

THE SURVEY OF RELATIONSHIP BETWEEN CAPITAL INTELLECTUAL MANAGEMENT AND RISK MANAGEMENT OF NORTH KHORASAN (AUTOSAVED)

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ABSTRACT

The present study aims at studying the relationship between intellectual capital management and Red Crescent Staff crisis management in North Khorasan during years 1392-93. The applied method of the survey is correlation. The sample of the survey includes 155 people of directors and staff of the Red Crescent of North Khorasan. The applied instrument in the survey to determine the correlation between intellectual capital management and crisis management are two standard questionnaires of intellectual capital management and crisis management. In order to analyze the data, first the demographics of the sample were examined and descriptive variables were analyzed; then the correlation matrix, regression parameters were used. The findings in the main hypothesis show 95 percent of confidence in the relationship between intellectual capital management and crisis management. Also, between the components of intellectual capital management including: bridging social capital, organizational capital and human capital and Crisis management, there is a relationship of 95 percent. Correlation coefficient of the regression results indicate that the regression coefficient of bridging social capital is higher than human capital.

KEYWORDS: Intellectual Capital, Crisis Management, Organizational Capital, Bridging Social Capital, Human Capital

In recent years, various organizations have begun to join the knowledge process and new concepts such as knowledge working, knowledge worker, knowledge management and knowledge-based organizations, indicate the intensification in this process. Peter Drucker (1988), one of the management scientists, using these words, offer a new kind of organizations in which the strength of mind governs rather than arm strength; where intellectual capital is the most valuable asset and physical assets such as machinery, are less important. He believes that in knowledge based organizations, not only the main source of production (knowledge), but also the means of production (minds) are under the control of the workers. According to this theory, in the future, those communities who own the higher knowledge can expect development (Hasnavi, Ramezan. 1390). Bontis believes that intellectual capital is the attempt to make effective use of the knowledge in contrary to information (raw material) (Bontis, 2004). Paying attention to and using the concept of intellectual capital is coincided with the spread of globalization and especially international trade in the 1990s. Thus, paying attention to the role of intellectual capital in different sectors is a new phenomenon. Although, the concept was first used in 1969, but until the expansion of global trade to the domain of knowledge, negligible attention was paid to that. To sum up, this theoretical construct represents the first specific noncommercial patterns that many organizations have adopted to evaluate their qualitative and quantitative

progress (Montazerghaem, 1389). More than anything else, this study aims at finding the relationship between intellectual capital and crisis management. To do so, in the present study, intangible assets of the organization is defined using the theoretical construct (intellectual capital) and its impact on the crisis management of the Red Crescent staff and the research process and its results are investigated.

HYPOTHESES OF THE STUDY

Main Hypothesis

There is a significant relationship between intellectual capital and crisis management of Red Crescent Staff of North Khorasan.

Sub-hypotheses

- 1- There is a significant relationship between Human capital and Crisis management of Red Crescent Staff of North Khorasan.
- 2- There is a significant relationship between Structural capital and Crisis management of Red Crescent Staff of North Khorasan.
- 3- There is a significant relationship between Bridging Social capital and Crisis management of Red Crescent Staff of North Khorasan.
- 4- Human capital has a greater role in crisis management of Red Crescent Staff of North Khorasan than bridging social capital.

Variables of the study

Independent Variable: variable is an inside stimuli which is measured, manipulated or selected by the researcher to find its effect on or its relationship with another variable. In other words, this variable is the introduction and the dependent variable is the outcome (Delavar, 1390). In this study, since it is intended to survey the different aspects of intellectual capital and its impact on crisis management from different points of view, so, intellectual capital is regarded as the independent variable.

Dependent variable: response variable, output or criterion which is an aspect of an organism's behavior that is stimulated. The dependent variable is observed or measured to ascertain and determine independent variable's effect on it. This variable is predicted by means of independent variable. In this study, crisis management is affected by the aspects of intellectual capital. Thus, crisis management is the dependent variable.

Control Variable: refer to factors the effect of them on the dependent variable are neutralized or eliminated by the researcher. In the present study, the location of the staff, North Khorasan province, is defined as the control variable.

Moderator Variables: in the present study, variables such as age, gender, work experience, and qualification are moderating variables.

