

Studying the effect of voluntary disclosure changes on firm value

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Abstract

The main purpose of the present research is studying the effect of voluntary disclosure changes on firm value in accepted firms at Tehran stock exchange. Using Feltham and Ohlson's model (1995), the present research has discussed the effect of investors' reaction to net operating assets and abnormal operating earnings for firms changing their voluntary disclosure. Data analysis was carried out in two steps in this research; at first based on changing in the amount of voluntary disclosure member firms of statistical sample were divided to firms with reduction in disclosure and firms with increase in disclosure then research hypotheses were tested. Results from 420 firm-year during 2006-2011 showed that managers of firms whose firm values are undervalued by investors increase voluntary disclosure of information.

Keywords: Voluntary disclosure, value-relevance, abnormal operating earning, net operating assets

Introduction

Disclosure is one of accounting principles that can influence on all aspects of financial reporting. Disclosure principle requires that all important realities relating to financial events and activities of trade unit be reported completely and properly. According to this principle, financial statements should contain comprehensible and perfect information and the information should be properly put at the disposal of different groups. Important realities of economic unit, therefore, should be disclosed properly and completely. In terms of quality and quantity on the other hand, presented information should not confuse users of financial statements in order that they can make conscious decisions (Alivar, 1986).

Regarding that managers always seek to show that their performance is good and so to receive more compensation, then one of criteria that they rely on to evaluate their performance is the market value of the firm. So, when market investors devalue the firm managers seek to find a way to resolve it. In this research, one of factors affecting on expectations of investors about firm value that is voluntary disclosure and confirming its value-relevance with conservatism has been discussed. So, results of this research can have applied aspects for managing firm value by managers.

Literature Review

There are different definitions for disclosure in financial literature that the most of them are: Hendriksen and Vanbreda (1992) that defined exposure as: disclosure generally means the reflect of information. Accountants however take a narrower meaning of it and consider it as reflecting of financial information of trade unit in the form of financial statement which is prepared annually. Balkouee (2002) considers disclosure as the information which is useful for normal investor and does not mislead the reader. He states complete disclosure requires that financial statements prepared and planned so that they present an accurate image of economic events that are affected on the economic unit for one period. Maheshwari (2000) considers that disclosure is one of accounting principles based on which financial reports should be prepared completely and fairly in terms of presenting the information.

Generally, disclosure can be divided to two parts: forced disclosure and voluntary disclosure: forced disclosure includes all cases and items that should be put in charge of competent authorities according to legal obligations and regulations ruling on financial reporting. In order to increase the va-

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lidity of financial reporting managers disclose information voluntarily. Although accounting standards have at least determined the necessary amount of disclosure, they have limited voluntary disclosure of external information. Among them are useful non-financial indexes which are effective for judgment about effectiveness and success of the institution in accomplishing organizational goals or indexes that disclose the relationship between status quo and future interests.

If managers can provide guidance relating to the accomplishment of organizational short-term and long-term goals and optimal use of their resources that they have and report the perspective of their decisions clearly they would respond to investors' critics about current performance and make them hopeful about the future of institute. So voluntary disclosure for investors help they become aware of managers' current policies (Izadiniya, 1998).

Question that is posed here is what motivates managers to change the amount of voluntary disclosure of firm and whether these changes have effects on value relevance of voluntary disclosure?

Research History

Etemadi *et al.* (2012) carried out a research titled "Disclosure and Value of Firm: some evidence about Iranian capital market". This research aims at determine how does disclosure has effect on value of the firm. To do so, financial data of accepted firms in Tehran stock exchange are examined during 2003-2008. by using multiple regression and analyzing combined inputs and controlling such factors as properties measurement, profitability, leverage and growth results indicate that there is positive and significant relationship between disclosure and value of firm.

Khoddampour and Mahroomi (2012) carried out a research titled "Effect of Voluntary Disclosure on Related Profit of each Share". Based on this hypothesis that more focus on informational needs of investors would lead to increase in the quality of accounting information, it is predicted that increased voluntary disclosure leads to increase in related profit of each share as one of the most important accounting information. Results indicated that voluntary disclosure does not have significant effect on related profit of each share.

In a research titled "Does Conservatism Have Effect on Relevance-Value Voluntary Disclosure of Accounting?" Park *et al.* (2011) discussed the effect of conservatism on voluntary disclosure. Results

from hypotheses test indicate that market reaction to firms whose investors are considered as conservative is more than to aggressive firms and managers of those firms that are devaluated by investors tend to increase voluntary disclosure.

