Examine the relationship between intellectual capital and stability of earnings in companies listed on the Tehran Stock Exchange

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ARTICLE INFO
Article history:
Received 12 September 2013
Received in revised form 24 October 2013
Accepted 28 October 2013
Available online 10 November 2013

Keywords:
Intellectual capital, stability of earnings, human capital, structural capital, physical capital

ABSTRACT
In this paper the researchers examined the relationship between intellectual capital and the stability of earnings of listed companies in Tehran Stock Exchange. The study was carried out in a period of time, between the years 2006 to 2011 which involved 101 companies listed on the Stock Exchange of Tehran. Research hypotheses, consisted of two main hypotheses, the first of which also included three sub-hypotheses. Research variables is included components of intellectual capital as an independent variable and stability of earnings as the dependent variable. Firm size is also considered as a moderator variable. In order to test the research hypotheses, the researchers collected the necessary information from various sources, the Pulic model was used for estimating the value of intellectual capital and the Sloan model was used to estimate the stability of earnings. To summarize the data, the variables were fed into the Excel and then were processed using Eviews7 software in order to test hypotheses. The method used in this study was using panel data with fixed effects. The results of testing the research hypotheses indicated that there is a significant relationship between intellectual capital and stability of earnings companies listed on the Stock Exchange of Tehran. It also shows that firm size as a moderator variable, affects the relationship between intellectual capital and stability of earnings in this corporation.

INTRODUCTION
Intellectual capital as a vital stimulate for various organizations has been increased since different societies have transferred from industrial era to an information era. This can be caused by factors such as the spread of information technology, the growing importance of knowledge and knowledge-based economies and the impact of innovation and creativity as well as competition. In the industrial age, physical assets such as properties and machinery and raw materials companies were the center of attention. However, in the information age, applying intellectual capital and the efficient use of intellectual capital that will determine success or failure thus setting the values. So, organizations are entering the knowledge-based economy. Economy is a concept in which knowledge and intangible assets are recognized as an important competitive advantage for organizations. Now, how applying and making use of intangible assets will greatly influence the success and survival of the organization is a new field of study and research. In the knowledge-based society, intellectual capital returns is much more important than financial capital returns, this means that in contrast to the intellectual capital, financial capital will be highly decreased while determining the importance of sustainable profitability. Since intellectual capital has a significant impact on the performance and implementation of corporate strategy; identifying, measuring and managing intellectual capital is important.

2 - Theoretical Framework:
2-1. Definition of Intellectual Capital:
Intellectual capital has always existed in human societies, but in particular it has been considered as an important asset during the last few decades. Despite the efforts made in the past, the starting point of systematic intellectual capital can be traced in the late 60s in a friendly correspondence between the two European economists named “Galbraith” and “Kalecki”. Since then, the evolution of the concept of intellectual capital, varied and sometimes very different definitions have been proposed which shows that the concepts are general definitions. Despite the efforts of researchers in this field, there is no accepted definition of public intellectual capital. Thus, the empirical models and experimental studies have been carried out by various researchers each one resulting in a definition for intellectual capital from his own view. Some of these definitions are as follows:
Brooks (1996) argues that intellectual capital consists of four main parts: market assets, human-centered assets, intellectual property assets and infrastructure assets. It makes the enterprise able to fulfill its responsibilities[1]. Enterprise is manifested in the following equality:

\[ \text{Intellectual Capital} + \text{Tangible Assets} = \text{Enterprise Intellectual Capital} \]

Bontis et al (1999) argue that intellectual capital is a concept which has been classified according to all intangible resources and internal communications. Intangible resources are the factors that affect the company's value creation process[2]. Kaplan and Norton (2004) argue that intangible assets consist of three parts: human capital (e.g., skills, talent and knowledge), asset information (such as databases, information systems and technology infrastructure) as well as institutional capital (such as culture leadership style, ability and knowledge sharing).

McMaster World Congress (2006) stated that intellectual capital involves innovation, knowledge management, new technology, intangible assets, human capital, organizational learning and knowledge workers[3].

