the influence of intellectual capital on the knowledge strategy codification in Islamic Republic of Iran's oil industry. The primary objective of this study is to analysis the impact of intellectual capital on codifying knowledge strategy in oil industry. This study is categorized as an applied one and has been carried out through the descriptive method of research, and the method used for employing variables is a combination of quantitative (descriptive – survey) and qualitative (content analysis) methods of research. Moreover, for the exploratory factor analysis of the intellectual capital indicators and knowledge strategy and to assess the validity of the questionnaire, the exploratory and confirmatory factor analysis techniques and KMO indices have been used, to determine the reliability of the questionnaire, the technique of Cranach's alpha has been applied, and to discover whether the hypotheses are void or confirmed, inferential statistics been employed. To examine the hypotheses, correlation coefficients have been used, and to assign rank orders to variables, Friedman test has been applied. The result of the study reveals that there is a positive and meaningful relationship between intellectual capital and knowledge strategy. Another finding of the study is that human is the significant factor in intellectual capital, and knowledge development plays the most crucial role in knowledge strategy.

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Introduction

Intellectual capital is a new subject which has been theoretically proposed and discussed on a global scale in recent years. However, since intellectual capital is regarded as a valuable resource for countries and organizations, it is rapidly developing and being transformed into a countries' development indicator. Furthermore, This intangible resource is considered to be of great value to corporations and plays a key role in growing entrepreneurship. Therefore today, the development and management of intellectual capital is enormously essential for running businesses and on a national scale. In other words, managing intellectual capital will bring about more correlation coefficients have been used, and to assign rank orders to variable, Friedman test has been applied. Achievements for organizations, nowadays, in a highly competitive market (Chen, 2004).

Many theorists believe that in the next decade, intellectual capital will become very valuable and significant for nations and organizations. In fact, due to the particular economic climate of the active companies, their competitive advantages are no longer based on their tangible assets. The feature that enables companies to successfully compete in the present economic circumstances is their intellectual property or capital. Companies can achieve intellectual capital by means of appropriate communication with their customers, gaining necessary experience, relying on the organizational techniques and

professional competences .In the current world economy. Knowledge as the most important capital has been substituted for financial and physical capitals, and the present condition of knowledge –based business requires an approach which involves new intangible organizational assets such as knowledge, adequacy, innovations, communication skills and organizational culture of systems, organizational structure and so forth. Hence, intellectual capital theory has been increasingly attracting managers and academic researcher's attention (Yazdani, 2006). Organizations can use knowledge as the main capital for achieving steady competitive advantages, provided they manage to identify their own strategic knowledge very well and take full advantage of it for supporting competitive strategies of the organization (Chang, 2007).

In words of one syllable, intellectual capital may be considered a packet of knowledge which consists of hidden and intangible resources, principles, culture, patterns of behavior, procedures and processes all derived from knowledge. In other words, intellectual capital is a combination of human capital (intelligence, skill, insight and their potentialities for an organization), structural capital (customers, processes, data bases, trademarks and information systems) and relational capital (customer's capital) (Zanjirdar et al.2008). Stewart (1997) defines intellectual capital from the perspective of organizational resources. According to him, intellectual capital is a route to wealth creation through investment in knowledge,

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information, intellectual, property and experience. In recent years, theorists of organizational strategy have argued that organizations cover the body of knowledge (Ander, 2007). The Iran, our Islamic home country, with a longstanding history of oil industry which has been dynamic particularly in the thirty-year after Islamic Revolution has achieved a great deal of relevant knowledge and experience as well as a great many innovations. It is worth while and with lasting significance to protect and spread such a valuable treasure. Islamic Republic of Iran's Petroleum Ministry and its subsidiary corporations are doing several projects in various fields applying knowledge, expertise and experience of a wide range of experts in different areas of knowledge including more general fields (such as petroleum, gas, petrochemicals, refinement, national company, distribution of oil product, etc.) and more specific fields of oil industry (such as exploration, digging, extraction, transportation, exportation, exploitation, etc.) In these companies (especially owing to the wide range of activities they do) a great deal of knowledge is produced as a result of different projects they set up and their special administration. A part of the obtained knowledge is recorded in the format of documents, reports, software programs, instructions and so forth, whilst another section which is intangible and hidden in experience, relations, competences, insights, etc. may not remain for the future use. Besides, it is very essential indeed to organize knowledge strategy in Islamic Republic of Iran's oil industry for the purpose of discovering and employing knowledge, expertise and experience of experts in a wide range of fields including more general and more specific fields of oil industry and leverage them to support oil industry strategies. Knowledge strategy in oil industry decides on from what areas of knowledge how deep, from what sources and through what route this industry should gain knowledge to accomplish its missions and apply its strategies (Berooz Qelichli, 2009).

