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Full Length Research Paper

Internet corporate reporting among public listed companies in Malaysia: An exploratory study

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This study examines the utilisation of the Internet for disseminating corporate information among 100 top companies listed on Bursa Malaysia in the year 2007. These companies were chosen based on market capitalisation and relied on website observation and content analysis. An Internet disclosure index of 61 content items was categorised into four major groups: accounting and financial information, corporate governance, corporate social responsibility (CSR), contact details of investor relations and related conveniences. In addition, 26 presentation format items categorised into two major groups: technological features and convenience and usability of website navigation support were used as benchmark. The results indicate that the highest disclosure by the companies accrued for accounting and financial information attributes. The lowest disclosures by companies accrued for technology features attributes. The results show that more than 59% of the Malaysian public listed companies published reasonably well-developed Internet-based reporting and achieved a quality score for Internet Corporate Reporting (ICR). On average, the frequency of the identified items disclosed by the companies for the content of the website was higher than for the presentation of information. Among the six categories identified, technological features theme was considered as a critical part that needs attention from the Malaysian companies. The results also show that most companies provided their full annual reports using Portable Document Format (PDF). However, none of the companies adopt Extensible Business Reporting Language (XBRL) format. Therefore, Malaysian companies are urged to seize more opportunities provided by the Internet technology in preparing their ICR.

Key words: Internet corporate reporting, content, presentation format.

INTRODUCTION

The rapid evolvement in computer and information technology has changed the way businesses are being conducted and the way financial information is being disseminated (Hashim et al., 2010). Increases in labor costs and innovations in technology have contributed to the growth of Internet-based (Chen et al., 2010). The Internet is seen as a communication tool that could reduce the distortion in communication channel and subsequently diminish the tradeoff between reach and richness of information (Perera et al., 2003).The Internet enables companies to prepare their accounts that meet the expectations of various stakeholders without the need to prepare separate reports for each stakeholder (Lodhia, 2004). Hence, it is concluded that the Internet can be used as a medium of disclosure in disseminating high level of quantity and quality information compared to other medium (AICPA, 1994; Wallman, 1995).

Several studies in the Internet reporting literature provide a framework to describe dimensions of ICR (Trites, 1999; Ashbaugh et al., 1999; Financial Accounting Standards Board, 2000). IASC (1999) describes the evolvement of ICR in three phases. In the first phase, companies employ the Internet as a distribution channel for their existing printed financial reports. In the second phase, companies shift their disclosure strategy from mere disclosure of existing

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printed financial reports to disclosing information interactively via Web browsers and search engines. The third phase involves companies preparing beyond the standard information given in a printed report by expanding and improving information that could not effectively be produced in a print format using interactive tools that could analyse the information (Alam, 2009). No doubt that the Internet has the ability to create a closer relationship between the companies and their stakeholders in which the stakeholders could obtain all necessary information for their decision-making purposes (Sriram and Laksmana, 2006). Because Internet Corporate Reporting (ICR) is unregulated and voluntary, firms are free to determine contents and presentation of corporate information. Therefore, the level of ICR varies among countries as well as among firms (Ashbaugh et al., 1999; Ettredge et al., 2002; Debreceny et al., 2002). Some companies made use only a low level of technology for content and presentation, while others use a sophisticated web technology for financial reporting. Malaysian Accounting Standards Board (MASB) has not issued mandatory standards or guidelines for Internet reporting to describe the content and presentation of information on corporate websites. Hence, this study aims to address the quality of the information on the Internet (in terms of content and presentation). Because the Internet has the capability to build a closer association between companies and stakeholders, and stakeholders can obtain all the necessary information for decision making, its usage will continue to increase (Sriram and Laksmana, 2006).

Despite the increasing trend of ICR practices among companies, academic research in ICR is still at its infancy particularly among developing countries such as in Malaysia (Hassan et al., 1999; Mitchell and Ho, 2000; Khadaroo, 2005). Although there are studies in Malaysia that have examined ICR, these studies focused on the website design features and contents for non- public listed companies (Rosli et al., 2003; Othman et al., 2001). A study relating to website design features and contents using public listed companies in Malaysia as the setting has yet to be examined.

