

A STUDY ON THE INDEX OF INTERNET FINANCIAL REPORTING

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ABSTRACT

Innovation in the usage of information technology and communication (ICT) has set up a unique method in corporate management which includes distributing financial report direct to the investors, prospective investors, share holders and important personnel. As it is consistent to the internet development as a form of cheap and flexible but influential communication tools, exposures of financial information through the internet has gain its popularity as one of a famous research subject. The last decade has seen a lot of research been carried out on the significance, method and quality of internet financial reporting (IFR). However, most of the earliest IFR research were inclined towards descriptive and exploration methods. Thus, the researches fail to explain items that represent the level of IFR. Even though most of the research bowed to the fact that matching proxy such as disclosure index could assist fuller depth of understanding of the sophisticated information disclosed by companies, it is undeniable that very little effort are taken to build the reporting index. The limited literature shows that there are inconsistencies in the usage of dimensions that represent IFR among researchers. As the result there are differences in the output which lead to the findings failure in giving clear explanation on the factors that influence IFR behaviors. Therefore, this article will discuss issues connected to index of IFR by viewing the related literature, comprehensively, before suggesting a dimension that compliment disclosure index which represent IFR.

Keywords: *disclosure index, dimension and Internet Financial Reporting*

Introduction

The rapidity of information technology and communication (ICT) has its influence on the fast developing and dynamic business world. This scenario leads to the changes in the method of delivering financial information to clients. Indirectly, this made financial reporting principal to the field related with internet financial reporting (IFR). This issue is

important because internet functions as a medium of communication for the purpose of spreading and getting information characterized by “anytime, anywhere” (Xiao, Jones & Lymer, 2002; Sortur, 2006; Al Arussi, Selamat & Mohd Hanefah, 2009). This situation matches well to the advantages of content found in websites which is characteristically dynamic (Khadaroo, 2005) and unique (Huizingh, 2000; Ettredge, Richardson & Scholz, 2001). The development of internet technology has influence the changes in the environment of index financial reporting through the internet and it has become an important field for research. Parallel to the steadily developing use of Internet, the changes in IFR environment need current evidence which is measured and a broad analysis for reporting practice (Kelton & Yang, 2008).

Information is a critical element in the function of capital market (Lee, 1987; Saudagaran & Diga, 1997). Information, especially financial information, not only help in reducing uncertainties in investment results and efficient resource distributions, but also in increasing the corporate affair with investors and other share holders (Healy & Palepu, 2001). A lot of company use World Wide Web (WWW) as a platform to present their financial data, especially their corporate annual report and make WWW as the database for newspaper report and other related information connected to the company and its shareholders (Deller et al., 1999; Celik et al., 2006). The information will be used by those who have importance on the company when making decision about both their investment and business (FASB, 2000). Internet reporting has become a rapid widespread phenomenon (Ashbaugh et al., 1999; Oyelere et al., 2003). Therefore research on the environmental changes in financial reporting is vital as Internet turn out to be an eminent medium of communication (Xiao et al., 2002).

A comprehensive view on literature on disclosure index has shown that researchers used different dimensions to illustrate IFR. The effect of different dimension used in illustrating IFR is different research findings which consequently lead to the failure of clearly explaining the phenomena and the influencing factor that determine IFR practice. Therefore, the dimensions for IFR index is an important agenda and an interesting topic for research because disclosure is an abstract concept that could not be measured directly. A more comprehensive and holistic index consisting a few dimension is required. It is hoped that the study on dimensions and index will help researcher to explain IFR practice and determining factors that influence the practice.

The rest of the paper is organized as follows. The definition of IFR will be explained in section two. Discussion in section three refers to IFR researches while the subsequent section discusses dimensions and index disclosure. It concludes with a conclusion and research implication.

