Investigation of Revenue Role in the Firm Valuation

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ABSTRACT

Background: Although the current earning is a measure for predicting the future earnings and cash flows, the revenue also can be an appropriate measure for evaluating the firm performance. Objective: This study aims to investigate the effect of revenue on the valuation of companies listed on the stock exchange. Results: According to the high earning volatility and its management, this item cannot solely meet the users' needs and it is necessary to find the appropriate complementary information for it. Therefore, this study compares the information content of earning and revenue with each other. It is argued that the revenue is more persistent than the earning because the revenue is less affected by the surprising factors. Revenue management is more difficult than the earning management. There is no revenue ceiling and it is difficult to reduce the price without the devastating impact on the critical business activities. The rate of changes in the cost while enhancing the level of activity is greater than its decrease, thus it has a greater impact on the earning. Using the data of financial statements and the stock prices of 104 companies, listed on Tehran Stock Exchange during the years 2001 to 2010, and utilizing the multivariate sequential regression analysis.

Conclusion: the results of study indicate that there is generally a direct correlation between the firm valuation and its revenue level. There is no incremental information content of revenue compared to the earning, while there is a significant relationship between the earnings per share and the firm valuation. Furthermore, a non-linear relationship has been confirmed between the firm revenue, earning, and returns.

INTRODUCTION

Previous research has shown that the earning information content has been decreased in recent years and this is because of the severe volatility of earning, its increased management, mismatched costs of pre-operating costs in the newly established units with the revenue of that period, other non-operating periodic costs and the development and research cost in some of the firms (Ertimure et al, 2003; Jegadeesh and Livnat, 2006). The results of other studies such Landsman et al (2002) and Truman and Wong (2001) have shown that the stock price react to both revenue and earnings at the time of earnings announcement, and the revenue and earnings depend on each other as the individual symbols which provide the information about the firm performance. (Chandra and Byung, 2008)

Furthermore, the results of studies by Sominatan and Winthrop (1991), Davis (2002), Ertimure et al (2003) and Jagadish and Lionat (2006, 2003) have indicated that the application of revenue in determining the firm valuation is increasing during the time and this indicates the importance of revenue amount in the process of reporting the firm performance. Furthermore, Collins (1997) indicated that the information content of earnings have been decreased during the recent years.

As mentioned, it seems that the revenue can be considered as an alternative to the earning and be applied for investigating the operational activities followed by determining the firm valuation (Chandra and Byung, 2008). Hence, the role of revenue and earnings in firm valuation is briefly explained as follows.

Effect of earning on the firm valuation:
Earning is one of the most important financial information reported by the firms. In fact, the investors and other users of accounting information consider the earning as important information for evaluating the
performance of firms. Moreover, the earning is one of the main factors in determining the stock value of firms. In this regard, Penman et al. (2007) have expressed that the accounting earning has high quality if it is able to predict the future firm valuation. According to the financial reporting, the managers can affect the firm stock market value by earning management. The accounting literature has widely referred to the earning management and studied its reasons and methods. For instance, it is assumed that the earning managers are seeking to smooth the earnings during the consecutive years in order to reduce the earning volatility and increase the firm valuation in those years. Therefore, here this question is raised whether the earning can have the economic value or not? And how it can accepted that the firm earning is the determining factor of firm valuation? Furthermore, the revenue can give the new information to the market and the available evidence also suggests that the revenue contains the information Thus, the study of information content of revenue is essential.

Effect of revenue on the investment assessment:
Operating revenue usefulness has been already investigated by Ball and Brown (1968). Revenue usefulness, which is obviously the most important issue for accounting and finance researchers, is also considerable for the users of financial statements. In a study, which was conducted by William (1997) and its results were presented with the title "The prices, revenue, and price to revenue ratio", the usefulness of price-to-revenue ratio was investigated as an analytical tool. Based on a sample of 390 firms during the years 1983 to 1994, he came to this conclusion that the higher return can be obtained from a portfolio with low price to earnings ratio.
Apart from the influence by the level of revenues, the stock price may be affected by other variables such as the risk, firm size, debt ratio, revenue growth at the past, and expected revenue growth in the future of which the earnings and revenue growth is the most important one. It is assumed that the revenue is more persistent than the earning because the revenue is more homogeneous than the earning (since it is less affected by the unexpected factors). The revenue management is more difficult than the earning management and the rate of changes in the cost while enhancing the level of activity is greater than its decrease, thus it has a greater impact on the earning (Chandra and Byung, 2008)
This study initially investigates the power of information in providing the information about the company performance, and this is extremely important because one of the objective of accounting information is to approve the measurement indicators of firm performance for the creditors and stakeholders and predict the future conditions. Investigating the larger number of samples and increase time period provides this opportunity to study different roles of revenue in the firm valuation during the time and different situations.

