The Effect of Accruals Quality On Return and Capital Cost

Mohammad Ali Shabani
M.A, Department of Bussines Management, University of Kar Higher Educational Institution, Khorramdarreh branch, Iran.

Abstract: The present study aims to investigate the effect of accruals on return and cost of capital. Accordingly, by analyzing information of 92 companies over a period of 8 years from 2008 to 2015, the researcher seeks to study the effect of accruals quality on the returns and capital cost of the companies listed in Tehran Stock Exchange. Tadbirpardaz, Rah Avard-e Novin, Eviews and SPSS were used for analyzing the hypotheses. The results of hypothesis analysis indicate that accruals quality has different impacts on the capital cost components. Accruals have a positive and significant effect on the cost of equity, which increases the cost of internal resources provision, while there is no significant relationship between the accruals quality and costs. Moreover, the findings show that the quality of accruals leads to increased return on the companies’ market and the relationship between these two factors is positive and significant. Finally, the results of the Fama-French three-factor model analysis demonstrate that accruals quality cannot explain stock returns (equity premium) to assess companies’ returns, and statistically, there is no meaningful relationship between accruals quality and risk premium in the Fama-French three-factor model.

Key Words: Accruals quality, Cost of equity, Cost of debt, Market return, Risk premium and Fama-French Model

INTRODUCTION

Capital market is one of the most important pillars of the economy. By collecting dead stock in the society, in addition to reduction of the excess liquidity, the capital market bring an optimal shift of the capital towards the active economic units of the market which provides the basis for economic growth and prosperity, and in this market, stock price is the most important factor emerging against the investor. Various factors can affect stock price fluctuations and returns of which the systematic risk and quality of information is of the most important ones. In the world of present investment, decision making is perhaps the most serious part of the investment process in which investors need to make optimal decisions in order to maximize their own interests and wealth (Fernando et al., 2010). In this regard, information is the most important factor in the process of decision-making. Information can have a significant impact on the decision making process because it leads to different decisions made by different people. The company's risk and the impact it has on the firm is one of the basic information that is the basis for decision-making in relation to investing (Chan et al., 2006). Stock market theorists consider financial reporting as the most critical source of information for investors. For this reason, provision of information for facilitating decision making is one of the goals of accounting and
preparing financial statements. In fact, disclosure of information about firm performance or about the uncertainties arising from the firm's performance (risk) can guide the investors, creditors and capital market actors to allocate resources for themselves (Perotti et al., 2011).

To provide information on the performance of a business entity is of the primary objectives of financial reporting that is obtained by measuring the profit and its components. Net measurement of future cash flows in the business entity is considered as the special interests of the financial statements stakeholders in order to estimate their expected returns (Francis et al., 2004). For increasing the predictive power of future cash flows, disclosed profit should be of a high quality. The general dissemination of high quality information by the management will reduce information asymmetry between management and other users. According to the studies, decreased information asymmetry, in turn, leads to a reduction in the capital cost and information risk, an increase in the ability of forecasting cash flows, improvement of the firm's assessment, increased stock liquidity, and the rise in companies stock (Ardestani M, 2007). Therefore, considering this objective, the present study evaluates the impact of information risk (through accruals quality) on capital cost and stock returns.

Theoretical fundamentals and review of literature

Conceptually, capital cost is the cost of investment opportunity in a company. The cost of capital is an attempt to quantify the expected returns of equity holders. Using cost of capital in investment decisions, using it as the basis for creating an optimal capital structure or moving towards it, using it in capital leases, and using it in measuring performance indexes and, in principle, using it in diminishing future cash flows to determine value are the items which can be expressed in the description of capital cost (Osmani MQ, 2002). The cost of capital determines the minimum return on the capital of an institution or organization (Easton P, 2004). It is the minimum rate of return required to maintain the value for the company (Arab Mazar Yazdi et al., 2008).

Different methods such as capital asset, adjusted capital pricing model, adjusted capitalization pricing model, congestion model, dividend returns plus profitability of capital, arbitrage pricing theory model and Fama-French three-factor model have been introduced to calculate capital cost. Capital cost is the weighted average of the resources cost provided from debt and equity. In Iran, the rate of financing cost through debt (interest rate) is not competitive and is usually determined through a banking system and in an orderly manner. The cost of capital is influenced by various internal and external factors of firms. From the aspect of internal factors, the impact of information transparency and the quality of financial reporting on capital cost will raise the question whether the capital cost will be affected by the accruals quality or not.