Definition

There are various definitions given to IFR which are used amongst researchers (Ashbaugh et al., 1999; Craven & Marston, 1999; FASB, 2000; Oyelere et al., 2003; Mohamad, Mohamed & Mohamed, 2003; Hanifa & Ab. Rashid, 2005; Chan & Wickramasinghe, 2006; Momany & Al-Shorman, 2006). On the surface, IFR refers to the disclosure of financial statement through Internet in a company's website. According to Ashbaugh et al. (1999), a company is said to carry out IFR if: (1) the company's website is used to report comprehensive financial statement which includes endnotes and audit report; (2) connected to the company's annual report through the Internet or; (3) a connection to U.S. Security and Exchange Commission's (SEC) and Electronic Data Gathering, Analysis and Retrieval (EDGAR) system. Craven and Marston (1999) used detailed annual report and a part or summary of annual report as the measurement for financial disclosure through the Internet. On the other hand FASB (2000) defined Internet practice as the method for operation, technique and other practices that are created to maximize the usage of website ability in channeling business information.

Oyelere et al. (2003), Mohamad et al. (2003), and Momany and Al-Shorman (2006) explain that companies which practice IFR consist of those that disclose: (1) overall financial statement including footnotes, (2) a part of financial statement and/or; (3) important financial information such as summary of financial statement through the company's website. Hanifa and Ab. Rashid (2005) on the other hand defined a company that practice IFR as a firm that place its latest annual report or set an internet link to Bursa Malaysia (formerly known as Bursa Saham Kuala Lumpur @ BSKL) website. Chan and Wickramasinghe (2006) defined an IFR practicing company as a company that disclose its comprehensive financial statement (including footnotes and annual report) or linked to company annual report through the Internet.

Observation on terms used by researchers in matters concerning IFR study shows that various terms are used; corporate disclosure by internet, corporate internet reporting, corporate internet financial

reporting, corporate online reporting, digital reporting, electronic online reporting, electronic-based financial reporting, internet accounting, internet reporting, internet based business reporting, internet based corporate disclosure, internet for financial reporting, internet on corporate financial reporting, internet financial disclosure, internet financial reporting, online reporting, online corporate reporting, online financial reporting, web reporting, web-based accounting, web-based reporting, web financial reporting, and web-based corporate reporting. Among the terms, internet financial reporting (IFR) is used most widely by researchers.

As the conclusion, there are various definition used by researchers to characterized the meaning of IFR. However, most of the researcher includes comprehensive financial statement set and important financial statement taken from annual report as a yardstick for a company to be under the categorization of a company that practice IFR.

IFR Research

This section superficially discusses the potentials that encourage companies to put in order their financial disclosure through the Internet. Among the advantages gained by those companies practicing index disclosure through the internet are: reduction on cost and time used in disseminating information to clients; communication with information users that are not identified before; adding to the conventional practice of exposure; increase in the type of information that are exposed; improvement in assessing small companies websites that have potential investors (Lymer, 1999; FASB, 2000; Debreceeny, Gray & Rahman, 2002; Hanifa & Ab. Rashid, 2005).

Earlier researches in IFR were published in 1996 and 1997, which include the corporate interest in using Internet as the medium for advertisement (Allam & Lymer, 2003). Companies also have interest in using the technology for marketing and selling purposes (Lymer, 1999) and financial disclosure (Xiao et al., 2002), strategy for disseminating information on Muslim Banking (Mokhtar & Azhari, 2004) and corporate image (Bonson & Escobar, 2006). Previous researches were narrowed to the existence of Bursa Malaysia Main Board listed companies websites and whether the companies had prepared certain information in their websites (Petra vick & Gillett, 1996; Louwers et al., 1996; Lymer, 1997; Flynn & Gowthorpe, 1997; Gray & Debreceeny, 1997; Petra vick & Gillett, 1998). On top of that, there were IFR researches carried out by professional bodies like

Institute of Chartered Accountants in England and Wales (ICAEW, 1998; ICAEW, 2004), International Accounting Standards Committee (IASB, 1999), Canadian Institute of Chartered Accountants (CICA, 1999), and Financial Accounting Standards Board (FASB, 2000; FASB 2001).

