DETERMINING FACTORS OF INTERNET FINANCIAL REPORTING IN INDONESIA

Luciana Spica Almilia, STIE PERBANAS Surabaya - Indonesia

ABSTRACT

Internet Financial Reporting (IFR) is voluntary in nature. With no specific regulations for IFR, there is a disparity of IFR practices among companies. Some companies disclose only partial financial statements using a low level of technology, while others disclose full sets of financial reports using sophisticated web technologies. The purpose of this study is to measure the quality of Internet Financial Reporting of public firms on the Jakarta Stock Exchange. An index was developed to measure overall internet reporting. In addition, financial variables that affect Internet Financial Reporting (IFR) among Indonesia Stock Exchange companies are identified. The findings show that the nature of IFR disclosure varies considerably across the sample firms. Firm size and return on equity are identified as determining factors of internet financial reporting in Indonesia.

JEL: G30; G33; G41; M41

KEYWORDS: internet financial reporting, website, traditional financial reporting, technology.

INTRODUCTION

Due to the dynamic nature of the business world, traditional paper-based corporate reporting is becoming less timely and less useful to decision makers. Electronic-based reporting removes the confines of paper based reports. Companies can benefit from cost saving and improve their financial reporting strategies by using these new technologies. Users benefit by getting financial information in more breadth and depth. In addition, users are able to more easily obtain financial information. The website opens new opportunities for information presentation. Issues that relate to the website as a communication medium include the readability, usability and understandability of the information. These aspects relate to the nature of the information as well as the technical aspects of the presentation medium. Financial reporting via a website is more complicated than hardcopy channel because of the continuous exposure of information to unauthorized change. The company must ensure the security of the financial information when it is presented via this channel.

Several empirical studies examine corporate financial reporting on the internet in different countries (e.g., Budi and Almilia 2008b, Pirchegger and Wagenhofer 1999; Ismail 2002; Wagenhofer 2003). Pirchegger and Wagenhofer (1999), and Ismail (2002) analyze internet use and the extent of financial disclosure on the internet. Budi and Almilia 2008 examine the use of bank websites and LQ-45 firms in Indonesia. LQ-45 firms are those that are contained in the LQ-45 Indonesian stock index. They find that most public banks and LQ-45 firms in the sample had websites and provided financial data on their sites. Davey and Homkajohn (2004) found that Thai companies provide financial information on websites as a complement to their traditional paper-based annual reports. The Indonesian Company Act 2007 addresses the obligations of a company to report their sustainability activities (Undang-undang Perseroan Terbatas No. 40 Tahun 2007). Indonesian security regulations currently do not require firms to disseminate financial information on the internet. Another issue is the lack of formal guidance and differences in the nature and extent of reporting on the web. This is likely to raise issues concerning the comparability and reliability data. The national standards setters and regulators of accounting practices will not be able to indefinitely treat financial reporting on the internet as identical to traditional distribution channels. We argue that the

Indonesia government or other regulatory bodies should introduce guidelines that provide both firms and information users with a framework for this data exchange.

The analysis of internet financial reporting determinants extends the theories and models that have been developed regarding disclosure through traditional media. Oyelere et al. (2003) indicate that firm size, liquidity, industrial sector and shareholder dispersion are determinants of voluntary internet financial reporting (IFR). Abdelsalman et al. (2007) find corporate internet reporting comprehensiveness is related to analyst following, director holding, director independence, and CEO duality. Ismail (2002) finds that firm assets, profitability, and leverage affect the decision to disseminate financial information on the internet. The purpose of this study was to examine the determinant factors of Internet Financial Reporting of public firms on the Jakarta Stock Exchange. An index was developed based closely on the work of Davey and Homkajohn (2004). These authors devised their framework from the three stages of website financial reporting identified by Lymer et al. (1999). The remainder of the paper is organized as follows. Section 2 briefly discusses the relevant literature. Data selection, research methodology, and empirical models are described in Section 3. Section 4 provides analysis and interpretations of the empirical findings and Section 5 concludes the paper.

