



A Study on the Impact of Voluntary Disclosure Level on Value Relevance of Accounting Information of Firms Listed in Tehran Stock Exchange (TSE)

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ABSTRACT

This paper seeks to explore whether voluntary disclosure level affects the value relevance of accounting information, specifically, earnings and book values of Firms Listed in Tehran Stock Exchange (TSE). Based on the assumption that an increased focus on the informational needs of investors should increase the value relevance of the information contained in financial statements, we expect that greater voluntary disclosure levels among companies listed on the TSE will be associated with greater value relevance in earnings and book value information for investors. Statistical sample includes 71 companies during 2011 to 2016. Statistical technique used to test the hypotheses is the Multivariate Regression. The results of the price model provide evidence that earnings and book values are significant factors in the valuation of firms Listed in TSE. Other results show that the voluntary disclosure level increase leads to the increase of information content of the earnings and book values.

Keywords: Voluntary Disclosure Level, Value Relevance, Olson Model.

INTRODUCTION

Making good decisions for investment requires good information. Therefore, various studies have been performed concerning information, especially accounting information. For example (Scott, 1994), consider using data and acquiring information as one of the required criteria for making a decision.

When there is a high level of information asymmetry between investors and a firm (Dong, Yang, & Zhao, 2018; Hughes, 1986), views disclosure as a way for firm managers to signal their firm's value to investors. Hughes argues that information asymmetry provides managers with an incentive to signal their firm's value through disclosure to differentiate their firm from those of lower quality. Due to a lack of information, investors discount the price they are willing to pay for a firm's stock. To mitigate investors' undervaluation, firms are motivated to disclose all relevant financial information. Thus, firms find it beneficial to disclose additional information to investors. This argument is based on the notion that information asymmetry is created between firms and investors when firms do not fully disclose information (Petersen & Plenborg, 2006; Saa'deh, Mohamad, & Hashim, 2017).

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The existing literature on voluntary disclosure provides several possible motives for firms to provide greater financial disclosures. In general, research shows that firms might benefit from giving investors additional information to exploit the disclosure benefits that exceed disclosure costs, such as reducing information asymmetry (Petersen & Plenborg, 2006), reducing the cost of equity capital (Botosan, 1997; Lopes & de Alencar, 2010), reducing the cost of debt capital (Sengupta, 1998; Sengupta & Zhang, 2015), and enabling the market to incorporate more future earnings news into current stock returns (Glosten & Milgrom, 1985; Huang & Tsao, 2018). Although, it is reasonable to assume that managers will be motivated to provide enhanced disclosure information in order to maximize reporting and disclosure benefits, the questions remain of whether voluntary disclosure levels affect the value relevance of accounting information for investors, specifically as regards earnings and book value, and whether investors are able to use this information in their evaluations of firms. Whether voluntary disclosures improve or impair the value relevance of accounting information remains an empirical question, one that we seek to address in this study.

According to economic theory, information asymmetry can increase a firm's capital cost because imperfect information can lead to "adverse selection" between buyers and sellers of a firm's securities. This adverse selection tends to reduce the liquidity of a firm's securities⁶. In contrast, increased disclosure improves comparability and permits potential investors to recognize more efficient firms. Thus, in the absence of full disclosure, firms must discount share issues to provide extra compensation to potential investors who may be hesitant to hold shares in firms that offer limited liquidity. Because of the discount, the firm receives less capital from the issue of equity, ultimately increasing the firm's capital cost. By raising their level of disclosure, firms are likely to mitigate information asymmetry between firms and investors, which should reduce capital costs (Diamond & Verrecchia, 1991; Lopes & de Alencar, 2010). The reduction in capital costs motivates firms to disclose information in their reports to attract investors.

A REVIEW ON RESEARCH LITERATURE

A review of the voluntary disclosure literature reveals that few studies have investigated the usefulness of voluntary disclosure for increasing equity valuation. Nevertheless, some interesting findings have arisen from a small number of studies. For example, Lundholm and Myers (2002), explore whether enhanced disclosure information is incorporated in the current stock price. Their findings show that companies with relatively more informative disclosures "bring the future forward" so that current stock returns reflect future earnings news more. They suggest that a firm's disclosure activity reveals credible and relevant information not in current earnings, and that this information is incorporated in the current stock price.

