

Effects of Intellectual Capital on Financial Performance with Regard to Life Cycle and the Company Size

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ABSTRACT

This study investigates the effects of intellectual capital on financial performance based on life cycle and the company size in the companies listed in Tehran stock exchange. Return on equity and Q-Tobin were considered as dependent variables, and value added of intellectual capital coefficient, human capital, structural capital and physical capital were considered as independent variables and life cycle as well as the size of the company were considered as control variables. Research sample includes 330 firm-year observations 2004 to 2009 and "ordinary least squares regression" was used. The results revealed that there is a positive and significant relationship between intellectual capital and its elements with financial performance regardless of the life cycle and the company size. Also, there is a positive and significant relationship among intellectual capital and its elements with financial performance with regard to life cycle and there is a negative and significant relationship among them with regard to company size. In addition, there is not a significant relationship between intellectual capital and its elements with financial performance in the simultaneous effect of life cycle and company size. The results of the present study may be beneficial for capital market activists in analyzing the status of companies.

KEY WORDS: Intellectual Capital, Financial Performance, Life Cycle, Firm Size

1. INTRODUCTION

What was considered in the historical evolution of human societies as the source of wealth for societies or organizations has been changed and this fundamental change caused changes in economic principles and business in those societies. So, changes in the dominant source of wealth identified as a turning point in economic development. Different economic and management theorists predicted a new era during the 80s. They believed that knowledge would be raised as the most basic source of wealth in human societies in the new era. Implementing an effective strategy for knowledge management and becoming a knowledge-based organization as two necessary conditions for the success of organizations are under the conditions let them enter a historical and knowledge-based economy era [3], [4], [5], [6]. Nowadays, intangible aspects of the economy are founded on intellectual capital and its first and main material is knowledge and information. Organizations need information and knowledge for improving their performance in every shape and type in order to participate in the market today. In the global economy, knowledge is effective as a process on how to apply expertise and as has the capability to affect description, the use and decisions to the extent that those firms can use knowledge in order to increase effectiveness and efficiency in their work and performance improvement. Today, intellectual capital management will led organizations to more success in future prospects of competitive markets. Intellectual capital is considered as a competitive advantage and an indicator of economic performance for organizations as well as an indicator of growth and development of countries due to the inherent nature or due to its growth importance in innovation and productivity growth. One of the most important steps in intellectual capital management is collecting performance data related to intellectual capital with the aim of its measuring.

Performance is a complex phenomenon which its simplest interpretation can be a set of activities in order to achieve organization's goals. So, performance can be considered as in different aspects. First, performance points to the real results and estimation of real activities which have been done. For example, performance of a company can be analyzed as financial results. Second, performance implies how to do an activity. In other words, it says that how an activity has been done. Generally speaking, it can be said that performance can be related to real results, activities and hidden capacities of real results.

The present study aims at considering the effect of intellectual capital on financial performance based on life cycle and the company size in which intellectual capital is an independent variable, financial performance is a dependent variable and lifecycle as well as the company size are control variables. The effect of intellectual capital on financial performance based on life cycle which is the topic of the present study has not been considered so far. First, in the following sections, theoretical basics and research background will be reviewed and then the method will be presented. Finally, the results will be analyzed and suggestions will be presented.

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2. Theoretical Framework

Intellectual capital literature shows the value and intangible identity of these sources. It was John Kenneth Galbraith who invented intellectual capital concept in 1969. In the evolution of intellectual capital, theorists and researchers tried to discuss a general definition of intellectual capital. The definition which Thomas Stewart (1997) has been discussed "achieved intellectual items has been officiated and has been used to generate more added value to an asset" in which variables such as organizational processes and technologies, exclusive privileges, staff skills, information of customers, providers and organizational stakeholders are existed in its description [1]. Some of the recent classifications has been put intellectual capital in classes such as external capital (related to the customer), internal capital (related to structure of the organization) and human capital [3], [5], [6]. A brief explanation is presented below:

Human capital: Human capital is staff knowledge, skill and abilities. Human capital includes a combination of the capabilities of employees of an organization which help the organization in solving business issues. Human capital is an internal capital between employees and the organization cannot gain or possess it.

Customer Capital: It is the ability and stability of the relationship with customers. Therefore, customer satisfaction, repeated transactions, financial growth and price sensitivity can be considered some indexes for customer capital.