As the world, today, is in the information age, and even some countries (e.g. Japan) are in the post-information age, research in the field of intellectual capital, which will be, without double, substituted for other forms of capital such as land, tools and equipment, raw materials, etc. In the near future, seems necessary. Today, we live in a rapidly changing world which has impacted organizations performance as well. Iranian oil terminals company is one of the corporations which have emphasized the importance of knowledge as a deciding factor in competitiveness and reaching a strong position marketplace.

In recent years, the oil company has carried out some careful and serious studies on the fields relevant to its business and is regarded as one of the organizations in which knowledge management system has been introduced. Scholars view that a society's capacity to employ knowledge strategy utterly depends upon its software and hardware infrastructures. Culture and norms of a society make up the base for its software infrastructures. There are instances of organizations and so cities. That, despite their weak plans and strategies, have achieved some success thanks to their high performance. Based on all of the proposed models for intellectual capital, strategy is one of the basic and major requirement of applying intellectual capital. It means that performance of a society or an organization's strategy which has already been codified is really dependent upon the society or organization's capital, and, without the existence of capital, it is not only difficult to employ the strategies but also nearly impossible. From this perspective, it is necessary to examine have the impact of intellectual capital on codification of knowledge strategy can be determined.

It is critical to capital to engage with the issue in the stage of intellectual capital in order to codify and employ knowledge strategy (Lim et al. 2004).

Literature Review

Intellectual capital

Intellectual capital has always been a vague, imprecise concept, and plenty of various definitions have been proposed to clarify the concept. Many scholars prefer to use terms like assets, resources or driving performances instead the term 'capital' and terms like 'intellectual' Additionally, the scholars suggest totally different definitions for some careers (e.g. financial accounting and legal careers). For instance, one of them defines nonfinancial fixed assets as those which do not exist as physical and tangible things (Marr, 2008). Believes that intellectual capital is a set encompassing knowledge, information, intellectual property, experience, competition and organizational learning that can be used to create wealth.

In fact, intellectual capital includes all of the employees, organizational knowledge and its capacities to create value added and results in continuous competitive advantages (Qlichli & Moshabaki). Bontis defines intellectual capital as a set of intangible assets (resources, capabilities, competitiveness) which are obtained from organizational performance and value creation (Bontis, 2001). In addition Edvinsson and Malone define intellectual capital as applied information and knowledge which are put into practice for the purpose of value creation (Vizyl, 2008). Arenas and Lavanderos, on the other hand, elaborate on intellectual capital metaphorically. According to them, like a tree which for living depends on its root which is hidden under the ground, a company for succeeding is dependent upon its intellectual capital which is a hidden resource (Albar & Knnan, 2004).

Intellectual capital provides a base of new resources by means of which an organization can compete (Bontis, 2001). Bontis believes intellectual capital refers to the attempt at efficiently using knowledge (finished product) generated from information (raw material). According to Roos et al., intellectual capital includes all processes and assets which are not usually displayed in the balance sheet, as well as intangible assets (such as trademarks, patent, the right to exploit and trade names or brand names) which are taken into consideration in modern accounting methods (Roos et al., 1997).

Definition of Human Capital

An organization's human capital is a set of its employees' competences and the depth and range of their experience. Human resources can be regarded as the mind and spirit of intellectual capital resources; thus, human capital encompasses the employees' competences and qualifications, the level of knowledge they possess in the areas which are useful and important for the organization's position, their talents and their temper and behavior. Chen et al. argue that human capital as a basis of intellectual capital refers to factors such as knowledge, competences, potentialities and the employees' perceptions which result in the performance for which customers are willing to pay, and make profit the company.