REVIEW OF THE RELATED LITERATURE

Shahriari, Shiva (1388) studied the effect of the components of intellectual capital on the organizational performance of Saderat Bank branches in Tehran. The findings showed the following results:

- There was a significant relationship between human capital and costumer capital.
- There was a significant relationship between human capital and structural capital.
- There was a significant relationship between costumer capital and structural capital.
- There was a significant relationship between costumer capital and organizational performance.
- There was a significant relationship between structure capital and organizational performance.
- There was no significant relationship between human capital and organizational performance.

In addition, to rank the components of the intellectual capital, Friedman test was used in this study. Basthaei (1388) investigated the effects of intellectual capital on the organizational performance within the branches of Mellat Bank in Tehran and concluded that despite the lack of reflection of this capital, intellectual capital had a significant effect on organizational performance. Flippa Lopez Das (2010) also in his study has addressed this issue that human capital management has always drawn the attention of concerned researchers. Managers have spent a lot of time to find the best way to convert the human capital to money. In the science world of today, recognition and identification of vectors and frameworks of the intellectual capital related to the organizational technologies is necessary and required.

METHODS

In terms of the nature and methodology, the present study is correlational survey. The population of the study consists of all employees of North Khorasan Red Crescent including all state and private employees working in years 92-93. Based on the organizational classification, the population is comprised of staff and manager, according to official statistics of North Khorasan Red Crescent, the total number of which is 260 people. Sample size in this study, based on the findings obtained from the standard table of Krejcie Morgan, which is approved by the experts of statistics and regarding the number of statistical population ($n= 260$), is considered as 155 people. In this sampling, since each study class is equal to any class of society, the researcher is confident that sufficient sample is selected in each class (Hassanzadeh, 1385). In the present study, to collect data, a questionnaire comprising three sections is used. The first section relates to the ID of the questionnaire that includes gender, education, work experience, position, place of employment, and marital status. The second part which is related to the intellectual capital questionnaire consists of 54 questions including the components of human capital (1-20), structural, and bridging (21-37) and the third part, comprising 25 questions, (38-54) is related to the organizational crisis management.

DATA ANALYSIS

Data collection instruments of this study are two standard questionnaires which are prepared based on variables and research hypotheses. After collecting the needed data and summarizing and converting them to the numeric quantities, they were analyzed by means of the

tables consisting the percentage and types of responses. Moreover, the descriptive and inferential statistical methods were used for data analysis.

PROCEDURE

The data was recorded by means of SPSS 19 statistical software. The data then was divided into two parts: descriptive and inferential. In the descriptive data analysis, the researcher summarizes and classifies the collected data by means of descriptive statistics (Hassanzadeh, 1385). Also, in descriptive analysis, the data is plotted as frequency tests, percentage, statistical tables and graphs to explain the status of statistical population in terms of demographic variables. In the inferential statistical test, Pearson correlation and regression are used.

Table 1: Descriptive Parameters of Variables

	Human Capital	Bridging Capital	Structural Capital	Total Intellectual Capital	Crisis Management
Minimum Score	22	28	19	69	30
Maximum Score	63	80	63	202	100
Mean	46.41	58.64	445.92	151.38	67.77
Standard Deviation	7.19	8.93	7.56	21.48	13.49

The descriptive variables shown in table 1 indicate that bridging capital among three intellectual capital patterns has the highest mean (M= 58.64). In the second place is human capital (M= 46.41) and at the end is the structural capital (M= 45.92).

Hypotheses findings

In the present study, since the variables of intellectual capital and crisis management are at interval scale, to meet the research hypotheses, Pearson’s Correlation Coefficient is used. The amount of this coefficient ranges between -1 and +1. The correlation coefficient is positive when the relationship between variables is positive. In other word, if one variable increases, the other increases too. When the correlation coefficient is negative, it means that the relationship between two variables is reversed; in other words, if one of the two variables decreases, the other variable increases. Whatever the absolute value of the correlation coefficient is close to one, the stronger the correlation. In this study also regression is used to meet the hypotheses.

Research hypotheses will be discussed by means of statistical methods as follows:

Correlation Analysis

Correlation analysis is a statistical tool for determining the type and degree of relationship of a quantitative variable with another quantitative variable. The correlation coefficient is one of the criteria used to determine the correlation between two variables. The correlation coefficient shows the intensity of the relationship and also the type of the relationship (direct or inverse). This coefficient ranges between -1 to 1 and in the case of absence of a relationship between two variables, this value will be zero.

