A Study on the Effects of Reporting the Profit According to Iranian Standards on the Firms' Market Value

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Abstract

The profit and loss statement constitutes one type of information provided to the users to enable them to make informed decisions. The present paper studies the effect of fluctuations and variations in different classes of profit on the firms' market value. It allows the comparison of the three profit criteria as well as clarifying the importance and informational value of each and the investors' attitudes towards them. Considering he research limitations, 76 firms enlisted in Tehran Stock Exchange were selected. The study is applied in purpose and post-event causal in methodology. Three hypotheses of various types of profit (net profit, profit after ordinary activities and operating profit) were fitted on the firm's market value. Based on the model testing results, the fluctuations of net profit and operating profit did not show any significant effects on the firm's market value in the sample. However, the fluctuations in the profit after ordinary activities did have a significant effect on the firm's market value, which indicates the investors' attention to this type of profit in their decisions.

Keywords: Net Profit, Profit after Ordinary Activities, Operating Profit, Market Value

Introduction

In the evaluations of financial assets, the attention to future cash flows is of particular importance, such that the actual value of cash flows has been considered as one of the stock evaluation techniques in accounting literature (Bidgoli, 2005). An important point presented in the use of future cash flows in the stock evaluation is the uncertainty of the future. Thus, the investors need criteria which are able to reduce such uncertainties and to predict future cash flows.

Statement No.1 of Financial Accounting Concepts assumes that accounting profit is a good criterion of the firm's performance and could be used for the prediction of future cash flows (Hendrickson, 2007).

Given the foregoing, if the accounting profit is considered a good criterion to predict the future cash flows, another important issue, namely, anchoring will be presented. According to this approach, some individuals use a specific part of information to start the work and modify the existing information accordingly for prediction purposes (Hendrickson, 2007). Thus, if we consider the accounting profit as the important existing information, and perform our predictions accordingly, it is expected that fluctuations in the profit figures influence the predictions and the stock price.

Profit and Loss Statement

The importance of the financial profit and loss lies in the fact that it allows the prediction of future cash flows and managerial performance evaluation (Shabahang, 2005). Thus, the reported profit elements should be presented in a complete and correct form in order to help the users determine which items are expected to continue and which have an incidental nature (Noravesh, 2002). The profit includes the "operating or ordinary profit" and "non-operating profit from the unexpected events" results the sum of which equals the net profit. It is assumed that ordinary profit has a current and continuous nature while the non-operating profit and loss from the unexpected events do not.

The research shows that future profit forecast, ordinary or current profit, are preferred over the net profit. Since this result indicates that the net profit has an extraordinary aspect and cannot be useful for investment decision making purposes, it is reasonable to use a profit criterion which leads to accurate forecasts (Parsaeian, 2002).

Behavioral Studies Concerning the Firm's Value Evaluation

Investors are a group among those that most deserve receiving timely, relevant, effective, and comparable information. Changes in market value and stock price form an important and effective information source for them in evaluating the status of the business, the directors' efficiency, and taking decisions. Thus, the most important issue for the investors is the possibility to predict the price changes (Afshari, 2003).

Forecasting price changes require the discovery of stock price behavioral patterns. Discussing various profits in the content of profit and loss statement and their features including the relevance and other qualitative features, one could say that providers and users seek more transparent performance of the business. For this purpose, the economic profit is also applied for taking steps towards performance improvement and related decisions. In general, profit changes constitute a good criterion for predicting the firm's future value (Badri, 1993).

The importance of the discussed issues regarding the perspective stabilization approaches and performance sustainability, and their roles in establishing a relationship between accounting profit and firm's stock price, as well as the issued presented concerning the investors' use of the accounting profit in order to estimate the future cash flows, has been to such extent that the directors have taken it into account long ago, and have decided to use this fact for purposes such as maintaining the stock price at high levels, supporting the paid interests levels, keeping the firm' risk at lower levels, etc. in this regard, they should ensure the profit quality and be able to manage the earnings on which basis, new phenomena have been proposed in accounting known as earnings smoothing.

Research Hypotheses

1.   Net profit fluctuations affect the firm's market value.
2.   Profit from ordinary activities fluctuations affects the firm's market value.
3.   The operating profit fluctuations affect the firm's market value.

Population and Sample

The time scope of the present paper is between 2006 and 2012; and its place scope is Tehran Stock Exchange. The sample includes the firms which:

1.   Were enlisted in the Stock Exchange and in other words, the information for their 7 fiscal years were available. The test on the mid-term information is performed every six months.
2.   Were not inactive in the market more than 3 month during the whole study period.
3.   Were not investment firms and /or banks, because of the specific nature of their activities.
4.   Had prepared complete mid-term financial statements (balance sheet, profit and loss statement, and comprehensive loss statement).

Given the above criteria, 76 firms from 15 industries were selected as the sample.

