

Examining the Effects of Intellectual Capitals Management on Organizational Performance: The Case Study

¹Farhad Nejadirani, ¹Farokh Ghorbani Namvar, ¹Reza Rasouli and ²Leila Mosafer Yadegari
¹Faculty of Social Science, Department of Management, Bonab Branch, Islamic Azad University,
Bonab, Iran

²Department of Management, Payam Noor University, 19395-4697 Tehran, Iran

Abstract: One of the major concerns of the management sciences researchers in recent years has been the strategic role of intellectual capitals on performance of the organizations. Studies on management of intellectual capitals, which are known today as real assets and form an strategic portion of the total capital of the organization, are of a great importance; because, proper management of intellectual capitals helps the organizations realize the defined objectives in all aspects of organizational performance. The overall goal of this research is to study the effects of intellectual capital on the organizational performance of taxation offices in North Khorasan Province. In this research we used theoretical framework of Kaba & Sira to measure the independent variable (intellectual capital management) and theoretical framework of Heresy & Goldsmith to measure the dependent variable (organizational performance). To analyze, summarize, and categorize the collected data we used Kolmogorov-Smirnov test, as well as parametric statistical simple linear regression analysis tests. The results of the research assumptions are indicative of a significant relationship between intellectual capital and organizational performance.

Key words: Human capital, intellectual capitals management, relational capital, structural capital

INTRODUCTION

Today, intellectual properties management in organizations has become the most important measure of developing a successful business framework. Yet, the complexity caused by various interpretations of intellectual capital remains, and popularity of this form is indicative of the fact that organizations have managed to achieve competitive advantages through proper management of this capital, and for this reason increasing attention is being paid to this concept. Considering the efforts made in this decade and last decades, it seems that late 2010s and early 2020s would be the decisive years of intellectual capitals management in all countries and organizations. International organizations, while trying to develop global frameworks of intellectual capital management for countries, consider the growth rate of this capital as a national development indicator. Presently, successful organizations have realized that investing on intellectual capitals is essential to increase the capacity of creating valuable services. For this reason, most of managers agree that the intellectual capital is their most important stimulator of value creation. Today, the value of intellectual capital of the organizations has increased from the small amount estimated in 1990 to USD 15 billion at the beginning of the 21st century. Generally, at

this time the manager's main challenge is to provide a suitable environment for growing and educating human minds in knowledge-based organizations. Therefore, intellectual capitals management is considered the managers' essential skill in these organizations. Intellectual capital is a new concept raised in international level during the past few years. For this reason, today the necessity of intellectual capital management and development has become a serious business requirement in macro national level. Concepts of intellectual capital have already passed the initial laboratory and research stages, becoming important requirements of organizational management, and in a broader level national development. Intellectual capital is a property, which measures an organization's wealth creation capacity. This property has no evident or physical nature and is an intangible asset achieved through employing properties related to human resources, organizational performance, and external relationships. Today, the global competition age has made the intellectual capital a global competitive element. Intellectual capital is considered one of the essential merits of the organization. Therefore, in the modern strategic environment, the organizations progress only when they consider themselves learning organizations whose objective is constant improvement of the intellectual capital; because, an organization which is

not capable of improving its intellectual capital cannot survive. Today, intellectual capitals are referred to as important and critical factors. On the other hand, the organizations, identifying internal weak & strong points and external threats and opportunities, can have a ground for achieving long-term goals and adopt suitable strategies. The manager as a strategist must study the environment in order to identify opportunities and threats confronting the organization and pronounce decisions to be evaluated. Being familiar with the predominant social values, capacities and resources existing within the organization, national and international problems and circumstances... all play essential roles in making a proper decision. Intellectual capital represents the collective knowledge accumulated in personnel, normal organizational programs, and network relationships of an organization. Studying and implementing modern management measures in public sector, by means of internal and external demands for optimum management, is the basis of the new mission of the public administration. Under these conditions, state directors stress that private sector management styles must be seeking for new methodologies and means of management. Therefore, intellectual capital management as an emerging management approach of government organizations from the mid 20th century has been taken into consideration in addition to fix capitals, technical capitals, and tangible floating capitals. One aspect on this subject is the general nature of studies and models. Yet, despite of the strategic role of intellectual capital in creating and adding to organizational values in both public and private sectors, there is a little knowledge on how to identify and manage the intellectual capitals in the public sector. Numerous factors affect the organizational performance, but, due to the inadequacy of knowledge on intangible assets (intellectual capital management) and the attention paid to them, in this research we have generally tried to answer this question: how does the intellectual capital management affect the organizational performance of taxation offices in North Khorasan Province? And what is the sequence of priority of effect of each aspect of the intellectual capital management on organizational performance?