Human capital has made organizations dependent on their employees' knowledge and competences for generating revenues, bolstering the organizations' efficiencies and performances, achieving development (ibid.).

Definition of structural Capital

According to Roos et al., structural capital refers to nonhuman knowledge resources such as data bases, organization charts guidelines for implementation of the process strategy and executive programs. Structural capital, therefore, encompasses a

wide range of essential elements among which the most important ones are : the organization's important executive processes, how they are structured, policies, information flows, data base elements, leadership, management style and plans to evaluate the performances of employees. According to Chen et al., structural capital can be more recognizably classified into four categories: organizational culture, organizational learning, operational process and information system. Youndth considers structural capital as institutional knowledge owned by an organization which is saved in data bases, instructions, etc. (Roos et al., 1997).

Definition of Relational Capital

Chen et al. classify customer's capital into three categories: marketability, market intensity and customers' loyalty. On the whole, customer's that acts like a bridge or as a connector in intellectual capital process, plays the major value and, eventually into the organization's business performance; thus, the development of customer's capital depemds upon human capital and structural capital. Stewart argues that customer's capital refers to market information applied for attracting and keeping customers. A new definition of the concept of customer's capital is that it is a relational tool for development which includes the existing knowledge in the whole relationships that organizations will establish with customers, competitors, suppliers and business forums or the government. Customer's capital include not only the current value of the organization's relationships with customers but also the potential economic value which will be resulted from the relationships in the future; hence, the essence of customer's capital is the knowledge hidden customers which have been designed or spread by an organization in a particular period of time (Bontis, 1998; Roos,1997. Broking ,1999).

Definition of Knowledge Strategy

Knowledge strategy is a special method for optimizing creation and transforming knowledge into competitive advantage in an organization. It is, in fact, "a set of strategic choices on matters of the source, base. And way of supplying the needful knowledge and its accumulation scope an organization makes and perform in order to direct and manage its knowledge resources for achieving its goals" (Abdullahi, 2009).

Stages in Deciding on knowledge Strategy

First step: Deciding on the scope of work.

Second step: Deciding on the domain knowledge.

Relevant to the content of the scope of work .

Third step: Deciding on the performance indicators in the scope of work.

Fourth step: Analyzing the extent to which each of the domain knowledge impact key performance indicators both at present and in the future.

Fifth step: Evaluating domain knowledge based on

Three criteria: expertise, documenting and distribution.

Sixth step: Plan of action in knowledge strategy (Gazani, 2007).

Definition of Domain knowledge

Domain knowledge is regarded as categorized experience and understanding of how to do works (e.g., understanding of how a production line functions).Domain knowledge is a field in which most of the overt and covert knowledge exists and the processes of creation and distribution of knowledge are enormously performed (Ganzi, 2009).

Definition of Knowledge Development

Knowledge strategy is a special method for optimizing creation and transforming knowledge into competitive advantage in an organization. According to Zack, knowledge strategy is codified so as to bridge the gap between the existing

knowledge and the one needed. The objective of knowledge strategy is to answer the strategic questions which emphasis on competitive intelligence and internal knowledge retrieval systems. Knowledge development is a basic element which completes knowledge acquisition and focuses on skills, new products, better ideas and more efficient processes,Knowledge development includes all executive efforts that consciously focus on producing the abilities which have neither been presented yet in the organization nor existed outside of the organization(Laneman,2004).

Definition of Knowledge Accumulation

Collective knowledge is accumulated knowledge of an organization which encompasses rules, procedures, routine activities and common norms applied in activities and problem solution patterns. it is, moreover, knowledge accumulation and the existing knowledge of the processes and products (Garcia , 2003).

Pervious Relevant Studies

Sepehrdoost (2006) in his study investigates the relation between intellectual capital and the profit before taxes, operational cash flow and value added as evaluation indicators of the performances of the companies accepted in Tehran stock Exchange from the year 2004 to 2006. For investigating the relation among intellectual capital, operating cash flows and value added of companies, Douglas function production converted form has been used, and to examine whether is a meaningful and mutual causal relationship between dependent and independent variables, Granger causality test has been applied. Findings of the estimation of the model for the selected companies show that, during the study, there has been a positive and meaningful relationship among operating cash flows, intellectual capital and value added.