Indicators of measuring the information usefulness:
In this paper, two concepts of information usefulness have been applied and both of them are widely investigated in the previous studies: Value relevance information and the information content. First, the accounting information usefulness is measured based on the concept along with its ability to record all simultaneous information which is entered the market over a period and affects the firm valuation.
For being useful in the firm valuation and contracts, the revenue should have the higher ability than the earning in be providing the Value relevance information in the same period and as reflected in the prices. This study measures the value relevance in the form of the relationship between the earnings and revenue during a period of time with the return of the same period. Based on the second concept, the usefulness is measured based on the ability of accounting information in interpreting the investors’ ideas about the firm valuation and this means that only the new information is considered useful.
In this study, the information content is measured as the link between the earnings and revenue surprise and the abnormal returns at the date of earnings announcement. Two concepts of usefulness are independent on each other and this means that an element can have the information content, but not be value relevant, and vice versa; however, it can be useful for both cases (useful for different purposes). The accounting information should be unpredictable and practically used by the investors in order to have the information content. In contrast, it can be the value relevant even if it is predictable and be potentially useful in the valuation. By the voluntary disclosure of information, a firm can predict the earning rate during a period more accurately predict; in this regard, the earning has no information content despite being useful and value relevant for the firm. In this case, the accounting plays the role in controlling the information quality and providing the reliable measurement indicators for applying in the valuation models and contracts. (Francis and Schipper, 1999) Two concepts of information usefulness emphasize on different properties of accounting information. Since the information content of value relevance depends on the new information contained in the earning components (information disclosure by the competing media before the earnings announcement), the information content and the information of value relevance and revenue can have positive or negative, or no correlation. Furthermore, the correlation between them can be different in different circumstances. Financial reporting contains the creation of balance between these two dimensions.
Research Background:
Local studies:

No research has been conducted in the field of correlation between the revenue and firm valuation in Iran. Therefore, a brief summary of relevant foreign studies has been provided as follows. It is worth noting that the conducted studies in the field of information advantages of revenue for the firm valuation are more expanded than the studies in the field of earning. Recent studies in the field of accounting information advantages mainly focus on the relationship with the valuation (e.g. Francis and Schipper 1999; Lev and Zharrowin 1999), whereas the recent research in the field of revenue (Ertimure et al, 2003; Jegadeesh and Livnat, 2006) and also the previous studies on the nonlinear properties in the correlation between the earnings and returns (e.g. Freeman et al, 1992; Lew et al, 1998) have focused on the information content. This is the first study which has paid attention to the correlation between the revenue and Value the as well as the linear property of correlation among the returns and earnings and revenue. 

MaKeown et al (1985), Hoskin et al (1986) and Wilson (1987) reached no result based on greater information of revenue than the earning. In contrast, by applying a sample of 218 firms during the years 1980 to 1983, Sominatan and Weintrop (1991) indicated that the revenue has more information content than the earnings at the time of earnings announcement. Therefore, the evidence, obtained from the preliminary studies on the relationship with the role of revenue in determining the firm valuation, has been contradictory to some extent.

Collins et al (1997) conducted a research based on the model of Olson (1995). They concluded that the effect of net earnings has been reduced on the stock price and the effect of book value has been increased on the stock price since the past forty years.