LITERATURE REVIEW AND DEVELOPMENT HYPOTHESIS

In this section the relevant literature is discussed. In addition, testable hypotheses are presented. This section is organized as follows. First we discuss the literature related to voluntary disclosure. Next we discuss the literature related to internet financial reporting. Finally, we develop the testable hypotheses.

Voluntary Disclosure

Many studies of voluntary disclosure have been conducted. These studies attempt to identify factors that contribute to voluntary disclosure. Theories that explain voluntary disclosure include agency theory, signaling theory and cost-benefit analysis. Agency theory is regarded as an important construct for understanding financial reporting incentives. Agency theory proposes that, in the presence of information asymmetries, managers will choose the set of decisions required to maximize their usefulness. Several empirical studies examine how agency problems can be mitigated through increased disclosure. Ball (2006) argues that increased transparency and disclosure contribute to a better convergence interests between managers and shareholders. In this sense, agency theory conceives voluntary disclosure as a mechanism to control the manager performance and reduce information asymmetry and monitoring costs.

Signaling theory suggests that higher quality firms will use the internet to disseminate "old" accounting information. Gray and Roberts (1989) considered the cost and benefits of voluntary disclosure and investigated perceptions of the costs and benefits empirically. They found that for British multinationals, the most important perceived voluntary disclosure benefits were: 1) improved reputation of the company, 2) better investment decisions by invertors, 3) improved accountability to shareholders, 4) more accurate risk assessment by investors, 5) fairer share prices. The most important cost factors constraining voluntary disclosure were, 1) competitive disadvantage costs and 2) data collection and processing costs.

Internet Financial Reporting

There is a growing body of empirical studies on IFR since 1995 reflecting the growth in this information medium. Several studies have examined the determinants of web-based disclosure policy (Pirchegger & Wagenhoffer, 1999; Budi and Almilia, 2008a). Several other studies have investigated the nature and extent of financial reporting on corporate websites as an instrument for firms' stakeholder relations. Cheng, Lawrence and Coy (2000) developed a benchmark index to measure the quality of IFR disclosure of the Top 40 New Zealand companies. T he results revealed that 32 (80%) on the companies in the sample had websites and 70% of the sample presented financial information on their websites. Of the 32 companies having websites, only 8 (25%) companies scored more than 50% on the index by virtue of having reasonably well-developed sites.

Deller, Stubenrath and Weber (1999) find that more US corporations (91%) used the internet for investor relation activities than UK (72%) and German (71%) corporations. In the USA, corporate reporting on the internet seems to be standard. In contrast, in Germany only about two-thirds of the corporations used the internet as an alternative way to distribute accounting information. UK corporations are more extensive users of the internet as an alternative distribution channel than German firms. Rikhardsson, Andersen and Bang (2002) find that many GF500 companies publish social and environmental information on their websites. Rikhardsson et al (2002) show the most popular environmental issues addressed are environmental policies, resources consumption, emissions and product performance. With regard to the social aspect of internet reporting the most popular issued addressed are workplace performance, stakeholder relationship, and social policies.

Empirical research of internet financial reporting in Indonesia is also provide by Budi and Almilia (2008a). By measuring the IFR of 19 public banks in Indonesia it was shown that most public banks in the sample had websites and provided financial data on their sites. The survey findings show that the nature of IFR disclosure varies considerably across the sample banks. The variation in the content of the websites suggests that firms had different reasons for establishing an Internet presence. Some banks' websites contains only product and service advertising. Most financial reporting is confined to PDF, which appear exactly like the paper-based annual reports. Apart from cost considerations, this may be to protect the data from inaccuracies and unauthorized modifications. Most banks in the sample do not take full advantage of computer technologies. Only one bank allows users to download financial information or provided analysis tool for users to make their own analyses. A common feature of the websites is online feedback. None of the banks used advanced futures (XBRL) to create their websites. Almilia and Budi (2008) examine 19 bank industry and 35 LQ-45 firms. The result show that banking sector firms have higher scores on technology and user support components than LQ 45 firms.

