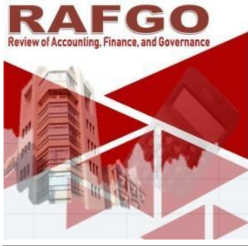

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Does Internet Financial Reporting Reduce Information Asymmetry?

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ABSTRACT

Since 2015 Indonesia regulator, Financial Service Authorities (OJK) has mandated Peraturan OJK No.8/POJK.04/2015 about public company website. This rule mandated every public listed company in Indonesia Stock Exchange to develop their own website and disclose mandatory information like financial statements or social responsibility through their website. This practice is commonly known as internet financial reporting (IFR). Internet Financial Reporting (IFR) is simply defined as disclosure practice using company's website. Although most companies have been mandated to disclose its reports on website, their compliance to this type of IFR disclosure has not been widely studied. This study investigates the role of website disclosure through IFR and its effect in reducing information asymmetry among manufacturing companies in Indonesia. Using IFR Index to measure the website disclosure quality, the result shows that the disclosure quality is still low, as shown by the average score of 56.57%. However, the internet financial reporting has negative significant effect on information asymmetry. The study concludes that IFR enable companies to reduce the information asymmetry by optimizing their website as a communication channel and information to stakeholders.

Introduction

The development of internet technology enables companies to disseminate its financial information through its website, a practice known as Internet Financial Reporting (Khan and Ismail, 2011). The advantages of internet made financial information can be widely disseminate to the stakeholders (Khan, 2007). Thus, companies are able to distribute information faster since the internet technology is more pervasiveness, without boundaries, real time and less costly compared to traditional paper-based disclosure. The number of companies reporting information through the websites continues to increase and the economic system becomes more digitized (Shiri et al., 2013). Website becomes widely used as a medium for corporate financial reporting (Trabelsi et al., 2004). Most companies use its website to disclose the mandatory information such as financial information to its investors and stakeholders (Aly, Simon & Hussainey, 2010) as well as the non-financial information like corporate identity (Poon, Li & Yu, 2003), corporate activities (Chan & Wickramasinghe, 2006; Sriram & Laksamana, 2006), interim report, sustainability report, corporate governance and management analysis (Zahra, 2013). This practice is expected to improve the quality of financial disclosure, improve the quality of corporate communications, improve reputation, attract potential investors and reduce the cost of information distribution (Ettredge et al., 2002).

The internet financial reporting practice in Indonesia can be tracked down to 2015 after the enactment of Peraturan OJK No.8/POJK.04/2015 regarding public companies website. According to this rule all companies listed in Indonesia Stock Exchange (IDX)is mandated to publish its financial information through company website. Moreover, public companies also need to submit two forms of annual reports, hardcopy and softcopy versions to Bapapem LK and publish the annual reports on its company's website which is accessible at any time. The aim of this IFR practice is that it can shorten the time and process of gathering information, providing investor the opportunity to obtain information, with the same quality and quantity everytime. It is expected that IFR can reduce the information gap between investor and management. However, the practice of IFR in Indonesia after the enactment of Peraturan OJK No.8/POJK.04/2015 is not widely studied yet. Whether the implementation of

IFR provide a competitive advantage for the companies especially in reducing information asymmetry still need a further investigation.

Previous studies in US setting found the negative relationship between IFR and information asymmetry (Leuz and Verrecchia, 2000; Hail 2002; Peterson and Plenborg, 2006; Brown and Hillegist, 2007). Other studies in different setting found the similar results that IFR practice is able minimize the information gap between informed investors and uninformed investors and reduce information asymmetries in the capital market (Gajewski, 2015; Lai et al 2007; Liu et al., 2016). Most of the studies is conducted in the setting of developed country where the web-based technology is well developed. This study bridges the gap by assessing the earlier implementation of IFR among manufacturing companies in Indonesia in its earlier year (2016). The Indonesia setting might provide some insight about the practice of IFR since the company's ownership structure in Indonesia is quite different. Most companies dominated by family (family ownership). The concentrated ownership like family ownership enables the controlling shareholders to entrench the minority shareholders regarding the level of information that need to be disclosed in the website. Studies by Zahra (2013) dan Virgiawan (2015) found that IFR reduce information asymmetry in Indonesia, but this negative relationship is not moderated by the family ownership. This study is different from Zahra (2013) in the IFR measurement. Zahra (2013) use IFR Index by referring to the checklist developed by Siregar (2010), whereas each question is given equivalent weight using dummy variable (score 1 if any, 0 if none). This study using the IFR Index developed by Almilia (2009) in which IFR is measured based on several dimension. Each dimension assessed is weighted differently ie,; content, timeliness, technology and user support. Thus, IFR Index developed in this study is more comprehensive. This study also investigates the effect of IFR in the earlier stage of the mandatory implementation as well, which have not explored in the previous study.