Structural capital: It refers to all the issues which support the staff of the organization (human capital). The main role of the structural capital is to create relationship and integration between sources and organizational information in processes which customers are fully satisfies, shareholders achieve the most expectable value, and the organization has reliable competitive advantages. The definition of financial performance will be as follows regarding the performance goals which are considered in financial performance "degree or the rate which a company assigns to financial goals of shareholders in order to increase their wealth "[2]. Performance goals include indicators and criteria which can investigate financial performance of a company based on them. In the present study, performance criteria are profitability ratio such as return on equity (ROB), and Q-Tobin.

Return on equity (ROE): Return on equity is one of the financial ratios which are the result of the division of profit before tax to equity. Accounting profit affects by different accounting methods as well as accounting estimates. In other words, it can change accounting profit and in turn return to equity (ROE) based on its goals.

Q-Tobin: QT in another company performance measuring tools which is the result of the division of market value to office value or company assets of replaced value. This ratio has been proposed by James Tobin [4] in a result of analyzing macroeconomic in order to predict future investment activities in 1978. His aim was to make a cause and effect relationship between QT and the amount of investment made by the company. When the calculated QT is larger than 1, there is more motivation to invest. In other words, large QT shows valuable opportunities of company growth. When the calculated QT is smaller than 1, investment would be stopped. Whenever the company uses all of its investment opportunities, end value of QT tends to move to 1.

2.1. Background

Plowman and Hancock (2007) considered the relationship between intellectual capital and financial returns of companies. The results revealed that:

1. There is a positive and significant relationship between intellectual capital and now and future financial returns of companies.
2. The effects of intellectual capital on financial returns of companies in various industries are different.

Baum and Silverman (2004) investigated and tested the effect of different components of human intellectual capital on decisions of corporate financial risk and future performance of companies. Based on the results, there was a significant effect of components of intellectual capital on financial performance and financial risk of companies in biotechnology.

Young Chu, Ling Lin, Po Yu, Hsiung and Lin (2006) considered the effect of components of intellectual capital on value/performance of professional advanced industrial of institute of technology research. Results showed that:

1. There was positive significant relationship among components of intellectual capital and performance of companies.
2. Increased intellectual capital is caused by value creation processes and their strategic store in the organization.

Huang and Hsueh (2007) examined the relationship between intellectual capital and performance in engineering consulting firms in Taiwan. Base on the results, there was a positive correlation among three components of intellectual capital and business performance. The highest correlation referred to human capital

and customer capital, respectively. In addition, there was a positive correlation among three components of intellectual capital.

Namazi and Ebrahimi (2009) investigated the effect of intellectual capital on current and future financial performance of companies listed in Tehran stock exchange. The results showed that there was a significant relationship between intellectual capital and current and future performance of the company in both all the companies and in industries regardless of the company size, debt structure and past financial performance.

Rahmani, Mousavi and Gheitasi (2005) considered the relationship between profitability and efficiency based on life cycle and company size. Results revealed that life cycle variables and company size are effective factors on the relationship between profitability and efficiency. Also, they increase adjusted coefficient of determination.

Mojtahed Zadeh, Alavi Tabari and Mahdi Zadeh (2010) examined the relationship between intellectual capital (human, customer and structural) and insurance industry performance (from managers' point of view). The results indicated that there is a significant relationship among intellectual, human, customer and structural capital and performance in separate and independent considerations while in simultaneous consideration, there is just a significant relationship among structural and human capital as well as performance.

Anvari, Rostami and Seraji (2005) considered the relationship between intellectual capital and stock market value of companies listed in Tehran stock exchange including five various quantitative and simple ways. Findings revealed that just two suggested ways had high and positive correlation with stock market value of companies listed in Tehran stock exchange.

3. Research Hypotheses

The following hypotheses are presented based on theoretical basics and research background:

Group A:

- A1. There is a significant relationship between intellectual capital and financial performance.
- A2. There is a significant relationship between intellectual capital and financial performance based on life cycle.
- A3. There is a significant relationship between intellectual capital and financial performance based on company size.
- A4. There is a significant relationship between intellectual capital and financial performance based on life cycle and company size.

Group B:

- B1. There is a significant relationship among the components of intellectual capital and financial performance.
- B2. There is a significant relationship among the components of intellectual capital and financial performance based on life cycle.
- B3. There is a significant relationship among the components of intellectual capital and financial performance based on company size.
- B4. There is a significant relationship among the components of intellectual capital and financial performance based on life cycle and company size.