Given that information risk is caused by low accuracy in the presented information or information inability to estimate likely returns, it is expected that the feature of profit quality, to the extent that brings uncertainties for stakeholders, would cause a negative impact on the capital cost (Francis, J et al., 2004). Since the cost of capital is based on the investors' expected rate of return, it is related to the level of risk accepted by them. The shareholders rely on the financial statements of the firm, in particular, the reported earnings for determining
their expected rate of return. Therefore, the reported earnings quality is effective in estimating the shareholders' expected returns and determining the rate of the company's capital cost.

Establishing a balance between risk and return is one of the important functions of the capital market. Risk and return are among the fundamental concepts in financial literature that are manifested in terms of capital cost. Capital cost plays a crucial role in financing and investment decisions. It is conceptually defined in terms of the expected return. In other words, the capital cost is referred to the lowest rate of likely return. If the expected return is lower than the capital cost, the value of the economic entity will decrease, so the management must endeavor to achieve the expected returns at least at the capital cost level in order to maintain the value of the economic unit, where reduction of the capital cost is the key to succeed (Osmani, MQ, 2002). Since the cost of capital is based on the investors' expected return, it is related to the level of risk (profit changes) accepted by them (Sufiyany A, 2005). By providing high-quality information, companies try to increase predictability of future cash flows and reduce information risk (Ardestani M, 2007).

Jones (Jones J, 1991) defined 21 differences between profits and cash resultant from operations as accruals. In fact, accruals are referred to items that cause delay in the registration of income and expenses. They also can be accounted for as a cash transferor to another time; that is, cash payments and receipts are well included in registered accruals and this issue makes these accruals better reflect the company's economic reality.

However, accruals may change or adjust the identification of cash flows over time, and these adjusted items (profit) better assess the firm's performance, but accrual items are often based on assumptions and estimations that (if they are incorrect) should be modified in accruals and future profit. For example, if the net pay from a loan is less than the initial estimate, the subsequent registration both will reflect the cash received and will modify the estimation error. It is believed that the errors in the estimation of accruals and their subsequent amendments are considered as a parasite and cause a reduction in the usefulness of accrual items, therefore, accruals quality of profit is declined due to the size of accruals estimation error. In general, the accruals quality criterion is used to determine the usefulness of accruals. The quality of accruals is the extent to which accruals of working capital are related to the realization of operational cash flows.

One of the criteria for calculating the company's earnings quality is the quality of accruals in profit which are positively associated with each other; that is, when the quality of accruals increases, the company's earnings quality increases and when the quality of accruals decreases, the quality of earnings also decreases. The company's earnings quality also affects its returns, because with market awareness of the low quality of the reported profits of a company, its shares are not welcomed by investors and, as a result, the company's stock returns are declined. On the other hand, the relationship between risk and return creates different expectations about the relationship between the accruals quality and returns. The low quality of reported accruals in companies profit results in an increased risk of investment. Regarding the relationship between risk and return, augmented risk of a company will raise the company's returns (Foroughi D et al., 2013).
Consequently, due to the impact that accruals quality as an indicator of information risk can have on capital cost and stock return, the main issue in the current research is as follows: how changes in the accruals quality can affect the capital cost and the stock return of the companies accepted in Tehran Stock Exchange? Accordingly, the researcher seeks to assess the impact of the accruals quality on the returns and cost of capital.

Raheel and Chen (Raheel, S et al., 2016) investigated the impact of information risk on capital cost and stock returns of corporations. The researchers used accruals quality to assess the information risk, and also used the multivariate regression analysis based on the Fama·Macbeth model and the two-step cross-sectional regression method to measure the relationships. The analysis, carried out among the Chinese stock market companies, showed that the low quality of accruals leads to an increase in the cost of equity, but this relationship is not true among public corporations. However, the results did not indicate any relationship between the cost of debt and the quality of accruals. In addition, the low quality of accruals creates an increase in future returns of companies. Finally, the results suggested that the indicators of accruals quality have the ability to price companies based on the Fama-French three-factor model.