Dichew (1997) investigated the relevance of accounting variables to the firm valuation. He expressed that the relevance of a variable to the firm valuation is associated with the unpredictability of changes in that More effective. Hence, the less the changes of a variable are predictable, the more that value will be relevant to the firm valuation and will be considered as a better measure for the relevance, because the new information will change the firm valuation. Using the autocorrelation model, this study investigates the relevance of four variables, net earnings, operating cash flow, earnings before interest and taxes, or a combination of earnings and book values to the firm valuation; and the changes of operating cash flows and net earnings have been more unpredictable than other variables.

Davis (2002) concluded that the unexpected revenue of Internet companies after controlling the impact of earning surprise had a positive relationship with the abnormal returns around the earnings announcement date during 1998 to 2000 and this relationship was dropped after the market crash in April 2000.

Ertimure et al (2003) have studied whether the issue of whether the division of earning surprise into the revenue and cost surprise show the abnormal stock return in the earnings announcement day with More accurately predict whether or not. They found that the market reaction to the revenue surprise during the years 1996 to 2001 was more than its reaction to the cost surprise especially in new and growing companies.

Chandra and Byung (2008) examined the role of income in determining the firm valuation. The results of their study indicate that the revenue contains the brief information about the firm valuation, but it can transfer new information to the market. They emphasize that these results cannot be generalized to the technology-centered firms, certain circumstances of earning management, losing firms, or inaccurate models based on the linear relationship between the earnings and revenue. In the case that the firm has higher profitability, the revenue has more prominent role in determining the firm valuation.

Kama (2010) conducted that the earnings (revenue) surprise has a lower (higher) effect on the returns of firms which have the R Development and research cost. Furthermore, among the quarterly data, the market reaction to the revenue surprise at the time of providing the quarterly information is lower during the three mouths of year and this is more seen in the firms which are active in the imperfect competitive markets. He indicated that, unlike the results of previous studies in the field of different firms, the market reaction to the earnings surprise has been higher than the revenue surprise.

Fernandez (2011) introduced four main methods for firm valuation in his study as follows:
1- Based-on-balance sheet method, 2- Based-on-earning and loss method, 3- Combined method, and 4- Based-on-discounted cash flow method. By expanding each of the above methods, he stated that the discounted cash flow method is the best way for firm valuation. He has also expressed the problems of each of three methods in details and finally has provided a list of common mistakes in the firm valuation.

Research questions and hypotheses:

The role of revenue in the firm valuation is determined in order to respond to these questions: Is the information content of revenue higher than the earnings or not? Is the relationship between the revenue and earnings linear or non-linear? and Does the information content of revenue change over time or not? Based on these questions, the research hypotheses are explained as follows:
First hypothesis: The revenue is more effective than the earnings in determining the firm valuation.
Second hypothesis: The content information of revenue is higher than the earning.
Third hypothesis: The relationship between the earnings and revenue with the expected return of business is non-linear.

**Research methodology:**
This study is among the empirical research of accounting. Furthermore, it is applied in terms of the type of research and is based on the correlation technique in terms test method. The sequential regression models are used in order to analyze the data.

**Statistical population and sample:**
Statistical population of this study consists of all companies listed on Stock Exchange. Since the recent 10-year process of studied variables has been considered, the statistical population of this study contains all companies, which were listed on the Stock Exchange during 2002 to the end of 2010 and their stocks have been bought and sold on the Stock Exchange. These companies have been selected based on the following criteria:
- They should be present on the Stock Exchange from the early 2001 to the end of 2010.
- Their financial statements should be available in the specified time period.
- Their financial statements should be ended to March 29.
- They should not change the fiscal year or activity during the time period of research.
- They should not have more than 3 months of trading halt during the time period of research and in each year.
- They should not be among the intermediary companies such as leasing companies, banks, investment firms, and ....

According to the available statistics for the end of 2010, there were 462 listed companies on Stock Exchange and finally, 104 ones remained according the mentioned terms and this set was considered as the sample.