Esmaelzade and Sharbafi (2010) carried out a research titled "Voluntary Disclosure of Information and its Relation with Stock Return Rate in Investing Firms". Statistic population of this research included all investing firms accepted in Tehran stock exchange whose name has been published in the list of firms in Tehran stock exchange till 2004 and have presented needed primary information and data to Tehran stock exchange for five consecutive years (2004-2008). Results indicate that research hypothesis that states there is significant relationship between disclosure quality and stock return is not accepted in none of years.

In another study titled "Do Managers Avoid Disclosing Bad News?" Kothari *et al.* (2009) discussed factors affecting on disclosing bad news and accelerating in disclosing good news in U.S.A. results showed that for different reasons including issues relating to compensation and tenure, managers delay disclosing of bad news and accelerate to disclose good news. Results also showed that negative reaction of stock price to disclosure of bad news is more than positive reaction of stock price to disclosure of good news.

Lou *et al.* (2006) in a research titled "Effect of Voluntary Disclosure, Ownership Structure and Capital Cost on Return Relationship-Future Profits" tested the effect of voluntary disclosure on the relationship between annual current return, annual profits and future profits and the effect of ownership structure and capital cost on this relationship. Research results showed that there is positive relationship between voluntary disclosure and level of news relating to future profits.

Research Objective

The objective of this research is to determine the relationship between abnormal operating earnings and net operating assets and voluntary disclosure changes.

Research Hypothesis

In the FO model, accounting earnings and operating assets are components which determine the firm value. If current operating assets are understated through conservatism, future expected earnings will be higher to reflect the reversal of the understatement, and the normal earnings will be lower (see Feltham

and Ohlson [1995). Therefore, managers are expected to reveal information concerning operating assets if they believe that market investors have undervalued the value-relevance of operating assets. Therefore, it is hypothesized that the managers of firms which are undervalued by market investors tend to expand voluntary disclosures. It is also hypothesized that the managers of firms which are overvalued by market investors would have a tendency to reduce voluntary disclosures in order to not reveal the market's miss-pricing.

H1: Managers will expand voluntary disclosures if the value-relevance of abnormal earnings or operating assets is undervalued by market investors.

H2: Managers will reduce voluntary disclosures if the value-relevance of abnormal earnings or operating assets is overvalued by market investors.

Methodology

In terms of foundational object present research is experimental and it is correlated research in terms of nature and method and in terms of fulfillment duration it is ex-post facto type. In experimental researches, primary data and information are gathered by the use of experiment methods, observation, interview and so on and are analyzed by statistical methods and techniques. Researcher's though is of course very important in applying methods and result analysis. Correlation researches are carried out for becoming aware of the relationship between variables. In these researches the researcher wants to know whether there is any relationship and correlation between two things or two groups if so of what type it is and how much is it.

Data Collection and Instrument

In research theoretical principle segment, data collection was performed by review literature and reading books, journals and referring to specific webs necessary theoretic principle was collected in order to collect needed data for testing the hypotheses document exploring method was used. To do so, software relating to data of stock exchange organization such as Raha-wardNevin, Tadbirpardaz, Tehran stock exchange web, Codal web and so on were used. Following data collecting in this research needed information were gathered in Excel software and prepared for final analysis, and then final analysis was performed by Eviews software.

Research Population and Sample

Research population for this study was the firms accepted in Tehran stock exchange. Research time scope is years 2006-2011. The following criteria are

used for selecting proper sample by systematic elimination method.

1) They were accepted in stock exchange before 2006 and to continue the activity in Tehran stock exchange till 2011.

2) They have not changed their activity during 2006-2011.

3) Not being investing firms or financial agent or bank or leasing.

4) In order to create comparability financial year should finish in March 20

5) Financial information of firms being available during studied period.

6) Firms' shares have interacted constantly in Tehran stock exchange and do not have interaction interruption more than 4 months.

After the enforcement of above criteria, 70 firms were selected as the sample.

Dependent Variable

In this research, there is one dependent variables that is unrecorded goodwill of each share of firm *i* in current year.

Independent Variables

In this research there are two independent variables that are:

1) Abnormal operating earnings of each share of firm *i* in current year.

2) Operating assets of each share of firm *i* in current year

Variables are defined as:

- Unrecorded good will (*g*): share price without its book value (Park *et al* 2011).

- Net operating assets (*oa*) from balance sheet view it is the deference between operating assets and operating liabilities (Hirshleifer *et al*, 2004).