Determinant Factors of Internet Financial Reporting

Firm size is a important determinant of corporate disclosure. Results from prior studies frequently confirm a positive association between firm size and disclosure level (Meek, Roberts and Gray, 1995; Zarzeski, 1996). There are several arguments that may explain this positive association. First, because of their more developed internal reporting systems, large companies may have the resources to produce information, and the cost of producing such information may be lower for these firms. Second, large firms have more incentives to disclose voluntary information, because they face higher political costs and pressures. Third, smaller firms are more likely to hide crucial information because of industry competition. Wallace, Naser and Mora (1997) provide evidence that the amount of detail in Spanish corporate annual reports and accounts is increasing in firm size. This explanation leads to the first hypothesis of this research:

H1: There is a positive association between the internet financial reporting index and firm size.

Studies refer to profitability as an independent factor that may affect disclosure level. For example, Singhvi and Desai (1997) examine 500 large listed US firms, and found a positive association between profitability and the quality of disclosure. Their results suggest that the firm profitability can be regarded as an indicator of good management, as management tends to disclose more information when profitability is high. Based on this finding, we argue that profitable companies have extra financial resources to disseminate financial information voluntarily or in compliance with additional regulations imposed. Alternatively they might have incentives to show stakeholders that they are more profitable than their competitors. Oyelere, Laswad, and Fisher (2003) examine voluntary adoption of the internet as a medium for transmitting financial reports and determinants of such voluntary practice by New Zealand companies. The result indicate the some determinants of traditional financial reporting such as firm size, liquidity, industrial sector and spread of shareholding are determinants of voluntary internet financial reporting (IFR). The other findings of this research show that other firm characteristic such as leverage, profitability and internationalization do not explain the reporting medium choice. Ismail (2002) examine the extent of internet financial information by Gulf Co-operation Council (GCC) countries. In this research forward stepwise logistic regression was used to assess whether voluntary dissemination of financial information on the internet was related to firm size, leverage, and profitability. The results show that the likelihood of a firm using internet reporting depends not only on Individual characteristic, but also on a combination of interaction effects among firm characteristics. Vance (1975) reported a negative association between social involvement and profitability. Studies by Heinze (1976) and Bowman and Haire (1975) reported a positive association. This explanation leads to our second hypothesis:

H2: There is a positive association between the internet financial reporting index and profitability.

Leverage may also be related to disclosure choices. Agency theory could explain the possible link between leverage and voluntary disclosure. According to this theory, highly leveraged firms have an incentive to voluntary increase the level of corporate disclosure to stakeholders through traditional financial statement, and other media (Jensen and Meckling, 1976). However, research in this relation has been mixed. Ismail (2002) found a positive relationship between internet financial reporting and the amount of leverage in firm's capital structure, whereas studies by Andrikopoulos and Diakidis (2007); Zeghal et al (2007) and Oyelere (2003) do not support this relationship. Meek et al (1995) reported a significant negative relationship between leverage and voluntary disclosure for US, UK, and continental European multinationals. This explanation leads to the third hypothesis of this research:

H3: There is a positive association between the internet financial reporting index and leverage.

DATA AND METHODOLOGY

This section describes the research design of the study including sample description, variable measurement, data collection and empirical model. The sample of this research includes banking sector and LQ-45 firms. As noted earlier, LQ-45 firms are those 45 firms that are contained in the Indonesian LQ-45 stock index. We explore the banking sector because it is a fully regulated industry sector in Indonesia. The screening of corporate websites was carried out in November 2007 and February 2008.

The dependent variable in this study is internet financial and sustainability reporting. A number of models have been developed to assess quality of corporate websites. The criteria were used to construct an Internet Financial Reporting Index to assess company websites. We develop an index to measure the technology used rather than the content of information statements. To add weight to content over technology enhancements, the index criteria are divided into four parts and assigned the following weights: content (40%), timeliness (20%), technology (20%) and user support (20%). The index was developed based closely on the work of Cheng et al. (2000) who devised a framework from three stages of website financial reporting as identified by Lymer et al. (1999). In order to evaluate company websites a checklist was developed to address each relevant issue.