Specific displays of online index disclosure and its impact on the disclosure entity and consumer have become the focus for reports which are published (William & Pei, 1999; Hodge, 2001; Beattie & Pratt, 2001; Ettredge et al., 2001b), IFR researches development on current online disclosure (Allam & Lymer, 2003). IFR researchers involvement include studying how far certain types of information are disclosed through the Internet. Some researcher extended their scope of study into researching in detail the attributes of IFR (Lymer & Tallberg, 1997; Marston & Leow, 1998; Heldin, 1999; Pirchegger & Wagenhofer, 1999; Ashbaugh et al., 1999; Deller et al., 1999; Gowthorpe, 2000; Ettredge et al., 2001a; Oyelere et al., 2003). A lot of research study on the determining factor that influence IFR practice including the company's size, interest, leverage, audit firm, type of industry, listing status, liquidation, status, systematic risk, technology standard, and ownership structure. However, very little study is carried out in connection with building disclosure index in order to clearly explain this phenomenon. The usage of IFR is important for the purpose of comparing its practice among companies, industries and countries.

That explains the reason to the increase of IFR research along this decade since 1996 the field of IFR research is narrowed down to developed countries like United States, Britain and German. Little is researched on developing countries (Davey & Homkajohn, 2004). On top of that, research on IFR practice in Malaysia is still at the initial stage (Hanifa & Ab. Rashid, 2005). To summarize, IFR research into three category: a country research, several country research and international research (Celik et al., 2006).

Previous studies have shown many company around the globe have published their corporate financial reporting through the internet (Lymer, Debreceeny, Gray & Rahman, 1999; FASB, 2000; Oyelere et al., 2003; Marston & Polei, 2004; Ali Khan, Bajaher & Ismail, 2007). It is over that there are increase in companies that disclose their financial information through the internet and create a big impact on legislature, financial, accounting framework and system (Khan, 2006). With regard to that, Internet has become an important medium for research especially those related to financial reporting and disclosure (Khan, 2006). Internet is claimed to be a more influential method of disclosure compared

to paper (Debreceeny et al., 2002) and has turn into a more important, interesting and broad agenda for analysis (Jones, Xiao & Lymer, 2001; Xiao et al., 2002). Thus, this article is trying to contribute to the existing IFR literature by analysis and examining IFR dimensions representation.

Dimension and Disclosure Index

Analysis on previous studies leads to this study of the level of IFR through disclosure index. Disclosure index is widely researched and used to total up disclosure quality in various connections (Parviainen, Schadewitz & Blevins, 2001). In the IFR context, numerous disclosure index is used as the tool to analyze IFR standard and company specific characteristics (Debreceeny et al., 2002; Oyelere et al., 2003; Xiao et al., 2004; Bonson & Escobar, 2006; Chan & Wickramasinghe, 2006; Celik et al., 2006; Abdelsalam et al., 2007; Kelton & Yang, 2008; Al Arussi et al., 2009; Ali Khan, 2010; Aly, Simon & Hussainey, 2010).

Views on existing literature have shown that there are nine main dimensions regularly used by researchers. Table 1 shows the dimensions used in building related IFR index disclosure. Among the dimensions regularly used to measure the level of IFR is content and presentation; content; timeliness, technology and customer support. By the way, dimensions used by researchers to measure IFR are inconsistent. The inconsistencies lead to different findings in factors that influence IFR practice among companies. As the result, the research fails to explicitly explain determining factors that influence IFR practice among corporate.

Table 1

Dimension of Internet Financial Reporting

No.	Dimension	Researcher (Year)
1	Content and Presentation	IASC (1999), Debreceeny et al. (2002), Marston and Polei (2004), Trabelsi et al. (2004), Xiao et al. (2004), Bonson and Escobar (2006), Spanos (2006), Kelton and Yang (2008), Ali Khan (2010), Aly et al. (2010)
2	Content, Timeliness, Technology and User Support	Pirchegger and Wagenhofer (1999), Lybaert (2002), Davey and Homkajohn (2004), Pervan (2006), Chan and Wickramasinghe (2006)

(continued)

Table 1

Dimension of Internet Financial Reporting

No.	Dimension	Researcher (Year)
3	Timeliness	Ettredge and Gerdes (2005), Abdelsalam and Street (2007), Abdelsalam and El-Masry (2008), Ezat and El-Masry (2008)
4	General Attribute, Investor relation attribute / financial information, annual report attribute and others attribute	FASB (2000), Khadaroo (2005), Celik et al. (2006)
5	Investors relation	Deller et al. (1999), Abdul Hamid and Md Salleh (2005)
6	Reporting: Required and voluntary	Ettredge et al. (2002), Mendes-da-Silva and Christensen (2004)
7	General attribute and financial attribute	Allam and Lymer (2003), Lodhia et al. (2004)
8	Content and usability	Abdelsalam et al. (2007)
9	Accounting and financial information	Ettredge et al. (2001)

