Disclosure Quality and Economic Value Added

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Abstract

Purpose – This research investigates the effect of disclosure quality with two main components, reliability and timeliness, on economic value added in Iran.

Research design, data, and methodology – The sampling includes 170 Tehran Stock Exchange listed companies from 2008-12. Multiple regression analysis was applied to test the hypotheses and estimates of the coefficients. Firm size and return on assets were the control variables.

Results – The results show that timeliness of information has a positive impact on economic value added. We did not find any significant relationship between disclosure quality and reliability of information and economic value added. The regressed model shows that there is no significant association between firm size and economic value added. The results also show that there is a positive association between return on assets and economic value added.

Conclusions – Theoretically, timely information is effective in decision-making. This study shows that timeliness of information has positive effect on the creation of economic value added. However, disclosure quality, reliability, and firm size do not effect on economic value added. Companies with greater return on assets produce greater economic value added.

Keywords: Disclosure Quality, Timeliness, Reliability, Economic Value Added.

JEL Classifications: G14, G32.

1. Introduction

One of the basic principles of accounting is disclosure principle of all important and relevant facts about events and financial activities of business. The above principle requires that financial statements prepared and presented in such a way that in terms of purposes of financial reporting are understandable, timely, informative and complete if possible (Rashkan et al., 2013).

In other words, financial reporting emphasize on providing sufficient and significance information in the financial statements and demanding for the disclosure of information in the financial statements so that in the one hand provide the possibility of making informed decisions for the users of financial statements and on the other hand it does not confuse them (Alizadeh, 1997).

In written accounting and auditing with regard to understanding of each of the writers from disclosure, accordingly adequate disclosure terms, suitable disclosure or complete disclose have been mentioned. But the most prevailing view of the mentioned concepts is adequate disclosure which consists of minimum needed disclosure and coordinates with this negative phrase (financial statements should not be deceiving). Suitable and complete characteristics are mainly positive concepts. Suitable disclosure is according to this moral basis which should face equally with the financial data disclosure. Complete disclosure consisting of all arranged data of a kind which show the financial basis of a complete image of financial activities and events of profit making unit. Even though it is necessary for the financial statement to be presented in complete way, but it should not contain data more than what is needed or with less importance, because there is a chance of users consideration goes towards the less important data and as a result important events and activities be neglected (Amoozesh et al., 2012).

Disclosure causes increase in transparency and the market is a main mechanism for decreasing information symmetry between participants in the financial market. It also helps the shareholders and other participants in the financial market to arrange their activities in a suitable way. With suitable disclosure of information, investors can buy and sell shares in a correct way and have more control over the company (Amoozesh et al., 2012).

Financial statements contain very important information that shareholders use it in making decisions related to investments in stocks. Importance and reliability amount of financial information for decision making of stakeholder groups is well known in the today world (Rashkan et al., 2013).

The important thing is that the information needs of users of financial statements are different. Presenting information through

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appropriate disclosure in financial statements will be helpful in thedecision-making process of users to the extent that provides the possibility of predicting earnings trends, continuing profitability, and management performance and so on (Lashkari and Naderi, 2009).

There is a fundamental link between accounting information in general, and disclosure quality (DQ) in specifically, with regard to the cost of equity capital. In fact, disclosure turns private information into public information. Hence, a higher disclosure level is expected to reduce the cost of equity capital (Rashkan et al., 2013).

However, there is still a great level of discussion, not only on the channels where DQ affects economic value added, but also on the scarce empirical evidence to support the association between DQ and economic value added. This paper builds on prior research that investigates the importance of DQ for stock market participants. In this context, this question has been discussed; is there effects disclosure quality on economic value added of listed companies in Tehran Stock Exchange?

2. Theoretical Perspectives

Different elements can affect the amount and disclosure quality of the companies. One might expect that disclosure quality improves investor welfare by reducing cost of capital. Also, this can improves economic value added.