Banghøj and Plenborg (2008), examine whether the level of voluntary disclosure affected the association between current returns and future earnings among Danish companies in 1996–2000. They conjecture that companies with a high level of value-relevant voluntary disclosures have a stronger association between stock returns and future earnings than companies with a low level of value-relevant disclosures.

Inconsistent with their conjecture and Lundholm and Myers (2002), findings, the study findings show that voluntary disclosures did not strengthen the association between stock returns and future earnings, despite an observed increase in the level of voluntary disclosure during their study period. Their study raises the question of whether voluntary-disclosure information included value relevant information about future earnings or whether market

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participants were not capable of incorporating voluntary-disclosure information in their equity valuations.

Hassan, Romilly, Giorgioni, and Power (2009), empirically examine the association between voluntary disclosures and firm value among Egyptian-listed firms. They found a positive but insignificant association between voluntary disclosure and firm value. They argue that this result, to some extent, confirms the traditional view that disclosing more information adds value to firms.

Kothari (2000), observes that market participants seek high-quality accounting information to mitigate information asymmetry between firm managers and outside investors.

Hamidian, hajiha, and taghizade (2018), in a research concluded that there is no significant relationship between voluntary disclosure and value relevance of earning.

Francis, LaFond, Olsson, and Schipper (2004), identify seven desirable attributes of accounting quality: accrual quality, persistence, value relevance, timeliness, predictability, smoothness, and conservatism. The authors find that value relevance, even if not the only attribute, is one of the most important attributes of accounting quality. The findings of Francis et al. are supported by Barth, Landsman, and Lang (2008), who claim that higher-quality accounting information results in less earnings management, more timely loss recognition, and more value-relevant earnings and equity book values. Although, it is reasonable to assume that managers will be motivated to provide enhanced disclosure information to maximize such benefits, a question remains about the extent to which voluntary- disclosure levels affect the value relevance of financial statement information, specifically, earnings and book values. Whether voluntary disclosure improves or impairs the value relevance of accounting information remains an empirical question, which we seek to address in this study.

Based on the assumption that an increased focus on the informational needs of investors should increase the value relevance of the information contained in financial statements, as better informed investors are able to determine value more precisely (Gjerde, Knivsfå, & Sættem, 2005), we expect that value relevance will increase as voluntary disclosures increase. Thus, we expect greater voluntary-disclosure levels by TSE-listed companies to be associated with greater value relevance in book values and earnings for investors. Therefore, it is hypothesized that:

H1: The higher the level of voluntary disclosures, the greater the value relevance of reported earnings.

H2: The higher the level of voluntary disclosures, the greater the value relevance of reported book values.

METHODOLOGY

In this study, the multiple regressions are used for data analysis. Initial data was inserted in Excel spreadsheet and EViews 6 software was applied to analyze the data statistically. Also RahavardNovin software and TadbirPardaz software were used.

The statistical society of the research was chosen from the firms listed in Tehran stock exchange (TSE), for the period 2011 to 2016, using the following criteria:

1. Firms were listed in TSE during 2011-2016.
2. Data was available for all years under study.
3. The company didn't have change in the fiscal year for study period.
4. Banks, Insurance and Investment firms didn't consider in this study.

Considering the above mentioned limitations, 71 firms were selected and examined.

To explore the association between voluntary-disclosure levels and value relevance of accounting information, a measure of the extent of voluntary disclosure levels must first be established that is applicable to TSE-listed firms. Thus, the Botosan disclosure index was used in the current study to measure the level of voluntary disclosure. The aggregate disclosure score is obtained by summing the disclosure scores on five categories (includes 71 indexes) of voluntary information disclosed in the annual report: background information, summary of historical results, key non-financial statistics, projected information and management and discussion analysis (Botosan, 1997). The Botosan disclosure index has been used in previous accounting research investigating the determinants of corporate voluntary disclosures [for example Cahan, Rahman, and Perera (2005), Kumar, Wilder, and Stocks (2008)]. In this study, an item of information was assigned “1” if it was clearly disclosed, and “0” if it was clearly not disclosed. The VDI rating for a given company was computed and a ratio formed by calculating the total number of voluntary disclosures made in the company’s annual report, divided by the maximum possible score. A higher index score indicates a greater level of voluntary disclosure.