**Applied Models:**
Model (1) is used in order to test the first hypothesis:

\[
R_{it} = b_0 + b_1 RPS_{it} + b_2 RGRW_{it} + b_3 EPS + b_4 EGRW_{it} + e_{it}
\]  

Model (2) is used in order to test the second hypothesis:

\[
CAR_{it} = b_0 + b_1 RSUR_{it} + b_2 ESUR_{it} + b_3 CRET_{it} + e_{it}
\]  

**Unusual property test:**

\[
CAR_{it} = b_0 + b_1 ESUR_{it} + b_2 NESUR + e_{it}
\]

\[
CAR_{it} = b_0 + b_1 RSUR_{it} + b_2 ESUR_{it} + b_3 CRET_{it} + b_4 NRSUR_{it} + b_5 NESUR_{it} + e_{it}
\]

\[
CAR_{it} = b_0 + b_1 RPS_{it} + b_2 RGRW_{it} + b_3 EPS + b_4 EGRW_{it} + b_5 NRGRW_{it} + b_6 NEGRW_{it} + e_{it}
\]

In Table (1), the operational definitions of variables are briefly presented. All explanatory variables of first model have been divided by the share price at the beginning of the year t. In the first model, \((b_1 - b_3)\) is used in order to measure the relationship between the earning and value. If the sum of these coefficients is positive, it indicates the earning potential in providing the information about the companies. Furthermore, \((b_1 + b_3)\) has been used in order to measure the difference relationship between the revenue and the earning compared to the earning. If the sum of these coefficients is higher than the sum of earning coefficients, the revenue will have the higher ability to provide the information compared to the earning (Lu and Zharovin). Like similar studies, the abnormal return (the adjusted market return) in the second model is obtained by subtracting the market return from the return of share i during the period t. In this method, the stock risk is considered equivalent to the market portfolio. Furthermore, the return is considered abnormal only for the days, in which the share is traded, but the return is not considered abnormal for the other days; this means not considering the market and stock return in the interval days. Market return is also determined based on the Price Index and cash return and according to the index number at the time t and t-1.
Table 1: Definitions of variables used in the models (1) to (5).

<table>
<thead>
<tr>
<th>Model</th>
<th>Variable</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rit</td>
<td>Dependent</td>
<td>Stock returns of firm i during the financial period t. It refers to all benefits which are made for the shareholder in a year and are affected by factors including the price per share and cash dividend. Stock return of each firm is calculated annually and from the beginning of fifth month after the fiscal year month to the last fourth month of next year. (Rahmani and Saedi, 2008)</td>
</tr>
<tr>
<td></td>
<td>RPSit (EPSit)</td>
<td>Independent</td>
<td>Revenue (earning) per share</td>
</tr>
<tr>
<td></td>
<td>RGRWit (EGRWit)</td>
<td>Independent</td>
<td>Changes of RPS (EPS) in fiscal year t compared to the financial year t-1</td>
</tr>
<tr>
<td>2</td>
<td>CARit</td>
<td>Dependent</td>
<td>Cumulative abnormal stock returns of firm i during the days -1 and 0 (day 0 is the date for earnings announcement of the financial year t, according to Brown et al, 1987). Therefore, the audit report date has been used as the date providing the financial statements.</td>
</tr>
<tr>
<td></td>
<td>RSURa (ESURAa)</td>
<td>Independent</td>
<td>Revenue (earnings) surprise which is resulted from the difference between the forecasted revenue and actual revenue (difference between the forecasted earning and actual earning) of firm i per ordinary share of firm; and it is divided by the normal stock price at the beginning of the financial year t. RSURa is our target variable in the model. If the average revenue has higher continuation than the earning, its coefficient will be positive.</td>
</tr>
<tr>
<td>3</td>
<td>NESURa</td>
<td>Independent</td>
<td>It is the multiplication of ESURa by the absolute value of ESURa. The positive coefficient of ESURa and the negative coefficient of nonlinear term NESURa cause that the slope of relationship between the return and earning to be reduced by increasing the distance from the source (this function will have the S shape).</td>
</tr>
<tr>
<td>4</td>
<td>NRSURa</td>
<td>Independent</td>
<td>It is the multiplication of RSURa by the absolute value of RSURa. It is expected that b5 and b6 to be positive and b5 to be negative. And if the relationship between CARa and revenue surprise is non-linear (S-shaped), b5 will be also negative.</td>
</tr>
<tr>
<td>5</td>
<td>NRGRWit (NEGWRWit)</td>
<td>Independent</td>
<td>It is the multiplication of RGRWit (EGRWit) by the absolute value of RGRWit (EGRWit). If the relationship between the changes of revenue (earning) and return is non-linear (S-shaped), b5 (b6) will be negative.</td>
</tr>
</tbody>
</table>

Research findings:

Table 3 shows the descriptive statistics and correlation coefficients. All accounting variables have become homogeneous based on the stock price at the beginning of each fiscal period. The table shows that the standard deviation of revenue is higher than the earning variable. For instance, the standard deviation RPS (EPS) is equal to 2.94 (0.38). Moreover, both variables have positive standard deviation which indicates that both variables are normal.