In present time, the public sector has the following properties:

- Capacity of meeting the needs of service clients
- Stressing on performance and result management
- Being introduced to performance standards
- Establishing a better relationship with the results
- Decentralization and authority of entrusting personnel and financial management
- Having access to the market workforces and creating domestic markets
- Privatizing public companies and implementing private sector management methods

These properties generally define the need to image one another in a sensible system with all intangible elements, which are the differentiating sources of competitive advantages for the management, including concentrating on the citizens, social liability, and professionalism of the staff (Garcia, 2001). Moreover, the importance of employing the management models of intellectual capital management in the public sector is indicative of the fact that intangibility of management elements in this sector is even more evident than in the private sector; because, the state directors tend to multiple goals with non-financial nature, and amongst all the efficient resources including human resources, knowledge, capital, raw material, and machinery, they use the first two, which are intangible. Also, the final product of the public administration is service, which is necessarily intangible (Carlos *et al.*, 2003). Moreover, the public section has always focused on human capital, which is intangible (Wall, 2005). In this regard, Guimet (1999) provides the following reasons to say that the intellectual capital management models can progress by means of management components in the public sector faster than in private sector:

- Public administration is based on information and knowledge.
- In public administration financial capital doesn't exist, and this sector doesn't depend on financial profit. Yet, the public administration uses the employment indexes in every percentage of the "product" (according to State Organization for Administrative and Employment Affairs), which is specified to the extent of the officially declared level of efficiency and reliability of the human capitals of its organizations.
- Public administration in present time includes the process of reforming and integrating more efficient and more client-based management methods. The evident political nature of this transition period is manifested in the state administration.
- Another aspect, which makes it possible to develop intellectual capital management models in the public sector, despite of being problematic in the private section, is the fact that in this sector there is no need to measure intangible values immediately. For this reason, state components are not seen in the valuation process, and therefore help to the practical application of intellectual capital theories (Bossi *et al.*, 2005).

When confronting this issue, it is necessary to take into consideration the innovation initiatives developed in relation with formation of intellectual capital management models for state organizations, including its effects on taxation offices of North Khorasan Province. Therefore, it is necessary to stress practically and multilaterally on the three aspects of intellectual capital management and pay close attention to their effects on organizational

performance of taxation offices of North Khorasan Province. This way, the intellectual capital management would enable state administration components in taxation offices of North Khorasan Province follow up their goals and use their resources effectively.

LITERATURE REVIEW

Intellectual capital of an organization includes intangible and intellectual properties by returning which to the new service and product processes, the organization creates value. The term "Intellectual Capital" was introduced first by John Kenneth Galbraith in 1969 (Feiwal, 1975; Nick, 1998). Before that, Drucker (1999) had introduced the term "knowledge workers" (Feiwal, 1975). Roos and Roos (1997) define the intellectual capital as all processes and properties that are normally not included in the balance sheet. This definition includes all the intangible properties like trademarks and copyrights which are assessed by the modern accounting methods. Stewart considers the intellectual capital to be the information, intellectual properties, and experiences which are used to create wealth (Stewart, 1997). Edvinsson and Sullivan (1996) define the intellectual wealth as the knowledge that can be converted to the value and introduce it as practical experiences, organizational technologies, client relationships, and professional skills for achieving competitive advantages. In Bontis' (2001) point of view, intellectual capital is the individual and organizational knowledge that helps to sustainable competitive advantage. This capital acts follows the principles of "economy of abundance"; that is to say using this capital not only doesn't diminish its value, but also adds on it. Generally speaking, the intellectual capitals are like the muscles of a body; they go dead when not being used (Cohen *et al.*, 1993). Chaharbaghi and Cripps (2006) point out to the idea that intellectual capital is the major sustainable motion power of the organizational performance that reflects the real value of the organization better than anything. Kujansivu and Lönnqvist (2007) in an article titled "Research on Value of Efficiency of Intellectual Capital" explain that the intellectual capital is critically important for competitiveness of the companies, regardless of the type of the industry; it is even more important for knowledge-based companies, as their resources are mostly intangible. Lu *et al.* (2009) in their "Ability & Efficiency of Intellectual Capital in Taiwan's Semi-Conductor Manufacturing Companies" discuss the importance of adding on the company value through managing intellectual capital in intensively competitive environment. Using non-parametrical boundary methods of data envelopment analysis they concluded that performance of the intellectual capital must be regarded as the key element of achieving broader innovations and gaining competitive advantages. Chang *et al.* (2008) in

their "The Effect of Alliance Experience and Intellectual Capital on the Value Creation of International Strategic Alliances" used an example of US companies to study the effects of intellectual capital and experience of unity, and the counteraction of these two on creating international strategic unity values. They concluded that the companies with higher levels of intellectual capital gain larger wealth interests. There is also a positive and significant counteraction between intellectual capital and experience of unity. Muammer and Sitki (2008) in their "Impact of Intellectual Capital on Exportation Performance: Research on the Turkish Automotive Supplier Industry" stress that the intellectual capital in a concept indicating that non-financial capital creates value more than financial capital. Therefore, business companies can create more value through developing employee engagement, creativity, and innovation. The authors, aiming to determine the effects of accumulating intellectual capitals of the companies on the export performance of Turkish automobile parts industry, studied 107 companies active in this field and concluded that accumulating intellectual capitals has a remarkable effect on export performance of the companies. Their research specifically indicated that export performance of the business companies enjoying larger intellectual capitals in terms of structural capitals, human capitals, and client capitals, improve better than the other companies. Numerous evidences show that there is a positive relationship between the intellectual capital and performance of the companies. Bontis (1998) and Bontis *et al.* (2000) researches in Malaysia show that there is a positive correlation between the elements of intellectual capital (human, structure, and client) and performance of the industries. Human capital, regardless of the nature of the industry, affects the performance of the company. Structural capital is important, because the market value and price of the company stocks do not depend only on the tangible properties; they rather depend on intangible properties such as the intellectual capital. For example Lev (2001) findings show that about 80% of the companies' market value is affected by the market value of their intangible properties. Kujansivu and Lönnqvist (2005) evaluated the intellectual capital of the 11 sizable industries in Finland. The results showed that the welfare companies have benefited from their intellectual capitals more than the others. Chen (2005) measured the intellectual capitals in Malaysian banks. This research showed that "Hong Kong Bank" despite of having less physical capital than "May Bank", acted as the most efficient local bank due to enjoying a bigger coefficient of intellectual capital. Appuhami (2007) evaluated the effects of the intellectual capital on Thailand's stock market. The results showed that there is a significant relationship between the companies' intellectual capital and growth of their stocks. Chin *et al.* (2005) studied the relationship between the intellectual capital, market value, and financial performance of Taiwan's stock brokers.

