

The Relationship between Intellectual Capital and Organizational Entrepreneurship Physical Education Departments at Universities in Kerman (A case study)

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Abstract

This study aimed to investigate the relationship between intellectual capital and organizational entrepreneurship in physical education departments at universities in Kerman. This was correlational field study. The population consisted of staff of physical education departments at universities in Kerman in 2014 (N= 103). All of them were selected as sample. The research tool included Bontis's Intellectual Capital Questionnaire (1998) and Yaghoobi's Organizational Entrepreneurship Questionnaire (2007); their validity was confirmed by Zarinkoub (2007) and Yaghoobian (2007) and their reliability was estimated to be 0.94 and 0.90, respectively. Using SPSS, the descriptive statistics and inferential statistics (one sample t-test, correlation coefficient) were used for analyzing the data. The findings showed that the intellectual capital explained 65% of variance in organizational entrepreneurship of staff in physical education departments at universities in Kerman. The final research model had good fitness. The organization may improve its intellectual capital to develop its organizational entrepreneurship.

Key Words:

Intellectual Capital, Entrepreneurship, Physical Education Departments at Universities.

Introduction

As a new phenomenon in economy, today, the entrepreneurship plays an important role in economic development and progress of countries. The attention to entrepreneurship has increased the dynamism, productivity, value of work, and effort spirit in society. The entrepreneurship encourages the people to do creative and entrepreneurial activities and this leads to growth and development in community. The entrepreneurship is the foundation of development. It creates economic and spiritual values for individuals, organizations, and society at national and international levels, has many economic, social, cultural, and political consequences, and may solve many challenges of society. Along with the influence of bureaucracy on

corporate culture in 1960s and 1970s, the entrepreneurship was increasingly considered by senior managers in large organizations to invent, innovate, and commercialize their new products and services (Heidari et al, 2011, 30).

Schumpeter states that the major corporate entrepreneurship activities include development of new goods and services, introduction of new production techniques, identifying new markets, finding new resources, and development and improving the organization (Samad Aghayi, 1999, 20).

Today, more than ever, it is necessary that the organizations use their intangible assets to differentiate themselves. Like other capitals, therefore, the intellectual capital provides a perfect platform to access opportunities and life goals and is an important source of social and organizational success (Abolhasani et al., 2012). The intellectual capital refers to organizational or individual knowledge which leads to sustainable competitive advantage in organization and is a result of all employees' abilities aggregation in organization. In other words, the intellectual capital is defined to be a strategic asset of organization which differentiates the products and services of an organization from other organizations (Zou & Huan, 2011, 5009-5001). In fact, the intellectual capital is a unique collection of tangible and intangible resources in organization. Also, it refers to changes in these tangible and intangible resources (Seetharaman et al. 2002, 148-128). According to Konig, the new thing in concept of intellectual capital is not recognizing the value and importance of knowledge, but finding ways to measure knowledge (Qelichli & Moshabaki, 2006, 147-125). Investigating the literature of intellectual capital, in fact, it seems that most models of intellectual capital have tried to consider three dimensions of 1) human capital 2) structural capital, and 3) relationship capital as common features for intellectual capital. The human capital refers to capabilities, skills, and expertise of human resources (Malcolm, 2000). The most important human capital indicators include professional qualifications of key personnel, education, experience, number of participants with relevant background, and exact distribution of responsibilities in relation to clients

(Rodov & Leliaert P 2002, 336-323). This capital mainly focus on systems which create value for enterprises (Herremans & Isaac, 2011, 640-627). Due to wide extent of intellectual capital concept, the researchers in this field have agreed on three dimensions of intellectual capital including human capital, structural capital, and relationship capital. The human capital is one of the main dimensions of intellectual capital and includes all capabilities of people and knowledge, skills, and experience of employees and managers (Cardo 2011, 1080-1098). The structural capital refers to anything that exists in organization and supports the staff (human capital) in their works. The structural capital is owned by organization; even when employees leave the organization, it exists (Lopez, 2008, 36-25). The structural capital is also a function of human capital. The capital structure may help the support staff to achieve optimal mental performance and also optimal business performance. Thus, the structural capital and human capital interact to help organizations to shape, develop, and apply clients' capital (Qelichli & Moshabaki, 2006, 147-125). The relationship capital is another dimension of intellectual capital which includes organization's ability to interact positively with members of business community and motivates the generation of wealth through improved human and structural capitals. The relationship capital includes the relationship of organization with customers, customer loyalty, distribution channels, partners, and etc. This dimension of intellectual capital includes social capital and external structure (Mousavi et al., 2013, 80).

