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Research Article

THE RELATIONSHIP BETWEEN INTELLECTUAL CAPITAL, ORGANIZATIONAL LEARNING, AND ORGANIZATIONAL LEARNING: A STUDY OF PE TEACHERS IN TEHRAN

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ABSTRACT
The purpose of this study was to examine the relationship between intellectual capital, organizational culture, and organizational learning in physical education (PE) teachers. The population of this survey consisted of 1500 PE teacher of which 306 were randomly selected as the sample based on Krejcie and Morgan's (1970) table. Data were collected using the Intellectual Capital Questionnaire of Bontis (1998), the Organizational Culture Inventory of Robbins (1996), and the Organizational Learning Questionnaire of Neefe and Furst-Bowe (2001). Data were analyzed in SPSS using Kolmogorov-Smirnov test of normality and Spearman correlation. The results showed that there is a significant relationship between intellectual capital and organizational learning. Moreover, organizational culture was significantly associated with organizational learning. Intellectual capital and organizational learning also had a significant effect on the components of organizational learning. Therefore, it be concluded that improving intellectual capital and organizational culture can promote organizational learning. Implications for research and practice are provided.

Keywords: *Organizational Learning, Organizational Culture, Intellectual Capital*

INTRODUCTION
Intellectual capital is the intangible value of an organization, which is distinct from its physical assets. During the last century the share of physical capital from the economy of advanced countries has been decreasing, while the share of human capital has increased. Different types of capital are considered input in the process of producing goods and services, but human capital has a more complex role in this process (Aggestam, 2006). It is regarded as the most important source of competitive advantage (Bhusare, 2013).
Organizations need information and knowledge to be able to have a share in today's markets and improve their performance (Harvey and Denton, 1999). Organizational culture is an important concept in knowledge management and organizational behavior. It includes the values and behaviors that contribute to the social and psychological environment of an organization. Organizational culture is gaining increasing importance and has become a central topic in management. It is one of the most important factors in organizational development, and many researchers have attributed Japan's success in industry and management to their consideration of organizational culture (Bontis, 1998).
Development of knowledge and technology and expansion of businesses have created a competitive environment with new paradigms where survival is a major challenge. Harvey and Denton (2002) argued that the requirement for change in the business environment is the realization that knowledge is the most important factor in organizational learning. The culture of competition, welcoming new ideas, risk taking, and employee participation in decision making are the factors underlying organizational learning. Brandt and Jones (2009) examined the relationship between organizational culture and knowledge management in a manufacturing environment. They showed that manufacturers can improve their businesses by adopting a formal knowledge management program.
Ahmadian and Ghorbani (2013) investigated the relationship between intellectual capital and organizational performance. The results showed that the components of intellectual capital are significantly associated with performance. Daneshfard and Shahabinia (2010) defined organizational culture as the sum of shared beliefs and values that influence organizational behavior and can promote or

hinder development. The present research tries to find whether intellectual capital and organizational culture are associated with organizational learning in a sample of physical education teachers in Tehran.

MATERIAL AND METHODS

Methods

The present research was a descriptive survey. The population consisted of all the PE teachers in Tehran (N = 1500) of which 306 were randomly selected as the sample based on Krejcie and Morgan's (1970) table. Data were collected using the following instruments:

- Intellectual Capital Questionnaire of Bontis (1998) with 52 items rated on a 5-point Likert scale that measure 3 subscales: human, capital, and relational capital
- Organizational Culture Inventory of Robbins (1996) with 56 items rated on a 5-point Likert scale that measure 9 components
- Organizational Learning Questionnaire of Neefe and Furst-Bowe (2001) with 31 items rated on a 7-point Likert scale that measure 5 dimensions: shared vision, team learning, personal mastery, mental models, and systems thinking.

Data were analyzed in SPSS using Kolmogorov-Smirnov test of normality and Spearman correlation.

RESULTS AND DISCUSSION

Results

Based on descriptive statistics, the highest frequency belonged to female respondents (50.7 percent), aged 30-50 years (47.4 Percent), and with bachelor's degree (44.1 percent). Given the non-normal distribution of data, non-parametric tests were used for analysis.