- Operating assets: it equals total assets after deducting financial assets

- Operating liabilities: it equals total assets after deducting financial liabilities and rights of shareholders.

- Operating earnings: it equals the difference between incomes and operating costs (Noravesh *et al*, 2008, p.25). In present research operating earnings is the reported number in audited financial statements of firms presented in the sample which are reported according to accounting standards of Iran.

- Abnormal operating earnings (ox^a): it is defined as the difference between operating earnings and normal earnings and it obtains from the following relation $ox_{it}^a = ox_{it} - (r * oa_{it-1})$ where ox_{it} is operating earnings of each share of firm *i* in year *t* and *r*

return rate expected by shareholders of firm i in year t and it is computed by the use of pricing model for capital assets (park *et al*, 2011).

Research model

Through classifying the sample in terms of voluntary disclosure into firms with expanded disclosure, unchanged disclosure and reduced disclosure this research discussed economic outcomes of firms which reduce voluntary disclosure or they expand it. In order to measure the level of disclosure of firms Riahi and Arab (2011) index was used which is measured by using financial statements, the board of directors and other published reports of firms.

For testing the hypotheses in this research multi-variable linear regression was used. Used model was Feltham and Ohlson's linear model as follow:

Evaluation Linear Model:

$$g_{it} = \alpha_0 + \alpha_1 ox_{it}^a + \alpha_2 oa_{it} + \varepsilon_{it}$$

g_{it} is unrecorded goodwill of each share of firm i in year t .

ox_{it}^a : abnormal operating earnings of each share of firm i in year t .

oa_{it} : net operating assets of each share of firm i in year t .

α_1 : is persistence coefficient of abnormal operating earnings in each share.

α_2 : is accounting conservatism in operating assets in each share.

ε_{it} : is the random error term

By using combined data for firms with expanded disclosure, unchanged disclosure and reduced disclosure in each year from study period and also during after and before of disclosure change this research estimated model.

Hypothesis testing

First hypothesis states that coefficients of abnormal earnings and net operating assets are higher for firms with expanded disclosure.

$$\alpha_{1ea} > \alpha_{1eb}, \alpha_{2ea} > \alpha_{2eb}$$

e: firms with expanded disclosure a: after change in disclosure. b: before change in disclosure.

Since investors may consider the reduced disclosure as the effort of managers for hiding bad news so second hypothesis predicted that coefficient of abnormal earnings and net operating assets are lower for firms with reduced disclosure.

$$\alpha_{1ra} < \alpha_{1rb}, \alpha_{2ra} < \alpha_{2rb}$$

r: firms with reduced disclosure. a: after change in disclosure. b: before change in disclosure.

In order to test first hypothesis, model was estimated for firms with expanded, unchanged and reduced disclosure before and after change in disclosure and then coefficients were studied. Results are shown in table 1.

Table 1. Results of regression model

		Expanded firms			Unchanged firms			Reduced firms				
		Est.	-stat.t	P	Est.	-stat.t	P	Est.	-stat.t	P		
Post-Disclosure change period	α_0	45.59	3.83	0.00	α_0	-78.3	-3.89	0.07	α_0	-10.6	-1.62	0.08
	α_1	0.70	3.58	0.00	α_1	2.49	3.14	0.01	α_1	0.15	2.24	0.03
	α_2	0.68	4.12	0.04	α_2	0.44	1.96	0.01	α_2	0.22	5.40	0.00
Pre-Disclosure change period	α_0	69.72	3.32	0.00	α_0	56.36	1.99	0.07	α_0	16.15	10.62	0.03
	α_1	0.70	1.10	0.05	α_1	-1.19	-1.79	0.01	α_1	-0.26	-11.18	0.02
	α_2	-0.34	-10.75	0.02	α_2	0.24	6.49	0.05	α_2	0.25	17.75	0.05

First part of hypothesis states that a_1 and a_2 must expand in compare with before changing in disclosure for expanded firms. So, the first hypothesis is confirmed as it clear here:

$$\alpha_{1ea} > \alpha_{1eb} \quad 0.70 > 0.07 \quad \text{and} \quad \alpha_{2ea} > \alpha_{2eb} \quad 0.68 > -0.34$$

Second hypothesis states that a_2 and a_1 must reduce in compare with before changing in disclosure

for reduced firms. That is

$$\alpha_{1ra} < \alpha_{1rb} \quad 0.15 < -0.26 \quad \text{and} \quad \alpha_{2ra} < \alpha_{2rb} \quad 0.22 < 0.25$$

As it is observed, the hypothesis is not true for α_1 coefficient. So the second hypothesis is rejected.