2-2. Components of Intellectual Capital:

In recent years, there has been a relative consensus on the classification of the components of intellectual capital. Most experts agree that intellectual capital is composed of three elements: human capital, structural capital, and customer capital. In the following discussion each of these will be described separately. According to Edvinsson and Malone (1997), the value of integrating the three types of capital, will be the achievement of the desired results. It is therefore essential that these three types of institutional investors be in a row and be balanced with each other so that the intended result may be obtained.

Human Capital: Human capital represents "the knowledge of an organization" that there is a potential employee (Bontis, 1999)[2]. Human capital is the human ability to solve problems. This ability is inherent in the people but is not a possession of the organization. Human capital is the knowledge, skills and experience of the staff which they have at the end of a working day while leaving the organization. Some may be general while others may be specific(Meritum, 2002)[3]. Employees acquire intellectual capital through competence, attitude and intellectual agility. Competence includes the skills and education of individuals which may involve the attitudes and behavior of staff. Intellectual agility enables people to change their practices and think about innovative solution that enables them to solve their problems (Ross, 1997)[4]. As it was defined, a lot of human capital theorists have investigated it on the individual level and considered a combination of knowledge, skill, and talent.

Structural Capital: Structural capital refers to the structures and processes within an organization which employees can use; and to apply their knowledge and skills. This capital includes the mechanisms and structures the main role of which is to support the staff to achieve optimum mental performance and optimum performance of the business. Structural capital includes hardware, software, databases, organizational structure, organization, patents, trademarks and all the skills that support the efficiency of the staff. (Edvinsson and Malone, 1997)[5]. Structural capital is the knowledge that remains at the end of a working day and belongs to the whole organization; it is reproducible, and shared with others (Mauriston, 2001)[6]. People can have a high level of intellect, but the organization has poor systems and procedures to be followed by people while performing their operations; they will not realize all the potential intellectual capital. Thus, value creation and improved organizational performance require the existence of an appropriate Structural capital and the human capital in order to help to accomplish this.

Customer capital (relationships): Customer capital is the value created as a result of the company's relationships with customers. This value is reflected in customers' loyalty to the company or its products. Customer capital as a bridge and facilitator which acts as the intellectual capital operations necessary to transform the market value of intellectual capital and business performance of the organization. Without the customer capital, market and organizational performance cannot be created. Customer capital has been associated with business performance (Chen et al, 2004)[7]. Compared with human capital and structural capital, customer capital has a more direct impact on the company's true value, increases its importance and gradually becomes a critical factor.

Some scholars define customer capital as "relational capital" and it has also been defined as a subset of it. Bontis states that the new definitions have been somehow related to the concept of customer capital which has been previously existed. They have developed the concept of relational capital which includes knowledge of the relationships of all the organization's customers, competitors, suppliers, associations as well as established commercial government departments.

2-3. Measuring Intellectual Capital:

Due to the growing importance of intellectual capital, and to know the status of corporate knowledge assets, this concept must be measured. However, because of intangible nature of the assets, it is difficult, but it helps us to measure the current amount and this amount can be compared favorably with the amount and a closer direction to the ideal point to take any action. So it can be concluded that the identification of intangible assets
of firms is necessary. Researchers in recent years have proposed several models to measure the intellectual capital, in some of which money or some other form of non-monetary, intellectual capital has been measured. William (2002) believes that different methods can be placed into four main groups:

   Direct Intellectual Capital methods (DIC): Include the estimated monetary value of intangible assets or intellectual capital, thereby identification of their constituent elements. According to this method, the value of the individual elements is calculated and then the total value of different classes as well as the value of the assets will be concerned.

1. Market Capitalization methods (MCM): The difference between the market value of a company (based on market prices) and shareholders' equity adjusted for inflation or cost of replacement, as the value of intellectual capital or intangible assets is considered.