Table 2 shows researches connected to dimensions and IFR items, the researchers and the year published, research scope, number of item in item instrument and dimensions used to represent IFR index. Items analyzed and checked are arranged based on latest research to identify the time base research direction. Result of the research has also shown that the first effort in building reporting index was initiated in 1999 by Pirchegger and Wagenhofer. Pirchegger and Wagenhofer (1999) idea was then used by other researchers (Lybaert, 2002; Davey & Homkajohn, 2004). The same index was also used by Chan and Wickramasinghe (2006), Pervan (2006), Khan (2006), and Sriram and Laksmana (2006). However, the number of items used to build the index differ among researchers starting from 11 items (Abdelsalam & El-Masry, 2008; Ezat & El-Masry, 2008) to 205 items (Mohd Hanafi et al., 2009).

Table 2

Selected Current Research related to Internet Financial Reporting

No.	Name of Index	Researcher (Year)	Scope	No. of Item	Dimension
1	Internet Financial Reporting Index	Ali Khan (2010)	Malaysia	87	<ul style="list-style-type: none"> • Content • Presentation • Disclosure content items • Presentation format item • Website design • Website content
2	Disclosure Index	Aly, Simon and Hussainey (2010)	Egypt	90	<ul style="list-style-type: none"> • Financial • Environment • Financial
3	Internet Business Reporting Quality Index	Mohd Hanafi, Kasim, Ibrahim and Hancock (2009)	US, UK, Malaysia, Singapora and Thailand	205**	<ul style="list-style-type: none"> • Corporate governance information • Investor relation • Corporate social responsibility • Item Presentation • Main page website • Investor information • Timeliness
4	Internet Financial and Environment Disclosure	Al Arussi, Selamat and Mohd Hanafeah (2009)	Malaysia	60	<ul style="list-style-type: none"> • Financial • Environment • Financial
5	Disclosure Index Internet	Despina and Demitrios (2009)	Greek	55	<ul style="list-style-type: none"> • Corporate governance information • Investor relation • Corporate social responsibility • Item Presentation • Main page website • Investor information • Timeliness
6	Attribute in Website	Chatterjee and Hawkes (2009)	New Zealand and India	46	<ul style="list-style-type: none"> • Content • Presentation atau format • Timeliness
7	Timeliness Index Corporate Internet Reporting	Abdelsalam and El-Masry (2008)	Ireland	13	<ul style="list-style-type: none"> • Content • Presentation atau format • Timeliness
8	Measurement Scheme of Format and Content	Kelton and Yang (2008)	US	36	<ul style="list-style-type: none"> • Content • Presentation atau format • Timeliness
9	Checklist of Timeliness Index Corporate Internet Reporting	Ezat and El-Masry (2008)	Egypt	11*	<ul style="list-style-type: none"> • Content • Presentation atau format • Timeliness

* minimum item

** maximum item

Explanation of each dimension used to represent IFR is revealed in column 6 Table 2. Among the overall dimension, Pirchegger and Wagenhofer (1999) dimension turn out to be the ones frequently used by researchers (Lybaert, 2002; Davey & Homkajohn, 2004; Pervan, 2006; Chan & Wickramasinghe, 2006). Based on IFR inspection, Pirchegger and Wagenhofer (1999) categorize the criterion catalogue to evaluate company's website into four main dimensions, namely: content, timeliness, technology and client support. Content and presentation dimensions are the most popular and frequently used by IFR researchers (IASC, 1999; Debreceeny et al., 2002; Marston & Polei, 2004; Trabelsi et al., 2004; Xiao et al., 2004; Spanos, 2006; Bonson & Escobar, 2006; Kelton & Yang, 2008; Ali Khan, 2010; Aly et al., 2010). Initially this is dimension used in FASB (2000) research.