Berooz Qlichli and Asqar Moshabaki (2006) carried out an investigation titled "The Role of intellectual capital and social in competitive Advantage".

The result of the study reveals that, in Iran khodro and saipa corporations, as social capital increases, different dimensions of intellectual capital which are human, structural and relational capitals rise.

Shojai and Baqbanian (2008) in a case study of Kurdistan province in vestigated the relationship between intellectual capital and organizational performance of Iran's banking industry. In this research a valid survey questionnaire was applied. The original version of the questionnaire first had been designed and used in Canada. The final estimated model shows the positive impact of different components of intellectual capital on organizational performance of banking industry.

The most effective components are firstly human capital, secondly structural capital and then relational one. Behnam Shahano and Ahmad Ali Khaifelahi (2009) carried out a study in Tehran titled "The investigation of the Influence of intellectual capital on the performance of Different Branches of sepah Bank". The conclusion reveals the positive influence of the components of intellectual capital upon the performance of the selected branches of sepah Bank. Among the components, the most influential one is customer's capital, and then structural and human capital are in next place.

Furthermore, the major scientific result of the research is that customer's capital plays the role of mediator in the relationship of human and intellectual capital to organizational performance.

Vida Majtahedzada, Seyed Hossien Alavi tabani and Mernaz Mahdizada (2010) in their investigation have discussed the relationship between intellectual capital (human, structural

and relational capitals) and the performance of insurance industry from the viewpoint of managers. The results show that in separate and independent examinations of different types of intellectual capital (human, relational and structural capitals), they we reproved to have meaningful relationship to the performance, whilst in a simultaneous investigation, only human and structural capitals have meaningful relation to the performance. The measuring tool of the study was a questionnaire including forty questions.

Hasti and Mehran (2011) have studied the relation between intellectual capital and financial returns of the companies accepted in the stock exchange, and have employed method for measuring intellectual capital. The statistical sample of the study consists of 146 companies accepted in the stock Exchange in a five-year period from 2004 to 2008. Finding of the study show that there is a positive correlation between intellectual capital and the companies' financial and future performances. Moreover, the volume of intellectual capital varies in the future performance of the companies in different industries. Result, also, reveal that there is no relation between the growth rate of intellectual capital and future performance of the companies.

Foreign Researches

Ven boden (1999) investigates the relation between the major set of intellectual capital indicators and companies' performances. The conclusion indicators shows intellectual capital is in direct relation to and is accompanied by companies' performances (quoted by keigan & Zakisalih, 2008).

Bontis et al. (2000:85-100) have studied three constituents of intellectual capital in a research titled "Human, Structural and Customer's constituents". They have investigated the mutual correlation between these constituents. The most important results emerged from the investigation are: 1. human and customer's capitals are the most prominent factors in the simultaneous business method, and 2. Structural capital has positive impact on business performance.

Bontis (1998) has conducted an investigation in Canada titled "Intellectual Capital: Exploratory Study and Investigation of Models and Measurements of Intellectual Capital". Findings of the study reveal that are mutual correlations among components of intellectual capital, and all of the components, i.e. human, structural and customer's capitals, make favorable impact on business performance. In another study conducted by Bozo bora on Turkey's industry it was determined that both human and customer's capital have advantageous impact on companies' official and market value. In addition, the study showed there was a strong correlation between human and customer's capitals. Bontis et al. (2000) have, also, carried out an investigation on both the tertiary industries and the rest of the industries in Malaysia titled "The Investigation of the Correlation between Intellectual Capital and Business Performance". They concluded that there are mutual correlations among different components of intellectual capital, and these capitals have a fairly normal impact (twenty-thirty percent) on business performance.

Yango cho et al. (2006) studied the correlation of intellectual capital with value, performance, advanced specialized industries and industrial technology, and concluded that firstly, there is a meaningful and positive correlation between intellectual capital's components and companies' performance, and secondly intellectual capital is dependent upon value creation process and the strategic reserves in the organization.