Gao (2010) shows that the argument is valid only in limited circumstances. Based on a production economy with perfect competition among investors, the analysis demonstrates three points. First, cost of capital could increase with disclosure quality when new investment is sufficiently elastic. Second, there are plausible conditions under which disclosure quality reduces the welfare of current and/or new investors. Finally, cost of capital could move in opposition to the welfare of either current or new investors as disclosure quality changes. Some of researches such as Barry and Brown (1985) and Coles et al. (1995) argue that better DQ will reduce the potential investors'estimation risk about the parameters of a stock's future return or payoff distribution.

3. Literature Review

Lundholm and Myers (2002) in their study investigate the effect of disclosure on the returns-earnings relation. They achieve to this conclusion that in the companies with more information disclosure from future, now stock return reflects more future earnings news. They also achieve to this conclusion that there is positive and relationship between changes in disclosure quality with change in significance of future earnings news for current return.

Gelb and Zarowin (2002) in their research investigated corporate disclosure policy and the in formativeness of stock prices

and obtained better relationship between current stock returns and future earnings for firms with better disclosure policy. They also investigated the usefulness of three disclosure indices and reached to this conclusion that increase in the annual report disclosures cannot increase more information in future stock prices.

Hussainey and Mouselli (2010) examine the role of corporate narrative reporting in improving investors' ability to better forecast future earnings change. The paper also aims to construct a risk factor for disclosure quality and test whether such a factor is useful in explaining the time-series variation of UK stock returns. The paper contributes to the market-based accounting research in three crucial ways. First, it offers updated evidence on the usefulness of corporate narrative reporting to investors. Second, it offers evidence that the DQ factor is a significant risk factor in the UK. Third, and finally, it finds that the Fame-French factors might contain DQ-related information.

Amoozesh et al. (2012) show that the company strategic quality has a positive effect on the companies' disclosure quality, which means that whenever the methods and works of the corporate governance system improved and strengthen there is more accuracy in disclosure by the companies.

Rashkan et al. (2013) indicate that Disclosure quality, timeliness and reliability have a positive impact on stock returns. Results indicate that participants of the capital market in Iran react positively to the disclosure quality of information by companies and have the ability to understand and use this information in their decision models.

Ohadi and Shamsjahan (2013) show that financial features of companies that have higher level of information disclosure quality are different of companies that have lower level of information disclosure quality. Also, companies which show lower Discretionary accruals are less exposure to earnings management.

Talebghasabi and Lak (2014) examines the impact of the disclosure of financial information quality on the relationship between earnings and abnormal stock returns in Tehran Stock Exchange, to measure the quality of disclosure, the scores allocated to each company published by the Securities and Exchange Tehran and the statement of "the quality of information disclosure and proper" were used. The statistical population of this research includes all companies listed in Tehran Stock Exchange from 2003 until the end of 2011. The statistical sample includes 303 firms (about 2082 years - companies). For the analysis of research data and the models, the hybrid approach is used. Assumptions results showed that there is a positive significant relationship between the abnormal earnings and abnormal returns. The extent of the disclosure of financial information quality has a significant positive impact on the relationship between abnormal stock and abnormal earnings. These studies are summarized as follows:

<Table 1> Research summary

Researchers	Results
Lundholm and Myers (2002)	The companies with more information disclosure from future, now stock return reflects more future earnings news. There is positive and relationship between changes in disclosure quality with change in significance of future earnings news for current return.
Gelb and Zarowin (2002)	They reached to this conclusion that increase in the annual report disclosures cannot increase more information in future stock prices.
Hussainey and Mouselli (2010)	The paper contributes to the market-based accounting research in three crucial ways. First, it offers updated evidence on the usefulness of corporate narrative reporting to investors. Second, it offers evidence that the DQ factor is a significant risk factor in the UK. Third, and finally, it finds that the Fame-French factors might contain DQ-related information.
Amoozesh et al. (2012)	The company strategic quality has a positive effect on the companies' disclosure quality.
Rashkan et al. (2013)	Indicate that Disclosure quality, timeliness and reliability have a positive impact on stock returns.
Ohadi and Shamsjahan (2013)	Show that financial features of companies that have higher level of information disclosure quality are different of companies that have lower level of information disclosure quality.
Talebghasabi and Lak (2014)	Results showed that there is a positive significant relationship between the abnormal earnings and abnormal returns. The extent of the disclosure of financial information quality has a significant positive impact on the relationship between abnormal stock and abnormal earnings.