They used Pulic (2000) intellectual capital value added model as the measure of intellectual capital, and applying the regression model showed that increasing intellectual capital of the companies improves the financial performance and increases their market value. Pew *et al.* (2007) studied the relationship between the intellectual capital and financial performance in Singapore's stock market based on three financial indexes (interest of each share, shareholders' return rate, and annual return rate). The results showed that there is a positive relationship between the intellectual capital and the financial performance. There is also a significant difference between the coefficients of intellectual capital in different industries. Yalama and Coskun (2007) studies show that the efficiency of the value-added intellectual capital has an effect of 61.3% on profitability of banking companies in Istanbul stock market. Also, Kamath and Bharathi (2008) showed that amongst all the elements of intellectual capital, human capital has a major effect on profitability, efficiency, and value of pharmaceutical companies in India. Chen *et al.* (2004) showed that there is a relationship between elements of the intellectual capital, and these elements affect the business performance of the companies. Using multi-variable regression, Wang (2008) proved that there is a positive relationship between the intellectual capital and the market value of American electronic companies. Yolanda (2010) conducted a research titled "Intellectual capital models in Spanish public sector" in 2010, aiming to help public organizations in the process of developing their capability of identifying, measuring, and managing their intangible properties. The findings are indicative of the importance of intellectual capital approaches as means of confronting new challenges in the public sector. The experience achieved through case studies provides a practical support. This study provides a ground to understand how Spanish public organizations measure and manage their intellectual capitals. In this sense, the first step is defining and promoting strategic goals of the organization and identifying important intangibles related to these goals. After that, a series of indexes is defined and developed for each intangible. State director's deal with intangible concepts; yet, there is no orderly method for identifying, measuring, and presenting such concepts. In order to encounter this problem, innovation initiatives of Spain in relation to the models of intellectual capital management for public organizations have been taken into consideration. A research titled "Intangible assets in higher education and research: mission, performance or both?" was conducted by Giustina *et al.* (2010) aiming to provide a framework for measuring the intangible properties in higher education and research institutes. In this research, the existing theories and practical experiences were reviews to form the model of an essential concept through combining the indexes. After that, this model was used to examine the mission of the intellectual capital and direct its performance with reference to missions of the education and research

organizations. Therefore, identifying and measuring intellectual capital is the operational priority of evaluating the alignment of strategic orientation and performance in such organizations. The series of indexes are assumed collective and can provide a useful ground for refining them and establish the relationship between indexes, strategic issues, and management. On the other hand is its practical application, where the series of indexes can be used as a means of communication and support the strategic decisions related to structural, social, and human capitals of education and research organizations. Another research titled "Intangibles in Universities Current Challenges for measuring and reporting" was conducted in 2009 by Leandro and Palom (2009), aiming to see if the mechanism used for evaluating and managing intangibles in companies can be used in universities and other research institutions. The research was presented as a review on specifications of evaluating intangibles and discussing application of similar frameworks in universities. Experiences of several universities are discussed in brief with reference to their external pressures, changes & evolutions, boundaries, and existing governing system. The findings show that some of the frameworks used in companies can be applied in universities as well. Since there are differences between managing and using intangibles in small universities and big universities, extending the results is the major limitation of this research. On the other hand, intellectual capital concepts are rarely used in analysis of the performance of universities, and this research is an attempt to fill this gap. Therefore, managing intellectual capitals in a knowledge-based society-like a university-which is the main producer of knowledge as a response to their activities is a new approach. So, the specifications of the intellectual capital framework are conceptually and practically effective in provision of user satisfaction, and aligned with the new social demands.

THEORETICAL FRAMEWORK OF THE RESEARCH

In this research, theories of Caba and Sierra (2001) on intellectual capital management including three aspects of human capital management, structural capital management, and relational capital management, and theory of Heresy & Goldsmith on the organizational performance including seven aspects of knowledge and skill, understanding and imaging, organizational support, tendency and motivation, performance feedback, acts of the staff, and environmental proportion are used as theoretical frameworks to evaluate the effects of intellectual capital management on organizational performance of taxation offices in North Khorasan Province.