2. Return on assets (ROA): Average before Tax profits for several years is calculated, and then divided by average tangible assets in those years; the result of this calculation is called the rate of return on assets, which then is compared with the industry average. The difference between these two figures is multiplied by the average tangible assets, intangible assets to obtain the average annual income. Then the average income which has been obtained is divided into the weighted average cost of capital or interest rate, to obtain an estimate from the value of intangible assets or intellectual capital.

3. Balanced Scorecard (BSC): This method is based on identifying the various elements of intangible assets or intellectual capital indicators and measures obtained based on the scorecard and report them to the charts[8]. The difference between the four methods described above, the ability of monetary and non-monetary measure of intellectual capital, and also using them in the organization is big or small.

2-4. Reporting Intellectual Capital:

   Disclose information related to intangible assets and intellectual capital has gained importance in recent years. The main purpose of this report is to provide useful information for users about intellectual capital, including shareholders and investors, financial analysts, employees and other individuals. Reporting and disclosure of information on intellectual capital, has an important impact on the various stakeholders within the organization and those who stand outside the organization's decisions. In fact, disclosing this type of information may be affected in two ways. This information will influences the understanding of the market value by external users, and this understanding will be surely effective in management decisions. Because of the importance of intellectual capital for many companies, the disclosure and reporting of financial and non-financial information in the company is highly regarded by users.

   In the traditional accounting system, there are restrictions on the reporting and disclosure of intellectual capital, since most of the components of intellectual capital are not reflected in the balance sheet. Instead, the costs for intellectual capital are directly reflected as a current expense in income statement. Immediate recognition of these expenses as costs reduces current profits, and thus the financial status of enterprises shows to be distorted. Today, the evolution of accounting to reflect the intellectual capital or intangible assets is considered a necessity, so to overcome the problems of accounting for intangible assets, models and conceptual framework should be developed, especially with the accounting approach. Also, the Accounting standards-setting process, issues of measurement and reporting of intellectual capital will also be considered.

3 - Background Investigations:

   The first experimental study to measure intellectual capital in the mid-1980s was done by a Swedish association. In the 1990s, concurrent with the development of the market value of knowledge-based organizations, researchers and theorists became interested in the concept of intellectual capital increase. Given the breadth of these studies are examples of the most important studies in recent years which are reflected in the following section.

   Chen et al (2005) examined the relationship between intellectual capital, market value and financial performance of companies in Taiwan's stock market during 1992 and 2002. The results indicated a positive impact of intellectual capital on financial performance and market value of the company. This research also showed that intellectual capital can be used as an index for predicting future financial performance.

   Tan and colleagues in a study conducted in 2007, examined the relationship between intellectual capital and financial performance of 150 firms between 2000 and 2002, the Singapore Stock Exchange. They concluded that intellectual capital and financial performance of these companies also have a significant positive correlation. Also, intellectual capital and firms' future performance, as well as the growth rates of intellectual capital and firm performance has a direct relationship with each other. On the other hand, the contribution of intellectual capital on firm performance varied with the industry.

   In 2009, Kamas, examined the impact of intellectual capital on traditional criteria for evaluating the performance of 25 of the Indian pharmaceutical industry, in a 10-year period from 1996 to 2006. Using multiple linear regression analysis he showed that none of the performance measures and intellectual capital, had any
significant relationship with each other. But the correlation analysis indicated that the role of human capital in the profitability and efficiency of physical and financial capital is more important.

Gosh and Mandal (2009) examined the relationship between intellectual capital and financial performance of 80 software and pharmaceutical companies in India, in a five-year period. They concluded that there was a significant relationship between intellectual capital and profitability. But the relationship between intellectual capital and the productivity and market value was not significant[9].

Zigal and Malol (2010) examined the impact of intellectual capital on economic performance, financial and market shares of 300 companies in 2005. The results indicated that intellectual capital has a positive impact on the economic and financial performance but the relationship between intellectual capital and stock market performance, only the high-tech industry, was significant. Also, the results indicated that, although the employed capital and stock market performance were still the main financial factor but the capital had a negative impact on economic performance[10].