Victor and Alberto (Victor Ekpu et al., 2016) in a study titled "Information asymmetry and cost of equity" investigated the relationship between information asymmetry and equity costs in companies listed on the Australian Stock Exchange. Researchers broke down the proposed price to buy and sell shares in order to achieve the wrong choice (as a criterion for information asymmetry). In their study, after controlling known variables that affected the return needed for equity (such as beta, firm size, book value to market value, etc.), a positive and significant relationship was observed between information asymmetry and the rate of return required for shareholders.

Persakis & Iatridis (Persakis A et al., 2015) reviewed the impact of earnings management and audit quality on the capital cost during the economic crisis. The results of the analyses revealed that the 2008 financial crisis had a positive and significant effect on the cost of equity and debt costs of corporates. The cost of equity had a significant negative relationship with companies which have an audit committee and mighty auditors. In addition, the debt cost had a significant negative relationship with the auditor size, the audit committee and the rotation of the audit firms. Moreover, the results indicated that earnings management in the pre-crisis period of 2008 had a significant negative relationship with the cost of capital, but in the year of the economic crisis, this relationship was not significant.

Karmir et al. (2013) in a study titled "Convergence of profit management and information asymmetry in an uncertain environment" investigated the relationship between earnings management and information asymmetry with regard to environmental uncertainty. Researchers' findings suggest that the complex and dynamic environment weakens the relationship between discretionary accruals and information asymmetry measured by the stock price fluctuation and bid/offer spread. In particular, the (positive) relationship between profit management and information asymmetry is weakened for diversified companies, those with higher Research & Development costs and those exposed to more sales volatility.
(Fiu d et al., 2012), in a research entitled “Frequency of financial reporting, information asymmetry and cost of equity”, studied the relationship between the number of financial reporting and the difference in the bid/offer of the stock and the purchase of shares (information asymmetry criterion) and the cost of equity. They found that the frequency of financial reporting diminishes information asymmetry and cost of equity.

(Elena Petrova et al., 2012), in an article titled "The relationship between the equity cost and voluntary disclosure," selected 121 financial and non-financial companies in the Swiss Stock Exchange and using the residual profit valuation model studied the effect of disclosure on the cost of capital. They realized that Swiss financial and non-financial firms reduced their capital cost by increasing voluntary disclosure. In addition, they confirmed the inverse relationship between the cost of capital and disclosure level, by controlling variables including corporates risk, financial leverage, and ignorance of corporates disclosure strategy (conservative or aggressive).

In order to investigate the impact of accruals quality on returns and capital cost, the following hypotheses are introduced:

1. The quality of accruals affects the cost of equity.
2. The quality of accruals affects the cost of debt.
3. The quality of accruals affects stock returns.
4. The quality of accruals as a risk index can explain corporates returns.

**Method**

The present research belongs to the field of experimental research and post-event type based on actual stock market information and financial statements of companies accepted in the Stock Exchange. Since the present research investigates the relationship between two variables, it is a correlational study. The underlying information of this research consists of the stock market value and information related to financial statements of corporates. The relationship between the independent variable (accruals quality) and dependent variable (equity cost, debt cost and return) was measured. Data required for research was collected from library resources, announcements published by the Securities and Exchange Organization of the Comprehensive Information Bank of the Corporates on the official website of the Stock Exchange, Tadbirpardaz and Rah Avard-e Novin software etc. The statistical population included companies accepted in Tehran Stock Exchange. Statistical sampling was done by a systematic elimination or filtering in accordance with the following criteria: 1. their financial statements items, as reported by the company, were available for the period of 2008 to 2015. 2. The shares of the companies had been continuously traded on Tehran Stock Exchange from 2008 to 2015. 3. During the research period, there was no change in activity or in the fiscal year. 4. They were not a part of investment, financial intermediation companies, holding, bank and leasing companies of. 5. Companies' stock sale did not have trade interruption over three months. Regarding the systematic elimination, the sample companies included 92 with the above mentioned conditions.

