



Investigating the Effect of Rounding and Revision in Predicting Earnings Per Share on Investors' Attention

Ayat Bijani^{a,*}, Iraj Nouri^b

^aDepartment of Accounting, Farmahin Branch, Islamic Azad University, Farmahin, Iran

^bDepartment of Industrial Management, Arak Branch, Islamic Azad University, Arak, Iran

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ABSTRACT

Because in the theory of economics, the value of a company is based on the current value of future cash flows and profit is used as a substitute for cash flows, profit forecasting is of particular importance. In the research, the effect of rounding and revision in predicting earnings per share on the investors' attention in Iran has been investigated. After designing the investors' attention assessment indexes, the transaction information was collected from the Stock Exchange in the five-year period of 2011-2015. The statistical sample consists of 120 companies selected by systematic elimination method and totally obtained 600 year-firm. In this research, linear regression and correlation were used to investigate the hypotheses of the research and Eviews software was used to analyze the data and test the hypotheses. What can be said in the summing up and conclusion of the test of research hypotheses is that predicting the earning per share influences investors' attention, as well as the revision of the earnings per share influences the investors' attention. On the other hand, research studies show that the rounding in interaction with the revision in predicting earnings per share can also affect the investors' attention.

1 Introduction

Considering the prediction of cash flows and their changes as an economic event, arising from the use of cash flows in stock valuation models, assessment of payment power (dividends, interest and other liabilities), risk assessment, performance evaluation of the economic unit and management stewardship, assessment of the manner selection of accounting methods by management and use of cash flows to make decisions that are useful and relevant to decision-making models. Now, if cash flows can be predicted appropriately, a significant part of the information needs associated with cash flows will be provided [6,12]. Rounding represents a common type of error measurement in discrete data based on the response or evaluation of observers and represents a cognitive process that is associated with effort, uncertainty and inaccuracy. Previous studies in this area have examined the round-

* Corresponding author Tel.: +989183631940
E-mail address: ayatbijany@gmail.com

ing of analysts' predictions, and have shown that rounded predictions tend to be less informed and less analysts' efforts with less precision [16]. The purpose of this study is to examine the shift in selective attention to the prominent characteristics of analysts' predictions, which will focus on rounding the earnings forecasting per share. Rounding indicates itself in predictions that end at zero or half. In this regard, it will first be examined whether or not investors are considered rounding the prediction as an important feature; even if there is less information than other predictive features (for example, horizon prediction, accuracy of previous predictions, company experience, forecasting times, timely prediction). It then examines the effect of investors' reactions on outstanding features of forecasting that have been affected and, finally, changes in investors' attention to the important features of forecasting based on the type of investor will be examined.

2 Literature Review

Behavioural finance theory" is explained, behavioural finance theory is one of the new research topics that attracted much attentions of academics as well as experts in this area. The assumptions of this theory are related to the irrational of the investors, and expressed that investors do not behave intellectually, and their psychology affects people's investment decisions. The theory of behavioural finance expresses two basic assumptions: The first assumption is that investors are influenced by their emotional tendencies; the second assumption is that arbitrage versus emotional investors is risky, and costly; therefore, rational investors or arbitragers in returning prices to the fundamental price are not energetic; in general, the assumptions of "behavioural financial theory" referring to the investors are:

1. Investors are not rational.
2. Generally, their decisions are based on incomplete information.
3. Systematically commit cognitive errors.
4. Invest in the "portfolios" based on behaviour theory.
5. Their expected returns depend on more than risk factors.

Classical asset valuation theories explain that the return on assets is determined and explained by fundamental economic changes in the logical framework. However, recent research on behavioural finance has provided empirical evidence that the behaviour of market participants can significantly affect the return on assets in global financial markets. A series of investigations examines how the various aspects of investor sentiment, such as the value of investors' equity, are valued at stake. Another area of research argues that an entrepreneurial business behaviour, such as abnormal business activities and crowded transactions, determines the cross-sectional variation in stock returns. The retail business behaviour of individual investors significantly affects the return on a small and valuable stock. The importance of predicted profits depends on the deviation that have with its real value. The less this deviation, the prediction will be better. Researches showed that the market has a significant value for meeting the earnings expectations of each share, and it also responds to its failure [6]. Rounding represents a common type of error measurement in quantitative data [4]. On the other hand, of features of rounding prediction are more highlighting and easy [22]. Some of the authors, assume that investors, with the nature of dual and potentially valuable of data rounding, are more likely to analyse predictions. Clement and Tse [6] showed that, in the case of continuous reconsideration of profits, the investor's response associates with the size of the broker and increase and timing of the prediction frequency. If rounding has a negative relationship with carefully prediction, then investors will react weaker to rounding the predicted information. Further experiments are related to the repeti-