Previous studies have suggested that there is a rather heterogeneous use of the Internet as a tool for investor relations strategies and corporate reporting among Malaysian companies in terms of type of information disclosed (Noor and Mohamad, 2000), qualitative nature of ICR (Nik and Amdan, 2001) and benefits of ICR (Salleh et al., 1999).

Studies that were conducted on Internet reporting, however, have not looked into developing a technology that could assist preparers for future implementation of effective ICR. This study aims to examine this issue by developing a disclosure check-list index in determining the level of ICR practices among public listed companies in Malaysia. The score sheet is categorized into two main sections, namely content and presentation. Much of the past research on disclosure quality on the Internet has focused on financial statement and investor relation information. However, this study adopts a comprehensive set of reporting and disclosure on the Internet choices for both financial and non-financial information.

Al Arussi et al. (2009) carried out a study of Internet reporting practices of Malaysia listed companies for financial year ended 2005. They found that 64% of sample (201 Malaysian companies) disclosed more than two financial items out of 24 items that were used to measure the extent of financial disclosures. In addition to this, 25.4% disclosed only one or two financial items, and almost 10% did not disclose any financial information on their websites. Additionally, they found that for environmental disclosure, 58.7% of their sample companies in Malaysia disclosed at least one environmental item out of 34 items that were used to measure the extent of environmental disclosure. However, 41.3% did not disclose any environmental information on their web sites.

At present, ICR is unregulated and voluntary. Companies are free to determine the contents and presentation of their ICR. Of consequence, the level of ICR varies among companies and among countries (Ashbaugh et al., 1999; Ettredge et al., 2002; Debreceny et al., 2002). Some companies adopt low level of technology for content and presentation, while others use a more sophisticated web technology for ICR. Similar to other countries, Malaysian Accounting Standards Board (MASB) has also not issued mandatory standards or guidelines for ICR in terms of the contents and presentation of information on corporate websites.

The International Federation of Accountants (IFAC) has addressed the serious and widespread issue of low credibility in ICR. Such concern has led them to encourage company directors to develop ICR policy in order to ensure disclosure of high quality, transparent and timely information. IFAC (2003) recommends frequent updating of financial information on the corporate web sites. Additionally, as reported in The Edge Malaysia which was published on 3 August 2009, the new requirement under the revised listing rules for Bursa Malaysia's new Main Market which takes effect from August 3 2009 requires public listed companies in Malaysia to practice ICR.

The study reveals that many Malaysian listed companies are ignoring the views of Financial Accounting Standard Board (FASB), International Federation of Accountants (IFAC), and the new requirement of Bursa

Malaysia which was recently published in August 2009 and hence, have a long way to go with respect to enhancing disclosure on their websites. Out of 100 sample firms analyzed in 2007, 78 companies have websites while 6 companies did not have a website and another 16 companies had a website but they did not publish annual reports in the company's website or on the Bursa Malaysia website. Specifically, many Malaysian listed companies clearly have not implemented policies to ensure that the drivers of quality investor communication are incorporated in their websites reporting. Therefore, the findings in this study may promote Malaysian regulators to specify the means by which Malaysian listed companies are to disclose transparent, credible information.

This study aims to identify areas which are in need for improvement in making Malaysian companies more dynamic and internationally competitive. Specifically, this study addresses the quality of information via ICR. This study extends previous studies in examining the contents and presentation of ICR among Malaysian public listed companies. The relative rankings and scores were used to indicate the areas to be improved. The results of this study are useful for regulators and policy setters at national level to comprehend some of the underlying features connected to ICR. The findings would enable companies and also policy makers to identify the areas that have flaws among the companies' ICR and take appropriate actions to rectify the flaws. The need for improvement might involve implementation of corporate wide internal programmes in specific areas or improve disclosure or programmes via the Internet for better understanding. Investors would also benefits from a more comprehensive disclosure of items via ICR. Such disclosure would help investors to reduce the likelihood of making unsound investment decisions. The remainder of this paper is organised as follows. Subsequently, this study reviews the relevant literature on ICR, after which the research methodology is discussed. This is followed by discussion of the results. Finally, conclusions and suggestions for future research are provided.