Table 1: Correlation matrix

Variables		**Spearman Test**		
		Rho	**Sig.**	**N**
Intellectual Capital	Organizational Learning	0.682	0.001	306
Organizational Culture	Organizational Learning	0.742	0.001	306
Intellectual Capital	Personal Mastery	0.581	0.001	306
Intellectual Capital	Mental Models	0.604	0.001	306
Intellectual Capital	Shared Vision	0.568	0.001	306
Intellectual Capital	Team Learning	0.660	0.001	306
Intellectual Capital	Systems Thinking	0.614	0.001	306
Organizational Culture	Personal Mastery	0.593	0.001	306
Organizational Culture	Mental Models	0.672	0.001	306
Organizational Culture	Shared Vision	0.681	0.001	306
Organizational Culture	Team Learning	0.701	0.001	306
Organizational Culture	Systems Thinking	0.736	0.001	306

Strong positive correlations were observed between all the components. To examine the effect, the accuracy of the regression model is analyzed (Table 2).

Table 2: Regression validation

Hypothesis	SE	Adjusted R^2	R^2	Correlation Coefficient
H1	3.32052	0.646	0.465	0.682
H2	4.01675	0.550	0.550	0.742
H3	2.41874	0.337	0.337	0.581
H4	2.5457	0.361	0.3644	0.604
H5	2.5574	0.321	0.322	0.568
H6	2.8994	0.435	0.435	0.660
H7	2.4014	0.376	0.376	0.614
H8	2.3114	0.350	0.351	0.593
H9	2.5287	0.450	0.451	0.672
H10	2.8757	0.461	0.463	0.681
H11	2.8794	0.491	0.491	0.701
H12	2.5517	0.540	0.541	0.736

The coefficient of determination (R^2) indicates that about 46% of changes in intellectual capital can be explained by organizational learning and 55% of organizational learning can be explained by organizational culture. Moreover, intellectual capital explains 33% of variance in personal mastery, 36% of variance in mental models, 32% of variance in shared vision, 43% of variance in team learning, and 37% of variance in systems thinking. Also organizational culture explains 35% of variance in personal mastery, 45% of variance in mental models, 46% of variance in shared vision, 49% of variance in team learning, and 54% of variance in systems thinking.

Table 3: Regression coefficients

Model	Non-Standardized Coefficients	Standardized Coefficients		t	Sig.
	Beta	SE	B		
Constant	-	1.518	13.469	8.872	0.000
H1	0.646	0.081	0.316	3.929	0.000
H2	0.550	0.097	0.408	4.186	0.000
H3	0.337	0.052	0.328	4.615	0.000
H4	0.361	0.112	0.548	3.985	0.000
H5	0.321	0.542	0.535	2.925	0.000
H6	0.435	0.554	0.225	4.825	0.000
H7	0.376	0.468	0.385	4.445	0.000
H8	0.350	0.369	0.585	3.695	0.000
H9	0.450	0.389	0.975	4.987	0.000
H10	0.461	0.498	0.787	5.557	0.000
H11	0.491	0.597	0.689	5.527	0.000
H12	0.540	0.456	0.789	5.958	0.000

These data show the amount of change in the dependent variable for a unit change in each independent variable. The t-values show that independent variables are significant predictors of the dependent variable.

Discussion and Conclusion

Extensive research on organizational learning has laid the foundation for the concept of learning organization. A learning organization facilitates the learning of its members and continuously transforms itself. Organizational learning is gaining increasing importance in organizations that are concerned about

competitive edge, innovation, and efficacy. A learning organization has five characteristics, i.e. systems thinking, personal mastery, mental models, a shared vision, and team learning.

The purpose of this research was to investigate the relationship between intellectual capital, organizational culture, and organizational learning in physical education (PE) teachers. The results showed significant correlations between intellectual capital and organizational learning, between organizational culture and organizational learning, and between intellectual capital and the components of organizational learning (i.e. systems thinking, personal mastery, mental models, a shared vision, and team learning). Our findings are in line with the results of previous studies. In the age of knowledge, organizations are faced with environments that are becoming more and more dynamic and challenging. Based on the present findings, organizations that have developed a strong learning culture are good at creating, acquiring, and transferring knowledge and at modifying behavior to reflect new knowledge. Also creation of intellectual capital is a critical component of an organization's ability to learn and adapt. Accordingly, managers are recommended to pay attention to intellectual capital in their organizations, as it is an important requisite for enhancing personal mastery and mental models and promoting team learning and systems thinking. This allows for better learning and becoming a "learning organization". Future research can examine these relationships in different groups.

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