4. RESEARCH METHODOLOGY

The present study sought to investigate the effect of size and life cycle of companies related to intellectual capital and financial performance in companies listed in Tehran stock exchange. The used independent variable in the present study is value added intellectual coefficient (VAIC). Since intellectual capital is changing to an important basis in future developmental performance of companies so fast, measuring intellectual capital and its development is so important. Generally, models of the measurement of intellectual capital are classified into four classes:

1. Direct model of intellectual capital,
2. Models based on market capitalization,
3. Models of asset returns,
4. The score card.

4.1. Value added intellectual coefficient model

Value added intellectual coefficient model is among return to assets model which has been introduced by Pulic in 1988 and will be used as the main model of measurement of intellectual capital in the present study. This model has been regarded to intellectual capital from three components such as human capital, structural capital and physical capital.

Pulic's model is calculated like below:

Value added determination:

Total cost of materials, components and purchased services = Total sales - Value added

Human capital efficiency coefficient (HCE):

Human capital efficiency coefficient = Value added / Total salaries and wages

Structural capital efficient coefficient (SCE):

Structural capital = Value added - Total salaries and wages

Structural capital efficiency coefficient = Structural capital / Value added

Physical capital efficiency coefficient (CEE):

Physical capital efficiency coefficient = Value added / Book value of net assets

Value added intellectual capital coefficient (VAIC):

Value added intellectual coefficient = Intellectual capital efficiency coefficient - Physical capital efficiency coefficient

This coefficient helps determine total efficiency of the company as well as intellectual ability.

This model has been selected as the best measurement model of intellectual in the present study because of its advantages over other models the most advantages of which are:

1. It provides one standard basic and compatibility of measurement [16], [17]. Actually, the models which can measure intellectual capital accurately are limited [18], [19].
2. This model is based on two aspects which are performance evaluation and the value of tangible and intangible assets.
3. Total used data in calculating VAIC is based on information of financial reports of companies. Therefore, calculation is based on aim, verifiable and certifiable [16], [20].
4. This model has been greatly used in foreign valid research. Dependant variables which are used to explain intellectual capital are return on equity (ROE) and Q-Tobin.

Return on equity = Net profit / Equity

Q-Tobin = (Total debt + Stock market value) / Total assets

To consider the effect of the company life cycle, the companies are classified into three groups such as growth companies, mature companies and stagnant companies based on criteria like sales growth, change in company capital expenditure and life.

Company sales growth = ((Last year sales - Current year sales) / (Last year sales) * 100

Change in capital expenditure = Market value of equity + Book value of long-term debt / Capital expenditure of this year

Life cycle = Current year of calculation - The establishment year of the company

Company size is written as artificial variable S. Company size variable is the market value of equity algorithm. Companies are being arranged based on their size and a median will be calculated from all the companies. Number 1 is assigned to those companies have the size more than the median and are large. Number 0 is assigned to those companies which have the size smaller than the median [5].

5. DATA ANALYSIS

5.1 Descriptive statistics of research variables

Table 1 shows descriptive statistics related to 330 companies-years.

Table 1: Descriptive statistics of research variable

Statistics Variables	Means	Std. Deviation	Median	Maximum	Minimum
VAIC	8.515	7.092	6.696	68.161	1.343
HCE	7.443	6.943	5.642	66.759	0.939
SCE	0.772	0.165	0.822	0.985	-0.064
CEE	0.299	0.176	0.270	1.880	0.016
VAICS	5.701	8.228	3.143	68.161	0
HCES	5.111	7.775	2.304	66.759	0
SCES	0.431	0.428	0.565	0.985	0
CEES	0.158	0.209	0.088	1.880	0
ROE	0.529	0.400	0.447	3.013	-0.143
Q.T	1.595	0.795	1.352	5.686	0.580

First hypothesis A: There is a significant relationship between intellectual capital and financial performance. In this hypothesis the relationship between intellectual capital and financial performance is tested. The results are presented in Table 2. The data of this table represents that there is a positive significant relationship between intellectual capital and financial performance. It can be concluded from the coefficients that 37% and 39% of the dependant variable are accounted for by the independent variable, respectively. Durbin-Watson shows that there is no correlation problem. Regression equation is totally significant regarding F statistics probability. Therefore, Hypothesis 1A is supported.

