

Internet Financial Reporting Index Analysis: An Overview from the State Owned Enterprises in Indonesia

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Abstract—Many companies use internet to report financial information to investors. The purpose of this study was to analyze the disclosure of financial statements in the company's state-owned enterprises in particular nature-based sector and manufacturing industries using Internet Financial Reporting Index, and analyze whether there is a relationship between the index of contents, index timeliness, technology index, the index of user support, the number of pages in and the wealth of the company's website. The data used in this research is corporate data on nature-based sector and processing industry with a number of 60 companies. Analytical methods using correlation - Spearman test, the test of 2 independent samples namely Mann Whitney test and the Kolmogorov Smirnov test. The results of the data processing show that there is no relationship between the index of internet financial reporting (index of contents, index timeliness, technology index and the index of user support) with the wealth of the company's website. There is a significant relationship between web page numbers with a wealth of corporate websites. This research also found that there is no difference between nature-based enterprises in the sector of processing industry in terms of the index of internet financial reporting.

Index Terms—Internet financial reporting index, website size, technology index.

I. INTRODUCTION

The use of the internet in the business world has affected traditional forms of presentation of company information [1]. Website has been utilized to presenting financial information to shareholders, investors and other important parties [2]. The rapid development of the Internet creates a new way for companies to communicate with investors. Internet companies use to report financial information to investors called Internet Financial Reporting (IFR). The financial statement of the IFR is a disclosure of some of the financial statements reporting through the use of technology such as multimedia and Web tools analysis. For few years, IFR emerged and evolved as the fastest medium to inform related matters with the company. According to [3], the current presentation of information the company is in a period of paper-based reporting system to a paper-less reporting system.

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The company has some reasons or motives in adopting IFR, among which extend the reach of information delivery, current information, efficiency and effectiveness are among the reasons why companies adopt IFR [4]. Reference [5] stated that the IFR is seen as a means of effective communication to customers, investors and shareholders. IFR is a response from the company to establish communication with stakeholders, in particular investors, better and faster.

Disclosure of financial information on the company's website is a voluntary disclosure form that has been practiced by various companies. The most common financial data items at corporate Web sites are financial news releases, found in 80% of all sites. The surveyed sites of this research represent 17 industries and a broad spectrum of company sizes and development stages [6]. Reference [7] demonstrates that: (1) both user groups exploit the Internet considerably and adopt similar behavior in using the websites, and (2) financial news websites play an important role in expert users behavior, acting as a preliminary information switching point from which professional operators access specific listed corporate websites. Survey of CAROL (Company Annual Reports On Line) in 1999 showed 1000 companies in Europe, that 67% of companies already have a website and 80% of the company's website reveals the financial statements on the Internet [8]. In the year 2006, more than 70% of large companies in the world implement IFR [9]. IFR rapidly growing phenomenon lately, but there are still many companies that do not conduct IFR practice. Reference [10] suggests that not all companies presenting financial statement in their website. In other words, there are various factors that influence the choice of the company to implement an IFR or not.

In Indonesia, one of the latest important innovations in the public or non-public especially the State-Owned Enterprises (SOE) is the use of the web and the Internet as a medium of information and communication. Many commentators are predicting that the annual report printing will gradually disappear as the company moved to a media report electronically across the Internet [11] due to less paper based on time thus affecting the reduced impact of not meeting existing investors everywhere in decision-making [5]. Therefore, the state-owned companies are required to provide financial statement information so that the information can be made available more quickly, to satisfy corporate investors and other users.

The purpose of this study were: (1) measuring an index of internet financial reporting (IFRI), the number of pages on the website and on the company website owned wealth particularly nature-based sector and processing industry (2) to analyze whether there is a relationship between Financial

Reporting on the Internet (content, timeliness, technology and user support) and the wealth of the website, (3) to analyze the relationship between the number of pages in the web and the wealth of the website (4) analyze whether there are differences in Internet Financial Reporting (content, timeliness, technology and user support) across sectors.

II. THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESIS

One source or provider of public information is the agency or the public sector. Openness and transparency of information on the sector or public body set up under the Law of the Republic of Indonesia Number 14 of 2008 on Public Information (KIP). UU KIP guidelines set forth in the Regulation of the Government of the Republic of Indonesia Number 61 Year 2010 on the implementation of Law No. 14 of 2008 on Public Information. Each public agency must publish public information regularly. Information to be provided and published periodically by public bodies provided for in Article 9, paragraph 2, namely: (1) Information relating to the Public Agency, (2) Information on the activities and performance of the relevant Public Agency, (3) Information on financial statements; and / or (4) any other information stipulated in legislation. State Owned Enterprise (SOE) is a public enterprise which must also comply with Freedom of Information Law, and regulated in Article 14. Public Information that must be provided by the State-Owned Enterprises, Regional-Owned Enterprises and/or other business entities owned by the state in which this Act is the annual report, financial statements, balance sheet income statement, and statement of corporate social responsibility has audited.