Analytical model of the research: Considering the theoretical framework of the research, the analytical

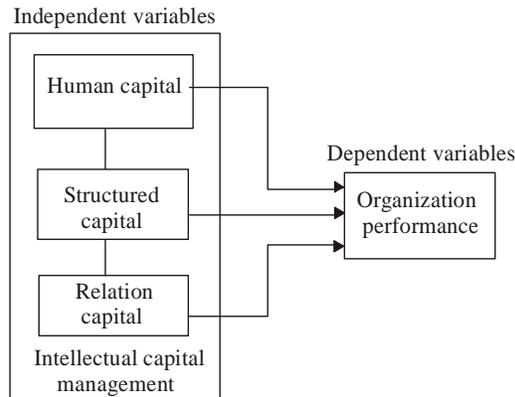


Fig. 1: Analytic model of the research

model of research (Fig. 1) and effects of independent variables on dependant variables would be as follows:

Research assumptions:

The main hypothesis: Managing intellectual capital has direct effects on the performance of taxation offices in North Khorasan Province.

Secondary hypotheses:

- Managing human capital has direct effects on the performance of taxation offices in North Khorasan Province.
- Managing structural capital has direct effects on the performance of taxation offices in North Khorasan Province.
- Managing relational capital has direct effects on the performance of taxation offices in North Khorasan Province.

RESEARCH METHODOLOGY

This research is a descriptive-survival research in terms of nature and methodology, and an implicational research in terms of the objective.

Statistical society and sampling method: Statistical society of this research includes all the official staff, contract staff, and contractors in various positions-other than managers-of taxation offices of North Khorasan Province. As declared by the provincial taxation headquarter, totally 170 persons work in the taxation offices of the 6 cities of North Khorasan Province (Table 1). For selecting the samples we used classified random sampling method. Each office in each city was considered a class, and then share of each class of the volume of statistical sample was calculated. Using Cochran formula, the size of statistical sample was estimated 125 persons. After that 145 questionnaires were

distributed amongst the staff and the 125 completed questionnaires were put into analysis.

RESEARCH FINDINGS AND RESULTS

In order to analyze the data collected from the completed questionnaires we used descriptive and deductive statistical methods. To describe the answers given to the questions of the research questionnaire we used abundance distribution tables and percentage of the answers related to each question. To show some statistical data in a harmonious way we used column graphs. In the deductive level, to verify the research hypotheses we entered the date in SPSS software after initial distribution of the questionnaires. Then, using Kolmogorov-Smirnov test we verified normality of the distribution of the data and the society, and therefore simple linear regression analysis parametric statistical test was used to work out the following findings:

The main hypothesis: This hypothesis was measured by 36 questions related to intellectual capital management, and 20 questions related to the organizational performance. Considering the result of regression analysis is of a significance level less than minimum 5%, the effect of intellectual capital management on organizational performance of the taxation offices in North Khorasan Province is certified. As assured by 95% the effects of managing human and relational capitals on performance of these organizations are 24 and 22%, while the structural capital management affects the variable by 15%.

Since the significance level of the related test is 0.000, which is smaller than 0.05, we may say that the above mentioned test is significant at certainty level of 95%. Therefore the hypothesis “H₀” is rejected. Also, the coefficient of determination “R²”, which is defined as the ratio of the changes described by the variable “X” to the total changes, suggests that about 18% of the dependent variable (organizational performance) changes is justified by the independent variable (intellectual capital management, human capital management, structural capital management, and relational capital management) changes (Table 2).

Secondary hypothesis 1: This hypothesis is measured by 12 questions about human capital management, and 20 questions about organizational performance. Considering the result of regression analysis, which is of the significance level of less than 0.05, the effect of human capital management on organizational performance of tax offices in North Khorasan Province is proved. Assured by 95% the effect of human capital management on organizational performance is 0.24.

Since the significance level of the related test is 0.000, which is smaller than 0.05, we may say that the