**Research models**
The models used to test hypotheses are based on the study by Raheel and Chen (Raheel, S et al., 2016), as well as the relationship posed between variables as follows:

The model used to test the first hypothesis is as follows:

\[ \text{IndEP}_{it} = \beta + \beta_1 AQ_{it} + \beta_2 \text{Beta}_{it} + \beta_3 \text{Leverage}_{it} + \beta_4 \text{Size}_{it} + \beta_5 \text{Growth}_{it} + \beta_6 \text{SOE} + \beta_7 \text{SOE} \times AQ + \epsilon \]

Where
LndEP: cost of equity  
AQ: Accrual quality  
Beta: Systematic Risk  
Leverage: Financial leverage  
Size: Company size  
Growth: Income growth rate  
SOE: Percentage of state ownership

To test the first hypothesis, the above model is tested for the all of the companies during the research period. To evaluate the hypothesis, the independent variable coefficient is examined and analyzed so that its significance in the model represents the impact of the independent variable on the dependent variable and its direction indicates the type of the impact.

The model used to test the second hypothesis is as follows:

\[ \text{CostDebt}_{it} = \beta + \beta_1 AQ_{it} + \beta_2 \text{Leverage}_{it} + \beta_3 \text{Size}_{it} + \beta_4 \text{ROA}_{it} + \beta_5 \text{IntCover}_{it} + \beta_6 \text{NIBE} + \beta_7 \text{SOE} + \beta_8 \text{AQ} \times \text{SOE}_{it} + \epsilon \]

Where
Costdebt: Cost of debt  
AQ: Accrual quality  
Leverage: Financial leverage  
Size: Company size  
ROA: Return on asset  
Intcover: Interest Coverage Ratio  
NIBE: Income volatility  
Growth: Income growth rate  
SOE: Percentage of state ownership

To test the second hypothesis, the above model is tested for all of the companies during the research period. To evaluate the hypothesis, the independent variable coefficient is examined and analyzed so that its significance represents the impact of the independent variable on the dependent variable and its direction indicates the type of the impact.

The model used to test the third hypothesis is as follows:

\[ R_{it} = \beta + \beta_1 \text{Size}_{it} + \beta_2 BM_{it} + \beta_3 AQ_{it-1} + \beta_4 \text{Beta}_{it} + \beta_5 \text{SOE}_{it} + \epsilon \]

Where
R: Return on asset
Where

- \( R \): Return on stock
- \( \text{Size} \): Company size
- \( \text{BM} \): Book-to-market ratio
- \( \text{AQ} \): Accrual quality
- \( \beta \): Systematic Risk
- \( \text{SOE} \): Percentage of state ownership

To test the third hypothesis, the above model is tested for all of the companies during the research period. To evaluate the hypothesis, the independent variable coefficient is examined and analyzed so that its significance represents the impact of the independent variable on the dependent variable and its direction indicates the type of the impact.

The model used to test the fourth hypothesis is as the following:

\[
R_{it} - R_{ft} = \beta_0 + \beta_1 R_{mt} - R_{ft} + \beta_2 SMB_{it} + \beta_3 HML_{it} + \beta_4 AQ - factor_{it} + \epsilon
\]

Then the extracted coefficients in the first stage are used in the following model and the second stage is carried out by fitting of the model as a cross sectional one.

To test the fourth hypothesis, the above model is tested for all of the companies during the research period. To evaluate the hypothesis, the independent variable coefficient is examined and analyzed so that its significance represents the impact of the independent variable on the dependent variable and the direction indicates the type of the impact.