Several studies have been conducted on intellectual capital and organizational entrepreneurship such as (Impact of intellectual capital components on organizational entrepreneurship in agricultural consulting, technical, and engineering services companies in Zanjan) (Rezai, 2014); (Impact of intellectual capital on organizational innovation in agricultural service companies in Zanjan) (Rezai, 2014); (Role of intellectual capital in organizational entrepreneurship) (Salar & Yaghoubian, 2013); (The relationship between intellectual capital and organizational entrepreneurship in Midko Company) (Zare Harofteh, 2014); (The relationship between intellectual capital and organizational entrepreneurship of staff in Economic and Finance Affairs organization in Tehran) (Abolhasani, 2013); (Analyzing the impact of information technology and intellectual capital on corporate entrepreneurship) (Akbari et al. 2012); (Impact of servant leadership style and intellectual capital on corporate entrepreneurship) (Hosseinpur & Ahupay, 2013); and (The relationship between intellectual capital and organizational entrepreneurship in various organizations and institutions) (Shekari & Shafayi Roya, 2014; Chopani et al 2012, Safari and colleagues, 2014; and Abzari et al, 2012). All of

these studies acknowledged that there is direct positive correlation between intellectual capital and organizational entrepreneurship. However, Akbari and colleagues (2012) showed that although the dimensions of intellectual capital has a significant impact on entrepreneurship, the impact of intellectual capital on organizational entrepreneurship is weak. These studies empower organizations and institutions to organize themselves and achieve targeted innovation and entrepreneurship. The emergence of new competitors, development of new markets of technology and information, loss of inventive and creative workforces, loss of opportunities, and etc. are factors which intensify the need for entrepreneurship in organizations. The innovation and deliver of new products have been accelerated such that have forced manufacturers of advanced technologies to have innovation and entrepreneurship in order to survive (Mozaffari, Malekabadi, 82: 2010). In this regard, the efficient intellectual capital may explain the need for entrepreneurship more than ever.

The physical education departments of universities may be considered as one of the most influential organizations to fill the leisure time of students and staff and enrich the educational sector at universities. Since the needs of organizations and individuals change over time, it is important to generate new ideas, have innovations, employ efficient human resources, create good relations with customers (students), and encourage them to continue physical activities. Since the relationship between intellectual capital and organizational entrepreneurship in studied population is not considered in previous studies, however, this study aims to investigate the relationship between intellectual capital and organizational entrepreneurship at physical education departments of universities in Kerman.

Methodology:

This was descriptive-correlational applied field study. The population consisted of staff of physical education departments at universities in Kerman in 2014 (N= 103). All of them were selected as sample. The research tool included Bontis's Intellectual Capital Questionnaire (1998) and Yaghoubi's Organizational Entrepreneurship Questionnaire (2007); their validity was confirmed by Zarinkoub (2007) and Yaghoubian (2007) and their reliability was estimated to be 0.94 and 0.90, respectively. Using SPSS and Smart PLS, the descriptive (frequency, mean and median) and inferential (Kolmogorov-Smirnov test, one-sample t-test, and structural equation modeling) statistics were used for analyzing the data.

Findings:

The analysis of data showed that in terms of gender, 63.1% were male and 36.9% were female; in terms

of marital status, 87.6% were married and 21.4% were single; in terms of age, the highest percentage was for 30-39 years old and lowest percentage was for 50-59 years old; in terms of work experience, the highest percentage was for 6-10 years (35%) and lowest percentage was for above 16 years (18%); in terms of education level, 57.3%, 5%, 34%, and 3.7% had master, PhD, bachelor, and associate degrees, respectively; also, 66% had physical education degree and 34% had non-physical education degree.

Table 1: Results of investigating intellectual capital and its dimensions, and organizational entrepreneurship and its dimensions, Test Value= 3

Variable	t-value	df	Sig t	Mean difference	Mean	upper	Lower
Intellectual Capital	8.002	102	0.001	0.650	3.650	0.811	0.489
Human Capital	3.649	102	0.001	0.399	3.339	0.524	0.155
Structural capital	2.362	102	0.020	-0.243	2.757	-0/038	-0.466
Relationship capital	3.867	102	0.001	0.340	3.339	0/514	0.165
Entrepreneurship	6.690	102	0.001	0.340	3.339	0.440	0.239
Innovation and development	3.434	102	0.001	0.611	3.611	0.757	0.466
Improved efficacy	5.432	102	0.001	0.339	3.339	0.463	0.215
Customer satisfaction	5.570	102	0.001	0.339	3.339	0.460	0.218
Job Satisfaction	4.291	102	0.001	0.401	3.407	0.596	0.219

According to table 1, there is significant difference between scores obtained from research variables and their dimensions and test score. The positive sign of upper limit and lower limit scores shows that the mean of studied variables and dimensions is more than test score. So, the study variables, except structural capital, are at a high level in studied population. Despite significant difference with test score and due to its negative sign in upper and lower limit, the score of structural capital is lower than test score.