4 - Research Methodology:

This study was an experimental study to examine the correlation relationship, and only the relationship between the independent and dependent variables have been examined. The combined data (combined data time series and cross section data) have been used. Because in the present study, actual and historical data were extracted from all relevant sites, such as the Stock Exchange, the New Deal and other software, electronic archives, papers, books, and related documentation has been used, it can be of research type of classification based on previous data.

The ultimate goal of the current study is to find the correlation between the two elements of intellectual capital and its components which are stability of earnings. Also, the effect of firm size as a modulator factor on the relationship between these two variables has been examined.

Besides, the effect of firm size as a modulator factor on the relationship between these two variables has been examined. Also, the effect of firm size as a modulator factor on the relationship between these two variables was examined.

The study was carried out between the years 2006 and 2011. Samples of this research were from all firms listed in Tehran Stock Exchange for the time period mentioned above which had the following eligible:

1. Given the time period, the company is listed on the Stock Exchange prior to 2006, and until the end of 2011, it has been removed from the list of companies.
2. The company shares have been traded during the financial year, and will not substantially interrupt the transaction.
3. In the study period, the company should not be operating loss in its fiscal year-end audited income statement.
4. In order to increase comparability, the financial year of the Company is based on the calendar year.
5. Due to the lack of clear boundaries between operating and financing activities, financial companies (investment companies, financial intermediation, holding companies, and leasing), and also because they have different reporting structures, these companies are excluded from the sample.

Thus, considering the above-mentioned limitations, 101 companies were identified as eligible, all of which have been studied and therefore no sampling was done.

To summarize the data, initial variables using the collected data were calculated in Excel, and the hypotheses were tested using Eviews7 software. The method used in this study was that of panel data with fixed effects.

5 - The Hypotheses of the Study:

According to the theoretical foundations of study, and also in order to achieve the research objectives, the following research hypotheses have been formed:

1) Between intellectual capital and stability of Earnings, as an indicator of the quality of earnings, there is a significant relationship.
1-1) between human capital and stability of Earnings, there is a significant relationship.
1-2) between structural capital and stability of Earnings, there is significant relationship.
1-3) between physical capital and stability of Earnings, there is significant relationship
2) Firm size affects the average intellectual capital, and stability of Earnings Corporation.

6. Variables:

The three variables used in this study included independent variables, dependent variables and moderator variables.
6.1. Independent variable:

In this study, variable of intellectual capital along with its components, including structural capital, human capital and physical capital were considered as independent variables, and were also calculated based on Pulic model (2000) with the following steps:

First step: Determine the value added:

\[ VA = P_i + I_i + C_i + D_i + DIV_i + T_i \]

VA: Value-added Enterprises

P;: Operating Profits

C;: employee costs

DIV;: dividends

I;: interest expense

D;: depreciation

T;: tax

Second step: Determine the physical capital efficiency:

Value added to (VA) physical capital used ratio, is called the coefficient of physical capital efficiency, the index is calculated by the following equation.

\[ CEE = \frac{VA}{CE} \]

CEE: Physical Capital Efficiency

CE: Capital used is equal to the book value of the company’s total assets minus intangible assets.

Third step: Determine the human capital efficiency:

Human capital efficiency indicates that for every $ spent on employee costs, how much value add is created.

\[ HCE = \frac{VA}{HC} \]

HCE: Human Capital efficiency

HC: Human capital, is the total employee costs

Fourth step: Determine the structural capital efficiency:

This step shows the share of structural capital in the value creation. Structural Capital includes all reservoirs of nonhuman knowledge in an organization, including databases, organizational charts, procedures and guidelines. It also gives more value to the organization compared with the physical assets.

\[ SCE = \frac{SC}{VA} \]

SCE: Structural Capital Efficiency

SC: Structural Capital

Fifth step: Determine the value added intellectual coefficient

This index represents the efficiency of creating value, or intellectual abilities of the company. When this coefficient is greater, the management has used more potential of the company.

\[ VAIC = HCE + SCE + CEE \]