According to Debreceeny et al. (2002), there are a few research that prepare working framework to illustrate IFR dimensions (IASC, 1999; Trites, 1999; Ashbaugh et al., 1999; FASB, 2000). IASC (1999, p. 48) divided IFR into three stage. At the first stage, company uses Internet solely as an alternative distributing channel for printed annual report. The second stage sees the change of using Internet to give report in the form of *browser* and search engine that is ever ready for use anytime. Finally, at the third stage, the company not only prepared standard information like the ones in printed annual report but also provided additional information and interactive tools to analyze the information.

Trites (1999) on the other hand identified that online electronic index reporting gives impact to content, timeliness and format of financial information. Display is an important element in IFR which functions beyond time and boundaries. He added that the use of hyperlink for the purpose of website-based index financial reporting could cause blurring in the boundary between financial information (which most probably prepared based on specific auditing standard) and other corporate information (which is not prepared based on specific unaudited standard).

FASB (2000) also explained IFR term in the context of content and presentation. IFR content means various corporate information such as corporate data which include a part or the whole annual report. On the other hand, information on attainment is not included in annual report like news report or other resources. Conversely, presentation means annual report prepared in the website under the HTML format or *Adobe Acrobat* technology. Annual report could be surfed in the company website through format not available in paper paradigm (eg. hyperlink, graphic animation, interactive, downloader etc.)

Debreceeny et al. (2002) adapted FASB (2000) framework to classify IFR content (IFR-C) and IFR presentation (IFR-P) as shown in Figure 1. According to FASB (2000), in view of content, a website could fill in all the material published by a company in the form of paper together with summarized content or added content. On the other hand, in view of presentation, a website is akin to paper-based report namely text and graphic in statistical form (FASB, 2000) and dynamic which is not applicable in paper-based paradigm like voice and video (FASB, 2000).

Score	IFR-P	IFR-C
3		Full financials & additional information downloadable and/or HTML
2	Dynamic	Full financial downloadables and/or HTML
1	Static	Summary financials downloadable and/or HTML
0	No web site	No IFR

Figure 1. IFR-Presentation and IFR-Content measurement schemes

Source: Debreceeny et al. (2002)

According to Debreceeny et al. (2002) as quoted through FASB (2000, p. 30), IFR is classified into four categories: (1) no financial index is reported in the website, (2) the content in the website is limited and shorter than presented in paper-based annual report, (3) full report in the website and paper-based annual report is parallel, and (4) more content is downloaded in the website which gives more exposure and information compared to paper-based annual report. On other hand IFR presentation is classified into three categories: (1) no website, (2) static presentation which is display in website similar to those in paper-based annual report including text and static graphic, and (3) dynamic presentation which is techniques that are not applicable in paper-based paradigm like hyperlinked visit, voice, video, interactive database etc.

Details on dimensions (content, timeliness, technology and customer support) are explained in Table 3. Chan and Wickramasinghe (2006) filled in and re-assessed all the criteria which are characteristically subjective in determining the criteria of reporting index scoring system. Chan and Wickramasinghe (2006) also added in new criteria to illustrate latest website display. Further explanation on scoring system criteria is explained in Table 4.

Table 3

Criteria Information

Dimension	Criteria Assessed
Content	Measures the type of published financial information, including the availability of company financial statements, interim statements and prior period information.
Timeliness	Measures the timeliness of the financial information provided, such as the availability of press releases or stock price information.
Technology	Examine the extent to which the companies under investigate make use of some of the more advanced features, include refreshment time, moving pictures, graphics, hyperlinks, search engines, and downloading data or mailing lists.
User support	Measure the design and layout of the websites. Measures the adequacy of presentation, the time it takes to access the websites, and the number of 'clicks' necessary to go to certain information items.