tion of the features of the prediction rounding. Until this time, rounding literature has been devoted to focusing profit prediction at a single point [8,6]. According to previous evidence of continuity of analysts' performance, it seems that rounding the prediction will continuously be carried out over time and forecast horizons. The analysts' report usually contains the previous forecast issued for the same year [20]. The previous forecast is to explain investors to changes in the company and the impact of these changes on the company's valuation. The analyst's report regularly shows the one-year forecast by the analyst of the company's future at the moment. The company's future analyst's predictions now, before and one year ahead are expected to come alongside and as an analyst report in the appendix. The issuance of rounding forecast is that disclosure and observation by investors simultaneously at no additional cost is likely to reinforce the prominence of divesting the forecast. Hillstrom [17] showed empirical evidence suggesting that the repetition of one of the features makes the underlined features will be more visible. If the repetition of the rounding reinforces the idea that rounding results in less precision, the market is expected to have a weaker reaction to repetition of rounding the profit and investors are less likely to less react to forecast rounding intensity [3,7,17]. Zhang et al. [25] presented a research that asked two questions. First, how do analysts' pressures affect firms' short-term marketing spending decisions? Based on a sample of 2706 firms during 1987–2009 compiled from Institutional Brokers Earning System, COMPUSTAT, and CRSP databases we find that firms cut marketing spending. Second, more importantly, we ask if firms which remained more committed in the past to marketing spending under analysts' pressures have higher longer-term stock market performance. We find that the stock market performance of firms more committed to marketing spending under past periods of analysts' pressures is higher. The findings are replicated for R&D spending and are robust across measures, controls, and methodologies. Consideration of two industry-based moderators, R&D spending and revenue growth, and one firm-based moderator, whether the firm is among the industry's top four market share or other lower share firms, reveals that the findings are stronger for high R&D and growth industries and lower market share firms. One key implication is that top executives respond to analysts' pressures by cutting marketing spending in the short term; however, if they can resist these pressures, longer-term stock market performance is higher. Yamada [22] offered a preliminary discussion of the economic costs of mandatory earnings forecasting, with a specific focus on firms operating under conditions of uncertainty or facing difficulty in analysing economic information. The study provided an important analysis of abnormal working capital accruals in relation to both initial MFERR and forecast revisions. While total accruals or working capital accruals have been documented in prior studies in this regard, abnormal accruals have not. Furthermore, this study offers a preliminary discussion of the economic costs associated with earnings forecasting under conditions of mandatory disclosure. The economic impact of forecasting has not previously been addressed under either mandatory or voluntary conditions. Choong-Yuel and Pae [24] investigated whether analysts use cash flow forecasts to reduce the impact of earnings forecast revisions (EFRs) on market participants. In particular, they focus on conflict between an analyst's concurrent cash flow and earnings forecast revisions. They hypothesize and find that analysts are more likely to issue a positive cash flow forecast revision when they issue negative earnings forecast revision concurrently, but not the opposite, particularly for Fortune 500 firms. Furthermore, their supplementary analyses suggest that (1) some analysts optimistically bias cash flow forecasts when they issue negative earnings forecast revisions; (2) the market pays less attention to the historical accuracy of analyst cash flow forecasts,