VAIC: value added intellectual coefficient

HCE: Human Capital efficiency

SCE: Structural Capital Efficiency

CEE: Physical Capital Efficiency

Pulic Model: Because of its advantages in comparison with other models, this model as the model used in this study intended to measure intellectual capital. Some of the most important of its advantages are as follows:

- Provides a basis for measuring, with fixed standard.
- All the calculated data in the value added intellectual coefficient have been extracted from the audited financial statement of the company, so the calculations can be verified.
- This model is based on two aspects of performance evaluation and value creation resulting from tangible and intangible assets of the company.
6-2. The Dependent Variable:
In this study, stability of earnings, which is one indicator of the quality of earnings, is considered as the dependent variable. To evaluate the stability of the earnings Sloan model (2005) was used as follows:

\[ E_{i,t} = \beta_{1,t} + \beta_{2}E_{i,t-1} + e_{it} \]

- \( E_{i,t} \): net profit of company \( i \) in year \( t \)
- \( E_{i,t-1} \): Net profit of company \( i \) in year \( t-1 \)
- \( \beta_{1} \): stability of earnings

In above model, the coefficient of explanatory variable \( E_{i,t-1} \), namely \( \beta_{1} \), which is a regression model, indicates the stability of earnings. Stability of earnings is more when the value obtained for the coefficient of the explanatory variable is closer to one; conversely, the closer this coefficient is to zero, the less the stability of earnings will be. It should be noted that in the above equation, \( e_{it} \) is an independent random assumption, which may be resulted from earnings manipulation by managers, or principles of conservatism.

6.3 - Variable Adjustment
One of the Company's internal factors, which affect the financial structure and profitability of companies, is the firm size. In this study, using the logarithm of the book value of assets, the effect of firm size was examined as one moderator variable on the relationship between variables.

\( \log(\text{ASSETS}) \)

- \( \text{ASSETS} \): book value of assets

Finally, the multiple regression model is used to determine the relationship between intellectual capital efficiency ratio, and each of its components, with stability of earnings.

\[ Y = \beta_{0} + \beta_{1}\text{HCE} + \beta_{2}\text{SCE} + \beta_{3}\text{CEE} + \beta_{4}\text{FSIZE} + \epsilon_{it} \]

7 - Testing Hypotheses:
Before testing the research hypotheses, descriptive statistics of the variables were calculated and presented in Table 1. This table contains descriptive statistics for the independent variables, moderator variables and the dependent variable.

<table>
<thead>
<tr>
<th>Type of variable</th>
<th>variable</th>
<th>Number of observations</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard deviation(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent</td>
<td>stability of earnings</td>
<td>606</td>
<td>-2.792</td>
<td>6.19</td>
<td>0.421</td>
<td>1.105</td>
</tr>
<tr>
<td>Independent</td>
<td>Human Capital</td>
<td>606</td>
<td>-6.548</td>
<td>602.15</td>
<td>41.55</td>
<td>67.8</td>
</tr>
<tr>
<td></td>
<td>Physical Capital</td>
<td>606</td>
<td>-0.187</td>
<td>1.134</td>
<td>0.301</td>
<td>1.424</td>
</tr>
<tr>
<td></td>
<td>Structural Capital</td>
<td>606</td>
<td>0.159</td>
<td>1.598</td>
<td>0.938</td>
<td>-2.171</td>
</tr>
<tr>
<td>Moderator</td>
<td>Firm Size</td>
<td>606</td>
<td>4.579</td>
<td>8.007</td>
<td>5.76</td>
<td>1.097</td>
</tr>
</tbody>
</table>

7-1. The First Main Hypothesis:
The first main hypothesis: There is a significant relationship between intellectual capital and stability of earnings as an indicator of the quality of earnings.

