



## Voluntary Disclosure of Information on Information Content of Earnings per Share and its Book Value

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### **A B S T R A C T**

This study examines the impact of information disclosure quality on information content of earnings per share and its book value in listed companies at Tehran Stock Exchange. To measure the disclosure variable, the scores given to each company that is published by Tehran Stock Exchange, have been used. To operationalize the information content, the model of earnings per share and its book value with stock price is used. Hypotheses testing were conducted using panel data statistical method for the period 2011 to 2016 applying data from 145 selected companies using systematic deletion sampling. The results showed that, there is a significant positive relationship between disclosure level and the information content of earnings per share and its book value.

**Keywords:** Information Disclosure, Earnings Per Share, Book Value Per Share Information Content.

### **INTRODUCTION**

Most of the financial report is consisted of financial statements. Financial Accounting Standards Board (FASB, 1978) states that the objective of financial statements is: “presentation of summarized and classified information about financial position, financial performance and financial flexibility of business unit that is useful for a wide range of financial statements users in making economic decisions”. Due to the increasing needs of financial statements users, they are significantly interested in the financial activities report of businesses. To meet these growing needs, the disclosure of information concerning the business unit's activities is essential (Lundholm & Myers, 2002).

Financial statements comprise the financial reporting process main core and are the most important products of accounting system (Adams, 2017; Perrini & Tencati, 2006). The major goal of financial statements is providing useful and essential information for decision making, and evaluation of performance and potential profitability of the enterprise. These statements which contain financial information required for decision making of capital market participants must be relevant to be effective (Barth & Schipper, 2008).

Relevance of financial information means that the given information be effective on the economic decisions of users in the assessment of either past and present events, or confirming and

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correcting their past evaluations. The feature of information relevance is based on the concept of profitability in prediction and measure particular selection (Kothari, 2000; Lusardi & Mitchell, 2014; Pilbeam, 2018).

Capital market participants are looking for high-quality information in order to reduce information asymmetry between managers and themselves (Kothari (2000)). One of the basic and effective requirements on the relevance of accounting information is the quality and level of disclosure used in the preparation of the information. Through increased relevance of the provided information, information disclosure can assist investors and other users of financial reports in better economic decision makings. It could be argued that timely, complete and sufficient disclosure is a factor that may have caused the healthy development of the capital market and lead to correct decisions by individuals (Barth & Schipper, 2008).

### **A REVIEW ON RESEARCH LITERATURE**

Mishari and Faisal (2011), investigated the relationship between information disclosure and information content of earnings per share and its book value in the capital market of Kuwait. The results showed that earnings per share and its book value have a significant relationship with stock prices and there is a significant relationship between information disclosure and earnings per share and its book value, and the information content of the. In addition, increased levels of disclosure leads to the given information content increases.

Noravesh and Hosseini (2009), investigated the relationship between the quality of mandatory disclosure in terms of reliability and timeliness, and earnings management. The results showed that there is a negative significant relationship between disclosure quality of companies and earnings management. Also, there is a negative significant relationship between disclosure quality timeliness of companies and earnings management.

Hossain and Hammami (2009), investigated the value contents of mandatory disclosure of listed companies in Qatar. Their results showed that the disclosures made in the Companies reports contain information content about future earnings. This disclosed information has been utilized by investors in their decision.

Hassan, Romilly, Giorgioni, and Power (2009), investigated the relationship between corporates disclosure and firm value in the capital market of Egypt. Their research results showed that by controlling factors such as asset size and profitability, mandatory disclosure has a significant and negative relationship with firm value. While there is a positive relationship between firm value and voluntary disclosure, but this relationship is not statistically significant.

Regard to the expressed subjects, a need for empirical research that in recent decades intended to disclose information properly and fully in the annual reports, have been revealed today, more than ever. In Iran investment market can be helpful for decision makers and investors.

Barth and Schipper (2008), studied the effect of disclosure on the relationship between earnings and returns. They concluded that in the companies that have relatively more information disclosure from future, current stock returns reflect more future earnings news. They also came to the conclusion that there is a positive relationship between the change in the disclosure quality and the change in the importance of future earnings news for current returns.