Table 3: Descriptive statistics of variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average</th>
<th>Mean</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rit</td>
<td>26.56</td>
<td>9.44</td>
<td>2056.71</td>
<td>-69.60</td>
<td>20.38</td>
</tr>
<tr>
<td>RPS</td>
<td>2.14</td>
<td>1.32</td>
<td>29.74</td>
<td>0</td>
<td>1.06</td>
</tr>
<tr>
<td>EGRW</td>
<td>-0.01</td>
<td>-0.01</td>
<td>8.39</td>
<td>-4.10</td>
<td>0.14</td>
</tr>
<tr>
<td>EPS</td>
<td>0.17</td>
<td>0.16</td>
<td>6.76</td>
<td>-3.23</td>
<td>0.16</td>
</tr>
<tr>
<td>RGRWA</td>
<td>0.1</td>
<td>0.06</td>
<td>12.64</td>
<td>-11.14</td>
<td>0.43</td>
</tr>
<tr>
<td>CAR</td>
<td>1.92</td>
<td>0.24</td>
<td>341.62</td>
<td>-333.69</td>
<td>9.17</td>
</tr>
<tr>
<td>RSUR</td>
<td>-0.15</td>
<td>0.01</td>
<td>11.98</td>
<td>-12.12</td>
<td>0.49</td>
</tr>
<tr>
<td>ESUR</td>
<td>-0.02</td>
<td>-0.02</td>
<td>3.54</td>
<td>6.75</td>
<td>0.15</td>
</tr>
<tr>
<td>CRET</td>
<td>15.42</td>
<td>3.87</td>
<td>1039.58</td>
<td>-123</td>
<td>17.54</td>
</tr>
</tbody>
</table>

Table 4: Pearson and Spearman correlation coefficients for the time period 2001-2010.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pearson (Probability)</th>
<th>Spearman (Probability)</th>
<th>RPS</th>
<th>EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rit</td>
<td>0.03 (0.75)</td>
<td>-0.02 (0.86)</td>
<td>0.11 (0.28)</td>
<td>0.12 (0.24)</td>
</tr>
<tr>
<td>EGRW</td>
<td>0.09 (0.32)</td>
<td>0.09 (0.32)</td>
<td>0.61 (0.10)</td>
<td>0.61 (0.10)</td>
</tr>
<tr>
<td>EPS</td>
<td>0.14 (0.16)</td>
<td>0.25 (0.01)</td>
<td>-0.12 (0.21)</td>
<td>0.34 (0.34)</td>
</tr>
<tr>
<td>RPS</td>
<td>0.02 (0.83)</td>
<td>0.29 (0.003)</td>
<td>0.46 (0.0)</td>
<td>0.02 (0.88)</td>
</tr>
<tr>
<td>RGRW</td>
<td>0.04 (0.91)</td>
<td>0.14 (0.17)</td>
<td>0.43 (0)</td>
<td>0.16 (0.11)</td>
</tr>
</tbody>
</table>

Table 4: First, there is a little correlation between the variables of revenue and earnings. For instance, Pearson (Spearman) Correlation Coefficient is equal to 0.09 (0.25) between the RPS and EPS and equal to 0.02 (0.16) between the RGRW and EGRW which indicate that the revenue and earning do not always move alongside each other. Second, RPS and RGRW have Positive correlation with the annual return. Third, Spearman rank correlation coefficients between the stock return and variables, EPS, RPS, EGRWit and RGRWit, is higher than the it corresponding Pearson correlation coefficients and this represents the nonlinear correlation and is consistent with the research conducted by Swaminathan and Weintrop (1991), Brown et al (1987) and Chandra and Byung (2008). This correlation is also confirmed for the profitable firms.
The Kolmogorov-Smirnov test was done in order to confirm the normal distribution of dependent variables; its results are presented in the following table 5.