Literature Review

Signaling theory

The signaling *theory* was fundamentally often used to discuss information asymmetry between two parties. In the context of capital markets, signaling theory also applies where company management has the drive to signal through disclosure to investors. Managers provide information to investors to assist them in making decisions. Through the information disclosed, managers may give signal about the performance and prospects of the company. According to this theory is that all managers have an incentive to signal the company's future earnings expectations. If the signal is positively responded by the investor, then the stock price will rise and both parties, managers and investors will get the benefit. To ensure that the signal given is credible to the investor, the signal should not be easy and not cheaply imitated by another company. If a poorly performing company tries to provide a signal like a well-performing company, it will bear the cost of a long-term loss of credibility if the actual performance does not conform to the expected level of performance through that signal given (Godfrey et al., 2010, in Zahra, (2013). According to Siregar et al., (2010) in Zahra (2013), signaling theory explains that firms with good financial performance have an incentive to differentiate themselves from other companies in order to gain capital at lower costs. One way to explain this is to use voluntary disclosure through the company's website.

Previous studies

Several studies discussed the determinants of IFR and identified several factors that might influence the IFR implementation. Ausbaugh et al., (1999) found that the benefits of internet-based financial reporting is strongly influenced by several factors such as ease of accessing data, the amount of data disclosed and the ease in analyzing the data. Debreceny et al., (2002) found that firm size, level of technology used, growth prospects and information disclosure environments are major determinants of IFR. The study by Ettredge et al., (2002) examined the disclosure of information on the company's website by dividing it into two groups, the mandatory disclosure required by the SEC and other voluntary data presented to investors. The aim is to find out what factors affect the voluntary disclosure of financial information by the firm. The results of his research indicate that firm size, information asymmetry and external capital and corporate reporting reputation affect voluntary disclosure via IFR by firms.

The relationship of IFR practices and information asymmetry has been discussed through several studies also. The Paterson and Plenborg (2006) study conclude that information asymmetry can be reduced by expanding voluntary disclosure as well as IFR. Chang et al., (2008) examines the effect of quality disclosure on information asymmetry among companiess listed on the Australian Stock Exchange. The findings indicate that the level of information asymmetry decreases when the quality of information disclosure in the website increases. Trabelsi et al., (2008) examined the effect of IFR on information asymmetry using proxy analyst forecast and found that forecast dispersion and forecast errors decreased with higher levels of information disclosure in IFR. Other studies use bid-ask spread to measure information asymmetry and found that the application of IFR by firms has an effect on reducing the asymmetry of information (Yoon et al., (2011). Study by Gajewski and Li (2015) show that the broader web-based disclosure (IFR) can reduce information asymmetry. Another study by Ahmed et al., (2015) concludes that corporate internet reporting has a positive relationship with market value and stock returns on the capital market, which indicates that investors use the information disclosed by companies on the website, in their investment decision making. Scott (2015) explains that one form of information asymmetry that occurs is adverse selection. Further Chang et al., (2008) explains that adverse selection can be controlled through financial reporting and disclosure mechanisms. Proxy that can be used to measure adverse selection is bid ask price, which is also widely used in various studies. The results also show that internet-based disclosures such as IFR can reduce information asymmetry. This study hypothesized that IFR has a negative influence on

information asymmetry.