To test the main hypothesis, the following model is estimated

\[ Y = \beta_{0} + \beta_{1}\text{VAIC} + \beta_{2}\text{SIZE} + e_{it} \]

The following results were obtained from test of the first main hypothesis:

<table>
<thead>
<tr>
<th>variable</th>
<th>Coefficient of correlation</th>
<th>SD</th>
<th>T-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.417</td>
<td>0.00039</td>
<td>1075.44</td>
<td>0.0000</td>
</tr>
<tr>
<td>VAIC</td>
<td>9.06E-06</td>
<td>3.53E-05</td>
<td>2.569</td>
<td>0.0106</td>
</tr>
<tr>
<td>SIZE</td>
<td>-4.41E-05</td>
<td>1.14E-05</td>
<td>-3.885</td>
<td>0.0001</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.054</td>
<td>0.279</td>
<td>0.195</td>
<td>0.8456</td>
</tr>
<tr>
<td>Durbin – Watson test</td>
<td>2.08</td>
<td>Adj-R-squared</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The prob (F-statistic) in Table (2) indicates significance of fitted regression model to the 95% of confidence level. It has been confirmed that there is a linear relationship between the independent and dependent variables. Adjusted R2 is equal to 1, which indicates that all changes in the dependent variable are because of the independent and moderator variables. To test the independence of the error components in fitted model Durbin–Watson statistics was used. If the result is between 1.5 and 2.5, it can be confirmed that there is no significant correlation between the error components in the model and their behavior is independent from each other.
According to Durbin–Watson statistics, in estimation of the basic model, it was found that the above model has autocorrelation, and to overcome this, "AR" was used. As it can be seen in the Table 2, the obtained statistics is equal to 2.08; therefore in this model the independence of error components in fitted regression model may be resulted.

Finally, as shown in Table 2, the intellectual capital variable coefficient, at the level of 5% of error, is significant, so there is a significant relationship between these variables and the dependent variable and thus according to the projections, the coefficient is considered to be positive. The result shows that, there is a significant relationship between intellectual capital and stability of earnings as an indicator of earnings quality and, therefore, the first main hypothesis will be accepted.

According to the results listed in Table 3, the assumptions of the first sub-hypothesis will also be tested.

### Table 3: Results of theory analysis of sub-hypothesis.

<table>
<thead>
<tr>
<th>variable</th>
<th>Coefficient of correlation</th>
<th>SD</th>
<th>T-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.434</td>
<td>0.136</td>
<td>3.19</td>
<td>0.001</td>
</tr>
<tr>
<td>HCE</td>
<td>0.001</td>
<td>0.005</td>
<td>2.098</td>
<td>0.036</td>
</tr>
<tr>
<td>SCE</td>
<td>0.002</td>
<td>0.003</td>
<td>0.465</td>
<td>0.642</td>
</tr>
<tr>
<td>CEE</td>
<td>-0.005</td>
<td>0.006</td>
<td>-0.804</td>
<td>0.421</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.003</td>
<td>0.02</td>
<td>-0.146</td>
<td>0.884</td>
</tr>
<tr>
<td>Durbin–Watson test</td>
<td>1.512</td>
<td>Adj-R-squared</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the results of testing the regression model, as described above, it can be stated that the P-value of F-statistic, which indicates the significance of the regression, is equal to 0.000, and indicates that the model is significance at the 95% confidential level. Adjusted R² is also equal to 0.99 which indicates that approximately 99% of changes of the dependent variable can be explained by the independent variables in the model, which represents a good explanatory power of the regression. According to the table, the results obtained of the sub-hypotheses are as follows:

The first sub-hypothesis: As it is obvious, the correlation coefficient of independent variable of human capital is equal to 0.001, and significant at 0.036. Thus, according to the t-statistic and p-value of this variable, the results indicate the significance of this coefficient, at the error level of 5 percent. This result indicates that there is a positive and significant relationship between human capital efficiency and stability of earnings in the listed companies on the Stock Exchange, and consequently, the first sub-hypothesis is verified.

The second sub-hypothesis: Since the correlation coefficient of independent variable of structural capital is 0.002, and a significant number is 0.642, there fore, the t-statistic and p-value of this variable show that coefficient is not significant at the 5% level of error. This result indicates that there is no significant relationship between structural capital efficiency coefficient and stability of earnings in the listed companies of the Stock Exchange, and consequently, the second sub-hypothesis can be rejected.