4. Research Hypotheses

To investigate the relationship between disclosure quality and economic value added of listed companies in Tehran stock exchange, the following hypotheses are formulated

<H1> Disclosure quality is related with economic value added.
<H2> Timeliness of the information (financial statements) is related with economic value added.
<H3> Reliability of information (financial statements) is related with economic value added.

5. Research Method

In this study, economic value added (EVA) is used as the dependent variable and the disclosure quality of company (Reliability and timeliness) as independent variables and firm size (SIZE) and return on assets(ROA) are used as control variables that how to calculate each of them is as follows:

Economic value added: EVA is the difference between Net Income (Net Profit) and Cost of Equity In this research, to create a homogenous between variables ,we use of the ratio EVA over total assets. The formula is as follows:

EVA =Net Operating Profit After Taxes −Capital Charges
EVA=NOPAT −WACC* EA,

Where:

NOPAT = Net Operating Profit after Taxes
WACC =Weighted Average Cost of Capital
EA= Economic Asset or Invested Capital (Invested capital equals total assets minus short-term liabilities)

Disclosure quality, Reliability and timeliness of the information: The disclosure quality is the disclosure score of company computed by the Stock Exchange. In the present research is used from annual scores of corporate disclosure quality which has been calculated for listed companies in the Tehran Stock Exchange during the years 2008-2012.

Scores of disclosure quality of listed companies for periods of 3, 6, 9 and 12 months were calculated and has been published by Stock Exchange for the years 2003 onwards. These scores reflect the evaluation of stock about awareness amount of corporate disclosure.

Mentioned scores are calculated based on the weighted average of the measures of timeliness and reliability of disclosed information. Assessment information are based on the information disclosure provisions in stock, including the annual financial statements, quarterly financial statements 3, 6 (audited) and 9 months and forecasting earnings per share in intervals of 3, 6, 9 and 12 months .Delay in sending information to stock in comparison of the prescribed time period and difference in realized earnings for predictions has been used to calculate the timeliness and reliability of disclosure.

To calculate the overall rank of corporate disclosure, measures of timeliness and reliability with the weights of two-thirds and one-third have been used. Corporate disclosure quality score is utmost 100. But the disclosure quality may be a negative number because if you do not provide timely audited year-end financial statements and the timing of dividend payments for shareholders, negative score is considered for each day of delay (Rashkan et al., 2013)

Firm Size: To calculate the firm size is used natural logarithm of the book value of total assets.

Return on assets: To calculate the return on assets is used ratio between earnings before interest, taxes and extraordinary income and total assets.

We use the return data of the stocks that are listed on the TSE market. The total 450 companies listed in Tehran Stock Exchange. The study covered listed companies on TSE during 2006-2009 and their transaction chart have not excluded from exchange tabulate during research period. We also exclude finance related companies and companies that their data were

not available. To get the sample size, we use a procedure described in Sekaran (2001):

$$Sampel\ size, ss = \frac{Z^2 \times (p) \times (1-p)}{c^2}$$

Where,

Z = z value, for example, 1.96 for 95% confidence level.

p = percentage of selection in points (0.5)

c = confidence interval, in points e.g.: 0.05 = ± 5

For known population, the sample size is adjusted as follows:

$$ss^* = \frac{ss}{1 + \frac{ss-1}{population}}$$

Using the above procedures, the final sample is 234 firms. The sample firms were selected among listed firms (sorted alphabetically) according to random numbers generated by Excel. This study is an experimental and descriptive research based on regression analysis which utilizes the actual information of accepted companies in Tehran stock exchange. Thus theoretical framework and review of literature are gathered through library research method, articles and sites inductively and in gathering information to verify or reject the hypothesis the deductive reasoning is used. The research method is practical from the purpose point of view is practical and from the information gathering is descriptive and correlation type. This method is beneficial for researches which their purpose is to discover the relation between variables. In this study the correlation between the variables are examined. This research is an ex-post facto kind of research because in this study the previous information is used for examining hypothesis. On the other hand, this research has a practical essence because it looks for a scientific purpose and gives us useful information. In addition, this research is experimental because it takes place based on the actual information. The following empirical regression models are used to test the hypotheses:

