

Web-Based Investor Relations Practices in Malaysian Listed Companies

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Abstract: The purpose of this study is to provide a detailed descriptive account of web-based investor relations (WIR) practices amongst non-financial companies listed on the Main Market of Bursa Malaysia. The extent of WIR was measured using an innovative disclosure checklist (known as WIR Index) consisting of 152 items overall, 102 for content, 33 for design, 7 for timeliness and 10 for interactivity information items. The result from 258 non-financial companies suggests that the extent of WIR is still limited. The mean for overall WIR disclosure is 40%, and 41%, 42%, 33% and 23%, respectively, of the WIR content, design, timeliness and interactivity dimensions items. The high degree of variation in the overall WIR and its dimension and lower score of the overall WIR disclosure items, indicates lack of corporate website usage for investors relations (IR) communication. The findings of this study could shed light on the extent of WIR practices and also provide an update on the current use of corporate websites for IR communication amongst non-financial listed companies in Malaysia. Hence, the findings should be useful to regulators and policy-makers to better understand and improve overall WIR practices by listed companies in Malaysia.

Keywords: Communication, Disclosure, Investor Relations, Web-Based Investor Relations, Malaysia

Introduction

With the advancement in communication technology via the Internet and the World Wide Web (the Web), attention has been drawn to the Web as a communication medium for public listed companies. Hindi and Rich (2010) describe the Internet as one of investors' most frequently used sources of information, and many companies have been reporting all or part of their financial information on websites. Although investor relations (IR) activities on the Internet only came into existence in 1990s, its practice is seen as a growing trend due to its

ease of use and wide scope of reach to investors and analysts globally. IR Global Rankings (2013) considers IR website as the first intuitive resource for most people seeking information about a company and also the main communication channel used by companies to interact with the capital markets universe. This implies that IR via the Web has become widely acknowledged as an innovative way of communicating business and financial information particularly to the investment community. Importantly, the use of the Internet technology would enhance the efficiency of capital markets through the availability of timely, frequently, and relevant financial information to the investment community (FASB, 2000). Jiang et al. (2009) argue that the use of the Internet is not only able to facilitate timely information disclosures but also allow for greater transparency that can help to improve investor perceptions. Although the Internet is considered as an addition to traditional communication channels, its importance as an IR tool appears to have more immediate impact than the traditional means of reporting. Indeed, web-based reporting can be regarded as an effective marketing method of a company to shareholders and investors (Dolinsek et al. 2014) and served as a tool that can assist firms in raising capital internationally (Ghanem and Ariff 2016). With effective delivery of corporate information and communication over the Internet, this dynamic medium is perceived as able to convince investors and enhance confidence in the company.

The purpose of this study is to provide a detailed descriptive account of web-based investor relations (WIR) practices amongst non-financial companies listed on the Main Market of Bursa Malaysia. WIR deserves special attention in emerging markets like Malaysia mainly because the information on the Web is highly likely to influence investors in making decision on their potential investments. The findings of the study could shed light on the extent of WIR in Malaysian context and also provide an update on the current use of corporate websites for IR amongst non-financial listed companies in Malaysia. Also, the findings would be useful to regulators and policy makers for them to assess the current WIR practices by non-financial listed companies in Malaysia. This is particularly important in the context of developing countries like Malaysia due to globalization and the need to access capital requires that companies to disclose more information to attract investor funds.

The remainder of this paper is structured as follows. The next sections provide the relevant literature review on investor relations, outline of the research design and discussions of the analyses and findings. Conclusion, limitations and suggestions on how the study could be extended are set out in the final section.

Investor Relations

The need to compete effectively for investment funds has become increasingly important for public listed companies. The companies therefore need to create a consistent and credible corporate story, interact openly with investors, and effectively communicating strategy, management and performance to the market to promote investors' confidence. In this context, IR function plays an important role in engaging in activities with investors and analysts that include voluntary information disclosures, competition for analyst coverage, and interactions with investors for the purpose of expanding the shareholder base (Hong and Huang 2005). As suggested by Vlittis and Charitou (2012), IR professionals need to communicate openly with the investment community and this does not only involve issuing prompt press releases, responding to investors' and analysts' inquiries, arranging teleconferences and private meetings with investors but also developing websites. By taking advantage of the unique features of the Internet, companies can further influence the capital

market participants including investors and analysts to use corporate websites to obtain the information they need. As Epping and Wilder (2011) suggest, IR pages of a corporate website serve to promote investment in the company and provide current investors with company specific financial and non-financial information. Lee and Joseph (2013) argue that companies with high quality of voluntary financial and performance information on their website are perceived as more accountable, open, and trustworthy by the public.

Furthermore, Laskin (2009) and Kelly et al. (2010) argue that IR is changing from mere financial reporting to a relationship building activity that requires two-way communication. In this context, the Internet can be used as an alternative means of implementing traditional IR two-way communication activities (such as telephone conference calls). Kuperman (2000:147) argues that “the Internet can substantially change how a firm communicates with the investment community stakeholders in terms of both its one-way communication efforts directed at information dissemination and its two-way communication efforts directed at interactive dialogue”. This is particularly relevant as the Internet technology offers more options for richer media that can enhance two-way IR communication quality of companies. As argued by Alvarez et al. (2008), the traditional forms of corporate communication are unidirectional compared to internet communication which is multidirectional in nature and very fast in transmission. The Internet facilitates interaction between management and stakeholders through the use of email option, forums, and video conferencing, that were not possible before. Interestingly, some companies have moved further to change the way they communicate corporate information and this includes innovative practices such as discussion groups and social media (blogs, Facebook and Twitter) (Bonson and Flores 2011; Alhtaybat and Al-Htaybat 2016; Manetti and Bellucci 2016). Thus, with the use of these new mediums of communication interactive dialogue between investment community and company becomes possible. Importantly, such technological innovation has created new reporting and communication options for corporate IR.