so analysts have some latitude to present their cash flow forecasts in an optimistic way; and (3) the market reacts mainly to the direction, not the magnitude, of cash flow forecast revisions. Overall, these findings suggest that analysts may strategically use cash flow forecasts in conjunction with earnings forecasts to maintain good management relationships. Athanasakou and Simpson [1] in a survey of investors' attention to rounding found as a prominent feature that investor's response to rounding interpretation due to simultaneously rounded forecasting presented in the analyst's report, and is primarily attributed to non-expert investors. Dechow and You [8] examine changes in investor responses to one of the prominent features of analysts' forecasts that most investors are paying attention to turning off predictions as market-driven measures of earnings. Forster et al. [10] found that there is a reverse and significant relationship between the distribution of profit management forecast and the information risk of the company in examining the effect of discretionary disclosure of profit management prediction on the investors' assessment of the company's risk and value. They also proved that the prediction of managerial earnings has a direct and significant relationship with the company's value and this relation is more extreme when companies have published more accurate and timely predictions. Mirzaali et al. [19] found that Japanese analysts' forecasts were more accurately predicted and predicted earning with a lower pessimism than those reported by the loss-making companies, but when earning is predicted by less precise, usually associated with more optimism. The precision and bias of management is not related to the size of the company, but it is related to the amount of reported losses and profits. Mirzaali et al. [19] in examining the explanatory power of financial capital in predicting the future earnings of each share have been shown that the independent research variables included the economic value added of the residual profit and book value and the dependent variable is the earnings per share, and the economic value added of the residual profit and the book value of the equity represent the financial capital. Boolou et al. [5] in reviewing the information content of the profit components by managers and investors in predicting profits showed that the stability of the profit components is not similar and the profit components have better explanation of the future profit than the total amount of profits and this is considered in the decisions of the managers and investors, and they also consider the difference in the sustainability of the profit components. Kordestani and Ashtab [18] showed that there is a significant positive correlation between earnings prediction error and unusual return of the stock of newly-listed companies in the study of the relationship between earnings forecast error and unusual return on the stock of newly-listed companies in Tehran Stock Exchange. The purpose of the present study is to investigate the effect of behavioural variables on overconfidence in management, herding behaviour and investors' emotional tendency on stock return. To this end, by using the data of firms listed in the Iran's Stock Exchange during the seven-year period of 2010-2016, overconfidence index in management, the herding behaviour of the investors and the emotional tendency of the investors were calculated and their impact on stock return was examined. The data of the research are of a panel type and for analysing the data and testing the hypotheses; a multiple linear regression model has been used. Evidence from the experimental results of the research showed that the behavioural variables studied in the research has a significant and inverse effect on the stock return of the companies.

3. Research Background

3.1 Projected Dividends

FASB has mandated the management that, in addition to announcing the earnings of each share, they will provide a perspective of the company's prospects as a predicted dividend. Managers are obligated to act in this way in order to provide investors with information about the future position of the company and make more appropriate decisions. Accounting procedures in the calculation of the expected profit and loss include identifying items such as income, investment income, depreciation expense, and the cost of suspicious claims. In determining how income is recognized, income is calculated in accordance with accrual accounting standards and is used to predict the profit and loss. At the time of approval of the financial statements by the General Convention of the shareholders of the capital company (until the date of approval of the financial statements), the profit of other investments, both current and long-term is identified at the time of approval by the General Meeting of Shareholders of the Company (until the balance sheet date). Once funded, this financial statement is audited. Audit of these financial statements is performed by the independent auditor in accordance with the auditing standards. Two methods of Box –Jenkins using random sampling and modelling methods, after several years of research by accounting researchers, have been identified as suitable methods for predicting earnings. These two methods have been repeatedly compared in research conducted in the United States and the United Kingdom, with the involvement of various factors such as industry, period length, profit before division between ordinary shareholders and etc., and each time they have different results. In spite of the fact that in most cases the method of random stroke had better results, Box –Jenkins Methods and random stroke are due to two modes of thinking justifying the behaviour of a set of numbers. The first one is based on time series and observes the observations with each other, while the second method is based on random processes and the independence of observation. Finding that the behaviour of past profit figures with some of these processes can be justified is an effective step to find a better model for predicting profit [23].

3.2 Accumulated Abnormal Returns

Bradshaw et al. [4] predicted that an unexpected increase in net profit would be associated with an abnormal positive return rate, and its unexpected decline would be negatively associated with an abnormal return rate. They stated that if the statement of net profit had an informational content, the sample indicating the positive changes in the unexpected net earnings should be the abnormal return on the positive average, and if the changes in the unexpected net earnings is negative, the sample should have an abnormal return rate with a negative average. In many small markets such as Tehran Stock Exchange, various methods are used to estimate the abnormal stock returns on days when stock is not traded, such as:

1. Proposed price method for purchase and sale: Based on this method, the average proposed price for purchase and sale are the basis for calculating the daily return of stock in the days of the interruption.
2. Trade to Trade method: In this method, the two-day return of the calculated trading share is compared with portfolio return on the market in the same period; therefore, there is

no need to calculate returns or allocate returns to days of interruption. When the volume of transactions in the course of the event is low, the use of this method will not be possible.