Tanjami haiic (2007) researched into the impact of intellectual capital's components on financial performance, in

hotel industry in Slovenia. Result of the study revealed that primarily, there is a meaningful and positive correlation between intellectual capital's components and financial performance in this industry, and secondly, relational capital has more impact on the financial performance of the companies.

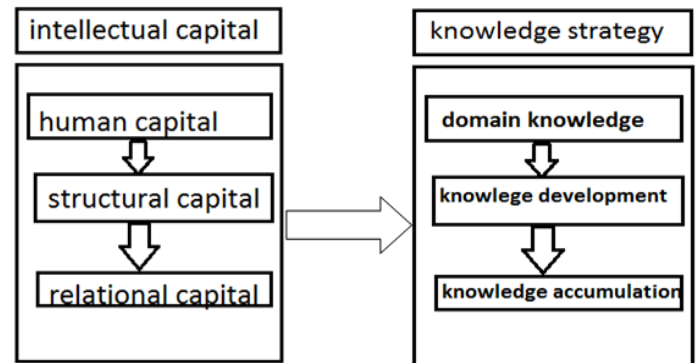
Major Question

To what extent does intellectual capital impact knowledge strategy in oil industry?

Minor Question

1. To what extent does human capital impact knowledge accumulation?
2. To what extent does human capital impact knowledge development?
3. To what extent does human capital impact domain knowledge?
4. To what extent does structural capital impact knowledge accumulation?
5. To what extent does structural capital impact domain development?
6. To what extent does structural capital impact domain knowledge?
7. To what extent does relational capital impact knowledge accumulation?
8. To what extent does relational capital impact knowledge development?
9. To what extent does relational capital impact domain knowledge?

Research Model



Methodology

As regards the purpose, this study is on applied one. It is, additionally, a descriptive survey study, and its statistical population consists of managers, chairmen and general experts of Iranian Oil Terminal Company in khark island. 110 managers, chairmen and experts of Iranian Oil Terminal Company form the statistical sample of the study. Sampling method is not employed in this study, but rather all of the population members are counted. Data collection has been done using the World Wide Web (Internet) and by means of articles in Persian and other languages as well as theses. It is, also, a library investigation in which relevant documents have been used. To codify theoretical principles and previous related researches, library method has been applied, and for determination of the impact of intellectual capital on knowledge strategy, field methods have been employed. Moreover, in this research, for collecting the required primary data, two questionnaires have been used; one questionnaire is concerned with intellectual capital, and the other one is concerned with knowledge strategy. The first section of the questionnaires consists of general questions, and the second section presents specialized ones. The reliability of the questionnaire has been measured by Cronbach's alpha.

Title of variable	number	Test scores	meaningfulness	result
Human capital	110	1.247	.089	normal
Structural capital	110	.819	.513	normal
Relational capital	110	.863	.446	normal
Knowledge accumulation	110	.906	.385	normal
Knowledge development	110	1.105	.174	normal
Domain knowledge	110	1.069	.204	normal
Intellectual capital	110	.885	.414	normal
Knowledge strategy	110	.750	.628	normal

Rows	Hypotheses	Error coefficient	Meaningfulness	Determination Coefficient of	Result	
1	First hypothesis	Structural capital has an impact on knowledge development	0/05	.000	.498	Acceptance H_1
2		Structural capital impact On knowledge development	0/05	.000	.588	Acceptance H_1
3		Structural capital impact on Domain knowledge.	0/05	.000	.604	Acceptance H_1
4	Second hypothesis	Human capital impacts on Knowledge accumulation	0/05	.000	.340	Acceptance H_1
5		Human capital impacts on knowledge development	0/05	.467	.070	Acceptance H_0
6		Human capital impacts on Domain knowledge.	0/05	.100	.158	Acceptance H_0
7	Third hypothesis	Relational capital impact on Knowledge accumulation	0/05	.001	.443	Acceptance H_1
8		Relational capital impact on knowledge development	0/05	.001	.433	Acceptance H_1
9		Relational capital impact on Domain knowledge.	0/05	.001	.436	Acceptance H_1

The result of the Cronbach's alpha coefficient for intellectual capital and its different dimensions was 0.806, and it was 0.797 for knowledge strategy and its dimensions. These numbers show that the obtained alpha is more than 0.7 in both cases; therefore, the reliability of the questionnaires is proved to be high. Furthermore, first, the questionnaires have been confirmed by some specialists; then the validity of them has been measured through exploratory and confirmatory factor analysis and KMO index. The obtained indices of kmo for the validity of the questionnaires are 0.905 for intellectual capital and 0.885 for knowledge strategy. To keep the data normal, inferential statistics has been applied. For examining the hypotheses, Pearson's correlation test has been used, and for prioritizing the hypotheses, Friedman test has been employed.