RESULTS

Descriptive parameters including minimum and maximum scores, mean and standard deviation of variables are shown in table 1.

The main hypothesis: there is a meaningful relationship between intellectual capital and crisis management orientation in North Khorasan Red Crescent.

There is no relationship between intellectual capital and crisis management. $H_0 = \rho = 0$

There is a meaningful relationship between intellectual capital and crisis management. $H_1 = \rho \neq 0$

In order to respond to this hypothesis, the Pearson Correlation Coefficient is used, the results of which are presented in table 2.

Table 2: Correlation Coefficient of Intellectual Capital Management and Crisis Management

***	Crisis Management	
	Pearson Correlation	Significance Level
Intellectual Capital Management	0.80	0.0005

The results mentioned in the above table show that the correlation between intellectual capital management and crisis management is $r = 0.80$ which is

significant at the level of 0.0005. Based on this, the main hypothesis of this study is confirmed. It means that there is a meaningful correlation between intellectual capital and crisis management.

First Sub-hypothesis: there is a meaningful relationship between human capital and crisis management of North Khorasan Red Crescent staff.

There is no meaningful relationship between human capital management and crisis management. $H_0 = \rho = 0$

There is a meaningful relationship between human capital management and crisis management. $H_1 = \rho \neq 0$

Table 3: Correlation Coefficient of Human Capital Management and Crisis Management

***	Crisis Management	
	Pearson Correlation	Significance Level
Human Capital Management	0.74	0.0005

The results inserted in table 3 show that there is a significant correlation between human capital management and crisis management ($r=0.74$, $P=0.0005$). Accordingly, first sub-hypothesis is confirmed. It means that the human capital management and crisis management of North Khorasan Red Crescent staff are related.

Second sub-hypothesis: there is a significant relationship between structural capital management and crisis management of North Khorasan Red Crescent staff.

There is no significant correlation between structural capital and crisis management. $H_0 = \rho = 0$

There is a significant correlation between structural capital and crisis management. $H_1 = \rho \neq 0$

Table 4: Correlation Coefficient of Structural Capital Management and Crisis Management

***	Crisis Management	
	Pearson Correlation	Significance Level
Structural Capital Management	0.79	0.0005

The results inserted in table 4 shows that there is a significant correlation of $r=0.79$ between structural capital management and crisis management which is meaningful at the level of $P=0.0005$. Accordingly, second sub-hypothesis is confirmed. It means that there is a significant relationship between structural capital management and crisis management of North Khorasan Red Crescent.

Third sub-hypothesis: there is a significant relationship between bridging capital management and crisis management of North Khorasan Red Crescent staff.

There is no significant correlation between bridging capital and crisis management. $H_0 = \rho = 0$

There is a significant correlation between bridging capital and crisis management. $H_1 = \rho \neq 0$

Table 5: Correlation Coefficient of Bridging Capital Management and Crisis Management

***	Crisis Management	
	Pearson Correlation	Significance Level
Bridging Capital Management	0.73	0.0005

The results presented in table 5 show that there is a significant correlation between bridging capital management and crisis management ($r=0.83$, $P=0.0005$). Accordingly, the third sub-hypothesis is confirmed. It means that there is a significant relationship between bridging capital management and crisis management of North Khorasan Red Crescent staff.

Forth sub-hypothesis: human capital has a more significant role in tendency to crisis management than bridging capital.

Table 6: Summary of regression model, analysis of variance and regression parameters in terms of crisis management, human capital management and bridging capital

Model	variable	B	SEB	β	t	sig	F	R	R ²	Adj R ²
1	Bridging capital						115.85**	0.73	0.54	0.54
		1.01	0.09	0.74	10.76	0.0005				
2							76.20**	0.78	0.61	0.60
	Bridging capital	0.58	0.13	0.43	4.34	0.0005				
	Human capital	0.72	0.17	0.41	4.16	0.0005				

** All F values are significant at P=0.01

The results of table 6 indicate that crisis management is predictable by means of communication patterns. In the best model of crisis management prediction, bridging capital and human capital can predict crisis management by 95 percent confidence level. These variables can explain 61 percent of variance to crisis management. The results also show that bridging capital has a higher regression coefficient than human capital ($\beta=0.41$ against $\beta=0.43$). Based on this hypothesis, the fourth sub-hypothesis, i.e. the greater role of human capital management, is rejected. This means that bridging capital management has a greater role in crisis management of North Khorasan staff.

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