LITERATURE REVIEW

Ashbaugh et al. (1999) define ICR as companies that provide in their website either (i) a comprehensive set of financial statements (including footnotes and auditors' report) (ii) a link to the company's annual report elsewhere on the Internet or (iii) a link to the US Security and Exchange Commission's (SEC) Electronic Data Gathering Analysis and Retrieval (EDGAR) system.

ICR is deemed to reduce agency cost (Jensen and Meckling, 1976; Chee et al., 1987) which in turn would reduce the cost of capital (Choi, 1973). According to Jensen and Meckling (1976), companies disclose additional information in order to reduce agency conflicts between managers (the agent) and owners (the principal). The greater independence of the agents would indicate that the less likely would the agents be disclosing important information to their principal. Vice versa, the more reliance that the agents have to place on their principal for financing, the more likely that the agents would disclose important information to their principal.

Signalling theory could be used in predicting that high quality companies tend to adopt ICR. As a precursor to signalling theory, Milgrom (1981) and Grossman (1981) propose that companies often disclose favourable information concerning their performance and prospects to their users even though such information is voluntary. This is because non-disclosure would often serves as a signal to users that the content of such information is unfavourable. Lower quality companies may want to maintain a lower profile and would restrict users' access to the companies' accounting information. The use of Internet to disclose information might serves as a signal indicating these companies as high quality companies (Alvarez et al., 2008). It implies that the companies are modern and up to date with the latest technology (Craven and Marston, 1999).

ICR allows dissemination of alternative types of disclosures which are not mandated by the regulatory bodies (Ettredge et al., 2002). This is because the presentation formats and options provided on a company's website may not be available in the traditional hard copy report. Presentation format could provide a more transparent disclosure by enhancing the readability, accessibility, and understand ability of the financial information (FASB, 2000). Hodge et al. (2004) stated that presentation format could affect the manner in which the information is acquired and processed.

Studies in the ICR literature propose that Internet-based technologies provide various presentation formats such as hyperlinks, video and audio files, processable file formats and dynamic graphics (Kelton and Yang, 2005) which could be used to present information more effectively and improve transparency (Hodge et al., 2004). Debreceny et al. (2002) propose that presentation format essentially ranged from the equivalent of the print format of the annual report using primarily Hypertext Mark-up Language (HTML) or PDF of which such features would not be available in the paper paradigm (for example, hyperlinks, animated graphics, interactivity and downloadable spreadsheets).

Thus, investors have several options in terms of the presentation format and the types of information provided via the Internet.

The potential benefits that distinguish ICR from other voluntary disclosure practices are identified in Ashbaugh et al. (1999: 248) as follows:

1. ICR can reduce a company's information distribution cost;
2. ICR is a vehicle by which a company can communicate with previously unidentifiable information consumers;
3. ICR can provide for companies' financial disclosure by supplementing companies' traditional information dissemination practices;
4. ICR potentially allows companies to increase their financial disclosure if the companies disclose disaggregated and incremental financial data on their website (e.g. weekly vs. quarterly sales);
5. ICR can facilitate the dissemination of companies' financial disclosure and it can be retrieved and analysed by diverse decision-makers.

A body of the ICR literature has examined the issue of presentation format in ICR.

These studies examined the various methods of disclosure. For example Debreceny et al. (2002) conducted a website survey using 30 Malaysian companies as their sample study. They found that 7 companies have a static presentation whilst 6 companies have dynamic websites. In terms of the contents, they found 22 companies did not disclose financial reporting via Internet, 3 companies have a summary of financial information and 5 companies have full financial information. They also found none of the companies have provided full financial and additional information in a downloadable form or in HTML.

Barako et al. (2008) analyses 343 of the Indonesian listed companies on the Jakarta Stock Exchange in terms of its ability to communicate via the internet. They found that 63.8% of such firms have websites.