Gelb and Zarowin (2002), studied the disclosure practices of company and stock price informing, and found a better relationship between the current stock returns and future earnings for companies with better disclosure practices. Gelb and colleagues also examined the profitability of three disclosure indexes. They found that the increase in the annual report disclosures causes an increase in future stock prices information. In summary, the research literature suggests that the

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disclosure practices of companies effect on the relationship between current returns and future earnings.

### METHODOLOGY

In this study, to investigate the information content between stock prices and earnings per share and its book value first model of "equity pricing", presented by Ohlson (1995), was used. Ohlson believes that the stock price at the same time depends on earnings and book value per share.

$$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BVS_{it} + e_{it}$$

To test the hypotheses of the research, the following model will be used:

$$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 VD_{it} + \beta_3 EPS_{it} * VD_{it} + \beta_4 LOSS_{it} * VD_{it} + \beta_5 SIZE_{it} * VD_{it} + \beta_6 LOSS_{it} + \beta_7 SIZE_{it} + \varepsilon_{it}$$
$$P_{it} = \beta_0 + \beta_1 BVS_{it} + \beta_2 VD_{it} + \beta_3 BVS_{it} * VD_{it} + \beta_4 LOSS_{it} * VD_{it} + \beta_5 SIZE_{it} * VD_{it} + \beta_6 LOSS_{it} + \beta_7 SIZE_{it} + \varepsilon_{it}$$

In these models: VD: is the quality of information disclosure, PIT: price stock, EPS: Earnings per share, BVS: book value per share, LOSS: Loss, SIZE: firm size and  $\varepsilon$ : error components of equation.

The research is a practical research in the field of PAT that is conducted using multiple regression analysis and econometric models. To investigate whether there is autocorrelation between the variables statistic of the Durbin - Watson was used. The information needed to calculate research variables have been collected through Rahavard Novin software and the stock exchange site. Statistical analysis was done by 7 EViews software and to test hypotheses ordinary least squares (OLS) is used.

The present study population is the listed companies in Tehran Stock Exchange from the beginning of 2011 until the end of 2016, a period of 6 years, during which time their membership in the Stock Exchange have been maintained. To achieve reliable results, the companies that entered the stock after 2011 or during the period of investigation exited the stock, will not be in the population. Moreover, the population is adjusted using the following conditions:

- 1) The company should be listed before the year 2011 and since the beginning of 2011 its stock is traded on the exchange.
- 2) The end of the fiscal year should be March and during the course of the investigation, there must be no change in the fiscal year.
- 3) The Company, during the course of the investigation i.e. the years from 2011 to 2016, must not be interrupted more than three months of trading on the Exchange.
- 4) The score of annual disclosure quality of the company and its financial information should be available.

After applying these limits, 145 companies have all conditions of presenting in the population.

### RESULT

In order to achieve the objectives of the study, which examines the impact of information disclosure on information content of earnings per share and its book value, first the existence of information content between earnings per share and its book value, and stock prices based on Ohlson (1995) must be tested and analyzed. To do this, after testing the first model (model of the

information content of prices to earnings per share) variables coefficients and the coefficient of determination (R2) of the first model should be analyzed with the second model in which the disclosure level is added to the model. If variables coefficients and the coefficient of determination (R2) of the models have increased, it is indicated that the disclosure level has information content with the given independent variables or not? The results obtained from the investigation show the existence of information content between prices and earnings per share and its book value, as described in Table 1:

As Table 1 shows, the F-statistic is significant at 0.99 level of confidence. Thus, the research model was significant on the whole and testing the information content of the first model shows that there is the information content between stock price and earnings per share and its book value at 0.99 level of confidence.

**The first hypothesis examined the relationship between disclosure level and the information content of earnings per share.**

Regard to the amount of calculated t-statistic all estimated coefficients of the model are significant at the error level of 1%. Therefore, the disclosure quality increases the information content of earnings per share and the first research hypothesis is confirmed by the 0.99 confidence. The investigation of adjusted determination coefficient of the model (0.71 percent) represents the explanatory power of the model to predict the dependent variable. Considering the F-statistic of the regression in this model shows the explanatory power of the model.

By comparing the adjusted determination coefficient obtained from the estimation of two models, tables (1) and (2) indicate that the values for the first and second models, respectively, are obtained 0.55 and 0.71 and coefficient of earnings per share have been 0.84 and 2.64, respectively. These figures show that the independent variables and control variables in the second model, in comparison with the first model, have more explanatory power for the dependent variable of the model and the entrance of disclosure to the model will increase the information content. In addition, the observation of values of the Durbin - Watson statistic confirmed that there is no autocorrelation between disruptions of the model components, since the values are in the interval of 1.5 to 2.5.