Two models for assessing accounting value relevance dominate the literature: the price model and the returns model. The price model is used to examine the association between stock price and earnings and book values (Easton & Harris, 1991). The returns model is used to examine the association between stock returns and the level of and change in earnings. This study uses the price model to examine the value relevance of accounting information and the association between level of voluntary disclosures and the value relevance of accounting information.

The Price Model: Ohlson and Juettner-Nauroth (2005), offers a model that links a firm’s market value to its earnings and book value. In this model, current earnings serve as a proxy for abnormal earnings, while book value is a proxy for the present value of expected future normal earnings. Olson’s model expresses a firm’s market value (i.e., the firm’s stock price) as a linear function of earnings, book values, and other value relevant information. The model has many appealing properties and provides a useful benchmark for conceptualizing how market value relates to accounting data and other price-relevant information. The model is specified as follows:

$$P_{i,t} = \beta_0 + \beta_1 ESP_{i,t} + \beta_2 BVS_{i,t} + \varepsilon_i$$

Where

$P_{i,t}$ = stock price per share for firm i at time t , four months after the fiscal year-end of time

$EPS_{i,t}$ = the earnings per share of firm i at time t

$BVS_{i,t}$ = the book value per share of firm i at time t

The extended price model that incorporates the level of voluntary disclosures, loss, type and firm size is as follows:

$$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BVS_{it} + \beta_3 VD_{it} + \beta_4 EPS_{it} * DUM_1 VD + \beta_5 EPS_{it} * DUM_4 VD + \beta_6 BVS_{it} * DUM_1 VD + \beta_7 BVS_{it} * DUM_4 VD + \beta_8 LOSS_{it} * EPS_{it} + \beta_9 TYPE + \beta_{10} LSIZE_{it} + \varepsilon_{it}$$

Where

VD = the voluntary-disclosure score

$DUM_1 VD$ = dummy variable that equals 1 for firms with high voluntary disclosure level and 0 Otherwise

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DUM₄VD = dummy variable that equals 1 for firms with low voluntary disclosure level and 0 Otherwise

Loss = dummy variable that equals 1 if the firm achieves negative earnings and 0 Otherwise

Type= dummy variable that equals 1 for manufacturing firms and 0 Otherwise

L size= the natural logarithm of total assets of firms

RESULTS

Table 1 presents descriptive statistics for dependent and independent variables used in the price model. The results show that all variables used in the valuation model have a reasonable degree of variation. Table 1 reports the mean (median) stock price per share for the 39.29 (52). This table indicates that the mean (median) earnings per share during the study period was 14.44 (6) and the mean (median) book value per share was 93.85 (77.87). Table 1 show the average level of voluntary disclosure was 0.28 ranging from 0.04 to 0.51.

Table1.Correlation Pearson

Variables	Min.	Max.	Median	Mean	Std. Deviation
P	332	8862	52	39.29	251
BVS	1419	2209	77.87	93.85	272
EPS	2421	2729	6	14.44	2.99
DUM ₁ VD	0	1	0	0.15	0.35
DUM ₄ VD	0	1	0	0.13	0.34
VD	0.04	0.51	0.28	0.28	0.09

Table 2 presents the results of the price model after incorporating the high and low levels of voluntary-disclosure, profitability, type and firm size. The regression results show that the price model is highly significant (based on f statistics $F = 29.56$, $0.00 < 0.05$). Calculated R² is equal to 0.46, this means that 46% of the variation in the dependent variable can be explained by changes in independent variables. Durbin-Watson is equal to 1.83 that shows the lack of serial correlation problem, in the estimated model.