The finding shows that internet communication to external stakeholders of financial reporting data is still not at an optimal level especially in regards to foreign investors that are more likely to use web technology.

Abdelsalam et al. (2007) conducted a study examining ICR among 110 companies listed in London. They found that out of the total mean score of 143 items; there was a minimum of 44 % and a maximum of 86% with a mean score of 66%. Marston et al. (2004) found that the mean score for 53 items of ICR in Germany was 54.91% for 50 companies for financial year ended 2000. Xiao et al. (2004) found that the mean score for 82 items of ICR for 300 companies in China was 25.61 (score ranges from 0 to 49). Marston et al. (2004) found that the mean score for content was 61.93% for 50 German companies for financial year ended 2000. Xiao et al. (2004) found that the mean score for all items (57) for content in the disclosure index was 21 but the score ranges from 0 to 43. Xiao et al. (2004) in their study in China found that the mean score for all items (25) for presentation in the disclosure index was 4.17 (score ranges from 0 to 13). Akhtaruddin et al. (2009) found that the mean score for 74 items of disclosure index for 100 companies in Malaysia was 53% (score ranges from 35 to 76%). In summary, a review of the studies indicates that the level of ICR varies among countries.

METHODOLOGY

Sample

One hundred top companies listed on the Bursa Malaysia for the year 2007 are chosen as the sample study. These companies are chosen based on market capitalisation. The choice of this sample is because of three reasons. First, this study follows previous studies that have used large companies as their sample. Second, this study anticipates that large companies are more likely to have the resources to implement ICR and the failure to do so would likely indicate the consequence of conscious choice. Third, a sample size of 100 companies provides a balance among acquiring sufficient variance for reliable statistical conclusion and the resources available for data collection.

Disclosure information

Following FASB (2000), this study divides disclosure information into two major groups; namely, content and presentation. The content forms a fundamental part of website analysis since a large number of web site users consider the contents as the only criterion for web site evaluation provided that the web site belongs to a reputable, credible, well-known, recognised, trusted or respected source (Tillotson, 2002). Presentation format is also a prime component in making the site easier to use (Calero et al., 2005).

The main foundation of ICR framework in this study is based on the notion of information asymmetry between the management and the owners (Berle and Means, 1932). According to this view, the level of information asymmetry is an important driver of investor uncertainty. Modern companies have adopted various mechanisms including voluntary disclosure to mitigate the adverse effects of information asymmetry (Debreceny et al., 2002). Financial Reporting Standards (FRSs)101, 2005 Presentation of Financial Statements which operative beginning 1 January 2006, set out the overall requirement for presentation of financial statements and guidelines for the structure and minimum requirements for their content.

Disclosure checklist

A disclosure checklist is developed to evaluate the level of ICR. This checklist provides assessment criteria to measure the type of published financial information including the availability of the

Table 1. Number of companies having websites.

Item	Number of companies	Percent
No web site	6	6
Web sites	94	94
Total	100	100

Table 2. Websites disclosing financial information.

Item	Number of companies	Percent
No disclosure of Financial information	16	17
Disclosure of Financial information	78	83
Total	94	100

companies' financial statements, interim statements and prior period information. In terms of web-based content, the companies' websites could include all contents from all materials published in paper form, summary content, or extra content (FASB, 2000). The checklist is adapted from Kelton and Yang (2008), Xiao et al. (2004) and Marston and Polei (2004) and upon modification, the final disclosure checklist has 87 attributes with 61 being attributes for content and 26 being attributes for format).

This checklist is categorised into six major groups being four groups (A to D) for content attributes and two groups (E to F) for presentation attributes. Specifically, (A) represents accounting and financial information with 24 attributes (26%), (B) represents corporate governance with 24 attributes (27%), (C) represents corporate social responsibility (CSR) and human resources information with 8 attributes (10%) and (D) represents contact details of investor relations (IR) and related conveniences with 6 attributes (7%). The presentation format attributes is represented by 26 items categorised into two groups: (E) represents technological features with 15 attributes (17%) and (F) represents convenience and usability of website navigation support with 11 attributes (13%). The presentation attributes comprise 30% of the total 87 ICR score.

