

DISCLOSURE QUALITIES AND INFORMATION EFFICIENCY: EVIDENCE FROM LISTED COMPANIES IN TEHRAN STOCK EXCHANGE

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Abstract

In a market where stock price, is effective both as desirable and optimal capital allocation is done and the stock price is determined properly and fair. On the other hand, improved disclosure by reducing information asymmetry and ultimately reduce the changes of stock returns, market efficiency is improved. And forecast earnings By the Relationship between Earnings changes and Stock price, increases to be efficiency. The main aim the present study is to determine the Relationship between disclosure quality and information efficiency in firm accepted in Tehran stock exchange. After sampling impose restrictions, the data of 87 company in the period 2010 to 2012 that included 261 observed for analyze the extraction and were used. To analyze the data Pearson correlation test was used. The results indicate that between reliability and timeliness of disclosure with information efficiency for 30 and 60 day there was no significant relationship.

Key Words: Information efficiency- disclosure quality- Timeliness disclosure- reliability-earning predictability

1- Introduction:

Informational efficiency of stock prices is an essential aspect of the market quality. To the extent that prices are influenced by the available information they are also influenced financial and investment decisions. This issue has affected how to interpret and use information by preparers of financial statements, investors and analysts (Perotti Pietro & Windisch David, 2012). Efficiency means that the content of the disclosed information (but not the disclosure of information) is the attention of markets. Market values the content of the disclosed information (Scott, 2009). In 1987, Jenson is called the efficient market that can make a profit using the available information (Salimifar and Shizour, 2010). In a fully efficient market, stock prices are

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heavily influenced by all the available information in the market, and because, the available information their had impact on prices investors can then use this information to make a profit in such a market the price of each securities is equal to its intrinsic value so that this intrinsic value reflects all the information that there are about these securities (Jones, 2011). It should be noted that the ultimate value of information is not only to provide it, but also its use is in financial and economic decision-making. In Iran, because of the Pale of information resources, the role of accounting information is very important. As a result the importance of financial and accounting information in investment decision is twofold. If there is ambiguity in this information, the prices of securities cause high fluctuations and increase the risk of investment.

In order to support the interests of investors, the principle compilers of accounting and capital market regulators are obliged the companies to disclose information (Yaghoubnazuad and Zabihi, 2011). Of course, capital market participants are always looking for quality financial information because this information decreases the information asymmetry between company management and outside investors (Norvash and Hosseini, 2009). Transparency and disclosure of corporate information can be considered as a mechanism to protect the rights of foreign investors. This causes the less information asymmetry and reduces representation costs (Chen et al, 2007). In other words, the issue of financial transparency and disclosure quality provided in it are considered as a practical way to protect shareholder's wealth against conflicts of interest (Hassas Yeghaneh and Kheirollah, 2008) and (Karamanou, and Vafeas, 2005).

Facing with the problem of information asymmetry and to protect the rights of investors and creditors by promoting transparency, financial reporting standards in each country and the capital market supervisory bodies, have decreed requirements for the disclosure of corporate information (Francis, Khurana, Pereira, 2005). The terms "quality" accounting information disclosure and "transparency" in a disclosure system, jointly developed and used to replace. And it is difficult to present precise definition of "transparency" and "Quality" in which ther exists consensus on it (Hassan et al, 2008). In this regard, so far it is used several structures, including adequacy, comprehensiveness, informativeness, and timeliness as a proxy for disclosure quality. Singhavi, and Desai, in 1971 believed that the quality refers to characteristics of completeness, accuracy or precision, and reliability. Ball et al in 2000 interpret transparency as a combination of timeliness and conservatism features. Timeliness implies to the extent that the current period of economic events included on the financial statements of the period and conservatism is that bad economic news more quickly than good news to be reflected in the financial reports (Setayesh et al., 2011). In this study, for the quality of disclosure will be used two criteria timeliness and allowing reliance. The information provided by the company, including information about profit is based on the past events.

2- Methodology

The research population were all the companies listed in Tehran Stock Exchange, form. Due to the extent of the population and existence of some inconsistency among the members of society, then the necessary restrictions was selected the statistical sample. Mentioned conditions are:

1. Companies that are presented the necessary information for conduct research in the period 2010 to 2012 in full.
2. The financial year of company has not changed during the years 2010 to 2012.
3. The financial year of company ended to the end of March.
4. Companies whose share prices are not below the nominal value.

5. Company stock trading is constantly carried out in Tehran Stock Exchange and trading stop was not happened for over a month in the mentioned stock.
6. Not to be investment companies.