**Findings**

Table 1: Results from testing the first hypothesis using the first model

<table>
<thead>
<tr>
<th>Descriptive variables</th>
<th>Variable coefficient in the model</th>
<th>T statistic</th>
<th>P-Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.182718</td>
<td>1.234889</td>
<td>0.2173</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>( AQ )</td>
<td>0.217858</td>
<td>-4.808859</td>
<td>0.0000*</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>( \beta )</td>
<td>-0.009782</td>
<td>-2.260145</td>
<td>0.0241*</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.023708</td>
<td>-1.079994</td>
<td>0.2805</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>Size</td>
<td>-0.007591</td>
<td>-1.422976</td>
<td>0.1552</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>Growth</td>
<td>0.247825</td>
<td>11.66525</td>
<td>0.0000*</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>( \text{SOE} )</td>
<td>6.96-05</td>
<td>0.188193</td>
<td>0.8508</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>( \text{SOE} \times AQ )</td>
<td>0.000211</td>
<td>0.131065</td>
<td>0.8958</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>F test values</td>
<td>36.24139</td>
<td>Durbin-Watson test</td>
<td>2.116387</td>
<td></td>
</tr>
</tbody>
</table>
The results of the regression test suggest that the coefficient of accruals quality (AQ) is positive in the model, that is, companies with a more coefficient of the model residual error variable (which indicates the lack of accruals quality) have also a more cost of equity. This relationship is significant at the confidence level of 95% because, firstly, the absolute value of the t statistic obtained in this variable is larger than its corresponding value in the table \( t_{0.025} = 1.96 \) and also the corresponding calculated P-Value in this variable is less than 5%. Therefore, the claim that the accruals quality affects the equity cost is confirmed. The results are the same with the results of the correlation coefficient. The determination coefficient in the model is approximately 26.2%. This coefficient indicates that independent variables of the model can justify almost 26% of the variations in the company's equity variable. Examination of the lack of autocorrelation between the model's residuals is one of the adequacy and accuracy tests for the model. Autocorrelation brings too much increase in t values of the model, and consequently, the coefficients mistakenly become significant, which results in misinterpretation of the coefficients and the probability of occurrence of the second type error. To investigate the lack of autocorrelation, the Durbin-Watson test values are used, which should be between 1.5 and 2.5. In this model, the value of the Durbin-Watson statistic is equal to 2.11; values close to 2 imply that there is no autocorrelation between the model's residuals. The other method to review adequacy of the model is to check the normality of regression model errors. According to this assumption, errors of the regression equation should have a normal distribution. With regard to the values of the Jarque statistic and the corresponding P values, which is higher than 5%, the assumption of the error values normality is accepted in the model.

Table 2. Results from testing the second hypothesis using the second model

<table>
<thead>
<tr>
<th>Descriptive variables</th>
<th>Variable coefficient in the model</th>
<th>t</th>
<th>P-Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.579036</td>
<td>-4.481027</td>
<td>0.0000*</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>AQ</td>
<td>-0.017947</td>
<td>-0.592463</td>
<td>0.5538</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.008850</td>
<td>-0.646603</td>
<td>0.5181</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>Size</td>
<td>0.021817</td>
<td>4.335305</td>
<td>0.0000*</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>ROA</td>
<td>0.026012</td>
<td>0.511969</td>
<td>0.6089</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>IntCover</td>
<td>-0.000772</td>
<td>-1.331965</td>
<td>0.1834</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>Growth</td>
<td>0.012001</td>
<td>2.554108</td>
<td>0.0109*</td>
<td>Significant at the level of 95%</td>
</tr>
</tbody>
</table>
The results of the regression test indicate that the coefficient of accruals quality (AQ) is negative in the model, that is, companies with a more coefficient of the model residual error (which indicates the lack of accruals quality) have a lower level of debt cost. However, this relation is too weak so that it is not significant at the confidence level of 95% because firstly, the absolute value of the obtained t statistic in this variable is smaller than its corresponding value in the table ($t_{α=0.975} = 1.96$), as well as the corresponding calculated P.Value is also more than 5%. Therefore, the claim that the accruals quality affects the cost of debt is not confirmed. The results are similar to the results of the correlation coefficient. The coefficient of determination in the model is approximately 22.06%. This coefficient suggests that independent variables in this model can justify almost 22% of the variations in the company's debt costs. In this model, the value of the Durbin-Watson statistic is 1.87; values close to 2 indicate the lack of autocorrelation between the model's residuals. Considering the Jarque statistic values and the corresponding P values which is higher than 5%, the assumption of the errors value normality is accepted in the model.

Table 3. Results from testing the third hypothesis using the third model

<table>
<thead>
<tr>
<th>Descriptive variables</th>
<th>Variable coefficient in the model</th>
<th>t statistic</th>
<th>P-Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.442709</td>
<td>-2.185231</td>
<td>0.0292</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>Size</td>
<td>0.069199</td>
<td>2.892813</td>
<td>0.0039</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>BM</td>
<td>-0.186872</td>
<td>-3.394266</td>
<td>0.0007</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>AQ</td>
<td>0.484602</td>
<td>3.066151</td>
<td>0.0023</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>Beta</td>
<td>0.233600</td>
<td>12.04430</td>
<td>0.0000</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>SOE</td>
<td>-0.002026</td>
<td>-1.240162</td>
<td>0.2153</td>
<td>Insignificant in the model</td>
</tr>
</tbody>
</table>