The first reporting instrument was Content. This category includes the components of financial information including the statement of financial position, cash flow, shareholder information and social responsibility disclosures. For example, financial information disclosed in html format scores higher (2 points) than disclosure in PDF format (1 point), since the former makes better use of web technology and is easier for users to access effectively. A copy of the content index is attached as Appendix 1.

The second reporting instrument was Timeliness. Because the internet can provide real time information it is important identify the extent of its use. Real time data include press releases, unaudited latest quarterly results, forward-looking statements, and charts of future profits forecasts. For disclosure of press releases and stock quotes, there is an added score for the recentness of information (on a scale from 0 to 3). Companies receive a score for disclosing unaudited quarterly results and vision statements. A score is also given for appropriate disclaimers. The timeliness index is attached as Appendix 2.

Technology items relate to enhancements that cannot be provided by printed reports. Those items that uphold the quality of electronic financial reporting and facilitate communication with site users score highly on the index. The elements are the ability to download a plug-in on the spot, online feedback, use of presentation slides, use of multimedia technologies, analysis tools such as Pivot Tables, and advanced features such as implementing an "Intelligent Agent" or XBRL. A copy of the technology index is attached as Appendix 3.

User Support relates to the users' computer skills. Some users are experts while others are novices. Those who do not have state-of-the-art technology may find themselves unable to use a site. Companies score higher if they implement tools that facilitate the use of the internet reporting irrespective of computer skills. The tools scored in the index are: search and navigation tools such as FAQ's, links to homepages, site maps, site search instruments, the number of clicks required to get financial information and consistency of web page design. A copy of the user support index is attached as Appendix 4.

The independent variables in this research are accounting variables including firm size, profitability, and leverage. Data for relevant variables in this research were collected from corporate websites for and the Indonesia Capital Market Directory which is published annually by the Institute for Economic and Financial Research (ECFIN). Firm size as measured by the logarithm natural of total assets. Profitability is measured by two variables, net profit divided by total assets and net profit divided by total equity. Leverage is measured as the ratio of total debt divided by total assets.

Research Model

Ordinary least square (OLS) regression is used to determine the combined importance of the independent variables to the dissemination of financial information on the internet. The OLS regression equation is:

$$\text{IFR index}_i = \alpha_1 + \beta_0 + \beta_1 \text{ LNTA}_i + \beta_2 \text{LEVERAGE}_t + \beta_3 \text{ ROA}_i + \beta_4 \text{ ROE}_i + e_{it} \quad (1)$$

Where:

IFR index_i	=	Internet Financial and Sustainability Reporting index for firm i
LNTA_i	=	logarithm natural total assets for firm i
LEVERAGE_i	=	ratio of total debt divided by total assets for firm i
ROA_i	=	ratio net profit divided by total assets for firm i
ROE_i	=	ratio net profit divided by total equity for firm i

EMPIRICAL RESULTS

Fifty-eight listed companies were contained in the sample. Five banks were excluded because they did not have a website or the website was inaccessible. Thus, 19 (82.61%) of the 23 listed banks were evaluated. The disclosure index scores ranged from a low of 22% to a high of 64.50% with an average sore of 44.34%. Only four banks (21.5%) scored more than 50%. The highest total score for the banking sector was Kesawan Bank and the lowest total score was for Victoria Bank. Thirty-five of the 45 firms listed on the Jakarta stock exchange, were utilized in the analysis. Thus(77.78%) of listed firms were evaluated. The index scores ranged from a low of 12% to a high of 55.50% with an average score of 39.98%. Only five firms (14.29%) scored more than 50%. The highest total score for LQ 45 firms is Telekomunikasi Indonesia and the lowest is Sumalindo Lestari Jaya. The current state of the 19 sample banks' and 35 sample LQ 45 firms web sites was evaluated based upon the checklist as discussed earlier.