Companies whose their price is below the nominal value, may have a good performance but even so are not at attention of market, so these companies were not suitable for the purposes of the present study and were excluded from the sample. Monthly returns distribution of companies that are not available data on their return more than two-month, this was not statistically reliable because those companies were excluded from the samples.

After doing mentioned restrictions 87 companies were chosen as the statistical sample in which the observation period of the study in 261 selected companies was extracted and was used to analyze of the study.

2-1 The research model:

By the following model the linear relation and multiple informative is calculated with the profit predictability and disclosed quality.

$$IE = \alpha_0 + \alpha_1 EF + \alpha_2 TIMELINESS + \alpha_3 RELIABILITY + \alpha_4 DVOL + \alpha_5 SIZE + \alpha_6 LEV + e$$

IE: Information Efficiency

TIMELINESS: timeliness

RELIABILITY: reliability

DVOL: The natural logarithm of daily stock volume of transactions

SIZE: Firm size

LEV: company financial leverage

E: representing error

2-2 Method of measuring information efficiency

To measure information efficiency based on Prout and Vendich (2012) research study, was used the ratio of the variance. To calculate the variance will be used returns over 30 days and 60 days. This means that the results are presented according to the VAR (1,30) and VAR (1,60).

$$VAR(1,30) = \frac{VAR(R_1)}{VAR(R_{30})}$$

VAR (R₁) = First Day Return Variance

VAR (R₃₀) = Thirtieth Day Return Variance

$$VAR(1,60) = \frac{VAR(R_1)}{VAR(R_{60})}$$

VAR (R₆₀) = Sixtieth Day Return Variance

Whatever the variance of the first day smaller than the thirtieth day, in that case it revealed that of the difference variance of the thirtieth day was greater than the first day or in other words there was significant difference between the stock price and its intrinsic value and market does not have the required efficiency. This means that whatever the amount of | VAR (1, 30)-1 | and | VAR (1, 60)-1 | is smaller in that case, the market is more efficient. Consequently, for ease of interpretation, its results multiplied in negative one IE₁ and IE₂ level higher to show more efficiency information. So we have:

$$IE_1 = \left| VAR(1, 30) - 1 \right| \times (-1)$$

$$IE_2 = \left| VAR(1, 60) - 1 \right| \times (-1)$$

2-3 Assessment Method of Disclosure Quality

In this study used annual advantages of company disclosure quality which are calculated for listed companies in Tehran Stock Exchange. These advantages reflect stock assessment on the rate of awareness of a company disclosure. The above mentioned advantages calculated based on weighted average criteria of timeliness and reliability of information disclosed. Data evaluation was based on the exchange of information disclosure regulations, including annual financial statements, interim financial statements and forecasts of earnings per share. To calculate the total score a company disclosure were used criteria of the timeliness and reliability by two-thirds and one-third by weight.

3- Results

H1. There is relationship between timeliness of the company disclosure and informational efficiency in 30 days.

Table 1: Results of computing the correlation coefficient between timeliness of the company disclosure and informational efficiency in 30 days

(p-value)	Pearson correlation coefficient	Number of samples	Research variables	
0/825	0/014	261	Efficiency data of 30 days	timeliness of disclosure

Because, the significant level is equal to 0/825 and greater than 0/05 we can reject the null hypothesis test therefore, there is no significant relationship between timeliness of the company disclosure and informational efficiency in 30 days. So, this shows that in error level of 0/05 and 95% confidence level the research hypothesis that there was no significance relationship between timeliness of the company disclosure and informational efficiency in 30 days was rejected.

H2. There is relationship between timeliness of the company disclosure and informational efficiency in 60 days.

Table 2: Results of computing the correlation coefficient between timeliness of the company disclosure and informational efficiency in 60 days

(p-value)	Pearson correlation coefficient	Number of samples	Research variables	
0/821	0/014	261	Efficiency data of 60 days	timeliness of disclosure

Because, the significant level is equal to 0/821 and greater than 0/05 therefore, we can reject the null hypothesis of the test that there is no significant relationship between timeliness of the company disclosure and informational efficiency in 60 days. So, this shows that in error level of 0/05 and 95% confidence level the research hypothesis that there was not any significance relationship between timeliness of the company disclosure and informational efficiency in 60 days was rejected.

H3. There is relationship between reliability of company disclosure and informational efficiency in 30 days.

