



The Relationship between Level of Voluntary Disclosure in Internet and Information Asymmetry in Companies Listed on the Tehran Stock Exchange

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ABSTRACT

The purpose of this study was to investigate the relationship between Internet-based disclosures with information asymmetry of listed companies in Tehran stock exchange between 2009 and 2014. In the present study, the sampling, purposive sampling method, which is used on the systematic elimination of 85 companies were selected. In order to assess the exact impact of each factor on the dependent variables, each of these components in main hypotheses were tested and handed intended. The results showed an inverse relationship between the level of voluntary disclosure on the Internet and meaningful information asymmetry exists.

Keywords: Voluntary Disclosure in Internet, Information Asymmetry, Stock Exchange

JEL Classifications: F31, L86

1. INTRODUCTION

The base of participants' decision in the securities markets are the information which is published from the exchanges, the issues of securities listed on stock exchange operating intermediaries in these markets. The use of this information and in other words, right decision-making is possible when the information is on time, relevant, important and also complete and understandable. On the other hand, the type of the information and how to achieve it are really important. If the data transmission takes place unequally and asymmetrically between people, it can cause different results to one unique issue (Rahimian et al. 2012). One of the negative phenomena that usually occur in stock exchange markets, is the absence of information symmetry that leads to the poor economic decisions by the investors. Asymmetry information occurs when one side of the transaction is aware of more information provided that this information will be used while communicating with the other side effectively (Rahimian et al. 2012).

2. PROBLEM STATEMENT

Financial literature suggests broadly that the market evaluation of one company, affect the management behaviors and actions. Stock prices reflect the expected future cash flows based on the available information. Hiding or non-disclosure of important information about the company's future may lead to incorrect determination of stock prices. Providing voluntary financial and non-financial information about the company can reduce the information asymmetry, increase stock liquidity and thus improve the company's financial situation. Although accounting and auditing standards are as institutional mechanisms that make adjusting the information gap between the managers and owners, but this gap doesn't eliminate any information completely. Voluntary disclosure can reduce information gaps and improve the reliability of financial reporting as well as understanding the role of accounting in helping the valuation of the company and the financing (Khajavi and Alizadeh, 2014). According to the disclosure process, investors (traders) are faced with the problem of asymmetry information. This problem arises when one side of the transaction has more information than

the other one (Bushman and Smith, 2003). Asymmetry Information between the investors may lead to the mistaken valuation of the company and create the incentives in order to correct the mistakes committed by disclosing more information (Shin, 2002). The result of voluntary disclosure of information reduces uncertainty and asymmetry information that can increase the confidence of investors in the company's management. Reduction in condition of being uncertain reduces to monitor management activities, and subsequently reduce financing costs and increase the company's value. Moreover, voluntary disclosure potentially reduces the manipulation earning and therefore the company's stock prices will provide the reliable reflection in the company's financial situation. But, voluntary disclosure and the commercial advantages impose the costs on the company. In this regard, voluntary disclosure theory suggests that managers face increasing interest in disclosure of the expenses in the companies under their management. Thus, managers should establish an equal balance between the disclosure benefits and the costs of the emissions in the capital market (Khajavi and Alizadeh, 2014).