Table 2: The relationship between intellectual capital and financial performance

Dependent Variable \ Independent Variable	ROE		Q.T	
	Coefficient	Sig.	Coefficient	Sig.
VAIC	0.018	0.000	0.046	0.000
R-squared	0.367		0.392	
Adjusted R-squared	0.366		0.388	
Sig (F-statistic)	0.000		0.000	
Durbin-Watson	1.811		1.987	

Hypothesis 1B: There is a significant relationship among components of the intellectual capital and financial performance. Table 3 shows test results of the first hypothesis of the group B which represents the components of intellectual capital against financial performance. The data of Table 3 shows that there is a positive and significant relationship between human capital and Q.T with 95% assurance and human capital and ROE with 90% assurance. Also, there is a positive and significant relationship among structural capital, physical capital and financial performance. It can be suggested from the coefficients that 46% and 47% of the dependent variable are accounted for by the independent variable, respectively. Durbin-Watson shows that there is no correlation problem. The regression equation is totally significant regarding F statistics probability. Therefore, hypothesis 1B is supported.

Table 3: The relationship among the components of intellectual capital and financial performance

Dependent Variable \ Independent Variable	ROE		Q.t	
	Coefficient	Sig.	Coefficient	Sig.
HCE	0.006	0.088	0.258	0.000
SCE	0.532	0.000	0.692	0.013
CEE	0.808	0.000	1.624	0.000
R-squared	0.462		0.476	
Adjusted R-squared	0.456		0.470	
sig (F-statistic)	0.000		0.000	
Durbin-Watson	1.847		1.969	

Hypothesis 2A: There is a significant relationship between intellectual capital and financial performance based on life cycle. This hypothesis tested the relationship between intellectual capital and financial performance regarding life cycle which is classified into three classes such as growing, maturing and stagnant. The results are represented in Table 4. Data represent a positive and significant relationship between intellectual capital in growth and stagnant companies with 95% assurance. Also, there is a positive significant relationship between intellectual capital growth companies and Q.T with 95% percent assurance as well as intellectual capital growth and ROE with 90% assurance. It can be concluded that 72% and 77% of the dependent variables in growth companies, 39% and 47% of dependent variable in maturing companies and 29% and 29% of dependent variable in stagnant companies are accounted for by the independent variable, respectively. Durbin-Watson shows that there is no correlation problem. Regression equation is totally significant, so, hypothesis 2A is supported.

Table 4: The relationship between intellectual capital and financial performance based on life cycle

Dependent Variable \ Independent Variable	Growth Companies		Maturing Companies		Stagnant Companies	
	ROE	Q.T	ROE	Q.T	ROE	Q.T
VAIC	0.043	0.087	0.009	0.352	0.018	0.034
Sig.	0.000	0.000	0.087	0.000	0.000	0.002
R-squared	0.717	0.771	0.391	0.472	0.287	0.286
Adjusted R-squared	0.696	0.753	0.380	0.463	0.279	0.278
sig (F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000
Durbin-Watson	1.618	1.876	1.669	2.199	1.989	1.966

Hypothesis 2B: There is a significant relationship between the components of intellectual capital and financial performance based on life cycle. In this hypothesis tested the relationship between intellectual capital and financial performance regarding life cycle which is classified into three classes such as growing, maturing and stagnant. The results are presented in Table 5. The results show that:

There is a positive significant relationship between intellectual capital and financial performance and there is significant relationship among structural capital, physical capital and financial performance in growth companies.

There is a positive significant relationship between intellectual capital and Q.T and there is no significant relationship between intellectual capital and ROE in stagnant companies. In addition, there is a positive and significant relationship between intellectual capital and financial performance. Moreover, there is a positive and significant relationship between physical capital and Q.T while there is no significant relationship between physical capital and ROE.

There is no significant relationship among intellectual capital and ROE and Q.T as well as structural capital and financial performance while there is a positive significant relationship between physical capital and financial performance.

It can be suggested from the coefficients that 72% and 82% of the dependent variable in growth companies, 42% and 56% of the dependent variable in the maturing companies and 42% and 39% of the dependent variable in stagnant companies are accounted for by the independent variable, respectively. Durbin-Watson shows that there is no correlation between waste sentences. Regression equation is totally significant, so, hypothesis 2B is supported.