<u>Content</u>

The index scores are summarized in Table 1. All of the sample firms in the survey had financial reports on their websites, although they appear in very different forms. Of the 19 banks, 13 (68.42%) provided a complete set of financial statements. Of the thirty five LQ-45 firms, 25 (71.43%) firms provide a complete set of financial statements. Eight (22.85%) firms provide only annual reports and two (5.71%) firms did not publish financial statements on the internet. All of the banks report their information in the local language and 11 banks (58%) provide bilingual versions (Indonesian and English versions). Of the thirty-five LQ-45 firms, 26 (74.29%) provide an English version and three (8.57%) firms use the Indonesian language. Six (17.14%) firms provide bilingual information.

Table 1: Internet Disclosure Index Scores

Score	Banks Sector		LQ 45 Firms	
100	-		-	
90 – 99	-		-	
80 – 89	-		-	
70 – 79	-		-	
60 – 69	1	5.27%	-	
50 – 59	5	26.32%	5	14.29%
40 – 49	6	31.58%	15	42.86%
30 – 39	5	26.31%	11	31.43%
20 – 29	2	10.52%	2	5.71%
10 – 19	-		2	5.71%
0 – 9	-		-	
Total	**19**		**35**	

This table shows the Internet Disclosure index scores for the sample. The first column provides data for the banking sector. The second column provides data for the LQ 45 firms.

The highest content score in the banking sector was for Kesawan Bank while the lowest banking sector content score was for Mayapada Bank. The highest content score for LQ 45 firms is Adhi Karya (Persero) while the lowest is Sumalindo Lestari Jaya. The number of banks and LQ 45 firms in the sample that provide complete content of financial reporting on their websites is shown in Table 2.

Table 2: Internet Content Disclosure Scores

Score	No. of Sample		% of Sample	
	Banks Sector	LQ 45 Firms	Banks Sector	LQ 45 Firms
41 – 50	-	-	-	-
31 – 40	1	8	5%	23%
21 – 30	11	16	58%	45%
11 – 20	7	8	37%	23%
0 – 10	-	3	-	9%
Total	**19**	**35**	**100%**	**100%**

This table shows the number of banks in the sample that provided complete financial reporting on their webistes.

<u>Timeliness</u>

The number of banks and LQ-45 firms in the sample that provided timely information on their website is shown in Table 3. The most frequent item of disclosure on bank websites was the unaudited latest quarterly result, press release and vision statement, being disclosed in 89% - 95% of the websites. In addition, the most frequent item of disclosure on LQ 45 firm websites were the same three items with rates of 80% - 91%. This was not particularly surprising since press releases are generally text only document that can be added to the websites without alteration or format changes. The final item in the timeliness category is the vision statement. Most of banks and LQ 45 firms in the sample disclosed descriptive statement about future profit forecast or trends for the banks' performance.

Table 3: Disclosure of Timely Information

Timeliness	No. of Sample		% of Sample	
	Banks	LQ 45	Banks	LQ 45
Press releases	17	32	89%	91%
Unaudited Latest Quarterly Results	18	30	95%	86%
Stock Quote	8	21	42%	60%
Vision Statement				
Existence	18	28	95%	80%
Disclaimer	0	2	0%	6%
Charts	3	1	16%	3%

<u>Technology</u>

The technology results are presented in Table 4. Most banks in the sample provided their annual report in PDF format. It was not surprising that most banks made available pdf files. The result showed that direct e-mail contact and mailing lists were quite common. Around 74% of the banks and 3% of the LQ 45 firms in the sample allowed the users to e-mail the firm. Three (16%) of banks used presentation slides to present their annual meetings or companies' profile. Audio or video presentation of annual meetings, press gatherings or analyst conferences was generally not available on the sample companies' websites. In only one case did banks in the sample offer selections of corporate presentations such as speeches at annual meetings or addresses from analyst conferences.