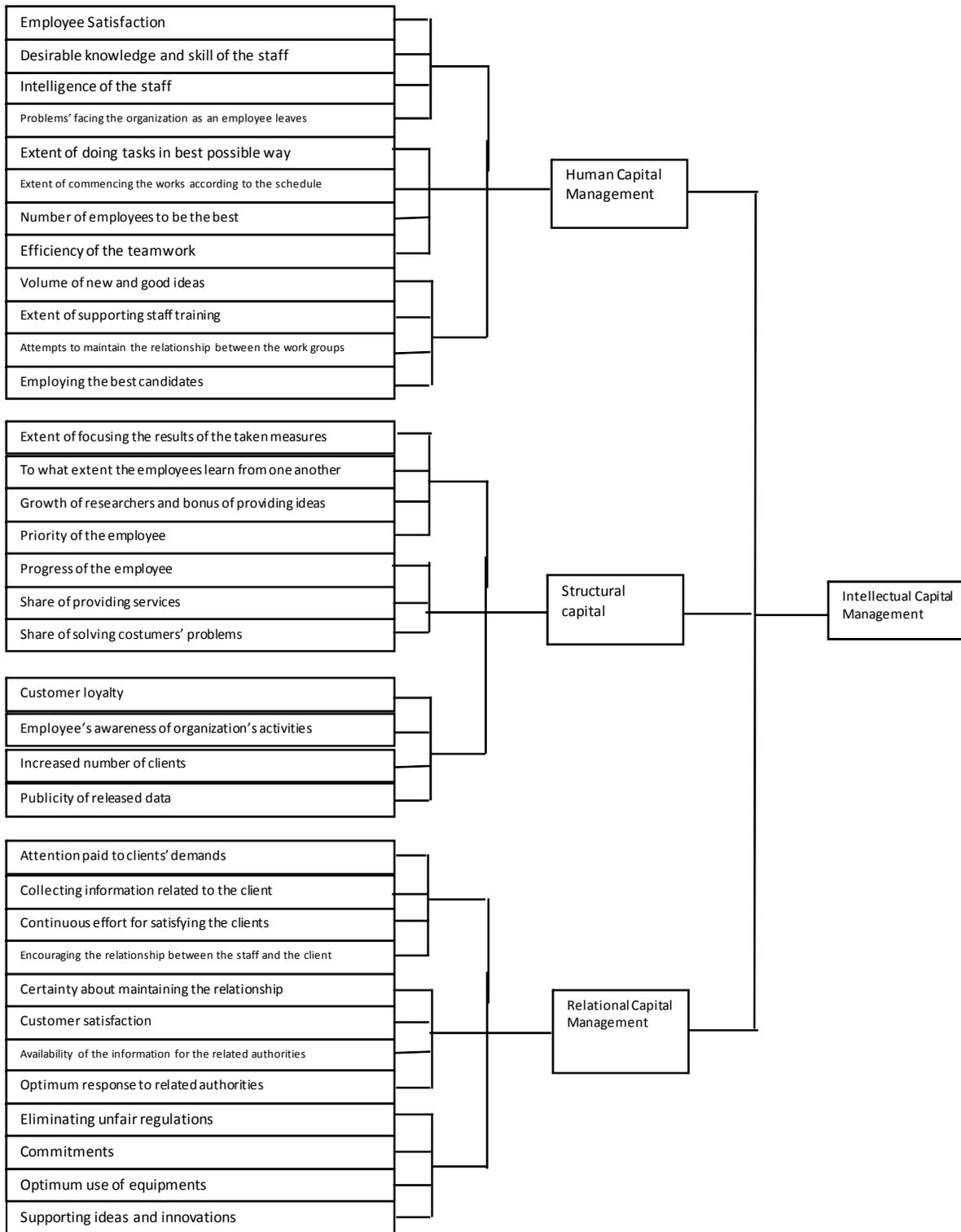


Fig. 2: Operational model of the research independent variable

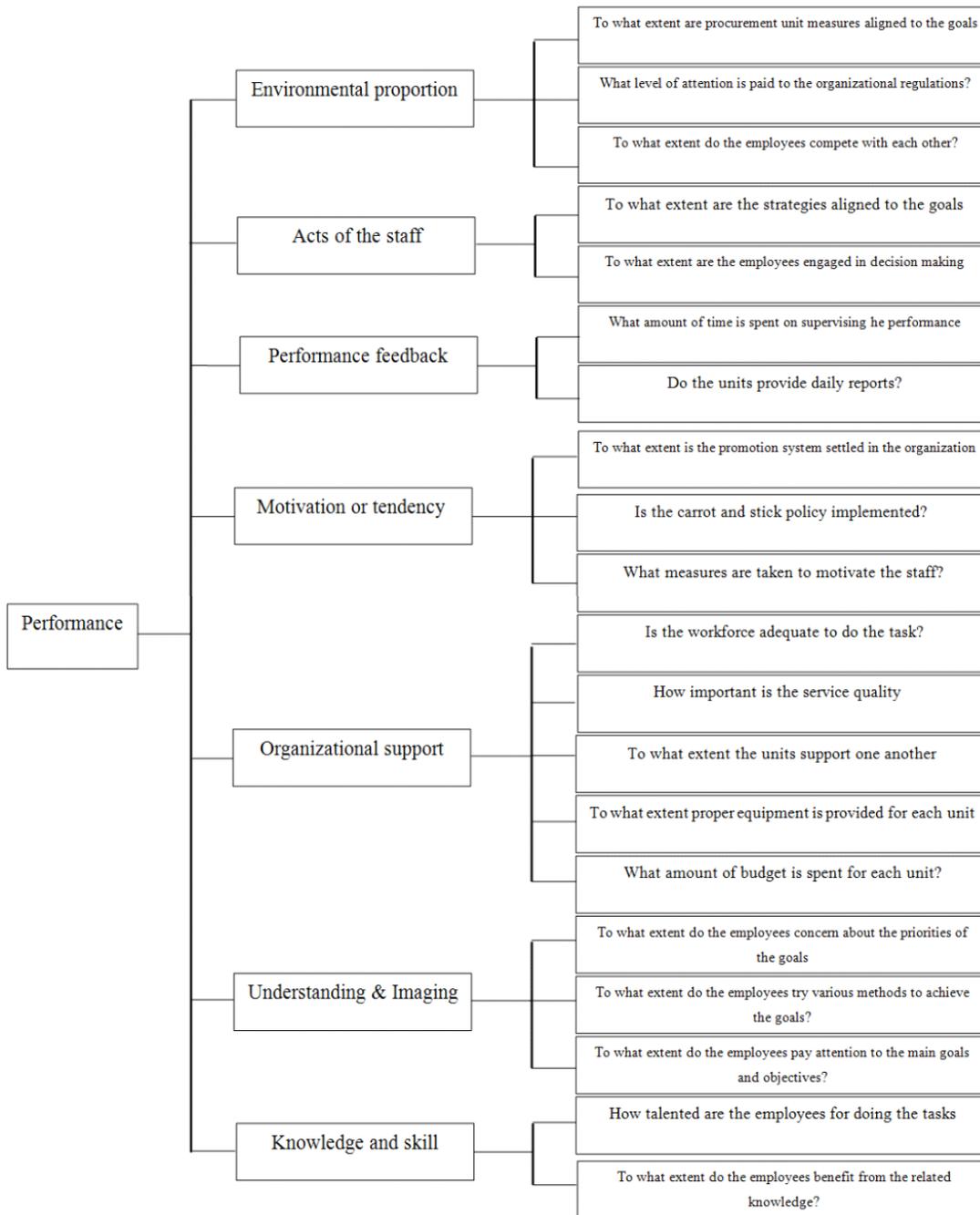


Fig. 3: Operational model of the research dependent variable

above mentioned test is significant at certainty level of 95%. Therefore the hypothesis “H₁” is proved. Also the coefficient of determination “R²”, which is defined as the ratio of the changes described by the variable “X” to the total changes, suggests that about 24% of the dependent variable (organizational performance) changes are justified by the independent variable (Human Capital Management) (Table 3).

Therefore, the model of regression between human capital management as the independent variable and organizational performance as the dependant variable in the taxation offices of N. Khorasan Province would be:

$$Y = 0.99 + 0.54X_1 \tag{1}$$

So, we may say that increasing the variable “human

Table 1: Statistics of the cities and number of staff of the taxation offices in N. Khorasan province

Office	Number of employees			Share of each class (%)	Number of samples
	Official & contract	Contractor	Total		
Bojnord	94	16	110	66	76
Shirvan	23	2	25	15	17
Esfarayan	19	3	22	12	15
Garme & Jajerm	3	2	5	2	4
Ashkhaneh	1	1	2	1	2
Faruj	4	2	6	4	4
Total	144	26	170	100	118

Table 2: Variance analysis of the main hypothesis, related to the regression model of intellectual capital management variable

Standard deviation	Balanced coefficient of determination	Coefficient of determination (R ²)	Coefficient of determination @)			
0.87	0.15	0.18	0.29			
Significance level	Certainty level	F	Average squares	Total squares	Level of freedom	Source of changes
0.000	0.95	42.28	33.90	33.90	1	Regression
Test result:			0.76	23.182	123	Balance
Hypothesis Rejected (zero)		-	-	14.216	124	Total

Table 3: Variance analysis of the main hypothesis, related to the regression model of human capital management variable

Standard deviation	Balanced coefficient of determination	Coefficient of determination (R ²)	Coefficient of determination @)			
0.89	0.12	0.24	0.35			