3. Aggregated return method: According to this method, the returns of days in which no stock has been traded is considered zero. Operationally, this is the simplest way to deal with situations in which the share is not traded all day and there is a trading break.

4. The same return method: In this method, the total returns are allocated between the days of the interruption and the first day of the transaction. In other words, the return of days of interruption and the first day of the transaction after the interruption is considered the same. Although this method is more efficient than the third method, it presents problems in the test statistic [11].

4 Proposed Methodology

4.1 Methodology and Hypotheses

According to theoretical foundations and in order to achieve the research objectives, the following hypotheses are presented:

The main hypothesis: Rounding and revision in earnings forecasting per share affect the investors' attention.

H1: Revision of earnings forecasting per share affect the investors' attention.

Second sub-hypothesis: Revision of the earnings forecasting per share affect the investors' attention.

H2: Rounding in association with the revision of earnings forecasting per share affect the investors' attention.

This study in terms of nature and method is causal and is an applied study based on its purpose. Data collection is done with library method and referring to the financial statements and notes and software RAHAVARD NOVIN and TADBIR PARDAZ. The statistical population of this study is all companies listed on Tehran Stock Exchange in the period of 2011-2015 with which targeted sampling, 120 companies is selected as a sample for testing statistical hypotheses.

4.2 Research Variables

In this research, for the purpose of commenting on the main hypothesis, sub-assumptions are tested which the used model is as model (1):

$$CAR[-1,1]_{it} = \alpha_{it} + \beta_1 REVP_{it} + \beta_2 ROUND_{it} + \beta_3 ROUND_{it} * REVP_{it} + \beta_4 ACCURACY_{it} + \beta_5 B.M_{it} + \beta_6 EP_{it} + \beta_7 EXFIN_{it} + \beta_8 SIZE_{it} + \beta_9 STDRET_{it} + \beta_{10} TVOL_{it} + \epsilon_{it} \quad (1)$$

$CAR[-1,1]_{it}$: Investor's reaction as a three-day cumulative abnormal return (+1 0 -1)

$REVP_{it}$: Revision of the earnings forecasting per share

$ROUND_{it}$: Rounding the earnings forecasting per share

$ROUND_{it} * REVP_{it}$: Rounding in association with the revision of earnings forecasting per share

$ACCURAC$: Earnings forecasting accuracy

$B.M_{it}$: book value to market value

EP_{it} : Earning,price ratio

$EXFIN_{it}$: External financing of the company

$SIZE_{it}$: Company size

$STDRET_{it}$: Fluctuations in returns

$TVOL_{it}$: Volume of transactions

The method of measuring variables is as follows:

4.2.1 Dependent variable

The dependent variable of this research is the investor's response to the rounding and the revisions of the forecast as a three-day cumulative return on the review of the profit, the cumulative period begins on day -1 and ends on the day +1, on that day Zero is the date of the announcement of the revision of the forecast and the days -1 and +1 are days before and after that. In order to examine the meaningful of assumptions through statistical tests, we will inevitably compute the cumulative abnormal returns. In financial literature it is common to measure the content of profit information by unusual returns. The deviation or error in the prediction of stock returns is called abnormal returns. In fact, the abnormal returns come from the difference between the actual returns and the expected returns (math expectation of return on equity) and calculated by model (2):

$$AR_{it} = R_{it} - E(R_{it}) \quad (2)$$

R_{it} : The actual return on stock i on day t

$E(R_{it})$: The expected return on stock i on day t.