Reporting index

This study employs the un-weighted index approach which is similar to Wallace (1988), Cooke (1989; 1992), Abayo et al., (1993), Hossain et al. (1994) and Akhtaruddin et al. (2009). This approach is chosen in this study because it is considered appropriate when no importance is given to any specific user groups (Cooke, 1989; Hossain et al., 1994). The disclosure index for each company is measured by dividing the actual scores awarded by the maximum possible scores relevant for the firm. Consequently, a company could score a maximum of 87 points and a minimum of 0. The formula for calculating the reporting score by using these 87 attributes is as follows:

$$RS = \sum_{i=1}^{87} ri$$

Where

RS = Reporting Score
ri = 1 if the item is reported and 0 if the item is not reported
I = 1, 2, 3...87.

RESULTS

Table 1 shows that 94 companies (94%) have a website that could be accessed and 6 companies did not have websites. The results of this study defer with Hamid (2005) and Noor and Mahamad (2000). Hamid (2005) found that out of 100 public listed companies, 74 (74%) have web sites. On the other hand, Noor and Mahamad (2000) found that out of 222 public listed companies, 200 (92%) have web sites. The different range in percentage of web sites between the two studies could be due to different methodology used in their studies. The study done by Hamid (2005) was based on index-linked companies and was not limited to companies that have a Bursa Malaysia website link. In contrast, Noor and Mahamad (2000) conducted their study based on companies that have a Bursa Malaysia website link. The companies in this study were selected based on 100 top market capitalisation companies.

Table 2 reveals that out of the 94 companies that have website, 16 companies (17%) did not publish their financial information on their website. Those companies that could not be accessed were either "cannot be found "or "object cannot be found", indicating the URL addresses were no longer available or their server was down. Several attempts were made to open these websites within the stipulated time period without success. Consequently, the final size of sample companies' websites under study is 78 (83%). Those companies that have websites but did not publish financial information generally used their websites for advertising, on-line transactions, recruitment, contact information and general corporate information such as mission statement and directors statement. In comparison to previous studies, the results shown in this study indicate high number of companies in Malaysia having websites. Previous studies such as Lymer (1997) found that 60% of the companies with websites. Lymer and Tallberg (1997) found the figure to be closer to 69% and Grey and Debreceny (1997) examined the top

Table 3. Summary statistics of total raw score for ICR (87 Items).

Item	Items	Percent
Sample size	78	100
Maximum score	61	70
Minimum score	34	39
Mean	49	56
Median	49	56

Table 4. Percentage of companies disclosures on total score for ICR.

Median score	Frequency	Percent	Valid percent	Cumulative percent
Below median score	32	41	41	41
Above median score	46	59	59	100.0

50 Fortune 500 companies and found the percentage to be around 68%.

Internet corporate reporting

Here, the main findings for ICR practices in public listed companies in Malaysia are discussed. This is followed by findings for the categories of contents and presentation.

Table 3 highlights the total raw scores of ICR detailed by the sample companies. It is important to note that there is a little variation in the scores of the 78 companies in the sample. On average, the companies scored 56%. The lowest ranked companies obtained ICR Score of 39% and the highest ranked company scored 70%. The results indicate a low level of reporting for ICR among the companies in Malaysia. Further analysis shows that Kulim Malaysia Bhd topped the list for total score on ICR, followed by Telekom Malaysia Bhd and Plus Expressway Bhd. The results in this study are consistent with the results of previous studies that examined hard copy disclosure For instance: Malaysia Campus of Nottingham University Business School (NUBS) in collaboration with the Minority Shareholders Watchdog Group (MSWG) conducted a study on 200 largest public listed companies by market capitalisation as at 29 August 2006. They found Telekom Berhad ranked third by the Corporate Governance reporting score.

The results of this study are somewhat similar to the results shown in previous studies. For example: Abdelsalam et al. (2007) found that out of the total 143 items of ICR for 110 companies listed in London, there was a minimum of 44% and a maximum of 86%, with a mean of 66%. Marston et al. (2004) found that the average mean score for 53 items of ICR in Germany was 54.91% for 50 companies for financial year ended 2000. Xiao et al. (2004) found that the mean score for 82 items of ICR for 300 companies in China was 25.61 (score ranges from 0 to 49).