**The second hypothesis examined the relationship between disclosure level and the information content of book value per share.**

Regard to the amount of calculated t-statistic as well as the risk associated with them, all estimated coefficients of the model are significant at the error level of 1% except the firm size and coefficient of (LOSS\*VD), that represents the relationship between the dependent variable and the independent variable.

By comparing the adjusted determination coefficient obtained from the estimation of two models, it is indicated that the values for the first and second models, respectively, are obtained 0.55 and 0.61 and coefficient of book value per share have been 0.68 and 1.93, respectively. These figures show that the independent variables and control variables in the second model, in comparison with the first model, have more explanatory power for the dependent variable of the model and the entrance of disclosure to the model will increase the information content.

**Table 1.** Results of the data analysis for the first model

$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BVS_{it} + \varepsilon_{it}$							
Variable	Abbreviation Mark	Coefficient	t	p	Adjusted R <sup>2</sup>	F	Significance
Fixed Coefficient	C	4762	25.93	0.001	0.55	2.3	0.001
Earnings Per Share	EPS	0.84	3.81	0.001			
Book Value Per Share	BVS	0.68	2.13	0.001			

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**Table 2.** Results of the data analysis for the first hypothesis test

$$P_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 VD_{it} + \beta_3 EPS_{it} * VD_{it} + \beta_4 LOSS_{it} * VD_{it} + \beta_5 SIZE_{it} * VD_{it} + \beta_6 LOSS + \beta_7 SIZE + \varepsilon_{it}$$

Variable	Abbrev. Mark	Coefficient	t	p	Adjusted R <sup>2</sup>	F	Significance	Durbin-Watson
Fixed Coefficient	C	3430	2.96	0.000	0.71	2.42	0.000	2.45
Disclosure Level	VD	1.512	2.03	0.002				
Earnings Per Share	EPS	2.64	3.18	0.000				
Firm Loss	LOSS	-0.29	2.7	0.000				
Firm Size	SIZE	4	2.98	0.000				
Coefficient	EPS*VD	2.74	1.78	0.000				
Coefficient	LOSS*VD	-2.09	2.84	0.000				
Coefficient	SIZE*VD	1.50	1.31	0.000				

**Table 3.** Results of the data analysis for the second hypothesis

$$P_{it} = \beta_0 + \beta_2 BVS_{it} + \beta_3 VD_{it} + \beta_4 BVS_{it} * VD_{it} + \beta_5 LOSS_{it} * VD_{it} + \beta_6 SIZE_{it} * VD_{it} + \beta_7 LOSS + \beta_8 SIZE + \varepsilon_{it}$$

Variable	Abbrev. Mark	Coefficient	t	p	Adjusted R <sup>2</sup>	F	Significance	Durbin-Watson
Fixed Coefficient	C	3406	2.96	0.003	0.61	3.57	0.000	1.71
Disclosure Level	VD	1.53	2.01	0.001				
Book Value Per Share	BVS	1.93	4.32	0.001				
Firm Loss	LOSS	-0.48	3.24	0.02				
Firm Size	SIZE	4.66	1.15	0.24				
Coefficient	BVS*VD	0.49	4.32	0.02				
Coefficient	LOSS*VD	-3.47	3.72	0.08				
Coefficient	SIZE*VD	1.11	2.97	0.03				

## CONCLUSION

Testing results of this study indicate that both hypotheses were confirmed and there is information content between stock price and earnings per share and its book value. The results also show that there is a significant relationship between earnings per share and its book value and the level of disclosure. By entering the level of disclosure to the investigation models the information content is increased as well. This indicates that the more the level of disclosure, the more the information content of earnings per share and its book value. Furthermore, two control variables of the firm size and loss were used in this study. The results show a significant direct relationship between firm size and disclosure level and a significant negative relationship between the loss and disclosure level. As small companies do not have the needed facilities to make a full information disclosure, or if they want to present the financial statements with a full disclosure requires enormous expenditure that will increase the cost-benefit. So the more losing smaller is the company, the lower levels of information will be disclosed.

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