F test values | 40.77163 | Durbin-Watson test | 2.231985 |
| P-Value | 0.000000* | Coefficient of Determination values($R^2$) | 0.221860 |
| Jarque statistic values for the model residuals | 0.021379 | Adjusted $R^2$ | 0.216419 |
The results of the regression test indicate that the coefficient of accruals quality (AQ) is positive in the model, that is, companies with a more coefficient of the model residual error (which indicates the lack of accruals quality) have a higher level of return on stock. This relation is significant at the confidence level of 95% because firstly, the absolute value of the obtained t statistic in this variable is greater than its corresponding value in the table ($t_{0.025} = 1.96$), as well as the corresponding calculated p-Value is more than 5%. Therefore, the claim that the accruals quality affects the return on stock is confirmed. The results are similar to the results of the correlation coefficient. The coefficient of determination in the model is approximately 1.22%. This coefficient suggests that independent variables in this model can justify almost 22% of the variations in the company's return on stock. In this model, the value of the Durbin-Watson statistic is 2.32; values close to 2 indicate the lack of autocorrelation between the model's residuals. Considering the jarque-bera statistic values and the corresponding p values which is higher than 5%, the assumption of the errors value normality is accepted in the model.

Table 4. Results from testing the fourth hypothesis using the fourth model

<table>
<thead>
<tr>
<th>Descriptive variables</th>
<th>Variable coefficient in the model</th>
<th>t statistic</th>
<th>P-Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.164758</td>
<td>3.656018</td>
<td>0.0003*</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>$\beta_{RM-R_{FM}}$</td>
<td>0.171890</td>
<td>3.714312</td>
<td>0.0002*</td>
<td>Significant at the level of 95%</td>
</tr>
<tr>
<td>$\beta_{SMB_{it}}$</td>
<td>-0.008719</td>
<td>-0.568488</td>
<td>0.5699</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>$\beta_{HML_{it}}$</td>
<td>-0.012358</td>
<td>-0.788492</td>
<td>0.4307</td>
<td>Insignificant in the model</td>
</tr>
<tr>
<td>$\beta_{AQ-factor_{it}}$</td>
<td>0.008083</td>
<td>1.071302</td>
<td>0.2844</td>
<td>Insignificant in the model</td>
</tr>
</tbody>
</table>

| F test values         | 23.28328                         | Durbin-Watson test | 2.099674 |
| P-Value               | 0.000000*                        | Coefficient of Determination values($R^2$) | 0.261312 |
| Jarque statistic values for the model residuals (error) | 0.923073 | Adjusted $R^2$ | 0.250089 |
| P-values for the model residuals (error) | * 0.630314 | |

The results of the regression test indicate that the coefficient of accruals quality (AQ), as the risk index ($\beta_{AQ-factor_{it}}$), is positive in the model, that is, in companies with a more coefficient of the model residual error, the explanation of return is also higher. However, this relation is too weak so that it is not significant at
the confidence level of 95% because firstly, the absolute value of the obtained $t$ statistic in this variable is smaller than its corresponding value in the table ($t_{0.975} = 1.96$), as well as the corresponding calculated $P$-Value is also more than 5%. Therefore, the claim that the accruals quality, as the risk index, can explain the companies' return is not confirmed. The results are similar to the results of the correlation coefficient. The coefficient of determination in the model is approximately 26.1%. This coefficient suggests that independent variables in this model can justify almost 26% of the variations in the variable of return explanation. In this model, the value of the Durbin-Watson statistic is 2.09; values close to 2 indicate the lack of autocorrelation between the model's residuals. Considering the jarque-bera statistic values and the corresponding $P$ values which is higher than 5%, the assumption of the errors value normality is accepted in the model.