Actual stock returns are extracted from the software RAHARVARD NOVIN, which is used from model (3) to calculate daily stock returns

$$R_{it} = \frac{(1 + \alpha)P_{t+1} + D - P_t}{P_t} \quad (3)$$

α : percentage of capital increase

P_{t+1} : price at time t + 1

P_t : price at time t

D: Paid divined

Calculating daily market returns using the stock price and stock cash index from the beginning of 2011 to the end of 2015 will be calculated by model (4):

$$R_{mt} = \frac{TEDPIX_{t+1} - TEDPIX_t}{TEDPIX_t} \quad (4)$$

$TEDPIX_t$: Price and Cash Index

After calculating R_{it} and R_{mt} for each company over the specified period, the expected return will be calculated using the model of pricing the capital assets, that is, model (5):

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_i \quad (5)$$

Using the least squares, we estimated α and β for each company and each year separately, it means at this stage, we have α and β estimation for each of the sample companies and for each year (2011 to 2015). The reason we calculate α and β for each year separately is that β of companies may change over the course of the period and affect the results of the research. With respect to estimated α and β at the previous stage, and regardless of the estimation error, and with the R_{mt} placement calculated in model (6), we predict $E(R_{it})$, the expected return:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} \quad (6)$$

In order to test the research hypotheses, these abnormal returns should be calculated for periods of time around revision news in the forecast of earnings per share that this study has 3 days (1 day before and 1 day after the announcement of the review in the prediction of earnings per share). To do this, we need to accumulate abnormal returns for the periods e.g. from 1 day before to 1 day after means (-1, +1), according to model (7):

$$CAR_i = \sum_{t=1}^n AR_{it} \quad (7)$$

4.2.2 Independent variable

A) Revision of the earnings forecasting per share, which is equal to the number of revisions of profits per year, that is, the number of times the company has adjusted its forecast.

B - Rounding the earnings forecasting per share that is a dummy variable, if the last management forecast for company in year t ends in zero or five, is equal to one and otherwise equal to zero.

4.2.3 Control variables

A- The accuracy of the earnings forecast is equal to the reverse of the forecast error of the profit. In this research, according to the studies in the literature, the earning forecasting error is measured by the absolute value of the actual earnings, minus the estimated average earnings by management divided by real earnings.

B- Book value to market value

C- The ratio of income to price or earnings to price is the result of dividing the income (interest paid on each share) into the price of each share.

D- External financing of the company calculated through the model (3):

Foreign financing= [(changes in capital+long term debt changes+ short term financing facilities)].
total assets average (3)

F- The size of a company that is measurable through the logarithm of the total assets of the company.

G- Return fluctuations are equal to the standard deviation of returns during the research period

H- Logarithm of the volume of transactions

5 Research Findings

5.1 Descriptive statistics of research variables

Before testing the research hypotheses, the variables are briefly summarized in Table 1. In Table 1, the average which represents the equilibrium point and the distribution centre, and is a good indicator of the centrality of the data, is equal to 0.141 for the investor's response variable as an abnormal return. Median is another central indicator that shows that half of the data is less than this and the other half are more than this value. Also, the homogeneity of the average and median value indicates that this variable is normal for the variable investor's response as abnormal return and equals to 0.050. Scatter indicators are a measure of how much data are scattered from each other or scattered over the average. Standard deviation is one of the most important dispersion indices, which is equal to 0.355 for variable investor's reaction as an abnormal return.