Table 4: Technology Provided on Bank Website

Technology	Bank Website		LQ-45 firms Website	
	Sample	%	Sample	%
Download plug-in on spot	0	0%	0	0%
Online feedback	14	74%	1	3%
Presentation slides	3	16%	0	0%
Multimedia technology	1	5%	0	0%
Analysis tools	1	5%	0	0%
Advanced features (XBRL)	0	0%	0	0%

This table shows the different types of technology that are available on sample firms websites

Although digital reports provide investors with the opportunity to download files that can be used as input in computer-based analysis at low cost, it is rather surprising that only 1 or 5% of the banks in sample provided analysis tools or allowed users to download data for analysis. One reason for this reluctance may be a desire to avoid any discrepancy between internet provided information and traditional paper-based reporting. Table 4 shows that LQ 45 firms do not use extended technologies. Although XBRL is emerging, and its benefits include items such as shortening implementation times and alleviating errors, no companies in the sample used the XBRL format to create their website.

<u>User Support</u>

The type and number of user support facilities on the banks' websites are shown in Table 5. Frequently asked questions (FAQ's) are useful for companies in reducing the number of incoming e-mails. The results show that 14 (74%) banks in the sample offered FAQ's on their websites. All of the banks in the sample provided a homepage link on their websites with 14 (74%) of banks providing a link to the top of the page. A site map is very useful as it can show the structure of the website on just one page. The survey identified 14 banks that provide site maps on their websites. Most banks (74%) provided a site search instrument on their websites. The type and number of user support facilities on the LQ 45 firms' websites are also shown in Table 5. Three (9%) LQ-45 firms in the sample offered FAQ's on their websites. The results show that 32 of the LQ-45 firms in the sample provide a homepage link on their websites. One firm provided a link to the top of the page. Nineteen firms provided site maps on their websites. Most LQ 45 firms (57%) provided a site search instrument on their websites.

Table 5: User Support Provided on Firm Websites

User Support	Bank Website		LQ-45 firms website	
	Sample	%	Sample	%
Help & FAQ	14	74%	3	9%
Link to Home Page	19	100%	32	91%
Link to Top	14	74%	1	3%
Site Map	14	74%	19	54%
Site Search	14	74%	20	57%

This table shows user support that is available on sample firm websites.

Regression Analysis

Next we use regression analysis to further explore internet disclosure issues. The estimated equation is specified by equation 1 above. The regression analysis result are presented in Tables 6 and 7. The Goodness of Fit test reveals an adjusted R^2 of 0.476 indicating that 47.6% of the variance in the dependent variable are explained by the independent variables. Thus the model has good explanatory power. The F test is significant at the one percent level.

Table 6: The Goodness of Fit Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3571.085	4	892.771	10.603	.000
	Residual	12209.009	145	84.200		
	Total	15780.094	149			

R = 0.476
R Square = 0.226
Adjusted R Square = 0.205
Standard Error of the Estimate = 9.17606

This table shows the results of the goodness of fit test. The estimated equation is $IDEKS = \alpha + \beta_1 ROE + \beta_2 Leverage + \beta_3 LNTA + \beta_4 ROA$.

Table 7 reports the regression coefficients. Firm size is significantly positively related with internet financial reporting. The results are significant at the one percent level. The results imply that larger firms are more likely to disclose financial reports on the website. Return on equity as a proxy for profitability has a significant impact on internet financial reporting. More profitable firms tend to disclose more information on their websites. Leverage and return on assets are not significantly explanatory variables for the internet financial reporting index.

The findings regarding firm size are consistent with Meek, Roberts and Gray (1995) and Zarzeski (1996) who also found that large firms use more internet reporting. The profitability findings are consistent with Singhvi and Desai (1997) who examined 500 large listed US firms, finding a positive association between profitability and disclosure quality. The findings are also consistent with Heinze (1976) and Bowman and Haire (1975) but are not consistent with Vance (1975). According to Agency theory, highly leveraged firms have an incentive to voluntary increase the level of corporate disclosure, but the result of this research not support an agency theory explanation.