Table 3: Results of computing the correlation coefficient between the reliability of corporate disclosure and information efficiency in 30 days

(p-value)	Pearson correlation coefficient	Number of samples	Research variables	
0/343	-0/059	261	Efficiency data of 30 days	reliability of disclosure

Because, the significant level is equal to 0/343 and greater than 0/05 therefore, we can reject the null hypothesis test that there is no significant relationship between the reliability of corporate disclosure and information efficiency in 30 days. So, the results of research showed that in error level of 0/05 and 95% confidence level the hypothesis that there was not any significance relationship between timeliness of the company disclosure and informational efficiency in 30 days was rejected.

H4. There is relationship between reliability of company disclosure and informational efficiency in 60 days.

Table 4: Results of computing the correlation coefficient between the reliability of corporate disclosure and information efficiency in 60 days

(p-value)	Pearson correlation coefficient	Number of samples	Research variables	
0/503	-0/042	261	Efficiency data of 60 days	reliability of disclosure

Because, the significant level is equal to 0/503 and greater than 0/05 therefore, we can reject the null hypothesis test that there is no significant relationship between the reliability of corporate disclosure and information efficiency in 60 days. Thus, the results of research showed that in error level of 0/05 and 95% confidence level the hypothesis that there was no significance relationship between timeliness of the company disclosure and informational efficiency in 30 days was rejected.

Since, lack of existence significant relationship between the variables, there is not existed the necessary condition for the implementation of the stepwise regression to determine the contribution of the independent variables (timeliness and reliability of data) in predicting the dependent variable (Efficiency data) and it cannot be performed the stepwise regression.

4- Discussion and conclusions

The efficiency of Iran stock market in numerous studies and it has been studied by using the different test methods. The results of these studies indicate the inefficiencies in Iran capital market are weak. Among the studies conducted in this field of study, we can point out studies such as Galibaf asl and Nategi (2006) by using the model Arima and Arch Khaloozadeh et al (1996) using the method of basis change in price changes of the time series on the field, Fadaye Nesuad (1995) by using flow test, Samadi et al (2007) using the capital assets pricing model, Khani and Farahani (2008) using the coefficient of price adjustment, Shooshtarian and Prayer (1996) using of filtering rules, Sinai (1994), using autocorrelation test and workflow analysis; and Talanh and Rod (2011) and Abdo Tabrizi and Johari (1996).

Participants in Stock Exchange trading require transparent information, timely and reliable. One of the roles of the stock organization is to provide appropriate context for investors to access the needed information. If this suitable field is not provided, because of having more information, a group of them will access non-profits and the market will be inefficient. The information symmetry has major and sensitive role on market efficiency and information asymmetry leads to information advantages compared to other groups. The theoretical literature suggests that improved disclosure of information asymmetry between market participants reduce stock. Decrease in information asymmetry, in turn by reducing the prices gap between buying and selling cause to increase trading volume, and ultimately reduce in stock returns changes cause to improve market efficiency (Diyamond and Varchia, 1991) (Nourvash and Hosseini, 2009) . According to research findings Diyamond and Varchia, 1991, Long and Landehem (2007), and Fransis et al improving the disclosure quality reduces information asymmetry. Therefore, it is expected the improvement in disclosure quality improve market efficiency by reducing information asymmetry through reducing the variation of stock returns. The results show no significant relationship between reliability and timeliness of disclosure of firms as two criteria of disclosure quality with information efficiency. It seems, since, Iran market is inefficient in poor efficiency level. So data affect the stock price slowly and with further delay. Also, it seems the existence of favor information and rumors in the market and users' no confidence to financial statements information provided by companies and being unskilled majority of investors are other causes of market inefficiency and lack of significant relationship between disclosure quality and information efficiency variables and it seems Iran stock exchange more influenced by political and social conditions. Traders deal more with regard to social and political circumstances to some accounting variables.

References

- 1- Abbasi, T., (2012). The relationship between cash flow risks with some accounting variables in listed companies at Tehran Stock Exchange. Accounting graduate thesis. Faculty of Humanities. Islamic Azad University of Mashhad.
- 2- Aboody, D., Hughes, J. and Liu, J. (2002), Measuring value Relevance in a (possibly) Inefficient Market, *Journal of Accounting Research*, Vol. 40, Pp: 956-986
- 3- Amihud, Y. and Mendelson, H. (1986). Asset Pricing and the Bid-Ask Spread. *Journal of Financial Economics*, Vol. 17, pp. 223-249.
- 4- Scott, W., (2009). *Financial accounting theory*. Translated by Ali Parsaian. Publications Termeh.
- 5- Bradaran Hassanzadeh, R., Badavr Nahandi, Y., Barani Bonab, H., (2010). Examine the relationship between changes in book value and earnings ratio of stock price changes (with an emphasis on mid-term financial statement). *Journal of financial accounting and auditing*. Pp. 77-96.
- 6- Brown, s. and hillegiest.,(2007). How disclosure quality affects the level of information asymmetry. *Review of accounting studies*. vol.12, pp.443-477.
- 7- Chen, W.P, Chung, H, Lee, C, and Liao, W-L., (2007). Corporate Governance and Equity -Liquidity: analysis of S&P Transparency and Disclosure ranking, www.ssrn.com.
- 8- Chi L.C. (2009). Do transparency and disclosure predict firm performance? Evidence from the Taiwan market. *Expert Systems with Applications*, 36, 11198–11203
- 9- Diamond, D. W & Verrecchia, R. E. (1991). Disclosure, Liquidity, and the Cost of Capital. *The Journal of Finance*, 46(4), 1325-1359.