Methods

This study used quantitative method in data collection and data analysis, as well as direct observation to company's website. Sample of the studies is manufacturing companies listed in Indonesia Stock Exchange in 2016 which has an accessible and active website (website is not under construction). Total sample collected is 91 manufacturing companies. We observe both the quantity and the quality of internet financial reporting practice directly to the company website. We measure the IFR practice of the company using the IFR Index developed by Almilia (2009) which is adopted closely from work of Cheng et al., (2000). This Index consist of 40 questions which is classified into 4 categories; content (40%), timeliness (20%) and user support (20%). The content category includes all of mandatory information including financial statements and social responsibility disclosure. Each item is scaled using different weight. For example, financial statement disclosed in html format will be weighted more than pdf form (html format; 2 points and pdf format is 1 points). The HTML format is given a higher score since its format attach more to web technology and is easier to use. (Almilia, 2009). The information asymmetry is measured by calculating the spread (bid-ask price) around the the earnings announcement date (t-1 to t+5), since most market reactions to new information occur one day before and five days after the date of earnings announcement or company annual report

We employ Ordinary Least Square (OLS) regression to examine the relationship of IFR and information asymmetry using bid-ask spread as a proxy. Regression is estimated and tested using the model:

$$BAS_{it} = \beta_0 + \beta_1 IFR_{it} + \beta_2 MKVAL_{it} + \beta_3 VOLTRAD_{it} + \beta_4 VOLATILITY_{it} + \beta_6 5 + \varepsilon_{it}$$

Results

The results of regressing IFR on information asymmetry (bid-ask spreads), controlled with variables; market value of equity, trading volume, volatility of stock return and closing price, can be seen in table 1 below. The results shows that IFR have negative significant effect on information asymmetry BAS). The bigger IFR Index leads to a lower bid ask spread, thus supporting the hypothesis. This result is consistent with previous research findings. Several previous studies have explained that the number of disclosures has a negative relationship with information asymmetry (Leuz and Verecchia, 2000; Hail, 2002; Paterson and Plenborg, 2006; Trabelsi et al., (2008); Chang et al., (2008); Jiang et al., (2011) and Gajewski and Li, (2015) whom also found that the wider disclosure provide more useful information to stakeholders (such as investors, analyst) so that it can reduce the information asymmetry.

Table 1. Regression analysis

	Model 1	**Model 2**
BAS	. 3265062	.2797697
IFR Index	-.171892*	-.1740629*
LnMKVAL	-.0032108	-.002643
LnVOLTRADE	-0.0103466**	-.0096065**
VOLATILITY	1.78875**	1.894046**
LnPRICE	0.005011	0.0067253
R2	0.4098	0.4302
F	0.0000	0.000

Dependent variable; BAS: bid ask spread on the annual report released date or the scaled mean of bid ask spread during seven days around the annual report release date; **Independent variable:** IFR Index: Internet Financial Reporting (IFR) score; Control variableLNMKVAL: logarithm natural of market value of equity, use as a proxy for firm size; LnVOLTRADE: logarithm natural of trading volume, calculated as the mean of daily volume trading around annual report release date; VOLATILITY: volatility of stock return between the periode around the release date of annual report; LnPRICE : logarithm natural of average closing share price on the pre-release date.
*significant in 10% **significant in 5% *** significant in 1%

Discussion and conclusions

The results shows that web based reporting like IFR can be useful to convey information in a timely manner and accessable for all users without geographical restrictions.However it is not fully optimazed by the company in disclosing information or for reporting purpose. This is an evident from the analysis of IFR quality assessed from the company's website content, where indicators of timeliness and indicators of technology and user support are the low value indicators compared to content indicators. Thus, it is also found oftenly that companies do not update regularly their website, thus information is not presented in real time and become less benefit. If companies maximize their internet and website advantages, then it is expected that information distribution will be faster and able to reduce information asymmetry. Further it can be said that for the level of compliance to the regulation, the company has fulfilled the obligation to create its own website and convey the required information. But because there is no standardization of website content, then the company's website is sometimes too

monotonous and not user friendly. Made it less attractive for users to browse information from the website.

This study concludes that website disclosure practice like IFR can reduce the information asymmetry among manufacturing companies in Indonesia. Generally, companies already have a website, however, not all companies disclose all information in their website. The majority only submit mandatory reports, such as annual reports, financial statements on the website by providing download link pdf report for downloadable user. Almost no companies that display annual reports or financial statements in HTML format on their website. The findings of this study consistent with previous studies which found that IFR can reduce the information asymmetry in capital market as measured by stock price volatility. However, both quantity and the quality of IFR practice among manufacturing companies listed in IDX were not fully comply to the requirement (Peraturan OJK No.8/POJK.04/2015) and still considered moderate.

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