Significance level	Certainty level	F	Average squares	Total squares	Level of freedom	Source of changes
0.000	0.95	33.64	26.77	26.72	1	Regression
Test result: Hypothesis Rejected (zero)		-	0.79	189.26	123	Balance
		-	-	216.14	124	Total

Table 4: Parametric coefficients of the 1st secondary hypothesis, related to the human capital management

Test result	Significance level	Statistic "t"	Standard coefficient	Coefficient of regression β	Title of the variable
H ₀ Rejected	0.000	5.8	0.35	0.54	Human capital management (X ₁)
H ₀ Rejected	0.001	3.49	-	0.99	Width from the origin

Table 5: Variance analysis of the main hypothesis, related to the regression model of structural capital management variable

Standard deviation	Balanced coefficient of determination	Coefficient of determination (R ²)	Coefficient of determination @)			
0.9	0.1	0.15	0.32			
Significance level	Certainty level	F	Average squares	Total squares	Level of freedom	Source of changes
0.000	0.95	28.35	0.81	23	1	Regression
Test result: Hypothesis Rejected (zero)		-	0.81	193.13	123	Balance
		-	-	216.14	124	Total

Table 6: Parametric coefficients of the 2nd secondary hypothesis, related to the structural capital management

Title of the variable	Coefficient of regression β	Standard coefficient	Statistic "t"	Significance level	Test result
Structural capital management (X ₂)	0.46	0.32	5.32	0.000	H ₀ Rejected
Width from the origin	1.33	-	5.45	0.000	H ₀ Rejected

capital management' by one unit increases the organizational performance of the taxation offices in N. Khorasan Province by 0.54 units (Table 4).

Second hypothesis 2: This hypothesis is measured by 12 questions about structural capital management, and 20 questions about organizational performance. Considering the result of regression analysis, which is of the significance level of less than 0.05, the effect of Structural

capital management on organizational performance of tax offices in North Khorasan Province is proved. Assured by capital management on organizational performance of tax offices in North Khorasan Province is proved. Assured by 95% the effect of Structural capital management on organizational performance is 0.15.