Table 7: Analysis Regression Result

Variables	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	-.752	9.227		-.081	.935
LNTA	2.767	.545	.398	5.079***	.000
LEVERAGE	-.667	.781	-.070	-.855	.394
ROA	-8.286	10.336	-.074	-.802	.424
ROE	4.138	2.154	.169	1.921*	.057

The Model specification is IFR indexi = $\alpha_1 + \beta_0 + \beta_1 LNTA_i + \beta_2 LEVERAGE_t + \beta_3 ROA_i + \beta_4 ROE_i + e_{it.}$ *IFR indexi = Internet Financial and Sustainability Reporting index for firm i, LNTAi = logarithm natural total assets for firm i, LEVERAGEi = ratio of total debt divided by total assets for firm I, ROAi = ratio net profit divided by total assets for firm i, ROEi = ratio net profit divided by total equity for firm i. *** indicates significant at 1% ** indicates significant at 5% * indicates significant at 10%*

Robustness Test: Mann Whitney Test

To continue the analysis we conduct robustness tests. Specifically, we conduct a Mann-Whitney mean difference test. To determine the appropriate test technique a one sample Kolmogrov Smirnov test is conducted to examine variable normality. We create 2 subsampes of our data, high IFR index firms and low IFR index firms. The *Kolmogrov Smirnov Test* indicate that each of the independent variables are not normal distributed. Due to this non-normality the Mann-Whitney tests for difference in means is utilized to compare the results for firms with low IFR to those with high IFR. Table 8 shows that there are differences of LNTA for firms with high IFR and firms with low IFR.

Table 8: Result of *Mann-Whitney Test*

	LNTA	LEVERAGE	ROA	ROE
Mann-Whitney U	1587.000	2682.000	2486.000	2317.000
Wilcoxon W	3417.000	4512.000	4316.000	4147.000
Z	-4.270***	-.069	-.821	-1.469
Asymp. Sig. (2-tailed)	.000	.945	.412	.142

This table shows the results of the robustness tests. $LNTA_I$ *= logarithm natural total assets for firm i,* $leverage_i$ *= ratio of total debt divided by total assets for firm I, ROAI = ratio net profit divided by total assets for firm i, ROEi = ratio net profit divided by total equity for firm i.*
**** indicates significant at 1% ** indicates significant at 5% * indicates significant at 10%*

CONCLUDING COMMENTS

The technology revolution has significantly impacted accounting practice and communication. Many companies now utilizing the Internet to disseminating financial information. Firms benefit from cost savings while broadening their disclosure. Users benefit in a variety of ways depending on the extent to which internet capabilities are exploited. Potential advantages include enhanced timeliness, ease of access and search, improved facilities for data extraction, automatic comparisons, and analysis. The internet is outstanding for reporting the expanding information quantities required by accounting rules.

The purpose of this study was to measure the quality of Internet Financial Reporting in the banking sector and LQ-45 firms on the Indonesia Stock Exchange. An index was developed to measure internet reporting. The samples consist of 19 banking sector and 35 LQ 45 firms from Indonesia. By measuring the firms IFR it was shown that most firms in the sample had websites and provided financial data on their sites. The survey findings show the nature of IFR disclosure varies considerably across banks. Variation in the website contents suggests that firms have different reasons for establishing an Internet presence. Some websites contain only product and service advertising. Moreover, most financial reporting is confined to PDF. Apart from the lower cost consideration, this may be an attempt to limit legal risk associated with providing incorrect financial data. The findings also indicate that firm size and return on equity are important determinants of internet financial reporting. Large firms have more incentives to disclose voluntary information.

This study is restricted to the 19 public banks and 35 LQ 45 firms listed on the Jakarta Stock Exchange in Indonesia. The extent to which these findings can be generalized is not clear. Additional research is necessary to identify the characteristics of internet based financial reporting in other markets.

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BIOGRAPHY

Luciana Spica Almilia is lecturer of Accounting at STIE Perbanas Surabaya – East Java. She can be contacted at: Accounting Department at STIE Perbanas Surabaya – East Java (Indonesia), Jln. Nginden Semolo No. 34 – 36 Surabaya, East Java (Indonesia). almilia_spica@yahoo.com or lucy@perbanas.ac.id.