Table 2: Relationship between intellectual capital and its dimensions and organizational entrepreneurship among staff in physical education departments of universities in Kerman

Predictor	Sample	Sig	Coefficient
			Correlation

variable		coefficient	determination
Intellectual Capital	103	0.001	0.801
Human Capital	103	0.001	0.782
Structural capital	103	0.001	0.598
Relationship capital	103	0.001	0.798

According to table 2, the Pearson's correlation coefficients between intellectual capital and organizational entrepreneurship and its dimensions showed that there was significant correlation between intellectual capital and its dimensions and organizational entrepreneurship of staff in physical education departments of universities in Kerman. The coefficient of determination showed that there is 64%, 61%, 36%, and 63% sharing between intellectual capital and its dimensions and organizational entrepreneurship of staff in physical education departments of universities in Kerman.

Table 3: Impact of intellectual capital on organizational entrepreneurship of staff in physical education departments of universities in Kerman

Criterion variable	Predictor variable	Standard beta coefficient	Standard deviation	Beta coefficient	t-value	Sig.
Organizational entrepreneurship	Constant	-	0.333	-1.172	-3.515	0.001
	Intellectual Capital	0.01	0.99	0.336	13.469	0.001
F=181.423		sig=000		R2 =0/642	R2 adj=0/639	

According to table 3, the intellectual capital impacts on organizational entrepreneurship of staff in physical education departments of universities in Kerman. The regression model explains 64% of variance in organizational entrepreneurship.

Table 4: Impact of intellectual capital dimensions on organizational entrepreneurship of staff in physical education departments of universities in Kerman

Criterion variable	Predictor variable	St.beta coefficient	St.dev	Beta coefficient	t-value	Sig. level
Organizational entrepreneurship	Constant	-	.377	-.704	-1.868	*/065
	Human Capital	.381	.159	.534	3.354	*/001***
	Relationship capital	.453	.147	.593	4.043	*/001***
	Structural capital			.025	.301	*/764
Variables removed from regression equation						
F= sig=000				R =0/813		R2 adj=0.662

The regression results show that since the significance level of structural capital is different from the standard mode, it is removed from the model. Therefore, the relationship capital and human capital have the highest impact on organizational entrepreneurship, respectively. In other words, the human capital and relationship capital explain 66% of variance in organizational entrepreneurship.

Discussion and conclusion:

This study aimed to investigate the impact of intellectual capital on organizational entrepreneurship of staff in physical education departments of universities in Kerman. The findings showed that the intellectual capital and its dimensions and organizational entrepreneurship and its dimensions are in good condition; the structural capital was in weak condition. The findings also showed that the intellectual capital has significant positive impact on organizational entrepreneurship of staff in physical education departments of universities in Kerman (0.65). Also, the dimensions of intellectual capital have a significant impact on organizational entrepreneurship of staff in physical education departments of universities in Kerman. The human capital and relationship capital explain 66.2% of variance in organizational entrepreneurship. The findings showed that all three dimensions of intellectual capital have a significant impact on organizational entrepreneurship. It was argued the investment to improve and develop intellectual capital of staff in physical education departments of universities may have positive impact on organizational entrepreneurship. These are consistent with findings of Salar and Yaghubian (2012), Rezaei Doulatabadi (2012), Hussein et al (2012), Hosseinpour and Ahoupay (2013) Abolhasani et al (2012), Zare Harofteh (2014), Shekari and Shafaei Roya (2014), Choupani and colleagues (2012), Safari and colleagues (2014), and Abzari et al (2012); this is probably due to similarity in studied population. According to findings, it can be said that paying attention to intellectual capital management may develop organizational innovation. This is inconsistent with findings of

Akbari (2012) and Eldojaili (2012); they showed that the customer capital have no significant impact on organizational innovation. This inconsistency is probably due to differences in technology, publications, organizations, and processes of studied population. Since modern countries pay special attention to economy and management knowledge, economy-oriented entrepreneurship, and entrepreneurs, the improvement of entrepreneurship and creating a favorable environment for its development may cause dramatic growth, success, and excellence in organizations and act as a tool for economic development of countries, especially developing countries. Since most of the corporate policies are formulated for entrepreneurship development, the entrepreneurial activities in organization in the light of strengthening intellectual capital may lead to achieving goals such as increased profitability, strategic renewal, fostering innovation, knowledge acquisition for future, international success, more effectiveness, increased efficiency, development of competitive advantage, and improvement of overall performance of organization. Considering the research findings about the impact of intellectual capital on organizational entrepreneurship, as one of the organization's valuable resources, it is very significant that future studies investigate the role of mediating variables which may promote the impact of intellectual capital on organizational entrepreneurship predominantly.

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