Internet Financial Reporting known as a voluntary disclosure, not because of the content of disclosure but rather a tool that is used. According to [12], the definition of IFR are *"IFR refers to the use of the firms' web sites to disseminate information about the financial performance of the corporations. In this new approach, firms are using the Internet to market their companies to shareholders and investors"*. Reference [13] in the list of their instruments, stating that in order to evaluate the company's website has four dimensions of content, timeliness, technology and user support. The first dimension is the content, which measure the type of financial information available. The second dimension is the timing, measure the timeliness of financial information provided (such as the availability of a press release or stock quotes). Then, the third dimension is a technology, which measures the dimension of the use of some features. Last dimension is user support, gauge design and layout of the site. Basically financial reporting via the internet is not much different from regular financial reporting. It's just that the disclosure of these financial statements using the internet [12].

Reference [14] identifies the financial statements on its website, namely: (a) the financial statements duplicate the printed paper into electronic format (b) converting financial statements into HTML format (c) Promote the inclusion of financial statements through the website making it more accessible by interested parties rather than the financial statements in a printed format. Based on [15], there are four essential elements to evaluate the company's website, namely:

content, timeliness, technology and user support. Reference [16] stated that financial statement users have higher expectations for various facets than what companies actually report in the areas such as; reports of analysts, phone number to investor relations, segmental reporting, financial data in format that can be processed, and summary of financial data.

The research hypothesis: (1) there is a relationship between Internet Financial Report index with company's website popularity; (2) there is a relationship between the numbers of web pages with websites popularity; and (3) there are differences in index of content, timeliness, technology, and user support index among enterprises in the nature-based sector with the manufacturing industry sector.

III. METHODOLOGY

The data used in this study there are 60 companies that nature-based enterprises in the sector (Agriculture, Fisheries and Forestry) by 29 companies and companies in the manufacturing industry (Pharmaceutical, Telecommunication Industry, Technology-Based Industries, Dock and Shipping, Steel and Construction, Defense, Cement, Industrial Clothing, Miscellaneous Sector Industrial and Printing) by 31 companies. The research variables are a website popularity that are bound variables, measured using the Alexa Traffic Rank. Independent variable are content index measured using the index Wallace, timeliness index, the technology index, user support index, an index of Internet Financial Reporting [17] and the number of web pages. Data on the popularity of a website is obtained from www.alexa.com, and the number of web pages is obtained from www.google.com. Both the data obtained on May 28, 2012, while the criteria of Internet Financial Reporting derived from the company's website on July 12 to 18, 2012. Internet Financial Reporting Index measured by summing the four components consisting of the content (40%), timeliness (20%), technology (20%), and web support (20%). The formula used is:

$$\text{Internet Financial Reporting Index} = \text{Index of content} + \text{timeliness index} + \text{technology index} + \text{user support index} \quad [18]$$

The analysis of data used in this research the Spearman Rank correlation techniques. Two independent sample tests used to determine whether there is a difference between the two independent sets of data. The tests used in this research are the Mann Whitney two independent samples and test of the Kolmogorov-Smirnov.

IV. RESULT AND DISCUSSIONS

A. IFR and Website Popularity

The average index of internet financial reporting in 60 companies was 0.251. The minimum value is 0, which is owned by PT Perikani and PT Tirta Raya Mina. This is due at least in the type of financial information doc, ppt or pdf, lack of press releases and the lack of additional applications on the web. The maximum value is at 0.622. The average index of internet financial reporting is in the interval 50% - 63%.

Lowest percentage is 0% - 10%. The Financial Reporting Internet Index is divided into 4 criteria such as content, timeliness, technology and user support. Here is a detailed description of each of these criteria:

The financial statements are displayed on the site by the company consists of two types, namely pdf and html or both. The financial statements are divided into two parts, namely the Annual Reports and Quarterly Reports. The company also provides information regarding the company work address. Each company is expected to provide financial statement information in a pdf type but it also could be the type of html. Based on [19], financial statement information is divided into three classifications, namely: (a) Comprehensive Financial Report. The company is said to have the financial statements if the company website reported balance sheet, income statement, cash flow statement, statement of changes in equity and notes auditor (b) Partial Financial Statements. The company is said to fall into this category if it does not mention any of the statements contained in the financial statements of comprehensive. Some additional summary results given are the company's performance (c) Financial Highlights where the company presents important information such as total assets, paid-in capital, net income and sales.