- 10- Dichev, D., and Tang, W., (2009). Earnings volatility and earnings predictability, *Journal of Accounting and Economics*, Vol. 47, pp. 160–181.
- 11- Francis J, Khurana I, Pereira R.,(2005). Disclosure incentives and effects on cost of capital around the world., *The Accounting Review*. 80,1125-1163.
- 12- Gelb, D & Zarowin, P.(2000). Corporate disclosure policy and the informativeness of stock prices. Working Paper, New York University, New York.
- 13- Hasas Yeganeh, Y., Kheirollahi, M., (2008). Corporate governance and transparency. *Accountant magazine*. Twenty-third year. No. 8 (row 203). Ss74-79.
- 14- Hassan K. M., W. S. Al-Sultan and A. J. Al-Saleem .(2003). Stock Market Efficiency in the Gulf Cooperation Council countries (GCC): The Case of Kuwait Stock Exchange. *Scientific Journal of Administrative Development*, 1(1): 1-21.
- 15- Hassan, M. S.; Saleh, N. M. and Abd Rahman, M. R. C., (2008). Determinants of Financial Instruments Disclosure Quality among Listed Firms in Malaysia. Working paper, [Online],. www.ssrn.com.
- 16- Hutton, P. Amy, P. and Stocken, C. (2009). Prior forecasting accuracy and investor reaction to management earnings forecasts. <http://www.ssrn.com>.
- 17- Jensen, M. R, & Marshall B. B & Pugh W. N. (2006). Does quantity reflect quality? Financial disclosure size and future performance. *Managerial Finance*; 32 (1), 39-50.
- 18- Jones, Charles P., (2011). *Investment Management*. Translated by Reza Tehrani and Asgar Nourbakhsh. Publication of Neghah Now.
- 19- Karamanou, I. and Vafeas, N., (2005). The Association between Corporate Boards, Audit Committees, and Management Earning Forecasts: An Empirical Analysis". *Journal of Accounting Research*. Vol. 43, No. 3. pp. 453-486.
- 20- Lang, M. H & Lundholm, R. (1993). Cross-sectional determinants of analyst's ratings of corporate disclosures. *Journal of Accounting Research*, 31, 246–271.
- 21- Li .Xi .,(2010). "The impact of product market competition on the quantity and quality of voluntary disclosure". *Review of accounting studies*. Vol.15, PP. 663.
- 22- Mehmet A., (2008). Efficient Market Hypothesis and Emerging Capital Markets: Empirical Evidence from Istanbul Stock Exchange. *International Research of Finance and Economics*, 13: 131-144.
- 23- Noravesh, I., Hosseini, A., (2009). The relationship between disclosure quality (reliability and timeliness) and earnings management. *Audit review Journal*. No. 55. Pp. 117-134.
- 24- Perotti P., Windisch D., (2012). Managerial Discretion in Accruals and Informational Efficiency.,www.ssrn.com.
- 25- Petrovic, N., Manson, S. and Coakley, J. (2009). Does volatility improve UK earnings forecasts? *Journal of Business Finance & Accounting*, 36 (9-10): 1148-1179.
- 26- Salimifar, M., Shirzvar, Z., (2010). Evaluate the effectiveness of information exchange according to variance ratio test. *Development and knowledge journal*, No. 31, pp. 33-37.
- 27- Squalli, J., (2005). Are the UAE Financial Markets Efficient? . www.ZU.Ac.ae/epru.
- 28- Wai H, Matsunaga, K. and Morse, D., (2009). The impact of Conservatism on management Earning Forecast., *Journal of Accounting and Economics*, 40: 192-207.
- 29- Yaqubnajad, A., Zabihi, A., (2011). The relationship between disclosure quality and Stock liquidity at listed companies in Tehran Stock Exchange. *Knowledge of financial securities analysis*. No. 10, 217- 235.