Appendix 1: The Content Index of Internet Disclosure Instruments

Index Items	Explanations	Score	Multiplier	Max
1. Component of Financial Information				
1.1. Statement of Financial Position				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.2. Statement of Financial Performance				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.3. Statement of Cash Flows				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.4. Statement of Movement in Equity				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.5. Notes to the Financial Statement				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.6. Disclosures of Quarterly Results				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.7. Financial Highlight/Year-in-Review				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
Growth rate, ratios, charts	1 = Yes, 0 = No	1	2	2
1.8. Chairman's Report				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.9. Auditors' Report				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.10. Stakeholder Information				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.11. Corporate Information				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
1.12. Social Responsibility				
Pdf	1 = Yes, 0 = No	1	1	1
HTML	1 = Yes, 0 = No	1	2	2
2. Number of years/quarters Shown				
Annual Report	No. of years	1	0.5	2
Quarterly Report	No. of quarters	1	0.5	2
3. Past Information (HTML Only)				
Annual Report	1 = yes, 0 = no	1	1	1
Quarterly Report	1 = yes, 0 = no	1	1	1
Graph of Share Price	1 = yes, 0 = no	1	2	2
4. Language				
English	1 = yes, 0 = no	1	2	2
Other than English or Indonesia	1 = yes, 0 = no	1	1	1
5. Address (HTML only)				
Company Address	1 = yes, 0 = no	1	1	1

Appendix 2: The Timeliness Index of Internet Disclosure Instruments

Index Items	Explanations	Score	Multiplier	Max	
1. Press Releases					
Existence	1 = Yes, 0 = No	1	2	2	
Number of days since last updated news	See note 1	1	1	3	Note 1: Press Release
2. Unaudited Latest Quarterly Result (3 = updated on the date of investigation)					
Existence	1 = Yes, 0 = No	1	2	2	2 = 1 week or less before the date of investigation
With proper disclaimer	1 = Yes, 0 = No	1	1	1	1 = 2 weeks or less before the date of investigation
3. Stock Quote (0 = news is updated more than 2 weeks ago)					
Existence	1 = Yes, 0 = No	1	2	2	
Updated in how many hours	See note 2	1	1	3	Note 2: Stock Quote
4. Vision Statement/Forward Looking Statement (3 = updated every hour or less)					
Existence	1 = Yes, 0 = No	1	2	2	2 = update every day or less
Proper disclaimer	1 = Yes, 0 = No	1	1	1	1 = updated every week or less
Charts of future profit forecasts/trends	1 = Yes, 0 = No	1	1	1	0 = updated every week or less

Appendix 3: The Technology Index of Internet Disclosure Instruments

Index Items	Explanations	Score	Multiplier	Max
Download Plug-in On Spot	1 = Yes, 0 = No	1	2	2
Online Feedback	1 = Yes, 0 = No	1	2	2
Use of Presentation Slides	1 = Yes, 0 = No	1	2	2
Use of Multimedia Technology	1 = Yes, 0 = No	1	3	3
Analysis Tools	1 = Yes, 0 = No	1	4	4
Advance Features (XBRL)	1 = Yes, 0 = No	1	5	5

Appendix 4: The User Support Index of Internet Disclosure Instruments

Index Items	Explanations	Score	Multiplier	Max	
Help and Frequently Asked Questions	1 = Yes, 0 = No	1	2	2	
Link to Home Page	1 = Yes, 0 = No	1	1	1	
Link to Top	1 = Yes, 0 = No	1	1	1	
Site Map	1 = Yes, 0 = No	1	2	2	
Site Search	1 = Yes, 0 = No	1	2	2	Note 3: Number of Clicks to get to financial Info
Number of Clicks to get to Financial Info	See note 3	1	1	3	3 = 1 clicks
Consistency of Web Page Design	0 = poor, 1 = fair, 2 = good	1	2	4	2 = 2 clicks