Table 5: Kolmogorov-Smirnov Test.

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>No.</th>
<th>ks Statistics</th>
<th>Probability</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>R_i</td>
<td>104</td>
<td>1.17</td>
<td>0.13</td>
<td>Normal</td>
</tr>
<tr>
<td>CAR_i</td>
<td>104</td>
<td>1.15</td>
<td>0.14</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Hypothesis test results:

The first hypothesis test results:

Table 6: Result of first hypothesis test.

<table>
<thead>
<tr>
<th>Year</th>
<th>Correlation coefficient</th>
<th>Coefficient of determination</th>
<th>Adjusted R²</th>
<th>F- Statistics</th>
<th>Probability</th>
<th>Effective factors in the model</th>
<th>Regression coefficient</th>
<th>SD of coefficients</th>
<th>T-statistics</th>
<th>Probability</th>
<th>D-W</th>
<th>Mean coefficient R</th>
<th>b₀ +b₁</th>
<th>b₀+b₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19</td>
<td>0.14</td>
<td>0.003</td>
<td>0.9</td>
<td>0.4</td>
<td>0.6</td>
<td>32.24</td>
<td>5.61</td>
<td>6.11</td>
<td>1.72</td>
<td>0.31</td>
<td></td>
<td>-0.010</td>
<td>0.08</td>
</tr>
</tbody>
</table>

The results of first hypothesis test are reflected in Table 6. The second column represents the Multiple Correlation Coefficient between the dependent variable and effective variables. This is a direct correlation. The third column represents the adjusted coefficient and the coefficient of determination. In other words, the independent variables explain 0.3% of net changes in the dependent variable. Durbin-Watson statistic is presented and since it ranges from 1.5 to 2.5, there is no concern about the independence of data.

The Second hypothesis test results:

Table 7: Third hypothesis test - Second model.

<table>
<thead>
<tr>
<th>Year</th>
<th>Correlation coefficient</th>
<th>Coefficient of determination</th>
<th>Adjusted R²</th>
<th>F- Statistics</th>
<th>Probability</th>
<th>Effective factors in the model</th>
<th>Regression coefficient</th>
<th>SD of coefficients</th>
<th>T-statistics</th>
<th>Probability</th>
<th>D-W</th>
<th>Mean coefficient R</th>
<th>b₀ +b₁</th>
<th>b₀+b₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.40</td>
<td>0.16</td>
<td>0.12</td>
<td>3.73</td>
<td>0.004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to Table 7, generally, with one unit increase in the ESUR_i, the variable CAR_i is increased equal to 22.59 units.

The Third hypothesis test results:

According to Table 8, generally and if there is no effective factors, the variable CAR_i will be equal to 2.15 on average for the third model and with one unit increase in the ESUR_i, the variable CAR_i is increased equal to 22.59 units.

Table 8: Third hypothesis test - Third model.

<table>
<thead>
<tr>
<th>Year</th>
<th>Correlation coefficient</th>
<th>Coefficient of determination</th>
<th>Adjusted R²</th>
<th>F- Statistics</th>
<th>Probability</th>
<th>Effective factors in the model</th>
<th>Regression coefficient</th>
<th>SD of coefficients</th>
<th>T-statistics</th>
<th>Probability</th>
<th>D-W</th>
<th>Mean coefficient R</th>
<th>b₀ +b₁</th>
<th>b₀+b₂</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.26</td>
<td>0.06</td>
<td>0.04</td>
<td>3.37</td>
<td>0.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Third hypothesis test - Fourth model.