Table 5: The relationship between the components of intellectual capital and financial performance based on life cycle

Dependent Variable \ Independent Variable	Growth Companies		Maturing Companies		Stagnant Companies	
	ROE	Q.T	ROE	Q.T	ROE	Q.T
HCE	0.037	0.118	0.002	0.030	0.007	0.015
Sig.	0.009	0.000	0.757	0.000	0.076	0.219
SCE	0.211	0.027	0.549	1.178	0.377	0.257
Sig.	0.515	0.962	0.031	0.000	0.067	0.667
CEE	0.141	-2.111	0.477	1.670	0.848	2.305
Sig.	0.822	0.065	0.061	0.000	0.000	0.000
R-squared	0.723	0.816	0.419	0.558	0.424	0.393
Adjusted R-squared	0.677	0.785	0.399	0.547	0.411	0.380
sig (F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000
Durbin-Watson	1.640	1.828	1.669	1.525	1.990	1.947

Hypothesis 3 A: There is a significant relationship between intellectual capital and financial performance base on the company size. In this hypothesis, the relationship between intellectual capital and financial performance is tested with considering the company size (S). The results are presented in Table 6. Data shows that there is a positive significant relationship between intellectual capital and financial performance. Also, there is a positive significant relationship between intellectual capital and financial performance with regard to company size. The coefficients show that 38% and 42% of the dependent variable are accounted for by the independent variable, respectively. Durbin-Watson shows that there is no correlation between waste sentences. Regression equation is totally significant, so, hypothesis 3A is supported.

Table 6: The relationship between intellectual capital and financial performance based on company size

Dependent Variable \ Independent Variable	ROE		Q.t	
	Coefficient	Sig.	Coefficient	Sig.
VAIC	0.018	0.000	0.046	0.000
VAICS	0.012	0.043	0.043	0.000
R-squared	0.378		0.420	
Adjusted R-squared	0.372		0.415	
sig (F-statistic)	0.000		0.000	
Durbin-Watson	1.811		1.975	

Hypothesis 3B: There is a significant relationship among the components of intellectual capital and financial performance based on company size. In this hypothesis, the relationship among the components of intellectual capital and financial performance regarding company size is tested. The results are presented in Table 7. As data show, there is no significant relationship between human capital and ROE while there is a positive significant relationship between human capital and Q.T. However, there is no significant relationship between human capital and financial performance regarding company size. In addition, there is a positive significant relationship between structural capital and financial performance. Moreover, there is a positive significant relationship between structural capital and ROE while there is no significant relationship between structural capital and Q.T regarding company size. Furthermore, there is a positive significant relationship between physical capital and financial performance. Also, regarding company size, there is no significant relationship between physical capital and ROE while there is a positive and significant relationship between physical capital and Q.T with 99% assurance. 49% and 53% of the dependent variable are accounted for by the

independent variable. Durbin-Watson shows that there is no coefficient problem. Regression equation is totally significant, so, hypothesis 3B is supported.

Table 7: The relationship among the components of intellectual capital and financial performance based on company size

Dependent Variable \ Independent Variable	ROE		Q.t	
	Coefficient	Sig.	Coefficient	Sig.
HCE	0.002	0.500	0.017	0.013
SCE	0.573	0.000	0.672	0.015
CEE	0.874	0.000	2.127	0.000
HCES	-0.005	0.614	0.020	0.318
SCES	0.257	0.042	-0.050	0.832
CEES	0.055	0.776	1.165	0.002
R-squared	0.490		0.531	
Adjusted R-squared	0.479		0.520	
sig (F-statistic)	0.000		0.000	
Durbin-Watson	1.831		1.961	

Hypothesis 4A: There is a significant relationship between intellectual capital and financial performance based on life cycle and company size. In this hypothesis, the relationship between intellectual capital and financial performance regarding life cycle and company size is tested. Table 8 shows the results. As data represent, there is a positive and significant relationship between intellectual capital and financial performance in growth and stagnant companies while there is a positive and significant relationship between intellectual capital and Q.T and there is not a significant relationship between intellectual capital and ROE in maturing companies. Regarding company size, there is a positive but not significant relationship between intellectual capital and financial performance in the three groups. But, there is a significant relationship between intellectual capital and Q.T in maturing companies. It can be concluded that 72% and 77 percent of dependent variables in growth companies, 40% and 57% of dependent variables in maturing companies and 29% and 29% of dependent variables in stagnant companies are accounted for the independent variable. Durbin-Watson shows that there is no coefficient problem. Regression equation is totally significant. Therefore, hypothesis 4A is supported.