One way of information disclosure on time in order to reduce the asymmetry information between managers and also the investors, is the financial information dissemination via the companies' website that nowadays is presented as one of the important issues and debates. In our country, listed companies to disclose executive order have been approved and all the accepted companies listed in the stock have been required to have a website and publish financial reports on the website at the same time. But according to initial investigation, its shown that despite nearly 4 years since the last decision of the securities and exchange board of management, the how and the disclosure and dissemination of financial information via the internet are different and even some of the companies which don't have websites haven't disclosed any of the aforementioned act that is mainly related to the companies' financial data or just after a few years, they have exposed (Salehi, 2014). Now the basic problem is that there is no accurate measure for disclosure on the internet or if there is, it has not been very accurate and since it has been mentioned above, the level of voluntary disclosure on the internet is very important and this causes the asymmetry of information that is really important for the investors, will be more easily available and they will be able to invest more comfortably. But the solution to solve this problem is developing the standards and guidelines for disclosure rules and also the rules that emphasize this disclosure, but more researches like this explain the effects of voluntary disclosure more than the past on the internet and asymmetry information puts, and this would lead to more concentration of lawmakers and officials to focus more on this matter. According to the things that have been cited in this research, the researcher has to study and pay attention to the association between voluntary disclosure and asymmetry information. In fact, the researcher wants to answer this question that is there a significant relationship between the level of voluntary disclosure on the internet and the asymmetry information?

3. THE RESEARCH BACKGROUND

Majda and Hakim (2013) by examining the role of institutional ownership and family ownership disclosure on the internet (as a

measure of environmental disclosure) in Arabian countries of the Middle East and north of Africa, concluded that the company's financial revenue and the size of the company have impact on the internet disclosure and there is a strong correlation between familial ownership and the Internet disclosure (Khajavi and Alizadeh, 2014).

Fu et al. (2012) examined the impact of financial reporting frequency on the asymmetry information and cost of the companies' capital. The sample included 7654 companies during the years 1951-1973. The findings of this research showed that an increase in the frequency of financial reporting is associated by reducing the information asymmetry and the reduction of the cost in companies' capital. Moreover, the forced changes in the frequency of financial reports also showed similar results.

Armstrong et al. (2011) studied the effects of information asymmetry on the cost of the capital. The study period was from 1976 to 2005 and it had 1792 companies in its sample. The results showed that the information asymmetry has a significant positive relationship with the capital when the market is imperfect but this relationship is not observed in competitive markets (Khajavi and Alizadeh, 2014).

Khajavi and Alizadeh (2014) on the effects of voluntary disclosure of information asymmetry To measure the level of voluntary disclosure, was used 17 indicators in six broad background of information, a summary of the most important historical results, the non financial key statistics, the sections' data, and the forecast and management discussion and analysis. And also the variable information asymmetry has been measured by using Venkatesh and Chaiang (1986). To test the hypothesis multivariate regression the panel data has been used. The findings of studying 122 companies showed that there is no significant relationship between the level of voluntary disclosure and information asymmetry firm listed in Tehran stock exchange.

Salehi (2014) investigate a research as title added the relationship between the stock and the online disclosure of financial information. The aim of this research was to examine the issue of whether companies that face Added stock assessment manage their internet information disclosure or not? Therefore the relationship between the additional hypothesis for stock valuation and the disclosure of information were developed through the companies' website. To test the hypothesis in this research, 83 companies listed in Tehran stock exchange from the year 2010 to 2011 and the correlation analysis, regression analysis (for each of the years and the accumulation of years) and the mean-difference test have been used. The results of the tests conducted in this study indicate the existence of significant negative relationship between the added evaluation and the disclosure of financial information on line. And it's a kind of cross-sectional in each part and it will be totally 2 years. In fact, in the studied companies in Tehran stock exchange, when companies' management faces the extra stock evaluation, they tend to support the extra evaluated values in order to achieve the benefits of high stock prices and as a result, they disclose less information about the year's revenue in which the evaluation is added on their websites.

4. MODEL AND VARIABLES EXPRESSION OF RESEARCH

$$\text{Information asymmetry} = \alpha + \beta_1 \text{ internet based disclosure} + \beta_2 \text{ turnover} + \beta_3 \text{ volatility} + \beta_4 \text{ price} + \varepsilon$$

4.1. Dependent Variable

The dependent variable is a variable that will be observed and measured to clear the effect of independent variable on it.