Table 1: Descriptive statistics of research variables

| | Investor's reaction | Revision in stock earnings forecasting | Roundin g the stock earnings forecasting | Roundin g in associati on with the stock earnings forecasti ng | Accurac y of earnings forecasti ng | Book value to market value | Ratio of earnings to price | Externa l financi ng of the compa ny | Size of the compa ny | Fluctuatio ns in returns | Volume of transactio ns |
|-----------------------------|---------------------|--|--|--|------------------------------------|----------------------------|----------------------------|--------------------------------------|----------------------|--------------------------|-------------------------|
| Average | 0.14177 | 3.61667 | 0.3900 | 1.33167 | 0.00879 | 0.298 | 0.0475 | 0.0690 | 6.2768 | 0.125217 | 3.556783 |
| Median | 0.0500 | 3.0000 | 0.0000 | 0.0000 | 0.0023 | 0.000 | 0.0200 | 0.040 | 6.180 | 0.100000 | 3.650000 |
| Maximum | 2.090 | 7.0 | 1.00 | 7.00 | 1.00 | 2.00 | 0.640 | 0.680 | 8.300 | 0.860000 | 6.000000 |
| Minimum | -0.9800 | 2.00 | 0.00 | 0.00 | 0.00011 | -1.00 | 0.0000 | -0.310 | 4.5600 | 0.010000 | -0.2200 |
| Standard Deviation | 0.3551 | 0.78363 | 0.48816 | 1.7330 | 0.0479 | 0.516 | 0.0709 | 0.1270 | 0.7288 | 0.08524 | 1.028960 |
| Skewness | 1.1107 | 1.0375 | 0.45105 | 0.7265 | 16.1657 | 1.193 | 3.1161 | 1.3812 | 0.281 | 2.299146 | -0.51011 |
| Kurtosis | 3.485 | 3.83547 | 3.20345 | 2.02818 | 3.4823 | 3.811 | 2.7836 | 6.5486 | 2.4644 | 3.465768 | 3.309748 |
| Jack-Bera | 0.4259 | 0.12548 | 0.1012 | 0.76555 | 0.24559 | 0.159 | 0.6463 | 0.5054 | 0.1549 | 0.345585 | 0.284555 |
| Probability | 0.6255 | 0.88846 | 0.90012 | 0.24555 | 0.86554 | 0.854 | 0.3655 | 0.4954 | 0.8545 | 0.64554 | 0.722555 |
| Total | 85.060 | 2170.0 | 234.00 | 799.00 | 5.2746 | 179.0 | 28.52 | 41.44 | 3766.1 | 75.13000 | 2134.070 |
| Total of Standard Deviation | 75.518 | 367.833 | 142.740 | 1798.99 | 1.3784 | 159.6 | 3.0152 | 9.6617 | 318.16 | 4.352772 | 634.1967 |
| Observation | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| Sections | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |

The amount of asymmetry of the curve is called skewness, which is the value of the coefficient of skewness for the investor's reaction variable as an abnormal is positive and near-zero, which indicates that the distribution is normal and skewness is very low to the right. The dispersion index of Kurtosis is the frequency compared to the standard normal curve, which in this study is positive for all variables. Given that the probability level of the Jack-Bera statistic is more than 5%, it is not possible to reject the zero assumption of this statistic, so the data of the variables considered are normal.

5.2 Reliability test of research variables

In this research, we used the unit root test of the combined data, the results of which are presented in Table 2.

Table 2: Reliability testing of research variables

| Method | Statics of test | Probability | Sections | Observations |
|--|-----------------|-------------|----------|--------------|
| Zero hypothesis: existence of unit root (common unit root process) | | | | |
| Levine, Lyn and Chow | -7151.39 | 0000.0 | 120 | 480 |
| Zero hypothesis: existence of unit root (single unit root process) | | | | |
| lim and sun | -85277.7 | 0000.0 | 120 | 480 |
| ADF-Fisher (Chi-square) | 685.361 | 0000.0 | 120 | 480 |
| PP-Fisher | 165.415 | 0000.0 | 120 | 480 |

Source: Researcher findings

In Table 2, the zero hypotheses are based on the existence of unit root, taking into account the common root process by the Levine, Lyn and Chow method, as well as the Fisher's ADF method test, as well as the PP-Fisher method with 120 sections and 600 views, all at level 5% is rejected. The unit root test results of all variables indicate the lack of unit root.

5.3 F-Limmer and Hausman test

The results for research hypotheses are presented in Table 3:

Table 3: Results of F-Limer and Hausman tests

| F-statics | Freedom degree | Probability | Result |
|-------------------------------------|----------------|--------------------|------------------|
| 438818.3 | (119 ,470) | 0000.0 | Panel data |
| Hausman test of research hypotheses | | | |
| Chi-square statics | Freedom degree | Significance level | Result |
| 11.066358 | 10 | 0.0125 | Constant effects |

Source: Researcher Findings

In Table 3, according to the results, the panel data method is accepted for hypotheses. The panel data approach can be done using two random effects and constant effects patterns, which to select them; one can use the Hausman test. According to the sub-hypotheses, the probability of chi-square test for research hypotheses is less than 5%. Therefore, constant effects are used to estimate and analyze sub-hypotheses.

