

# The Effect of Internet Financial Reporting and Voluntary Disclosure on Trading Volume Activity

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**Abstract**— The information and technology era directs most investors to identify the company through its website. This study aimed to examine the effect of Web-based company financial reports and voluntary disclosure on trading volume activity in Indonesian Stock Market with specific reference to the firms on the LQ45 index. This study uses multiple regression model and multivariate analysis on panel data to estimates the determinant of internet financial reports and voluntary disclosure through corporate social report publication. Our finding shows that mandatory financial reporting has no impact on trading volume activity. On the other hand, the publication of voluntary reporting has significant impact on trading volume activity.

**Keywords**— Internet Financial Reporting; Voluntary Disclosure; Trading Volume Activity; LQ45 Index

## I.

## INTRODUCTION

Internet characteristics can be explained through three keywords: diversity, timeless and unlimited access (Lai, Lin, Li, & Wu, 2010). Another advantage of the internet is that it is easy to diversify and low cost where potential global investors, creditors, and analysts can easily access company performance information (Ashbaugh, Johnstone, & Warfield, 1999). The company's website is an essential element in implementing financial and non-financial information disclosure through the internet to stakeholders. The internet reports can contain company operations, financial reporting, corporate social responsibility activities disclosure and various forms of investment offerings to potential investors.

Mandatory information disclosure has been regulated and determined by the authorized institution. This disclosure format has been established through the Statement of Financial Accounting Standards (PSAK). On the other hand, voluntary disclosure is done voluntarily by companies, where voluntary disclosure is additional content from mandatory disclosure content. Voluntary disclosure coverage has no restrictions. The broader and significant, both financial and non-financial information, will provide the additional value of information disclosed to the public (Leftwich, Watts, Zimmerman, & Zimmermantt, 1981).

One of the problems that arise when applying internet financial reporting is related to the disclosure of information content that is not regulated uniformly regarding both the format and frequency of reporting by authorized parties (Almilia, 2009; Ettredge, Richardson, & Scholz, 2001; Puspitaningrum & Atmini, 2012). Previous research shows that the publication of financial statements has a negative impact on the company's stock trading volume (Adhianto, 2006; Junaedi, 2005; Shanti, 2012). However, other studies stated that the publication of financial reports in term of quality and essential information disclosure on the company's financial information has a positive effect on company's stock trading volume (Ayu, 2013; Satria & Supatmi, 2013).

Previous study by Almilia (2009) examined the relationship between financial reports and financial highlights with Internet Financial Reporting. Prasetya & Irwandi (2012) uses profitability, liquidity, leverage, industry type, public share ownership and company age, foreign share ownership, and auditor size as fundamental factors that affect internet financial reporting. Research conducted by Khan & Ismail (2012) attempts to investigate critical components in IFR. The results of the study empirically prove the components of financial reporting, current year profit and loss statements, current year financial position statements, current year cash flow statements, current year audit reports and current year intact financial statements can be used to measure the level of information disclosure on internet reporting. Research conducted by Purba, Medyawati, Silfianti, & Herman (2013) analyzed the disclosure of financial statements by State-Owned Enterprises (SOEs) in primary industries and manufacturing using the internet financial reporting index and looked at the relationship between index content, time index, technology index and consumer service index and its relationship to content richness in corporate internet financial

reporting. The results showed that index content on the time index, technology index and consumer service index influenced the wealth of corporate internet financial content.

The company should conduct full report for stakeholder, whereby including mandatory disclosure which explains the company carries out information based on regulation and publish additional disclosures which are referred to voluntary disclosure (Peppet, 2011). Voluntary disclosure made by the company according to the interests of the company that are considered relevant to support economic decision making by users of the annual report (Putri, 2013). These disclosures can include a long-term description of the firm's strategy, the essential non-financial indicators that are useful for the effectiveness of the company's strategy implementation. The results confirm that broader information disclosure carried out by the company will reduce information asymmetry between the company and the investor (Indriani, Khalid, & Anisykurlillah, 2014). Firm's characteristics including company size, listing period, size of public accountants and business scope of the company have a positive effect on the extent of voluntary disclosure.

Investment decisions with technical analysis are based on past stock trading price and volume data (Tandelilin, Husnan, & Hanafi, 2012). Stock trading volume is the sum of every transaction that occurs on the exchange at a particular time on a particular stock. Trading volume is also a factor that influences stock movements. According to Ambarwati (2008) trading volume is defined as the number of shares traded on a particular day. A large trading volume indicates an active stock which means that investors favor it. Trade Volume is also considered an instrument that can be used to see the market reaction.