Materials and Methods

Independent variables

1.   Operating profit (OP): is calculated as follows, according to Standard No.1:

$$OP = GP - GASC + OOI - OCC$$

2. The Profit from Ordinary activities (POA): is calculated as follows, according to Standard No.1:

$$POA = OP - FC + OONI - OONC$$

3. Net profit (NP): is calculated as follows, according to Standard No.1:

$$NP = POA - T - EI$$

As the time intervals of the data in the midterm financial statements will be timely, compared to the annual ones, the midterm financial statements are used in order to study the effect of profit criteria fluctuations on the firm's market value.

Dependent Variable

1. The firm's market value: according to the researchers, the market value was considered as Tobin's Q:

$$Q_{it} = \frac{TA_{it} + (p_{it} \times NCSHO_{it}) - BVEQ_{it}}{TA_{it}}$$

TA= firm's total assets
P= the firm's stock price (average price of the firm's stock ten days after issue)
NCSHO= the firm's current ordinary shares
BUEQ= equities' book value

For a more accurate consideration of the effect of profit fluctuations on the stock price, given the results of previous research, the variables the relationship of which with the stock price (or the market value) has been proved, will be included as control variables.

Control Variables

1. Cash flow fluctuations index ($CFVOL_{it}$): is defined as the coefficient of operating cash flows changes

$$CFVOL = \frac{CF_{(t)} - CF_{(t-1)}}{CF_{(t-1)}}$$

2. Firm size ($size_{it}$): $size_{it} = Ln(P \times N)$

3. Debt to net assets ratio (LEV_{it}): $LEV = \frac{BLL}{MP + BLL}$

4. Return on equities (ROE): $ROE = \frac{NP}{B}$

5. Current investment ($INVEST_{it}$):

$$INVEST = TFA_t - TFA_{(t-1)} + ITFA_t - ITFA_{(t-1)} + LTI_t - LTI_{(t-1)}$$

6. Sales growth (SGROWTH)

$$SGROWTH = \log(1 + \Delta S / S)$$

7. Operating cash flow (CFO)

$$CFO = OP + UNE - MSU - APAO + OAPV + POA + OCA + NOIC$$

Normality test of data

One of these assumptions is the normality of research variables which the errors should have a normal distribution with a zero average. In order to test the data normality the Kolmogorov-Smirnov Test (K-S) has been used (Table 1).

Table 1. K-S Test results for the Primary Data

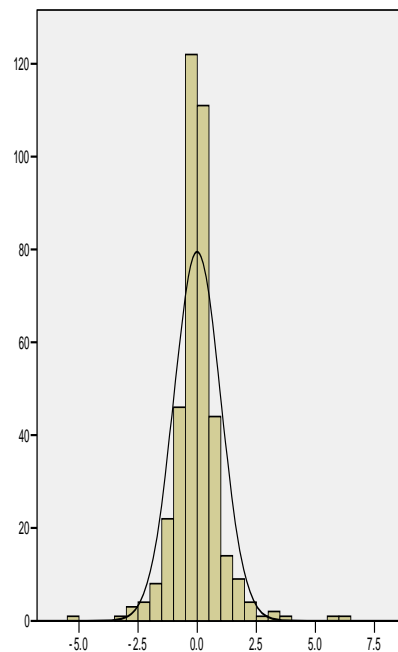| Significance level	Variables
0.08	Tobin's Q
0.20	NP
0/44	POA
0/09	OP
0.11	CFVOL
0.58	SIZE
0.88	Lev
0.34	Ptofit (ROE)
0.66	INVEST
0.21	SQROW
0.09	CFO

Figure 1. Histogram

As seen in Fig.1, the errors distribution is almost normal. Also, given the results in Table 1, comparing the significance level of primary data with 0.05 error, H0 is supported, that is, the data distribution is normal.

Hypothesis testing
First Hypothesis: The influentiality of net profit fluctuations on market value

Table 2. Results of Net Profit Test

$q_{it} = B_0 + B_1 earnvol_{it} + B_2 cfvol_{it} + B_3 size_{it} + B_4 lev_{it} + B_5 profit_{it} + B_6 invest_{it} + B_7 sgrowth_{it} + B_8 cfo_{it} + E_i$				
p-value=.000		F statistic=0.199		Enter Method
Result	P-value	t statistic	Variable ratio	Explanatory Variables
-	0.673	-0.422	-0.368	Constant
-	0.544	0.628	6.85	NP
-	0.773	-0.288	-0.006	CFVOL
Significant	0.006	2.779	0.090	SIZE
Significant	0.000	-4.455	-1.197	Lev
Significant	0.003	-3.036	-0.772	Profit(ROE)
-	0.174	-1.362	-4.22	INVEST
-	0.597	0.097	0.251	SGROW
-	0.575	-0.075	-1.33	CFO
D.W statistic=1.815			R^2=0.200	R^2(moderated)=0.0178

The value of t-statistic and p-value of NP variable indicate that the hypothesis is rejected at a 95% confidence level (Table 2).