5.4 Summary of analyses for each hypothesis

The main hypothesis test results are presented in Table 4:

Table 4: Estimation of the coefficients of the model

| Variables | Coefficient | Standard deviation | t-statics | Probability |
|---|-------------|--------------------|-----------|-------------|
| y-Interception | -0.251896 | 0.105029 | -2.398352 | 0.0169 |
| Revision in stock earnings forecasting | 0.011476 | 0.001399 | 8.204206 | 0.0000 |
| Rounding the stock earnings forecasting | 0.097876 | 0.007831 | 12.49874 | 0.0000 |
| Rounding in association with the stock earnings forecasting | 0.021912 | 0.002099 | 10.43854 | 0.0000 |
| Accuracy of earnings forecasting | 0.142933 | 0.024334 | 5.873797 | 0.0000 |
| Book value to market value | 0.002293 | 0.015688 | 0.146173 | 0.8838 |
| Ratio of earnings to price | 0.409399 | 0.126205 | 3.243926 | 0.0013 |
| External financing of the company | -0.114061 | 0.071602 | -1.592977 | 0.1118 |
| Size of the company | 0.027625 | 0.001789 | 15.44263 | 0.000 |

Table 4: Continue

| Variables | Coefficient | Standard deviation | t-statics | Probability |
|------------------------------------|-------------|--------------------|---------------------|-------------|
| -0.160198 | -0.160198 | 0.00955 | -16.76538 | 0.0000 |
| Volume of transactions | -0.011762 | 0.013029 | -0.902701 | 0.3671 |
| Deterministic coefficient | | 0.869 | Durbin-Watson | 2.15 |
| Adjusted Deterministic coefficient | | 0.85 | F-probability level | 0.0000 |

Table 4 shows less than 5%, so we conclude that the model is generally statistically acceptable, and the high value of the Fisher statistic indicates that there is a strong relationship between variables in this model. As the coefficient of determination and the adjusted coefficient of determination indicate, it confirms the high power of model explanation. From the value provided by the Watson-Durbin statistic, which can be confirmed by the lack of correlation in the model, there is no need to review this statistic due to the short period of time. Now considering the significant confirmation of the whole fitted model, the meaningful analysis of each of the explanatory variables is discussed. As shown in the table below, for each coefficient variable, standard error, t statistic, and finally, the value of p is given. For meaning, each of the variables in the model is referenced to the p column or the same level of significance. Now, with respect to the value of p, if the arbitrary error α is compared with the values of p, one can consider the meaning of each of the variables. Based on the first sub-hypothesis, it is expected that the forecasting of the earnings per share will affect the investors' attention. The results from the estimation of Table 4 show that the probability of the t-statistic for the constant coefficient and the variance coefficients of the rounding the profit forecasting of each share is 5%. Therefore, the relationship is statistically significant. And the coefficient estimated by the software for the variable of rounding the earnings forecasting per share is 0.970 and is significant, so with 95% confidence, this variable is significant in the regression model. The adjusted determination coefficient shows the explanatory power of the independent variables, which explains the extent to 85% of the variations of the dependent variable. The probability of the F-statistic implies that the whole model is statistically significant. Considering the hypothesis, because the variable of the rounding the stock earning forecasting affect the investors' attention, so the zero assumption is rejected, i.e., the earning forecasting per share affect the investor's attention. Based on the second sub-hypothesis, it is expected that the revision of the earnings per share will affect the investors' attention. The results from the estimation of Table 6 show that the probabilities of the t statistic for the constant coefficient and the coefficients of the revision in stock earning forecasting are 5%. Therefore, the relationship is statistically significant. And the coefficient estimated by the software for the revision in stock earning forecasting is equal to 0.11 and significant, so with 95% confidence, this variable is significant in the regression model. The adjusted determination coefficient shows the explanatory power of the independent variables, which explains the extent to 85% of dependent variable changes. The probability of F-statistic implies that the whole model is statistically significant. Considering the hypothesis, because revision of the earnings per share will affect the investors' attention, so the zero assumption is rejected, namely, revision of the earnings per share affects the investors' attention. Based on the third sub-hypothesis, it is expected that the rounding in the interaction with the revision in the prediction of the earnings per share will affect the investors' attention. The results from the estimation of Table 4 show that the probability of the t-statics for the constant coefficient and the coefficients of rounding in interaction with revision in profit forecasting is 5%. Therefore, the relationship is statistically significant. And the coefficient estimated by the software for the variables of rounding in interaction with the revision in the predic-