The independent variables of the model (EPS and BVS) are positive and significant and among the controlling variables, the variable of type is insignificant. Furthermore, the estimated coefficient of the interaction between accounting constructs and voluntary disclosure levels constructs (β_4 , β_5 and β_6 , β_7) are positive and meaningful. The results further show that the coefficient of earnings per shares of firms with high level of voluntary disclosure (β_4) and book values of firms with high level of voluntary disclosure (β_6) are strongly positively correlated with firms value.

Table 2. Regression model coefficients of hypothesis

Variables	Coefficient	t	Prob.
EPS	3.35	6.14	0.001
BVS	0.39	2.46	0.01
VDI	10289	4.56	0.001
EPS*DUM ₁ VD	4.88	3.69	0.01
EPS*DUM ₄ VD	2.66	2.68	0.001
BVS*DUM ₁ VD	2.45	4.12	0.001
BVS*DUM ₄ VD	1.33	3.11	0.001
LOSS*EPS	1.09	2.87	0.001
TYPE	-1094	-0.89	0.23
SIZE	1106	2.82	0.001
F-statistic	29.56	Durbin-Watson stat	1.83
Prop (F-statistic)	0.001	R-squared	0.46

Comparing the information content of two variables (earnings per shares of firms with high and low level of voluntary disclosure) is presented in table 3. Since the significance level of Wald test is less than 0.05, therefore the information content of two variables is not the same. Thus there is a strongly relationship between earning per share and firm value in firms with high level of voluntary disclosure. Hence, the first hypothesis is accepted.

$$PI = C(1) + C(2)*EPS + C(3)*BVS + C(4)*VD + C(5)*EPS_DUM1VD + C(6)*EPS_DUM4VD + C(7)*BVS_DUM1VD + C(8)*BVS_DUM4VD + C(9)*LOSS_EPS + C(10)*TYPE + C(11)*LSIZE$$

Table 3. Regression coefficients for testing hypothesis two

Variable	Coefficient	C5.C6	F	Prob.	Std. Error
EPS*DUM1 VD	C5	1.54	5.62	0.001	1.96
EPS*DUM4 VD	C6				

The Statistical result of Comparing the information content of book values, concerning the firms with high and low level of voluntary disclosure, are presented in table 4. The result show that the significance level of Wald test is less than 0.05, therefore the information content of two variables is not the same. Thus there is a strongly relationship between book value and firm value in firms with high level of voluntary disclosure. So the second hypothesis is accepted.

Table 4. Wald test for book value of firms with high and low voluntary disclosure

Predictor	Coefficient	C5-C6	F	Prob.	Std. Error
BVS*DUM1 VD	C7	1.02	4.31	0.03	0.56
BVS *DUM4 VD	C8				

CONCLUSION

This paper examined empirically whether voluntary-disclosure levels affect the value relevance of accounting information, specifically, earnings and book values. It argued that the quality and extent of disclosure practice is a fundamental prerequisite for high-quality accounting information. High-quality disclosures are also necessary to ensure that capital markets and the economy as a whole function well. Consequently, it was expected that the value relevance of accounting information would be influenced by the level of voluntary disclosure. We hypothesized that an increased focus on the informational needs of investors should increase the value relevance of the information contained in financial statements, as better-informed investors would be able to determine value more precisely. Consequently, we expected greater voluntary-disclosure levels to be associated with a greater value relevance of book values and earnings for investors.

The outcomes show that the mean VDI score for TSE-listed firms for study period was 28%, with scores ranging from 4% to 51%. The results for the price model provide evidence that earnings and book values are significant factors in the valuation of firms listed in TSE in 2011 to 2016. Also, the results show a positive and significant influence for voluntary-disclosure levels on the value relevance on book values and earnings.

The results of the hypotheses indicated that the explanatory power of earnings and book values in firms with high level of voluntary disclosure is more than earnings and book values in

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firms with low level of voluntary disclosure. This result of first hypothesis is not the same as the results of Hamidian et al. (2018).

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