Source: Pirchegger and Wagenhofer (1999)

Table 4

Scoring Criteria

Dimension	Criteria Assessed
Content	The extent of their availability on the website includes annual reports and financial summary, shareholding information, shareholders diffusion and glossaries. Indication of audited and unaudited information on the websites, especially for those half yearly and quarterly.
Timeliness	Measure the timeliness of the information provided, such as how regularly share prices are updated.
Technology	Measure the extent to which the company makes use of the more advanced web-based features, such as moving pictures, hyperlinked texts, e-mail feedback, external links, sound files and video presentation.
User Support	Measure the extent of user support offered by the websites includes downloadability formats, choice of colour in the downloadable documents as well as the ability to download full annual reports in the sections, investment calculators, online shareholder services, stock analysis and public announcement.

Source: Chan and Wickramasinghe (2006)

On the whole, various dimensions are used to present IFR index. Overall view has shown that there is no clear stress given on the specific type of IFR dimension among researchers. However most researcher added in related dimensions of content, timeliness, technology and customer support (Pirchegger & Wagenhofer, 1999; Lybaert, 2002; Davey & Homkajohn, 2004; Chan & Wickramasinghe, 2006), followed by content and presentation dimensions (IASC, 1999; Debreceeny et al., 2002; Marston & Polei, 2004; Trabelsi et al., 2004; Xiao et al., 2004; Spanos, 2006; Bonson & Escobar, 2006; Kelton & Yang, 2008; Ali Khan, 2010; Aly et al., 2010). This phenomenon could due to the fact that IFR is information exposure given voluntarily.

As information reported through the Internet render different values. Ettredge et al. (2001a) suggested that researchers use weightage score to measure the quantity of information published in the Internet. For instance, researchers could give 2 points for complete annual report and only one point for partial information. Marston and Shrivies (1991) also explain that if there are a lot of item in an index he expected that weighted score and unweighted score will give the same result. In another words the company samples will give priority by giving the same answer of the reporting index by using weighted score and unweighted score. However, those who have faith in the usage of weightage disclosure index believe that weightage will not significantly change the result (Chow & Woren-Boren, 1987; Wallace & Naser, 1995). Moreover, empirical proves (Spero, 1979; Robbins & Austin, 1986; Chow & Wong-Boren, 1987) did suggest that weighted and unweighted index disclosure are exchangable due to the fact that the end result is the same. On top of that, Adhikari and Tondkar (1992) and Firth (1980) also claim that weighted and unweighted scores show similar result.

Suggestion for a comprehensive disclosure index research framework is based on a broad literature review (IASC, 1999; Debreceeny et al., 2002; Marston & Polei, 2004; Trabelsi et al., 2004; Xiao et al., 2004; Spanos, 2006; Bonson & Escobar, 2006) with disclosure index used to measure the quality of a company website. With regard to that, we believe that content based dimension and presentation are suitable for the purpose of distinguishing IFR standard based on several reasons. Firstly, content and presentation dimensions are the most popular and widely accepted by many researchers (IASC, 1999; Debreceeny et al., 2002; Marston & Polei, 2004; Trabelsi et al., 2004; Xiao et al., 2004; Spanos, 2006; Bonson

& Escobar, 2006; Kelton & Yang, 2008; Ali Khan, 2010; Aly et al., 2010) to measure the quality of company website. Secondly, previous study have shown that content and presentation formats for index disclosure could improve on its reliability (Hodge et al., 2004; Kelton & Yang, 2005). Thirdly, IFR allows alternative broadcasting not needed by regulatory bodies (Ettredge et al., 2002). On top of that, the presentation format could prepare a more reliable disclosure through readability, easy access and comprehensible financial information (FASB, 2000), aid in getting quick information supported by displays of user friendly website (Marston & Polei, 2004), dealing with how information is presented (Xiao et al., 2004), and could improve timing (improvement and frequent exposure) and dependability (able to connect with various other resource like hyperlink (Debrecey et al., 2002). On the other hand, content format could display the type of information reported through the company website (Lybaert, 2002; Xiao et al., 2004).

Based on the previous discussion, we believes that the most suitable content and presentation dimensions to be used are explained through Table 5 and Figure 2 below. Next, we suggests to use unweighted disclosure index. This decision was made for several reason. First, the use of unweighted disclosure index and weighted disclosure index have shown the same result (Spero, 1979; Firth, 1980; Robbins & Austin, 1986; Chow & Woren-Boren, 1987; Adhikari & Tondkar, 1992; Wallace & Naser, 1995; Xiao et al., 2004). Second, Abdelsalam (1999) noted that assigning different weights for different items in the disclosure index may be misleading as the relative importance of each item varies from company to company, industry to industry and time to time.