Since the significance level of the related test is 0.000, which is smaller than 0.05, we may say that the above mentioned test is significant at certainty level of

Table 7: Variance analysis of the main hypothesis, related to the regression model of relational capital management variable

Standard deviation		Balanced coefficient of determination	Coefficient of determination (R ²)		Coefficient of determination @)	
0.87		0.15	0.22		0.39	
Significance level	Certainty level	F	Average squares	Total squares	Level of freedom	Source of changes
0.000	0.95	43.88	33.65	33.65	1	Regression
Test result: Hypothesis Rejected (zero)		-	0.76	182.48	123	Balance
			-	216.14	124	Total

Table 8: Parametric coefficients of the 2nd secondary hypothesis, related to the relational capital management

Test result	Significance level	Statistic "t"	Standard coefficient	Coefficient of regression β	Title of the variable
H ₀ Rejected	0.000	6.62	0.39	0.5	Relational capital management (X ₃)
H ₀ Rejected	0.000	4.6	-	1.08	Width from the origin

95%. Therefore the hypothesis "H₁" is proved. Also the coefficient of determination "R²", which is defined as the ratio of the changes described by the variable "X" to the total changes, suggests that about 15% of the dependent variable (organizational performance) changes is justified by the independent variable (structural capital management) (Table 5).

Therefore, the model of regression between structural capital management as the independent variable and organizational performance as the dependant variable in the taxation offices of N. Khorasan Province would be:

$$Y = 1.33 + 0.46X_2 \quad (2)$$

So, we may say that increasing the variable "structural capital management" by one unit increases the organizational performance of the taxation offices in N. Khorasan Province by 0.15 units (Table 6).

Second hypothesis 3: This hypothesis is measured by 12 questions about relational capital management, and 20 questions about organizational performance. Considering the result of regression analysis, which is of the significance level of less than 0.05, the effect of relational capital management on organizational performance of tax offices in North Khorasan Province is proved. Assured by 95% the effect of Structural capital management on organizational performance is 0.22 (Table 7).

Since the significance level of the related test is 0.000, which is smaller than 0.05, we may say that the above mentioned test is significant at certainty level of 95%. Therefore the hypothesis "H₀" is rejected. Also the coefficient of determination "R²", which is defined as the ratio of the changes described by the variable "X" to the total changes, suggests that about 22% of the dependent variable (organizational performance) changes is justified by the independent variable (relational capital management) (Table 8).

Therefore, the model of regression between relational capital management as the independent variable and organizational performance as the dependant variable in the taxation offices of N. Khorasan Province would be:

$$Y = 1.08 + 0.5X_3 \quad (3)$$

So, we may say that increasing the variable "relational capital management" by one unit increases the organizational performance of the taxation offices in N. Khorasan Province by 0.5 units.

CONCLUSION

The findings resulted by the main research hypothesis show that this hypothesis has been measured by 36 questions about intellectual capital management (Fig. 2) and 20 questions about organizational performance (Fig. 3). Considering the fact that results of the regression analysis are of significance level of less than 0.05, the effect of intellectual capital management on the organizational performance of the taxation offices in N. Khorasan Province is proved. Assured by 95%, the effects of human and relational capitals on the organizational performance are 0.24 and 0.22, while structural capital management affects the variable by 0.15. This result conforms to the results of the other researches in the research background. Yet, as shown by the analyses, less attention is being paid to this concept and its effects on the organizational performance, and since the existential philosophy of the banks (their rules and regulations) as financial institutes is different from that of the taxation offices which focus on providing services to the tax payers, and intellectual capital indexes are naturally different in these two types of organizations, differences are seen between the effects of intellectual capital management on performance of these organizations. Findings resulted by the 1st secondary hypothesis show that organizational performance of the taxation offices in N. Khorasan Province are affected by the method of managing human capital, and this result conforms to the results of other researches suggesting that human capital has effects on performance of Iranian organizations and generally on organizational development and economical growth, and that on the other hand management of this capital in quiet poor.

Findings resulted by the 2nd secondary hypothesis show that managing structural capital affects the

organizational performance. This result conforms to the results of other researches (See: Research Background) suggesting paying attention to the structural capitals, align the strategic decisions related to structural strategies to the organizational goals, and focus on accommodating proper structural capitals in the organizations. On the other hand, considering the state of development in Iran, and compared to other countries like Australia, structural capital in Iran is very low and in a different form. Findings of the 3rd hypothesis show that the organizational performance is affected by the optimum management of the relational capital. This result conforms to the results of other researches like that of Leandro and Palom (2009), stressing on satisfaction of client needs in the companies and their compatibility with the new social demands in order to improve the organizational performance. But, as the companies (private organizations) are naturally different from taxation offices (public organizations), adequate attention must be paid to adoption of the relational capital management models in these two types of organizations, and especially in the public sector.