The analysis shows that there are two companies that provide comprehensive financial report, partial report and overview of the financial statements. The report is the Annual Reports of 2010 some 404 pages in which are listed the three criteria of financial statement information. Overall there are 15 companies from nature-based sector and processing industry or the 25% who are at a value between 16% - 18% and that is the value of the lowest percentages are 0% - 3% of the 29 companies or 48.3%.

The analysis shows that not all companies provide information on press releases, quarterly financial reporting as well as the vision and mission of the company's site. There are 52 companies or 86.6% of the companies that provide the vision and mission statement of the company, 28 companies or 46.6% of the companies that provide auditing quarter and 26 companies or 43.3% of companies that have news features. Punctuality index values obtained in this study is 3.3% for the 15 companies or 25%.

In general, companies provide an annual financial report in pdf format because it is more profitable compared with files in html. The advantage of a pdf file is almost the same as the report view the original report and the pdf file is very easy to use. In the form of pdf files can be viewed in Adobe Acrobat Plug-in. This file allows users to take advantage of features download the plug-in on the site. There are 13 companies that provide plug-in downloads on the site or by 21.6%. The companies that provide online feedback applications on the website are as much as 6 companies or about 10%. This application serves to help users give criticism to the company online. Features on the web such as audio or video can increase user interest in obtaining information about the company. The number of companies that use multimedia there are 20 companies or 33%. The analysis tools and advanced XBRL features, has not been used as an application that functions to avoid errors on the company website. The highest percentage of technology index is 20% or 19 companies or 31.6% of the amount of data across the

enterprise. The lowest percentage of technology index was 0% with the number 8 companies or the percentage 13.3%. FAQs are used to reduce the influx of emails from the company's website users. This feature is very useful to help the company, but many companies are not using the FAQ as a tool.

Correlation test showed that the significant value of the index of internet financial reporting and the website popularity index (world rank) is 0.266. The significant value of the index of financial reporting and the website wealth index is more than 0.05. It can be concluded that there is no relationship between the index of internet financial reporting and website popularity. The results are consistent with the research of [20] which states that the website popularity index not related to the index of internet financial reporting. These results contrast with the [21] which states that there is a relationship between the index of contents, index timeliness, indexes and index technologies in support of users with number of web pages.

B. Web Page Number and Website Popularity

The correlation test used in this study is Spearman rank correlation test. The second hypothesis of this study will be tested used this correlation test which measures the relationship between the index of the web page with the website popularity. Correlation test showed that the significant value of web pages and website popularity is 0. It can be concluded that the index of the number of web pages and website popularity has a significant relationship. This means that if the number of web pages up the value of the wealth index the website will go up. These results are consistent with [21] which states that the relationship between the variables used are an index of contents, index timeliness, technology index and the index of user support. This result support [22] that the number of web pages is very useful to measure web based information richness held by the company. Trust will arise from the public if the company gives useful information. The result also support with [23] that presentation format affects judgment accuracy and decision time. Hyperlink use leads to decreased decision time and decreased accuracy.

C. Internet Financial Reporting Index by Sector

The third hypothesis is used to determine the difference in index of internet financial reporting which includes an index of contents, index timeliness, technology index and the index of user support by sector i.e. nature-based sector and the manufacturing sector. This study used two independent samples test. Results from two independent samples that test results from Mann Whitney test showed that the significant value of the contents of the index is 0.569, the significant value of punctuality index is 0.001, the significant value of the technology index is 0.325, the index value of user support is 0.330 and the index of the internet financial reporting between nature-based sector and processing industry sectors is 0.083. It can be concluded that two independent samples come from the same population. The results of the Kolmogorov Smirnov test showed that the significant value of the contents of the index is 1, the significant value of the index is 0.039 timeliness, significance value of the index is 0.993 technology, the significant value of the index is 0.758 user support, the significant value of nature-based sector and

processing industry sectors index of internet financial reporting is 0.163. This condition is caused by a lack of transparency of information on the company in the nature-based sectors and in the manufacturing industry. This research is in line with the research of [18]. These results are not in line with the [21] that examines the different samples, namely banks and non-bank states that there are differences in financial reporting internet index.

V. SUMMARY

There is no relationship between financial reporting internet index (index of contents, timeliness index, technology index and the index of user support) with the website popularity. There is a significant relationship between the numbers of web pages with website popularity. There is no difference that the company of nature-based sector and manufacturing industry, seen from the index internet financial reporting, which means the two variables are from the same population.