Table 5

Scoring of IFR Dimension

Dimension	Criteria Assesed
Content	Provide information on the type of information reported through the company's website.
Presentation	Supply information on the usage of the latest display criteria in disseminating corporate information and the company's web design.

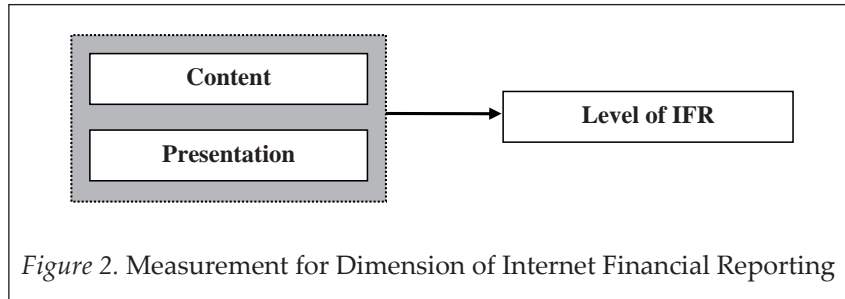


Figure 2. Measurement for Dimension of Internet Financial Reporting

Conclusion

Based on detailed literature review it is seen that there are various definitions and terms used by researchers in representing IFR. Research findings have shown that the term Internet Financial Reporting (IFR) is the most popular among researchers. Next, the researcher has found out a handful of researchers added in comprehensive financial statement set and important financial statement taken from annual report as an enabler for a company to be categorized as one that practices IFR.

On the whole, various dimensions are used to illustrate index reporting for IFR. As the result of this research done on dimensions used in IFR has shown that there are inconsistencies among researchers in representing IFR standard. This leads to difference in research findings which subsequently leads to difficulties in making comparisons between researchers. The findings also reported that no stress is given on a specific IFR dimension among researchers. Even though many researchers added in dimensions related to content, timeliness, technology and customer support (Pirchegger & Wagenhofer, 1999; Lybaert, 2002; Davey & Homkajohn, 2004; Chan & Wickramasinghe, 2006), followed by content and presentation (IASB, 1999; Debreceeny et al., 2002; Marston & Polei, 2004; Trabelsi et al., 2004; Xiao et al., 2004; Spanos, 2006; Bonson & Escobar, 2006; Kelton & Yang, 2008; Ali Khan, 2010; Aly et al., 2010), and timeliness dimension (Ettredge & Gerdes, 2005; Abdelsalam & Street, 2007; Abdelsalam & El-Masry, 2008; Ezat & El-Masry, 2008) in ascertaining the level of IFR. This scenario happens probably due to the fact that IFR is published voluntarily. However based on comprehensive literature review regarding this matter, the researcher found out that little attention is given to study the integration of both main dimension which are first: content and presentation, and secondly, content, timeliness, technology and customer support which need further research.

To study the relationship the firm criteria with corporate attitude, reporting index is build and contemplated as one important research measurement (Marston & Shrives, 1991; Celik et al., 2006). As the starting point since 1990 till to date reporting index is frequently used as the field of study on IFR research. However, a detailed literature review have shown that building in index reporting is not an easy job because it involves the element of subjective evaluation (Marston & Shrives, 1991). Therefore, the discussion in this journal brings forward future important research agenda which is the usage of content and presentation dimension to determine IFR standard. Based on extensive literature review, it could be concluded that a more comprehensive and holistic reporting index using a relevant dimension is needed. Content dimension will reveal information on how to use latest display in disseminating a company corporate information and website design. Then, presentation dimension will supply information on the usage of the latest display criteria in disseminating corporate information and the company's web design.

As the conclusion, it is hopeful that use of content and presentation dimension is constructive for the frame in understanding the level of IFR. Subsequently, the use of unweighted index is able to determine a company level of IFR. Suggestion on the use of content and presentation dimension together with unweighted index reporting is hoped to pave the way in ending the inconsistent use of IFR dimension and reporting index related with IFR research.

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