REFERENCES

- Appuhami, R., 2007. The impact of intellectual capital on investors' Capital Gain on Shares: An empirical investigation in Thai banking, finance and insurance sector. *J. Internet Bank. Com.*, 12(1).
- Bontis, N., 1998. Intellectual capital: An exploratory study that develops measures and models. *Manage. Decis.*, 36(2): 63-76.
- Bontis, N., W. Chue Chong Keow and S. Richardson, 2000. Intellectual capital and business performance in Malaysian industries. *J. Intellect. Capital*, 1(1): 85-100.
- Bontis, N., 2001. Assessing knowledge assets: A review of the models used to measure intellectual capital. *Int. J. Manag. Rev.*, 3(1): 41-60.
- Bossi, A., Y. Fuertes and C. Serrano, 2005. Reflexiones en torno a la aplicación del capital intelectual en el sector public. *Revista Española de Financiación y Contabilidad*, 34(124): 211-245.
- Caba, C. and M. Sierra, 2001. Incorporación de un estado sobre el capital intelectual en los organismos públicos. *Actualidad Financiera*, 175: 59-74.
- Carlos, S.C., M.M. Cecilio and B.Q. Alexandre, 2003. The measurement of intangible assets in public sector using scaling techniques. *J. Intellect. Capital*, 4(2): 249-275.
- Chang, S.C., C. Sheng-Syan and L. Jung-Ho, 2008. The effect of alliance experience and intellectual capital on the value creation of international strategic alliances. *Omega*, 36: 298-316.
- Chen, J., Z. Zhu and H.Y. Xie, 2004. Measuring intellectual capital: A new model and empirical study. *J. Intellect. Capital*, 5(1): 195-212.
- Chen, G.P., 2005. Intellectual capital performance of commercial banks in Malaysia. *J. Intellect. Capital*, 6(3): 385-396.
- Chaharbaghi, K. and S. Cripps, 2006. Intellectual Capital: Direction, not Blind Faith. *J. Intellect. Capital*, 7(1): 29-42.
- Chin, C.M., S. Ju Cheng and Y. Hwang, 2005. An empirical investigation of the relationship between intellectual capital and firms' market value and financial performance. *J. Intellect. Capital*, 6(2): 159-176.
- Cohen, G., G. Kiss and M. Le Voi, 1993. *Memory: Current Issues*; Netherlands. Open University, Buckingham.
- Drucker, P.F., 1999. Knowledge-worker productivity: The biggest challenge. *Calif. Manage. Rev.*, 41(2): 79-94.
- Edvinsson, L. and P. Sullivan, 1996. Developing a model for managing intellectual capital. *Eur. Manage. J.*, 14(4): 356-364.
- Feiwal, G., 1975. *The Intellectual Capital of Michal Kalecki: A Study in Economic Theory and Policy*. University of Tennessee, Knoxville, TN.
- Garcia, M., 2001. *La informació n contable de los activos intangibles*. Unpublished Ph.D. Thesis, University of San Pablo, Madrid, Spain.
- Giustina, S., M. Alessandro, E. Gianluca and P. Giuseppina, 2010. Intangible assets in higher education and research: Mission, performance or both? *J. Intellect. Capital*, 11(2): 140-157.
- Guimet, J., 1999. Eficacia, eficiencia y gestión de lo intangible: El capital intelectual en las organizaciones y Administración Pública. *Revista Catastro*, 35: 49-59.
- Kamath, G. and R. Bharathi, 2008. Intellectual capital and corporate performance in Indian pharmaceutical industry. *J. Intellect. Capital*, 9(4): 684-704.
- Kujansivu, P. and A. Lönnqvist, 2005. The Value and Efficiency of Intellectual Capital in Finnish companies. *Workshop on Visualising, Measuring and Managing Intellect. Capital* (update January 23, 2006).
- Kujansivu, P. and A. Lönnqvist, 2007. Investigating the Value and Efficiency of intellectual capital. *J. Intellect. Capital*, 8(2): 272-287.
- Leandro, C. and M. Palom Sanchez, 2009. Intangibles in universities current challenges for measuring and reporting. *J. Hum. Resour. Costing Account.*, 13(2): 93-104.
- Lev, B., 2001. *Intangibles. Management, Measurement and Reporting*. Brookings Institution Press, Washington, D.C.
- Lu, W.M., *et al.*, 2009. Capability and Efficiency of Intellect. Capital: The case of fables' companies in Taiwan. *Expert Systems with Applications*, doi:10.1016/j.eswa.2009.05.031.

- Muammer, Z. and G. Sitki, 2008. Impact of intellectual capital on exportation performance: Research on the Turkish automotive supplier industry. *J. Transnational Manage.*, 13(4): 318-341.
- Nick, B., 1998. Intellectual capital: An exploratory study that develops measures and models. *Manage. Decis.*, 36(2): 63-76.
- Pew, T.H., D. Plowman and P. Hancock, 2007. Intellectual capital and financial returns of companies. *J. Intellect. Capital*, 8(1): 76-95.
- Pulic, A., 2000. MVA and VAICTM Analysis of Randomly Selected Companies from FTSE 250. Austrian Intellectual Capital Research Center, Graz-London.
- Roos, G. and J. Roos, 1997. Measuring your company's intellectual performance. *Long Range Plann.*, 30(3): 413-426.
- Stewart, T., 1997. *Intellectual Capital: The New Wealth of Organization*, Doubleday / Currency, New York.
- Wall, A., 2005. The measurement and management of intellectual capital in the public sector. Taking the lead or waiting for direction?" *Public Manag. Rev.*, 7(2): 289-303.
- Wang, J.C., 2008. Investing market value and intellectual capital for S&P500. *J. Intellect. Capital*, 9: 546-563.
- Yalama, A. and M. Coskun, 2007. Intellectual Capital performance of quoted banks on the Istanbul stock exchange market. *J. Intellect. Capital*, 8: 256-271.
- Yolanda, R., 2010. Intellectual capital models in Spanish public sector. *J. Intellect. Capital*, 11: 248-264.