• EVA = α + β1 DQ + β2 SIZE + β3 ROA + £
• EVA = α + β1 Timeliness + β2 SIZE + β3 ROA + £
• EVA = α + β1 Reliabilities + β2 SIZE + β3 ROA + £

Where,

EVA	= Economic value added
DQ	= Disclosure quality
Timeliness	= Timely disclosure of corporate disclosure quality with a weight of two-thirds of the total score for quality of disclosure.
Reliabilities	= To be reliable, corporate disclosure, weighing one-third of the total score for quality of disclosure.
SIZE	= Firm size
ROA	= Return on assets
£	= Error term

In this study for testing of hypotheses multiple regression analysis used

6. Empirical Analysis

In order to test the data we first of all check the data type by descriptive statistics, results of which are presented in the following table:

6.1. Descriptive Statistics

Descriptive statistics of the main variables are presented in Table 1. Descriptive statistics below shows the mean values, Std. Deviation, median and minimum and maximum values of the series of dependent and independent data

<Table 2> Descriptive statistics

ROA	SIZE	Timeliness	Reliabilities	DQ	EVA	Index
0.0808	13.0268	54.9502	48.4747	54.2441	0.0439	Mean
0.0730	12.9068	60.2500	54.7656	57.0000	0.0357	Median
0.11206	1.35993	31.8242	35.99437	27.1808	0.10611	Std. Deviation
0.013	1.849	1.013E3	1295.595	738.798	0.011	Variance
0.063	0.761	-0.479	-0.177	-.318	0.345	Skewness
0.678	1.373	-0.937	-1.482	-.740	0.257	Kurtosis
0.173	0.173	0.173	0.173	0.173	0.173	Std. Error of Kurtosis
-0.28	9.80	0.00	0.00	0.00	-0.20	Minimum
0.39	18.44	100.00	100.00	99.36	0.36	Maximum

Source: Spss software output (data from the TSE)

For normal Data were evaluated using Kolmogorov - Smirnov test and following results were obtained:

<Table 3> Kolmogorov - Smirnov test

Index	DQ	Reliabilities	Timeliness	SIZE	ROA
P-Value	0.126	0.231	0.182	0.871	0.652

Source: Spss software output (data from the TSE)

Regarding p-value of research data is larger than 0.05, thus it can be said that research data have normal distribution.

6.2. Testing Hypotheses

In this section, hypotheses, using multiple linear regression analyze in 5 percent error level will be tested. This test is based on the following assumptions will examine the relationship

between two variables.

1: There is no significant correlation between the two variables.
2: There is a significant correlation between the two variables.

A) First Hypothesis

<H1> Disclosure quality is related with economic value added.

The model summary table reports the strength of the relationship between the model and the dependent variable. The model summary for the first model is as follows:

<Table 4> Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.693a	0.480	0.478	0.07669	1.783

a. Predictors: (Constant), ROA, SIZE, DQ
b. Dependent Variable: EVA
Source: Spss software output (data from the TSE)

The ANOVA table is a useful test of the model's ability to explain any variation in the dependent variable. The ANOVA table tests the acceptability of the model from a statistical perspective. The Regression row displays information about the variation accounted for by your model. The Residual row displays information about the variation that is not accounted for by your model. The ANOVA table for the first model is as follows:

<Table 5> ANOVAb

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.314	3	1.438	244.538	0.000a
	Residual	4.681	796	0.006		
	Total	8.995	799			

Source: Spss software output (data from the TSE)

The significance value of the F statistic is less than 0.05, which means that the variation explained by the model is not due to chance. Results of first hypothesis test based on table 5 areas follow:

<Table 6> Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.002	0.026		0.078	0.938		
	DQ	0.001	0.000	-0.032	-1.209	0.227	0.947	1.055
	SIZE	0.001	0.002	-0.005	-0.186	0.853	0.982	1.018
	ROA	0.661	0.025	0.698	26.755	0.000	0.959	1.042

Source: Spss software output (data from the TSE)

Results in table 5 show that there is no significant association between disclosure quality and economic value added. In the other hand, the results indicate the regression coefficient is insignificant, thus hypothesis 1 in 5% error levels is rejected.