Discussion and conclusion

The results for the first hypothesis reveal that the $P$-value in the first model is less than 5%, thus there is a significant relationship between the accruals quality and equity costs and considering that the coefficient of accruals quality is positive in the model, the relationship between the quality of accruals and costs of equity is positive and meaningful, that is, by increasing the accruals quality, cost equity increases, too. Therefore, the claim that the quality of accruals affects the equity cost of the companies accepted on the Stock Exchange is confirmed and the first hypothesis is accepted. The results of the hypothesis show that increased accruals quality through the performance raises shareholders' expectations and thus equity cost is enhanced. This is to some extent expected because the opportunistic behavior of management through profit manipulation increases the profitability of companies, and as a result, the accumulated profit reported on balance sheet results in higher expectations of investors and, therefore, the equity cost of corporates will rise.

The results of the second hypothesis are due to several reasons: First, the cost of debt is not related to the accruals quality, but factors such as loaning capacity is the bankruptcy risk that affects debt costs. However, since the main part of the companies' debt is for received loans and also reserves such as the savings of employees' end-of-military service benefits, the changes in the accruals quality do not impact on the trends of these debts and the costs caused by receiving loans, but the Central Bank's financial and monetary policies and the rate of facilities granted by the Central Bank is the main determinant of corporates' debt costs. Secondly, the other factor in the above result could be the low importance of accruals and financial reporting quality in Iran's capital market; this low importance is under the influence of weaknesses in corporate governance mechanisms so that due to the low importance of accruals and financial reporting quality, the capital market do not react to the lack or deficiency of their information and through the non-reaction, investors' expectations remain unchanged, and eventually the quality of accruals and financial reporting is not considered to be an effective factor in the cost of debt.

The results of the third hypothesis are in line with the first hypothesis and indicate that shareholders and investors active in the capital market determine their expectations for the explanation of the firm's prices on
the basis of its profits. Thus, profit manipulation, which is occurred under the influence of opportunistic management behaviors, leads to improved performance and profitability of companies, and as a result, this improvement results in a greater demand for the purchase of companies stock so that in the short and medium term, the stock price will increase and hence, the firm's market return will rise, which results from changes in stock prices as well as cash benefits. The firm's management tendency to increase the stock price of the companies is the other reason for this result. Given that managers always do attempt to maximize the market value of the stock of the company under their management, which explain accruals quality, they try to complete the reports and provide the amount of accruals used in these reports in such a way that the stock price to rise, which also reflects an increase in stock returns.

The results of the fourth hypothesis show that the accruals quality can’t explain variations in companies’ returns, which is due to their risk premium (equity premium). One of the main reasons for the result is the absence of inherent impact of accruals on the explanation of returns because in the capital market, various factors such as firm’s performance, upcoming predicted profit announcement, changes in performance and fluctuations that represent firm risk has the power to explain investors' expectations, the trend of price changes as well as the level of companies’ stock risk premium. Actually, accruals cannot explain the stock of the companies which are higher and lower than the real price, and this is due to the inability of accruals quality to explain the inherent value of a share because the difference between the real and inherent value of the shares determines the equity premium from the admission of additional risks.

In general, the results of hypotheses analyses suggest that quality has different impacts on the components of capital cost. The accruals have a positive and significant effect on the cost of equity and leads to the increase in the cost of internal resources provision, while there is no significant relationship between the quality of accruals and costs. The results of this study are in line with the results of Anvar Khatibi and Mansouri (2015) Akbari (2015), Mousavi Shiri et al (2015), Rezaei and Veysi Hesar (2013), (Foroughi D, 2013), Raheel and Chen (Raheel, S et al., 2016), and Fa and et al. (2012). The findings also revealed that accruals quality leads to the increase of return on the market of the companies and the relationship between these two factors is positive and significant. Finally, the results of the Fama-French three-factor model analysis indicated that the quality of accruals cannot explain stock returns (equity premium) to assess the company's returns, and statistically, there is no meaningful relationship between the quality of accruals and risk premium in the Fama-French three-factor model. According to the results, in order to assess the equity cost and the amount of this cost to evaluate investment opportunities, it is recommended that shareholders and investors of the companies listed on the Tehran Stock Exchange do include the accruals quality index as a factor effective in equity cost in their decision models. This is because the results showed that the accruals quality affects the equity cost of companies. It is also suggested that in order to evaluate the cost of debt and the amount of this cost to assess opportunities for investment, the index of accruals quality not to be included in their decision
models as a factor influencing the cost of debt because the results indicated that accruals quality doesn't impact on the equity cost of corporates.

References
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