<table>
<thead>
<tr>
<th>Year</th>
<th>Correlation coefficient</th>
<th>Coefficient of determination</th>
<th>Adjusted R²</th>
<th>F- Statistics</th>
<th>Probability</th>
<th>Effective factors in the model</th>
<th>Regression coefficient</th>
<th>SD of coefficients</th>
<th>T-statistics</th>
<th>Probability</th>
<th>D-W</th>
<th>Mean coefficient R</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.40</td>
<td>0.16</td>
<td>0.12</td>
<td>3.73</td>
<td>0.004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.78</td>
</tr>
</tbody>
</table>

According to Table 9, generally, with one unit increase in the ESUR_i, the variable CAR_i is increased equal to 22.59 units.
According to figure 9, generally with one unit increase in RSURit, the variable CARit is decreased equal to 12.09 units, and with one unit increase in NESURit, the variable CARit is decreased equal to 5.77 units. With one unit increase in ESURit, the variable CARit is increased equal to 30.87 units and with one unit increase in NRSURit, the variable CARit is increased equal to 1.33 units.

Table 10: Third hypothesis test - Fifth model.

<table>
<thead>
<tr>
<th>Year</th>
<th>Correlation coefficient</th>
<th>Coefficient of determination</th>
<th>Adjusted R²</th>
<th>F-Statistic</th>
<th>Probability</th>
<th>Effective factors in the model</th>
<th>Regression coefficient</th>
<th>SD of coefficients</th>
<th>T-statistics</th>
<th>Probability</th>
<th>Durbin-Watson</th>
<th>Coefficient b5</th>
<th>Coefficient b6</th>
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</thead>
<tbody>
<tr>
<td>General</td>
<td>0.25</td>
<td>0.6</td>
<td>0.003</td>
<td>1.06</td>
<td>0.39</td>
<td>Intercept</td>
<td>32.99</td>
<td>5.64</td>
<td>5.85</td>
<td>0</td>
<td>1.74</td>
<td>-1.53</td>
<td>-7.63</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RGRWit</td>
<td>-4.58</td>
<td>2.17</td>
<td>-0.44</td>
<td>0.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EPS</td>
<td>-19.65</td>
<td>19.36</td>
<td>-1.2</td>
<td>0.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EGRWit</td>
<td>60.56</td>
<td>26.94</td>
<td>2.25</td>
<td>0.03</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>NEGRWit</td>
<td>-7.63</td>
<td>4.71</td>
<td>-1.62</td>
<td>0.11</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>NRGRWit</td>
<td>-1.52</td>
<td>1.25</td>
<td>-0.41</td>
<td>0.68</td>
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</tr>
</tbody>
</table>

According to figure 10, generally and in the absence of effective factors, the variable Rit will be equal to 32.99, on average for the fifth model and with one unit increase in EGRWit, the variable Rit is increased equal to 60.56 units.

Summary of findings:
In this study, three hypotheses were investigated annually and their results are presented in details:
1- The first hypothesis was: The revenue plays a more leading role than the earning in the firm valuation. According to the results, the variable rate earning was over than the variable rate interest revenue, and this hypothesis was not confirmed.

   Notably, Mentioned result is also confirmed for the profitable firms. In conclusion, we can say that most role of the revenue than earning in the value of the company could not be verified

2- The second hypothesis was: The information content of revenue is higher than the earnings. According to the results, the variable interest rate, variable rate revenue positive, negative, and this hypothesis was not confirmed and the revenue has had no incremental information content than the earning. The above result has also been confirmed for the profitable firms. In conclusion, we can say that most of the information content of dividend income cannot be verified.

3- The third hypothesis: the relationship between dividend and earnings yields are expected to be nonlinear Units. The results of the three models are as follows:

   In the third model, the positive coefficient of Unexpected earnings and negative coefficient of NESURir. Furthermore, the above result has also been confirmed for the profitable firms. In the fourth model, the difference between the coefficients of two variables Unexpected revenue (negative) and NRSURir (positive). Furthermore, The above result has also been confirmed for the profitable firms. In the fifth model, the negative coefficients of two variables NEGRWit and NRGRWit. Furthermore, The above result has also been confirmed for the profitable firms. In conclusion, we can say that the relationship between revenue and earnings business units is confirmed by the expected return

Suggestions for future research:
1- Testing the above hypotheses on different industries separated by the type of industry and including the specific conditions of each of industry.
2- Testing the existence or lack of linear relationship between the earning, revenue, and stock returns based on the non-linear models.
3- Research conducted on quarterly data using Quarterly financial statements, using seasonal forecasting models

REFERENCES