B) Second Hypothesis

<H2> Timeliness of the information (financial statements) is related with economic value added.

The model summary for the second model is as follows:

<Table 7> Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
2	0.694a	0.482	0.480	0.07649	1.796

a. Predictors: (Constant), ROA, SIZE, Timeliness
b. Dependent Variable: EVA
Source: Spss software output (data from the TSE)

The ANOVA table for the second model is as follows:

<Table 8> ANOVAb

Model		Sum of Squares	Df	Mean Square	F	Sig.
2	Regression	4.338	3	1.446	247.150	0.000a
	Residual	4.657	796	0.006		
	Total	8.995	799			

a. Predictors: (Constant), ROA, SIZE, Timeliness
b. Dependent Variable: EVA
Source: Spss software output (data from the TSE)

The significance value of the F statistic is less than 0.05, which means that the variation explained by the model is not due to chance. Results of second hypothesis test based on table 8 are as follow:

<Table 9> Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
2	(Constant)	0.004	0.026		0.145	0.885		
	Timeliness	0.001	0.000	0.061	2.355	0.019	0.974	1.027
	SIZE	0.001	0.002	-0.002	-0.087	0.931	0.986	1.015
	ROA	0.662	0.024	0.700	27.181	0.000	0.982	1.019

Source: Spss software output (data from the TSE)

Results in table 9 show that there is positive significant association between timeliness of the information (financial statements) and economic value added. In the other hand, the results indicate the regression coefficient is significant. Therefore, the evidence, in 5% error levels, is consistent with H2. Thus our evidence accepted H2.

C) Third Hypothesis
H3: Reliability of information (financial statements) is related with economic value added.
The model summary for the third model is as follows:

<Table 10> Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
3	0.692a	0.479	0.477	0.07675	1.771

a. Predictors: (Constant), ROA, SIZE, Reliabilities
b. Dependent Variable: EVA
Source: Spss software output (data from the TSE)

The ANOVA table for the third model is as follows:

<Table 11> ANOVAb

Model		Sum of Squares	Df	Mean Square	F	Sig.
3	Regression	4.306	3	1.435	243.673	0.000a
	Residual	4.689	796	0.006		
	Total	8.995	799			

a. Predictors: (Constant), ROA, SIZE, Reliabilities
b. Dependent Variable: EVA
Source: Spss software output (data from the TSE)

The significance value of the F statistic is less than 0.05, which means that the variation explained by the model is not due to chance. Results of second hypothesis test based on table 11 is as follow:

<Table 12> Regression Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
3	(Constant)	-0.001	0.026		-0.042	0.967		
	Reliabilities	0.002	0.000	0.009	0.329	0.742	0.957	1.045
	SIZE	0.001	0.002	-0.009	-0.349	0.727	0.993	1.007
	ROA	0.654	0.025	0.691	26.406	0.000	0.957	1.045

Source: Spss software output (data from the TSE)

Results in table 11 show that there is no significant association between reliability of information (financial statements) and economic value added. In the other hand, the results indicate the regression coefficient is insignificant, thus hypothesis 3 in 5% error levels is rejected.

6.3. Other Finding

In this research firm size and return on assets variables considered as control variables. Regressed model results show this reality that there is no significant association between firm size and economic value added. The results also show that, there is positive association between return on assets and economic value added.

7. Conclusions

This paper examines the roles of disclosure quality on economic value added. In particular, this paper examines the roles of disclosure, timeliness of the information and reliability of information on economic value added. Control variables in these studies are included firm size and return on assets.

The multiple linear regression analyze in 5 percent error level was applied to test the research hypotheses. The results showed that, timeliness of the information and return on assets has a positive impact on economic value added.

We did not get significant relationship between disclosure quality, reliability of information and firm size with economic value added .It is necessary to note that performing present research have had some limitations. For example, result of this research is only generalizable to security firms, so their generalization to firm out of security exchange should be performed prudently. Also, in this research the effects from different accounting method to evaluate and report financial events have not been considered.

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