The inconsistency of the results from previous studies provides research gap to re-examine the effect of financial reporting publications by utilizing the internet as a reporting medium and the level of voluntary disclosure of company information on firm's stock trading volume with specific reference to the firms on LQ45 index.

## II. METHOD

### A. Sample

The populations in this study were all companies included in the LQ45 Index on the Indonesia Stock Exchange (IDX) from 2012 to 2015. LQ45 index was interesting to study because the index consists of 45 stocks categorized liquid stocks, high market capitalization, strong fundamentals, and good market performance. The sampling method using purposive sampling related to data completeness for each event period and has found 42 firms included in the research.

### B. Measurement

Stock trading volume is one tool that can be used to see whether or not there is a market reaction to a particular event that can be seen from the stock trading volume as measured by Trading Volume Activity (TVA). Measurement of TVA according to Foster (1986):

$$TVA_{it} = \frac{V_{i,t}}{V_{m,t}}$$

where,  $TVA_{it}$  is *Trading volume activity*  $V_{i,t}$  is The volume of shares of the firm  $i$  on time  $t$ , and  $V_{m,t}$  is The stock's volume of the firm  $i$  in time  $t$ . The stock volume activity from 42 sample firm's gathered within two event periods, 26 July 2016 and 25 January 2017. We compute the stock trading activity during each event period, 10 days prior the event day and 5 days after. The measurements of financial reporting publications using dichotomy variables or dummy variables. The application of this variable in the regression model where companies that publish financial statements show positive sentiment and reflect good news such as earnings announcements, increase in profits from the previous year, the announcement of dividend distribution and increase in the value of company assets then given a value of "1". Meanwhile, companies that publish financial statements that show negative sentiments and reflect bad news such as announcement of losses, decrease in profit from the previous year, there was no dividend distribution, and impairment of assets on the company's website was rated "0". The level of information disclosure used in this study was adopted from the instruments used by Etredege et al., (2001) and refined by Lai et al., (2010).

The level of information disclosure is the value of the type of information conveyed by the company on its website. Weighting scores for each item of disclosure in the range of values 1 to 4. Weighted scale determination was adjusted to the level of importance of the variety of information disclosed by the company through the company's website and with decisions that will be made by investors. The total points for the entire item if summed ranged from 0 to 40. The hypothesis in this study was tested by using multiple regression analysis to obtain a comprehensive picture of the relationship between dependent variables, namely trading volume with the independent variables, namely: a publication of financial reporting on the website, level of voluntary information disclosure. The regression model used is as follows:

$$TVA_{it} = \alpha + \beta_1 PPK_{it} + \beta_2 TPI_{it} + \beta_3 SR_{it} + \varepsilon_{it}$$

where  $TVA_{it}$  is the trading volume of shares  $i$  in period  $t$ ,  $PPK_{it}$  is the publication of financial reporting on the company's website  $i$  in period  $t$  which is worth 1 if reporting good news and worth 0 if reporting bad news,  $TPI_{it}$  is the level disclosure of company information  $i$  in period  $t$ . We include the control variables  $SR_{it}$  which is the sustainability report publication through the company's website  $i$  in period  $t$ . It is worth 1 if the company publishes sustainability report and is worth 0 if the company does not publish sustainability report,  $\alpha$  is the intercept,  $\beta$  is the variable coefficient, and  $\varepsilon_{it}$  is the random error term of the model specification error.

### C. Analysis

All statistical analyses in this study were conducted using STATA 12. After the descriptive statistics on the variables used in the study, we precede several tests, including Chow-Test, Hausman Test and Lagrange Multiplier-Test for data panel regression. The results of the three tests will determine the regression model that will be applied to the study. Furthermore, the best-fit regression model will provide more accurate estimation results. Trading volume activity is regressed with information disclosure variables, both mandatory disclosures and voluntary disclosures, which companies display through their website on the internet. The estimation results are then analyzed for conclusions related to the influence of the independent variables on the dependent variable

## III. FINDING AND DISCUSSION

### A. Statistical Descriptive

TABLE I. DESCRIPTIVE STATISTICS

Variable	Mean	Max	Min	Std Dev	N
TVA	1.383	13.480	0.0536	1.892	84
PPK	0.964	1	0	0.186	84
TPI	58.392	85	27.5	11.749	84
SR	75.393	94	27	15.431	84

Descriptive statistics show that the amount of data consists of 84 items, consisting of 42 data per period. The maximum value of the total trading in the company's shares is 13.48% and the minimum value is 0.05%. The standard deviation is 1.89% which shows a small variation of the total transactions of 42 LQ45 shares. This shows the characteristics of the LQ45 index which contains shares of companies that are actively transacted on the market. Disclosure of company financial information on the company's website, on average, reveals as much as 96% of all disclosure items, which explains that all companies that are samples display almost all financial information on the company's website. The voluntary information coverage displayed by the company averaged 75.3% with a minimum value of 27% and a maximum of 94%. The majority of companies display a variety of voluntary information in the form of sustainability reports. This shows one form of the company's efforts in terms of information disclosure and displays various information needs to be considered by investors.