Second Hypothesis: The influentially of profit from ordinary activities fluctuations on market value

Table 3. Results of Ordinary Activities Profit Test

qit = B_0+B_1earnvolit + B_2cfvolit+B_3size $_{it}$ + B_4lev$_{it}$+ B_5profit$_{it}$+ B_6 invest$_{it}$ B_7sgrowth$_{it}$+B_8cfo$_{it}$+E_i+				
p-value=.000			F statistic=0.199	Enter Method
Result	P-value	t statistic	Variable ratio	Explanatory Variables
-	0.825	0.221	0.203	Constant
Significant	0.006	2.777	1.45	POA
-	0.088	-1.52	-0.003	CFVOL
Significant	0.049	1.973	0.067	SIZE
Significant	0.000	-4.42	-1.178	Lev
Significant	0.001	-3.440	-0.889	Profit(ROE)
Significant	0.038	-2.089	-7.11	INVEST
-	0.083	1.742	0.261	SGROW
Significant	0.009	-2.618	-2.11	CFO
D.W statistic=1.835			R^2=0.209	(moderated) =$R^2$0.0178

The value of t-statistic and p-value of POA variable indicate that the hypothesis is supported at a 95% confidence level (Table 3).

Third hypothesis: The effect of operating profit oscillations on market value

Table 4. Results of Operating Profit Test

qit =B_0+B_1earnvolit +B_2cfvolit+B_3size $_{it}$ +B_4lev$_{it}$+B_5profit$_{it}$+B_6invest$_{it}$+B_7sgrowth$_{it}$+B_8cfo$_{it}$+E_{it}				
p-value=.000		F statistic=9.157		Enter Method
Result	P-value	t statistic	Variable ratio	Explanatory Variables
-	0.879	-0.153	-0.140	Constant
-	0.051	1.957	1.066	OP
-	0.836	-0.207	-0.004	CFVOL
Significant	0.019	2.368	0.081	SIZE
Significant	0.000	-4.417	-1.187	Lev
Significant	0.001	-3.205	-0.828	Profit(ROE)
-	0.090	-1.702	-6.11	INVEST
-	0.086	1.720	0.260	SGROW
Significant	0.026	-2.241	-1.99	CFO
D.W statistic=1.810			R^2=0.199	R^2(moderated)=0.0177

The value of t-statistic and p-value of OP variable indicate that the hypothesis is rejected at a 95% confidence level (Table 4).

Throughout the test results, very high F and R^2 and very small t values were not observed. Thus, the independent variables are not correlated. Also, the DW (Dorbane-Watson) value calculated in the above table indicates that the error values are random and incidental, and the hypothesized autocorrelation of errors in the estimated model is rejected.

Integrated Hypothesis Testing
Table 5. Results of Integrated Hypothesis Tests

qit =B_0+B_1earnvolit +B_2cfvolit+B_3size $_{it}$ +B_4lev$_{it}$+B_5profit$_{it}$+B_6 invest$_{it}$+B_7sgrowth$_{it}$+B_8cfo$_{it}$+E_{it}				
p-value=.000			F statistic=7.958	Enter Method
Result	P-value	t statistic	Variable ratio	Explanatory Variables
-	0.860	0.176	0.162	Constant
-	0.206	-1.26	-1.63	**OP**
Significant	0.040	2.06	2.82	**POA**
-	0.896	0.131	5.95	**NP**
-	0.847	-0.193	-0.004	**CFVOL**
-	0.099	2.02	0.069	**SIZE**
Significant	0.000	-4.29	-1.153	**Lev**
Significant	0.001	-3.43	-0.891	**Profit ROE**
-	0.113	-1.59	-5.70	**INVEST**
-	0.087	1.71	0/258	**SGROW**
Significant	0.037	-2.09	-1/79	**CFO**
D.W statistic=1.849			R^2=0.214	R^2(moderated)=0.180

The value of t-statistic and p-value of independent variables indicate that the overall performed test is in line with previous results and with the rejection or support of independent variables test hypotheses. These results indicate that oscillations in net profit and operating profits do not affect the market value. On the other hand, the oscillations in the profit of ordinary activities are influential over the market value (Table 5).

Conclusion
Given the results of research hypothesis test one may state that investors examine the profit trends, as well as other factors affecting their investment decisions. However, the profit and loss statement shows a smaller influence in this study. The results indicate that profit oscillations (midterm profits) are not related to stock price in Iranian stock market because the second hypothesis has been weakly supported.

Net profit is more likely to be subject to management. On the other hand, the operating profit is more sustainable and is less oscillated which is due to real activities, and is considered as continuous profit. But since this profit (OP) is addressed in mid-term reports, it is more oscillated than ordinary activities profit and consequently it shows less sustainability. Thus, POA is actually the moderator of this process. Whereas POA is a function of OP, in an extended view, other factors such as financial costs, revenues and non-operating costs are more significant, which is only due to

the attention to its continuity by the investors, who do not distinguish between its operating or non-operating nature. This has led the investors to consider this type of profit in their decisions.

Limitations of the study
Given the limitations mentioned in sample selection, the generalization of the results to the entire population would be questionable. The main limitation of the present study was that not every enlisted firm prepared mid-term reports and also, other disturbing variable existed in relation with influences on market value, such as rumors, which could not be excluded or studied.

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