tion of earnings is equal to 0.021 and therefore, with 95% confidence, this variable is significant in the regression model. The adjusted determination coefficient shows the explanatory power of the independent variables, which explains the extent to 85% of dependent variable changes. The probability of the F statistic implies that the whole model is statistically significant. Considering the hypothesis that rounding in the interaction with the revision in predicting the earnings of each share affects the investors' attention is in the meaningful model, so the zero assumption is rejected, namely, rounding in interaction with the revision in the earnings forecasting per share influences investors' attention.

7 Conclusions and Suggestions

This research seeks to find out the effect of rounding and revision in earnings forecasting per share on investors' attention. Regarding the results of regression, the following results were obtained: the earnings forecasting per share influences the investors' attention, as well as the revision of the earnings forecasting per share, influences the investors' attention. On the other hand, research shows that rounding in interaction with the revision in earnings forecasting per share can also affect the attention of investors. The results of this study are consistent with theoretical foundations and research background. Clement and Tse [6] showed that in the case of a continuous revision in earning, the investor's reaction has a direct relationship with the size of the agent, amount of increases and timely of prediction frequency. If rounding has a negative relationship with accuracy of forecasting, then investors will react less well to the predicted information [6]. Further experiments relate to the repetition of the characteristics of rounding predictions. Until this time, literature of rounding the earning forecasting has been devoted to focusing at a single point (Dechow and You, [8]; Herrmann and Thomas, [15]). According to previous evidence in continuous performance of analysts (Bradshaw et al., [4]), it seems that issuance of rounding the earnings forecasting will be done continuously over time and forecasted horizons. In recent researches, the that Japanese analysts' forecasts were more accurately predicted and predicted earning with a lower pessimism than those reported by the loss-making companies, but when earning is predicted by less precise, usually associated with more optimism. The precision and bias of management is not related to the size of the company, but it is related to the amount of reported losses and profits which is partially consistent with our results. According to the results of the review of the main hypothesis; since the rounding and revision in the forecasting of the earnings per share contributes to the potential benefit of a knowledgeable investor, therefore, according to this connection, in the field of application to responsible person of the preparation and formulation of the theoretical fundamentals of financial reporting and accounting standards is recommended that consider the results of this research and similar domestic research. It is also recommended that investors and analysts make short-term and long-term investment decisions, along with the use of figures provided by companies and the capital market are factors such as rounding and revision in the same way, based on the results of the first sub-hypothesis, the change in the prediction of the profit forecast of each share contributes to a change in the expected predictive dispersion and also improves forecasting and decision making by users of accounting information. Therefore, given that the main task of managers is to maximize the promotion of shareholders' equity, managers must pay particular attention to the forecasting profit margin for each share and implement strategies to improve earnings forecasting to increase the returns of investors. In the analysis of the second sub-hypothesis, it is appropriate for the Audit Organization and other regulatory and oversight bodies to focus on drafting accounting stand-

ards and financial regulations on the revision of the profit forecast for each share, and by providing guidelines for limiting managers, Users of financial information are more likely to assist in making informed and informed choices. Also, the confirmation of the third sub hypothesis suggests that the shift in interaction with the revision in predicting the earnings of each share can reduce the information asymmetry on the corporate level, and the optimal allocation of resources (right choice instead of incorrect selection), and the performance of the company (management effort in order to protect the interests of the shareholders rather than the lack of work or moral hazard). Therefore, shifting in interaction with the revision in forecasting the earnings of each share alone cannot be a performance criterion for predicting unusual returns. Researchers are encouraged to explore the following topics in their future research:

- 1) Impact of divestment and revision in forecasting the earnings of each share on the efficiency of investment.
- 2) Impact of divestment and revision in forecasting earnings per share on capital cost.
- 3) The effect of dropping and revision in the forecasting of the earnings of each share on the volatility of the unconventional stock returns.
- 4) The study of the effect of financial and non-financial variables on investors' attention with other methods such as profit, neural network and multi-factor analysis.
- 5) It is suggested that in another study, the relationship between the content of the audit report and the attention of investors should be addressed.

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