In further analysing the data, the results show that 52% (41 companies) of the Malaysian companies have scores within the range of 53 to 63%; 28% (22 companies) of the companies have scores of 53 to 57% and 24% (19 companies) of the companies have a scores of 58 to 63%. Only one company has a score of 70%. The results show that no company has a score of 100%. In summary, this study found that a majority of the Malaysian companies (70%) scored more than 50% marks. The results are higher than the results shown in Davey and Homkajohn (2004). Davey and Homkajogn found majority (41%) of Thai companies scored within the range of 40 to 49% marks. The results in Table 4 show that more than 59% of the Malaysian public listed companies published more total items on the Internet than the median score[1]. In other words, 59% across the industries provided reasonably well-developed ICR and achieved a quality score for ICR. Davey and Homkajohn (2004) used the term "well-developed sites" for the quality provided by the companies that scored above 50%. They found that only 22% of the companies scored 50% and above on the disclosure score.

The results in Table 5 indicate the theme of disclosure in 6 attributes. As mentioned earlier, this study categorised A, B, C and D as attributes for contents and E and F as attributes for presentation format. The results indicate that the highest disclosures by the companies accrued for accounting and financial information attributes while the lowest disclosures by companies accrued for technology features attributes. Sixty two companies (79%) disclosed information on accounting and financial whereas only 15 companies (19%) disclosed information on technological features attribute. This study also found inconsistency in the disclosure of

[1] Muller (2000) argues that mean values, traditionally used as a location parameter in the analysis of intercomparisons are known to have lack stability against the effect of “outliers”. It is therefore proposed to replace them by the use of medians which have better statistical “robustness” (Muller, 2000).

Table 5. ICR Contents and presentation.

Attributes	Number of companies	Percentage score
A) Accounting and financial information	62	79
B) Corporate governance information;	45	57
C) CSR and human resources information	46	59
D) Contact detail to IR and related conveniences	44	56
E) Technological features	15	19
F) Convenience and usability of website navigation support	42	54

Table 6. Summary statistics of 61 items of content.

Item	Value (raw)	Value (Percent)
Sample size	78	100
Maximum score	52	85
Minimum score	28	50
Mean	41.55	69
Median	42	69

financial information, adoption of web technologies and user's support features among Malaysian companies. This may be attributed to the absence of specific standard requirement for ICR since ICR in Malaysia is still voluntary. In contrary to the situation in other countries such as the UK and Finland where guidelines for ICR for listed companies are provided. For example: The U.K. listing authority has encouraged the U.K companies to employ the Internet to disclose mandatory disclosures, as well as other important items of information.

Content and presentation

Here, the company's disclosure score for the contents and presentation format items are highlighted.

Content

While the financial content found in companies' websites consists of materials initially disclosed to Bursa Malaysia or in press releases, the companies' Web sites also provide opportunities to further disseminate the information to a wider audience. This study considers four attributes for contents namely, (A) representing accounting and financial information; (B) representing corporate governance; (C) representing corporate social responsibility (CSR) and human resources information and (D) representing contact details of investor relations (IR) and related conveniences.

There have also been proposals suggesting that the British company law should be amended to place even greater emphasis on websites as the primary mean of disseminating information. For example: Department of Trade and Industry (DTI, 2002) has recommended that all company announcements be posted on the company's website as soon as they are released and the annual report must be placed on the website within four months of year end (Abdelsalam et al., 2007).

Table 6 highlights each of the attributes disclosed by the sample companies in this study. The results show that the mean score for all items (61) for contents in the disclosure index as 41.55 (69%), with score ranges from 28 (50%) to 52 (85%). Hence, the average mean score indicates a high level of reporting on contents. The results of this study are consistent with Marston et al. (2004), Xiao et al. (2004) and Abdelsalam et al. (2007). Marston et al. (2004) found that the average mean score for contents was 61.93% for 50 German companies for financial year ended 2000; Xiao et al. (2004) found that the mean score for all items (57) for contents in the disclosure index was 21% while Abdelsalam et al. (2007) found that a mean scores for 74 contents which was 68%.