Data Analysis

For analyzing the research's data two methods have been used: descriptive statistics and inferential statistics. Descriptive statistics for collection and categorization of the data, and inferential statistics for voiding or confirming the hypotheses have been employed. Additionally, statistical tests such as the correlation tests appropriate to the variables and the method of their distribution in statistical population have been applied. For analyzing the data, SPSS has been used as well.

Findings

After computing the research's variables and testing the research's hypotheses using the test's result on the data, findings of the research have been briefly displayed and discussed as follows:

In kelmo grof – esmirenf test, the investigated hypotheses are defined as follows:

$$\begin{cases} H_0: \text{Observations follow normal distribution} \\ H_1: \text{Observations do not follow normal distribution} \end{cases}$$

It was already hypothesized that observations are normal (H_0). Since variables' test scores are between 1.96-1.96, the hypothesized is not void. Taking into account the results of the presented table, if the meaningfulness is more than error rate, H_0 is resulted; on the contrary, if the meaningfulness is less than error rate H_1 is resulted.

As obtained numbers for all variables are more than 0.05 (as shown in the table), variables have normal distributions. Besides, the numbers obtained from the table (test scores) show that among different dimensions of intellectual capital, human capital has the highest impact (1.247), and among different dimensions of knowledge strategy, knowledge development has the most influence (1.105).

$$\begin{cases} H_0 = p = 0 \\ H_1: p = 0 \end{cases}$$

The first hypothesis shows that there is a positive and meaningful relationship between structural capital and knowledge strategy. The values obtained from the correlation coefficient indicates that each of the dimensions of knowledge strategy are not the same. The highest impact has been primarily in domain knowledge, secondly on knowledge development and then on knowledge accumulation.

Consequently, the comparison of the sig obtained from the test with error coefficient of 0.05 demonstrates that as meaningfulness is smaller than error coefficient, H_0 (signifying alternative hypothesis) is void, and H_1 , (signifying alternative hypothesis) which means that is a relationship between structural capital and dimensions of knowledge strategy, is confirmed.

The second hypothesis indicates that there is a positive and meaningful relationship between human capital and dimensions of knowledge strategy. The values obtained from the correlation coefficient demonstrate that the extent of correlations between human capital and each, of the dimensions of knowledge strategy are not knowledge accumulation, secondly on domain knowledge and in the next place, on knowledge development. Consequently, the comparison of the sig obtained from the test with error coefficient of 0.05 shows that meaningfulness is that 0.0, so H_0 is void, and H_1 is confirmed. However, since the meaningfulness of knowledge development and domain knowledge is larger than the error coefficient, H_0 concerning the relationship between human capital and both domain knowledge and knowledge development is confirmed.

The third hypothesis claims that there is a positive and meaningful relationship between relational capital and dimensions of knowledge strategy. The values obtained from the correlation coefficient indicates that the extent of correlation between relational capital and each of the knowledge strategy dimensions are no the same. Accumulation, secondly on domain knowledge and thirdly on knowledge development thus, the comparison of the sig obtained from the test with error coefficient of 0.05 demonstrates that meaningfulness is smaller than error coefficient; therefore, H_0 is void, and H_1 , which signifies the correlation between relational capital and dimensions of knowledge strategy is confirmed.