4.2. Asymmetry Information (in-as)

To measure asymmetry information Venkatesh and Chiang model (1986) is used which was designed to determine the domain of offered price of buying and selling stocks. This model is used in the study of Fu et al. (2012), to measure information asymmetry. This model is used too in Iran at the research of Ghaemi and Vatanparast (2005).

$$\text{SPREAD}_{it} = (\text{AP} - \text{PB}) \times 100 / (\text{AP} + \text{PB}) \div 2$$

SPREAD: The difference between bid and sell stocks.

AP (Ask price): The average price of offering *i* in the period *t*.

BP (Bid price): The average price of an offer to buy shares of the company *i* in period *t*, is.

The top model, the range of offers to buy and sell shares price difference is greater, is more indicative of information asymmetry. In testing the hypotheses, the absolute number of these models can be used.

4.3. Independent Variable

Benchmark online disclosure of financial information (in-dis).

4.4. Control Variables

Turnover: Turnover, turnover rate of rotation of stocks

$$\text{Turnover} = \log \frac{\text{Daily trading volume}}{\text{NOSH} \times \text{NOSHFF}}$$

NOSH: The total number of ordinary shares.

NOSHFF: Percent of the total shares available free shares to common stock.

Daily trading volume: Total number of shares traded per day.

Price: Is the stock price at the end of the period.

Volatility: The stock return volatility (volatility) measured by the standard deviation of monthly stock price is achieved.

e_{it} : Disturbance terms model.

α : Constant model.

β_i : Regression coefficients are variables.

5. RESEARCH HYPOTHESES

H_1 : There is a significant and inverse relationship between voluntary disclosure in internet and information asymmetry.

6. RESEARCH METHODOLOGY

This research is practical in terms of orientation and is descriptive in terms of goal. Library resources including books and Persian and Latin Journal and websites are used to collect data and information related to research literature and theoretical issues. Data collection and required information in financial statements and stock market value are done through Codal electronic system (www.codal.ir) and Tehran Securities Exchange Technology Management (www.tsetmc.com) and analysis of this data and information is also done by Excel MiniTab and Eviews softwares.

All companies listed in Tehran stock exchange between years of 2009 and 2014 are research statistical population. For sampling, systematic elimination is used by purposive sampling way. Consequently, sampling among listed companies in Tehran stock exchange is done by considering the following criteria:

1. Companies that had activity in Tehran stock exchange and their available data are from the period of 2009-2014.
2. Companies that their stock had been traded in exchange from 2009 to 2014 and their symbol has not been removed from exchange board until the end fiscal year of 2014.
3. Companies' fiscal year is at the end of Esfand's month of each year.
4. Companies don't be unprofitable in these years at all.
5. Companies that their symbol does not have trading interval more than 6 month.
6. Don't being banks, financial institutions, insurance companies, holding, investment and such this companies.
7. The companies being manufacturing company.

7. REGRESSION ANALYSIS AND THE STUDY OF ITS PRECONDITIONS

Regression analysis is based on some simple and basic premise and if one or more of these premises won't be confirmed, interpretation of regression analysis will be false and conducted predictions based on it will be weak. To estimate regression models, test classic assumptions including check the normality of errors, autocorrelation, heterogeneity of variance and linearity have great importance. Therefore before estimating the models, these assumptions were tested and results of all tests from prerequisite for regression analysis were confirmed.

8. THE RESULTS OF HYPOTHESIS TESTING

Research hypothesis indicates reverse significant relationship between the voluntary disclosure on the Internet and Information asymmetry. Table 1 shows the results of the estimation model by Eviews9 software: As is shown in the results of Table 1, P-value estimated for each independent variable of internet based disclosure is less than error level of 5% and estimated rate of variable is significant. Therefore it can be stated that there is significant relationship between voluntary disclosure on the Internet and Information asymmetry.