### B. Panel Data Analysis

Panel data processing is done by doing two of the three tests. The Chow test is used to determine whether the regression model used is the Ordinary Least Square or Fixed Effect model. The Chow test results are shown in the table below:

TABLE II. CHOW-TEST RESULT

No	Prob	Sig
1	Prob > F	0.0000

The F probability value below 0.05 (Prob > F, 0.0000) indicates that rejecting the null hypothesis which states that the accurate model used is the Ordinary Least Square model and accepts the alternative hypothesis Fixed Effect Model. Further, to ascertain whether the Fixed Effect Model is used properly then proceed with doing the Hausman-Test to see whether the Fixed or Random Model is more appropriate to use in the estimation model.

TABLE III. HAUSMAN-TEST RESULT

No	Prob	Sig
1	Prob > Chi2	0.1987

The Hausman test shows that  $\text{Prob} > \chi^2 = 0.1987$ , which means greater than 0.05 indicates that it fails to reject the null hypothesis which states that the differences in the coefficients used in the model are not systematic. This also explains that the Fixed Effect model is not exactly used to estimate compared to Random Effect. Furthermore, to find out whether the Random effect model corresponds to the estimation model, the third test is carried out, namely the Lagrange-Multiplier Test or commonly called the LM test where the null hypothesis in this test is the Ordinary Least Square model. LM Test Results are as follows:

TABLE IV. LAGRANGIAN MULTIPLIER TEST RESULT

No	Prob	Sig
1	Chibar2	21.54
	Prob > chibar2	0.0000

Test results indicate that the probability value of  $\text{chibar2} = 0,000$  which means rejecting the null hypothesis and accepting the alternative hypothesis which shows that the estimation model used in this study is the Random Effect Model.

### C. Regression Analysis

Regression analysis is displayed through the table below:

TABLE V. REGRESSION RESULT

Variable	Parameter			
	(1)	(2)	(3)	(4)
$\text{PPK}_{it}$	.3932			.6110
$\text{TPI}_{it}$		-.0153		-.0128
$\text{SR}_{it}$			<b>-.0258 *</b>	<b>-.0265*</b>
Intercept	12.1247***	13.7386***	14.6448***	15.590 ***

Note: \*significant at 10% level; \*\*significant at 5% level; and \*\*\*significant at 1% level

The result of linear regression with Random Effect Model method provides information that disclosure of financial information through the company's website gives positive but not significant results. This can be interpreted that the financial information displayed by the company on their website does not have a significant impact on the total firm's stock trading transactions. This finding was not similar with previous study (Adhianto, 2006; Almilia, 1999; Puspitaningrum & Atmini, 2012). This finding implied that the information displayed is sensed too general and does not affect investors in determining transaction activities. Meanwhile, the coverage of voluntary information displayed by the company through the sustainability report gives a negative and significant result (-0.0258 with alpha 10%). This finding is consistent with the result by Indriani et al., (2014) which implied that non-financial information in the form of company sustainability reports that are displayed gives a negative effect on the total volume of transactions of the issuer in the capital market. Issuers with large asset values will have a greater negative impact on issuer's stock transaction activities related to the disclosure of voluntary information. This can be interpreted that, the wider the scope of information displayed related to the company's ongoing activities will encourage investors to hold their investment in the long term. These investors can be classified as fundamental investors who are more oriented towards the sustainability of the company than the benefits of stock trading.

## IV. CONCLUSION

Based on the results regression analysis, it can be concluded that there is no significant effect of disclosure of financial information by companies on the company's website to the total LQ45 index stock transaction activity. While voluntary information disclosure has a negative and significant influence on the total issuer's stock transaction activities sampled. This can be interpreted that the companies included in the LQ45 index tend to be issuers that have defense character where the increase and decrease in stock prices tend to be small each period. From the two observation periods, there were no significant results related to the disclosure of financial information which meant that the information displayed was thought to be too general. In addition, investors who trade the shares of LQ45 index firms are fundamental investors who are prefer to stock's returns and dividend rather than capital gains.

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