REFERENCES

- [1] A. Seetharaman and R. Subramaniam, "Navigating the Web of Financial Reporting," *European Business Forum*, winter, vol. 23, pp. 51-54, 2006.
- [2] O. Abdelsalam and A. El-Masry, "The impact of board Independence and Ownership Structure on the Timeliness of Corporate Internet Reporting of Irish-listed Companies," *Managerial Finance*, vol. 34 Issue: 12, pp. 907 - 918, 2008.
- [3] M. H. Hanifa and H. Ab. Rashid, "The Determinants of Voluntary Disclosures in Malaysia: The case of Internet Financial Reporting," *UNITAR E-Journal*, vol. 2, no. 1, pp. 22-42, 2005.
- [4] *Business Reporting Research Project: Electronic of Business Reporting Information*, Steering Committee Report Series: Financial Accounting Standards Board, 2000.
- [5] H. Ashbaugh, K. Johnstone, and T. Warfield, "Corporate Reporting on the Internet," *Accounting Horizons*, vol. 13, no. 3, pp. 241-257, 1999.
- [6] M. Ettredge, V. J. Richardson, and S. Scholz, "The Presentation of Financial Information at Corporate Web Sites," *International Journal of Accounting Information Systems*, no. 2, pp. 149-168, 2001.
- [7] A. Quagli and P. Riva, "Do Financial Websites Meet the Users' Information Needs?" *Research Paper on VII Workshop on Empirical Research in Financial Accounting and III Research Forum of the Spanish Journal of Finance and Accounting*, 18th -20th November 2009.
- [8] J. Cook, "Information and Communication Technology: the Internet and Company Law," in *ESRC Centre for Business Research*, University of Cambridge, 1999.
- [9] T. Khan, "Financial Reporting Disclosure on the Internet: An International Perspective," Ph.D. dissertation, Victoria University, Footscray Park, Victoria, Australia, 2006.
- [10] J. Z. Xiao, H. Yang, and C. W. Chow, "Determinants of Internet-Based Corporate Disclosure in China," *Journal of Accounting and Public Policy*, vol. 23, no. 3, pp. 191-225, 2004.
- [11] V. Beattie, and K. Pratt, "Issues concerning web-based Business Reporting: an Analysis of the Views of Interested Parties," *British Accounting Review*, vol. 35, no. 2, pp. 155-187. ISSN 1095-8347, 2003.
- [12] P. L. Poon, D. Li, and Y. T. Yu, "Internet Financial Reporting," *Information Systems Control Journal*, vol. 1, pp. 1-3, 2003.
- [13] B. Pirchegger and A. Wagenhofer, "Financial Information on the Internet : a Survey of the Homopages of Austrian Companies," *The European Accounting Review*, vol. 8, no. 2, pp. 383 -395, 1999.
- [14] J. M. P. Venter, "A Survey of Current Online Reporting Practices in South Africa," *Meditari Accountancy Research*, vol. 10, issue 1, pp. 209-225, 2002.
- [15] N. Lybaert, "On-line Financial Reporting, an Analysis of the Dutch Listed Firms," *International Journal of Digital Accounting Research*, vol. 2, no. 4, pp. 195-234, 2002.
- [16] A. Turel, "The Expectation Gap in Internet Financial Reporting: Evidence from an Emerging Capital Market," *Middle Eastern Finance and Economics*, issue 8, pp. 94-107, 2010.
- [17] Y. L. K. Nugrahaeni, D. O. Hartomo, and L. H. Patworo, "Analisis Pengaruh Faktor – faktor Fundamental Perusahaan Terhadap Kelengkapan Pengungkapan Laporan Keuangan," *Jurnal Ekonomi dan Bisnis*, vol. VIII, no. 1 pp. 75 – 91, 2002.
- [18] L. S. Almilia, "Determining Factors of Internet Financial Reporting in Indonesia. Accounting & Taxation," vol. 1, no. 1, pp. 87-99, 2009.
- [19] M. Momany and S. Al-Shorman, "Web-Based Voluntary Financial Reporting of Jordanian Companies," *International Review of Business Research Papers*, vol. 2, no. 3, pp. 127 – 139, 2006.
- [20] W. Silfianti and R. J. Suhatri, "Do Indonesian Province Website Rich and Popular," *World of Computer Science and Information Technology Journal (WCSIT)*, vol. 1, no. 6, pp. 253-259, 2011.
- [21] A. D. Pertiwi, "Assessing Financial Disclosure Using Internet Financial Reporting Index in Indonesian Financial Institutions," Thesis, Faculty of Economic, Gunadarma University: Jakarta, 2012.
- [22] Y. Z. Guo, K. Ramamohanarao, and L. Park, "Personalized Page Rank for Web Page Prediction based on Access Time-Length and Frequency," *Web Intelligence, IEEE/WIC/ACM International Conference*, pp. 687- 690, 2007.
- [23] A. S. Kelton, "Internet Financial Reporting: The Effect of Hyperlinks and Irrelevant Information on Investor Judgements," *Manuscript Draft*, University of Tennessee. Knoxville, 2006.



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