Table 1: The results of research

Variable	Coefficient	Standard error	t	P value
C	0.06	0.0006	97.78	0.000
INTERNET BASED DISCLOSURE	-0.06	0.0009	-64.99	0.000
TURNOVER	-0.009	0.01	-0.85	0.391
VOLATILITY	0.001	0.02	0.07	0.941
PRICE	0.000	0.000	0.30	0.763
R ²	0.97	R ² adjusted		0.97
F	217.34	F significant		0.000

The determination of this model's coefficient is approximately 0.97. This number shows that 97% of dependent variable changes can be explained by mentioned independent variables and since the Watson-Durbin statistic of this model is 2.35, it can be said that there is no first level of autocorrelation (One assumptions of regression confirmation). In addition, the results in 9-4 table show that P-value of F test is <5% and since the F statistic shows the overall validity of the model therefore it can be said that this model is significant with probability of 95% and has high validity. So according to the results of 9-4 table, the first hypothesis of this study will not be rejected at the confidence level of 95%. Therefore there is significant relationship between voluntary disclosure on the Internet and Information asymmetry.

According to the data presented at the table above and the sign of coefficients it can be stated that TURNOVER control variable has an indirect relationship with asymmetry information. This means that with increasing it, asymmetry information will decrease and vice versa but VOLATILITY and PRICE control variable have direct relationship with information asymmetry.

9. CONCLUSION

According to the results obtained from main hypothesis testing, it can be said that the hypothesis of this research will not be rejected at confidence level of 95%. As the result, it can be stated that there is reverse significant relationship between voluntary disclosure on the Internet and asymmetry information. One of the most important economic challenges is efficient allocation of savings at investment opportunities. In the meantime, factors such as asymmetry information will lead to mess at capital market performance. With increasing Internet based on disclosure, effective allocation of capital will be possible. If investors and creditors could find companies that are more productive and active with more efficiency, unwise investments would be less and it causes companies competitiveness in that country. In this study the relationship between voluntary disclosure on the Internet and asymmetry information of Companies listed in Tehran Stock Exchange was evaluated. One of the most commonly used criteria to determine the level of disclosure of information through the internet that is used in this study is Internet disclosure index. To calculate it, disclose components used in various research Ashbaugh et al. 1999, Laren and Begona 2002, Tehmina Khan 2007, Almialya 2009 and Dea et al. 2010 is collected and used as disclosure criteria. Also to measure information asymmetry, Venkatesh and Chiang model (1986) is used which was designed to determine the

scope of offered price of buying and selling stocks. This model is used in the study of Fu et al. (2012), to measure information asymmetry. This model is used too in Iran at the research of Ghaemi and Vatanparast (2005), Ahmadpour and Resanian (2006) and Khoshtinat and Asl (2007). Based on the findings presented in this study there is significant relationship between the level of voluntary disclosure on the Internet and asymmetry information of companies listed in Tehran stock exchange. Among the reasons of this conclusion can mention low average voluntary disclosure level of companies listed in Tehran stock exchange. Furthermore, the results of this study and researcher observation while collecting data show that at investigated companies, voluntary disclosure of information is not seriously considered from investors or due to lack of financial analysts, companies voluntary disclosure could not significantly change asymmetry information level in the capital market (research findings). It is hoped investors have more effort for this issue according to results of this research.

According to result based on the existence of negative relationship between the level of voluntary disclosure on the Internet and asymmetry information it is suggested that according to the complex process of calculation of voluntary disclosure on the Internet and asymmetry information and its variables, to facilitate analysts, researchers, Investors and other users access to mentioned variables, software companies which provide company financial information and stock exchange, calculate variables and take it to users to have financial decisions and academic research more quickly and also it is recommended to investors before making their new venture have certainly paying attention to the results of research because on ways of reducing asymmetry information voluntary disclosure in the internet. So, as this disclosure is higher, asymmetry information will be lowered by managers. Research limitations are as follows:

1. Limitations of collecting information related to independent and dependent variables of research.
2. Lack of information disclosure required by the researcher about the company's activity on the internet about some of sample companies.

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