For ensuring the correctness of results, coefficients differential test was carried out in three levels as follow.

(1) Tests for the difference in coefficients for each disclosure stratum between pre- and post-disclosure periods.

(2) Tests for the difference in coefficients for pre-disclosure period between disclosure strata.

(3) Tests for the difference in coefficients for post-disclosure period between disclosure strata.

Results are summarized in table 2 and it indicates that coefficients differential is significant in all three levels.

Table 2. Coefficients differential test results

	(1)	difference	t-state	p	(2)	difference	t-state	p	(3)	difference	t-state	P
α_1	$a_{1ea}=a_{1eb}$	0.63	4.2	0.00	$a_{1eb}=a_{1ub}$	-1.5	-4.3	0.00	$a_{1ea}=a_{1ua}$	-1.3	-3.4	0.00
	$a_{1ua}=a_{1ub}$	3.5	3.01	0.02	$a_{1ub}=a_{1rb}$	0.9	6.2	0.00	$a_{1ua}=a_{1ra}$	1.2	4.2	0.01
	$a_{1ra}=a_{1rb}$	0.4	2.7	0.04	$a_{1eb}=a_{1rb}$	0.63	1.1	0.01	$a_{1ea}=a_{1ra}$	0.6	2.8	0.00
α_2	$a_{2ea}=a_{2eb}$	1.1	3.2	0.00	$a_{2eb}=a_{2rb}$	-1.14	-4.25	0.00	$a_{2ea}=a_{2ua}$	-0.22	-1.1	0.00
	$a_{2ua}=a_{2ub}$	0.7	3.01	0.00	$a_{2ub}=a_{2rb}$	0.01	2.28	0.01	$a_{2ua}=a_{2ra}$	0.22	4.5	0.01
	$a_{2ra}=a_{2rb}$	0.23	-1.1	0.01	$a_{2eb}=a_{2rb}$	-0.5	-2.12	0.00	$a_{2ea}=a_{2ra}$	0.44	3.1	0.00

Table 3: Results from hypothesis testing

Hypothesis No	Hypothesis Subject	Results of Hypothesis Testing
H_1	Coefficients of abnormal operating earnings and net operating assets for firms with expanded disclosure are higher than before	Confirmed
H_2	Coefficients of abnormal operating earnings and net operating assets for firms with reduced disclosure is less than before	Rejected

Conclusions

In this research, the results from first hypothesis testing indicate that an increase in voluntary disclosure leads to increase in coefficients of abnormal operating earnings and net operating assets (in this research they indicate the value of the firm) and decrease in disclosure does not necessarily lead to decrease in coefficients of abnormal operating earnings and net operating assets, so it is possible that managers reduce level of disclosure in order to hide overvaluing of the firm by the investors. Results of this hypothesis are consistent with Watts and Zimmerman (1985)'s view. They believe that managers who have positive and good performance try to aware their addressees by presenting more information. Of course maybe this criticism exists that disclosing more information in the form of voluntary disclosure is not suitable in competitive market. To such criticisms

Hendriksen (1992) responds that competitors can obtain their needed information from other information. So more expanded disclosure of information can reinforce capital market and help investors to make right decisions.

Recommendation of the study

Regarding the results of this study, the following recommendations can be suggested:

- Given to the importance of disclosure issue it is recommended that while obliging the firms to observing forced disclosure of information stock exchange organization encourages the firms to disclose the information voluntarily.

- Results obtained from research hypotheses show that coefficients of abnormal operating earnings and net operating assets are more than before for firms with expanded disclosure. So it is recommended that if investors undervalued the firm managers expand voluntary disclosure

of information. Results also indicate that decrease in disclosure does not lead to decrease in abnormal operating earnings and net operating assets necessarily so it is possible that in order to hide overvaluing of the firm by investors managers should reduce disclosure and it is recommended to investors that when confronting with firms with reduced disclosure to act more carefully and cautiously.

Suggestions for Future Research

- Given to the importance of disclosure it is suggested that more attention is needed to pay to the amount of voluntary disclosure of information of accepted firms in Tehran stock exchange with other accounting variables.

- Given that laws and regulations of Tehran stock exchange have changed during recent years it is suggested that the effect of disclosure of information on the value of the firm and the effect of new laws are studied.

- In future researches the effect of conservatism on value relevance of disclosure in specific industries can be studied and industries can be discussed in terms of the amount of disclosure of information.

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