Table 8: The relationship between intellectual capital and financial performance based on life cycle and company size

Dependent Variable \ Independent Variable	Growth Companies		Maturing Companies		Stagnant Companies	
	ROE	Q.T	ROE	Q.T	ROE	Q.T
VAIC	0.045	0.082	0.009	0.039	0.017	0.033
Sig.	0.000	0.005	0.062	0.000	0.000	0.003
VAICS	0.009	0.016	0.009	0.055	0.009	0.022
Sig.	0.563	0.637	0.336	0.000	0.203	0.280
R-squared	0.721	0.773	0.395	0.569	0.294	0.291
Adjusted R-squared	0.687	0.746	0.380	0.558	0.282	0.278
sig (F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000
Durbin-Watson	1.646	1.875	1.678	2.099	1.983	1.970

Hypothesis 4B: There is a significant relationship among the components of intellectual capital and financial performance based on life cycle and company size. In this hypothesis, the relationship between the components of intellectual capital and financial performance regarding life cycle and company size is tested. The results are presented in Table 9. The results of analyzing data show that:

There is a positive significant relationship between human capital and financial performance in growth companies while there is no significant relationship between them regarding company size. Also, there is no significant relationship between structural capital and financial performance as well as physical performance and financial performance while there is no significant relationship between them regarding company size.

There is no significant relationship between human capital and ROE while there is a positive and significant relationship between human capital and Q.T in maturing companies. Also, there is no significant relationship between human capital and ROE as well as human capital and Q.T regarding company size. Moreover, there is a positive significant relationship between structural capital and financial performance. In addition, concerning company size, there is a positive significant relationship between structural capital and ROE while there is not a significant relationship between structural capital and Q.T. Furthermore, there is a positive significant relationship between physical capital and Q.T while there is no significant relationship

between physical capital and ROE. Regarding company size, there is a positive significant relationship between physical capital and Q.T while there is no significant relationship between physical capital and ROE.

There is no significant relationship between human capital and financial performance in stagnant companies. Also, concerning company size, there is not a significant relationship between them. In addition, there is no significant relationship between structural capital and financial performance with regard to or regardless of company size. Moreover, there is a positive significant relationship between physical capital and financial performance with regard to or regardless of company size.

It can be concluded that 72% and 84% of the dependent variables in growth companies, 47% and 67% of the dependent variables in maturing companies and 48% and 50% of the dependent variables in stagnant companies are accounted for by the independent variable. Durbin-Watson shows that there is no coefficient problem.

Table 9: The relationship among the components of intellectual capital and financial performance based on life cycle and company size

Dependent Variable \ Independent Variable	Growth Companies		Maturing Companies		Stagnant Companies	
	ROE	Q.T	ROE	Q.T	ROE	Q.T
HCE	0.033	0.108	0.0003	0.027	0.001	0.011
Sig.	0.035	0.004	0.954	0.000	0.801	0.370
SCE	0.252	0.517	0.741	1.048	0.325	0.107
Sig.	0.601	0.583	0.005	0.000	0.104	0.845
CEE	1.414	0.127	0.335	1.878	1.257	4.210
Sig.	0.296	0.955	0.223	0.000	0.000	0.000
HCES	-0.073	0.069	-0.018	0.025	0.001	-0.036
Sig.	0.212	0.506	0.328	0.171	0.969	0.401
SCES	-0.243	-1.583	0.714	0.072	-0.135	-0.667
Sig.	0.717	0.188	0.005	0.761	0.411	0.144
CEES	1.723	3.558	-0.541	0.936	0.782	3.713
Sig.	0.266	0.205	0.913	0.013	0.003	0.000
R-squared	0.718	0.835	0.472	0.673	0.478	0.499
Adjusted R-squared	0.644	0.780	0.439	0.656	0.457	0.479
sig (F-statistic)	0.000	0.000	0.000	0.000	0.000	0.000
Durbin-Watson	1.511	1.944	1.670	1.652	1.966	1.933

6. Conclusions and Suggestions

The present study investigated the effect of intellectual capital on financial performance based on life cycle and company size in companies listed in Tehran stock exchange using "ordinary squares" regression. The results revealed that there is a positive and significant relationship among intellectual capital and its components as well as financial performance regardless of life cycle and company size. This finding is in line with those of Young Chu *et al.* (2006) and Huang and Hsueh (2007). The relationship does not change concerning life cycle while it is negative and insignificant among the intellectual capital, its components and financial performance. Practical insight of the present study shows that intellectual capital as a capability has the ability to influence the interpretation and use the information and decisions so that companies can use it in order to increase effectiveness and efficiency in their work and performance improvement.

6.1. Suggestions for further research

1. Considering the effect of intellectual capital on financial performance based on type of industry with regard to life cycle and company size.
2. Considering the relationship between intellectual capital and financial performance in state organizations.
3. Repeating the present study using other methods of measuring intellectual capital.

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