Conclusion

The obtained data displayed in the tables reveal that there is a positive and meaningful relationship between intellectual capital and its components, and knowledge strategy and its components. Taking into consideration the fact that the intellectual capital of accompany is made up of human capital, structural capital and relational capital, managing and directing the intangible assets enable an organization to not only have efficient interior management, but also establish a good exterior relationship with customers and other. Hence, it is crucial for companies to take action immediately to manage intellectual capital and get full progress reports on that. The significant effect of intellectual capital on societies and organizations' development in on undeniable fact. Among different components of intellectual capital, human capital and relational capital have the largest effect on the evolution and development of companies in applying contemporary devices of knowledge strategy. Only if knowledge strategy involves creating economic value and competitive advantage, will it permanently remain in Islamic Republic of Iran's oil industry; otherwise, it will be treated only as a temporary entertainment knowledge strategy can help to develop oil industry through placing knowledge into the strategic context of the industry. Achieving success in competition by means of knowledge needs strategic coordination between business and what a company knows or coordination between knowledge development and required intellectual capabilities for supporting favorable strategy of oil industry. National Iranian oil company (NIOC) should strategically evaluate its resources and knowledge capabilities and comprehensively decide in its own knowledge strategy for

focusing on any gap. Consequently, amongst knowledge strategy components, knowledge development and domain knowledge have the largest impact in this research, and knowledge strategy bridges the gaps through these processes.

References

Persian

- 1-Abdullahi Ali (1388), PhD Thesis, School of Management and Accounting martyr Beheshti University.
- 2-Ghelich B. Lee (1388), knowledge management: the process of creating, sharing and use of intellectual capital in businesses, Tehran: the study and development books Humanities University (left).
- 3-Ghelich B. Lee, grid A. (1385), IC Knowledge Management Organization, No. 75, pp. 147-125.
- 4-Gzny, A. (1386), "The process of organizational knowledge in the system of knowledge management strategy." Proceedings of the First Conference on Knowledge Managemme.
- 5-Hamid Reza Yazdani 1385 to investigate the relationship between the components of intellectual capital and its on organization performance. master Thesis Tehran university.

Latin

- 1-Ander cavel ,D (2007). Making sense of Intellectual capital , Boston , Elsevier Butter worth , Heinema nn,pp.364-371
- 2- Bontis ,N (1998). "Intellectual capital : an exploratory study that develops measures and models" , management Decision,Vol.36 No . 2,pp.63-76
- 3- Bontis , N(2001). managine organizational knowledge by disagnosing intellectual capital. Faraming and advancing the State of the field . Idea Group publishing. Pp 271-301.
- 4- chen, J ,Z ,Zhu and H ,Y Xie (2004) Measuring intellectual capital:anew model and empirical study Journal of Intellectual capital 5(1):195-212.
- 5- Chang,ST, (2007) "valuing intellectual capital and firms performance modifying value added intellectual coefficient (VAIC) in Taiwan IT industry" unpublished doctoral dissertation, gate university, August 2007.
- 6- Garcia , R, KJ. Calantone , and RLevine . 2003 .The role of knowledge in resource allcayion To exploration varsus exploitatin inTechnology cally organization .Decision sciences 34(2): 323-349.
- 7- Kannan , G. and Albur , W, G, (2004)," Intellectual capital. Measurement effectiveness", Journal of Intellectual capital ,Vol.5, No.3,pp.389-413.
- 8- Lim , L,L,K. and Dallinore ,p. (2004) ," Intellectual capital : management at titudes in service Industries " , Journal of Intellectual capital , Vol.5, No.1,pp.181-194.
- 9- Laneman , W.J.(2004). Knowledge – sharing in the intelligence community after a/11. Intervational Journal of Intelligence and counterintell igeance , 17,pp.614-633.
- 10- Marr , B. Gray ,D. and Neely , A.(2003)," why Do firms measure their IC?", Journal of intellectual capital, Vol.4 No . 4,pp . 441-464.
- 11- Roos,j; Roos,G, (1997). "Dragonetti, N.C. and edvinson,L."hntellectual capital: Navigating in the new business landscape", machmilan houndmills, basingtok.
- 12- Stewart (1997). " intellectual capital : the new weath of nations " Poubleday dell publishing group newyork ny.
- 13-Vasile,Bogdan(2008) Factors of the Earning Function And Their Influence on the Intellectual capital of an organization, journal of applied quantitative methods, VOL3, NO .4, 2008.
- 14-Zack. M. H. (1999) "Developing knowledge strategy" California management Review Vol. 41 No 3 Spring 1999 pp .125-145.