The third sub-hypothesis: Since the correlation coefficient of independent variable of physical capital is -0.005, and a significant number is equal to 0.421, therefore, considering t-statistic and p-value of this variable, the results indicate that coefficient is not significant at 5% level of error. This result indicates that there is no significant relationship between physical capital efficiency coefficient and stability of earnings in the listed companies on the Stock Exchange, and consequently, the third sub-hypothesis may be rejected.

### 7.2 The second main hypotheses:

The second main hypotheses: Firm size affects the average intellectual capital, and stability of Earnings of a corporation. To test the second hypothesis, the following model will be used:

\[ Y = \beta_0 + \beta_1\text{VAIC} + \beta_2\text{SIZE} + \beta_3\text{VAIC} \times \text{SIZE} + \epsilon_t \]

In this study, firm size variable was considered as a moderator variable, and the impact of firm size on the components of intellectual capital and the stability of earnings was assessed.

### Table 4: Results of analysis of The second main hypotheses.

<table>
<thead>
<tr>
<th>variable</th>
<th>Coefficient of correlation</th>
<th>SD</th>
<th>T-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.222</td>
<td>0.198</td>
<td>1.127</td>
<td>0.261</td>
</tr>
<tr>
<td>VAIC</td>
<td>0.002</td>
<td>0.001</td>
<td>2.108</td>
<td>0.036</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.033</td>
<td>0.033</td>
<td>0.983</td>
<td>0.326</td>
</tr>
<tr>
<td>VAIC+ SIZE</td>
<td>-0.0003</td>
<td>0.0001</td>
<td>-2.245</td>
<td>0.025</td>
</tr>
<tr>
<td>AR(1)</td>
<td>0.018</td>
<td>0.279</td>
<td>0.066</td>
<td>0.949</td>
</tr>
<tr>
<td>Durbin–Watson test</td>
<td>1.747</td>
<td>Adj-R-squared</td>
<td>0.993</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the results of testing the regression model, as shown in the Table 4, it can be seen that the P-value of F-statistic, which indicates the significance of the regression, is equal to 0.000, and this indicates that the model is significance at 95% of confidence level. Adjusted R² is also 0.99, and this indicates that
approximately 99% of changes in the dependent variable can be explained by the independent variables in the model, which represents a good explanatory power of the regression.

As it is obvious, the correlation coefficient of independent variable of VAIC × SIZE is 0.0003, and the significant number is 0.0253. Thus, according to the t-statistic and p-Value of this variable, the results indicate the significance of this coefficient, at the error level of 5 percent. These results indicate that firm size affects the relationship between intellectual capital and stability of earnings in the listed companies in Tehran Stock Exchange. The results confirmed the two main hypotheses of the study.

8 - Conclusions and Recommendations:

Because of today’s competitive arena, the ability to achieve sustainable profitability is considered as one target in the business organizations. On the other hand, since the importance and recognition of intellectual capital in organizations is increasingly growing, the present study was conducted to examine the relationship between intellectual capital and stability of earnings as an indicator of the quality of earnings in the listed companies in the Tehran Stock Exchange. Therefore, the value of added intellectual capital coefficient model was used as an indicator of intellectual capital in a six-year period. Stability of earnings also was assessed through the Sloan model. The research includes two main hypotheses and three sub-hypotheses. The results of testing these hypotheses indicate that there is a significant relationship between intellectual capital and stability of earnings in the studied enterprises and the firm size also has a moderator effect on the relationship between the two. Therefore, the role and importance of intellectual capital is more marked while accessing the sustainable profitability.

Finally, it may be suggested that with the numerous indicators of earnings quality, future researchers can examine the relationship between intellectual capital and these indicators. Also, since in the present research the focus was mainly on the relationship between intellectual capital and corporate performance, and little was investigated about the methods of measuring intellectual capital, it is recommended to the future researchers to take this important issue into their close considerations.

REFERENCES