Further analysis shows that 97% of the Malaysian companies scored within the range of 53 to 85% on the disclosure index for content. Thirty two percent of the companies scored 66 to 72% and 24% of the companies scored 73 to 79% of the total score possible. In this study, only 5% of the companies scored from 80 to 85% of the possible total. Only 3% of the companies scored below than 52%. None of the companies in this study scored 100%.

Presentation

Using ICR, investors have several options to view and the format in which to view them. Thus, this study

Table 7. Summary statistics of 26 items for presentation.

Item	Raw	Percent
Sample size	78	100
Maximum score	16	62
Minimum score	0	0
Mean	7.50	31
Median	8	31

Table 8. Presentation modes of financial information on web pages.

Mode of presentation format	PDF	HTML	PDF and HTML	MS Excel	XBRL
Number Disclosure Annual report	68	5	5	0	0
Disclosure Annual report (%)	87	6	6	0	0

examines whether the companies have provided their annual reports in multiple file formats and whether they have utilised other presentation formats for ICR such as process able formats, dynamic graphic images, and audio and video files.

The presentation criterion addresses the specifics of website design and refers to how easy it is to navigate the site and locate information (that is, ease of use). As shown in Table 7, the maximum raw score for presentation amounted to 16 (62%) of the total possible 26 points. On average, companies obtained a presentation raw score of 7.50 or 31% (score ranges from 0 to 16). The results indicate that many companies in Malaysia do not have comprehensive information in more accessible presentation formats. The results in this study are lower than that found in Marston et al. (2004) where they the mean score for presentation was 44.38% for 50 companies' in Germany for the financial year ended 2000. Xiao et al. (2004) in their study in China found that the mean score for all items (25) for presentation in the disclosure index was 4.17 (score ranges from 0 to 13). The results in this study are inconsistent with Abdelsalam et al. (2007) who found that on average 70% of 69 items were found on London listed companies website**.**

Further analysis shows that 88% of the Malaysian companies scored within the range of 0 to 50% marks; 39% of the companies scored 31 to 40% marks and only 1% of the companies scored 62%. None of the companies in the study have scored 100%.

Presentation attributes constitute 30% of the items for ICR. The most concern presentation is the use of frames (page divided into frames) which was used by 73 companies (94%). Other frequently adopted presentations were graphic images, used by 71 companies (91%). Table 8 shows the format and types of financial information on the Internet. Two formats— PDF and HTML are the predominant formats employed for the provision of financial information. Most companies (68) or (87%) that provided their full annual reports (current year's or past years') on the Internet did so in PDF format. Five companies (6%) used HTML and both formats respectively while none of the companies use other formats such as Microsoft Excel spreadsheets or XBRL format. The results indicate that XBRL which has increasingly been adopted worldwide as a technology product in ICR has yet to be initiated in Malaysia.

The XBRL format which allows easier comparisons of financial information was not found to be used by any company in this study. The use of XBRL makes financial statements easy to prepare and enables them to be published in different formats and exchanged across various technologies (Carey and Forster, 2001; Marshall, 2001). It provides an efficient and reliable means of communicating financial information without changing existing standards or requiring a company to disclose any additional information beyond that in its current financial statements (Khan, 2002).

Kelton and Yang (2005) report that hyperlinks are commonly used in ICR among UK companies as a navigational tool. Similarly, all companies in the sample had low levels of the technological features such as hyperlinks inside the annual report and annual report in HTML and XLS format. On the other hand, Khadaroo (2005) who examined 100 Kuala Lumpur Stock Exchange Composite Indexed Companies in 2004 found that 72% provided links to news releases and 46% provided links to investor relations from the homepage. Based on this comparison, the present study found that convenience and usability of website navigation support for website has improved in recent years. In summary, on average forty three (or 54 %) of the Malaysian firms incorporated convenience and usability of website navigation support in their websites.

SUMMARY AND CONCLUSIONS

The objective of the study is to investigate the contents and presentation of ICR practices among public listed companies in Malaysia. To achieve the objective, this study carried out a website survey of 100 top companies on Bursa Malaysia ranked by market capitalisation. The results indicate that 65% companies in Malaysia disclosed content items, while 28% companies disclosed presentation format. This study also found that among 6 attributes for ICR index the highest and lowest disclosures by the companies occurred for accounting and financial information attribute (65%) and technology features attribute (22%). The diversity of disclosure score on ICR could be due to the companies employing their websites for other purposes other than corporate reporting such as promotion of products and services and advertising. Another reason could be attributed to the lack of uniformity regarding the purpose of using the Internet.

ICR has become one of the vital elements in ensuring quality reporting. Investors and other stakeholders are depending on ICR in order to make informed decisions by relying on voluntary information disclosed via the Internet. It is therefore hoped that the ICR scores identified in this study would be able to add value to the invertors' decision-making process. Standard and Poors (2004) found that most companies in Malaysia still fell short of global disclosure practices and the findings in this study reinforce their viewpoint. In other words, there is still an inadequate disclosure of corporate reporting which is mandatory under the Bursa Malaysia listing requirements, let alone other voluntary information pertaining to matters such as corporate social responsibility on the websites.

The results in the current study reveal that many Malaysian listed companies are ignoring the views of FASB, IFAC and the new requirement of Bursa Malaysia and these companies have a long way to go in enhancing information disclosure on the websites. Specifically, many Malaysian listed companies clearly have not implemented policies to ensure that the drivers of quality investor communication are incorporated in their websites reporting.

Therefore, the findings in this study may promote Malaysian regulators to specify the means by which Malaysian listed companies are to disclose transparent and credible information. Among the six categories, technological features themes are considered as a critical part that needs to be given attention by the Malaysian companies. Presentation format can provide more transparent disclosure by enhancing the readability, accessibility and understand ability of financial information (FASB, 2000). Hodge et al. (2004) state that financial disclosure format can affect the manner in which information is acquired and processed. The presentation formats include the latest developments, namely, webcasts (sound file and video file), to present disclosure on the Internet. Only 9 companies (12%) adopt webcasts as their presentation format on their websites.

This study indicates that the variety of information in the context of corporate reporting on the Internet is wide. In Malaysia, there is no exact framework defining what supposed to be disclosed on companies' websites in relation to corporate reporting. The main implication of this study is: as an analytical tool, where the companies may employ the index to determine whether the elements listed are actually disclosed. And if they are not, the companies may employ the information to assess the reasons behind non-disclosure. Presentation formats varied from HTML or PDF to hand written statements scanned onto the websites. This implies that some companies powerfully believe and support the idea of user friendly corporate reporting. None of the companies in this study however, mentioned the use of XBRL as a corporate reporting language that may be employed in the future.

Furthermore, some companies have adopted Internet's technical capabilities of promoting a better interface than hard copy. Other companies that may have recently adopted the Internet as a medium of corporate reporting are employing only the fundamental capabilities of the Internet.

Companies may compare different interfaces to select the ones best suited to present quality corporate reporting to their users. Companies may want to take steps to increase users' confidence in the quality of information presented on websites. This may include verification from third parties such as Web Trust to provide a rating for the quality of the company's website. Companies can use the observations made in this study to develop bench mark of best practices regarding disclosure on the Internet. ICR has various aspects as defined in this study. Companies can study these aspects that they have not identified and include these aspects in their websites. The companies could also identify their weaknesses in ICR and use examples provided by best practices to improve their ICR.

The results of this study are constrained by several limitations. Therefore, generalisations of the findings should be made with caution. The fact that this study covered only one year period of annual reports (2007) could lead to potential bias in the results. Therefore, there is a need to conduct similar study that covers more than one year period of annual reports. Furthermore, the sample consists only on top 100 companies. The

exclusion of small sample size companies limits the power of the tests for differences across different market capitalisation. For this reason, it is necessary to combine large companies with small companies for future analysis.

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