Research Design

Sample and Data Collection

Referring to Table 1, the sample initially includes the top 300 companies listed on the Main Market of Bursa Malaysia (by market capitalization as at 31 March 2015). However, 39 financial and banking companies are excluded from the sample since these companies have different reporting and legal requirements as well as different disclosure practices that are subject to certain rules of Central Bank of Malaysia compared to other companies in other sectors (Hashim and Saleh 2007; Buniamin et al. 2008; Ali Khan and Ismail 2011; Ali Khan and Ismail 2014). Furthermore, three companies are excluded from the sample due to being delisted during 2015. The final sample consists of 258 companies.

Table 1

Summary of sample companies for survey

Details	Total
Top 300 companies listed on the Main Market of Bursa Malaysia (by market capitalization as at 31 March 2015)	300
Subtract:	
Financial and banking companies	(39)
Companies delisted during 2015	(3)
Companies with websites that are under construction or could not be opened (inaccessible)	-
Companies with no website	-
Final sample	258

Based on the final sample of 258 companies, the survey of the corporate websites was carried out between end of October 2015 and middle of December 2015 by the researcher. The websites were located using Bursa Malaysia website, and alternatively the Google search engine. The survey shows that all the 258 companies have websites, and these websites were accessible as at the time of visit for collection of data. Also, from the survey, it was evidenced that all the websites have a specific IR section under the title '*Investor Relations*', or equivalent title such as '*Investors and Media*', '*Investor Centre*', '*Investors*', '*Investor and Governance*', '*Investor Information*', '*Investor and News*', '*Investor Link*', '*Shareholders' Corner*', '*Financial Information*', and '*Financial*', except nine websites (Parkson Holdings, KSL Holdings, Tasek Corporation Berhad, Keck Seng Malaysia Berhad, SHL Consolidated Berhad, Hup Seng Industries Berhad, Shin Yang Shipping Corporation Berhad, WTK Holdings, Perusahaan Sadur Timah Malaysia Berhad). These companies however, do provide information related to IR in other sections under the title '*About Us*' or '*Company Information*'. Generally, this shows the importance of providing IR-related information via corporate website to address the needs of the investment community.

WIR Index and Scoring Scheme

In this study, the extent of WIR is measured by a disclosure index (known as WIR Index). The initial step in constructing the index is to develop a disclosure checklist. Items in the checklist were based on an extensive review of prior web-based disclosure studies in Malaysia (Hamid 2005; Hamid and Salleh 2005; Al Arussi et al. 2009; Ali Khan and Ismail 2011) and also other countries (Geerings et al. 2003; Davey and Homkajohn 2004; Marston and Polei 2004; Bollen et al. 2006; Celik et al. 2006; Abdelsalam and Street 2007; Abdelsalam and El-Masry 2008; Abdelsalam et al. 2007; Kelton and Yang 2008; Aly et al. 2010; AbuGhazaleh et al. 2012; Alali and Romero 2012; Boubaker et al. 2012; Samaha and Abdallah 2012; Samaha et al. 2012; Yanjie and Wan 2013; Mendes-Da-Silva and Onusick 2014).

The checklist was then validated by academics and practitioners in the areas of accounting and IR, respectively. Specifically, five academics (local and international) and two IR department heads of Malaysian non-financial listed companies were involved in the review of the WIR index items. Their knowledge of corporate disclosure issues and IR practices is particularly relevant in the context of this study to ensure that the WIR checklist items are relevant to IR practice in general and Malaysia in particular. Expert judgement therefore is important to ensure the validity of the WIR index. The WIR index has been refined after receiving feedbacks and suggestions from the academics and IR department heads concerned.

The final WIR index consists of 152 items divided across four main dimensions: content (102 items); design (33 items); timeliness (7 items); and interactivity (10 items). The nature of each of these four dimensions is described as follows:

Content

Content is regarded as the most important category of IR websites as information is what users are looking for. According to the UK Investor Relations Society (2013), the website content should be clear, unambiguous, timely, and relevant to the needs of existing and potential investors of both private and institutional. Also, as emphasized by the IR Global Rankings (2013), the IR websites should be able to attend to the needs of existing and future investors in a proactive way and ensure that this valuable and useful resource of communication is not used as a mere library of information. Specifically, Chau and Gray (2010) and Ho and Taylor (2013) argue that strategic and financial types of information have decision relevance to investors while non-financial information is directed more toward a company's social accountability and targeted at a wider range of stakeholders than the owners or investors.

In consideration of the above arguments and following prior web-based reporting studies (Hanafi et al. 2009; Alali and Romero 2012; Boubaker et al. 2012; Samaha et al. 2012), the IR content is further categorized into financial and non-financial information. The financial information includes accounting reports (annual reports, quarterly financial statements and financial highlights), shareholdings, share and dividend information. On the other hand, the non-financial information includes corporate information (company profile, board and senior management team), shareholder information, corporate governance, corporate responsibility and other relevant information. Importantly, the assessment of non-financial information disclosure on corporate websites is seen positively as supportive of investor decision-making and providing investors with greater transparency.

Design

It is important for companies to have a proper design and user-friendly navigability to facilitate easy access to specific sections of a corporate website. Providing detailed content is of little use if users cannot find the information or data they are looking for. Importantly, the ease of access to information may encourage the users to return to the companies' website, thus, improve the companies' dissemination of information (Hanafi et al. 2009). In this study, it is proposed that companies' IR website design is measured based on two categories of attributes, usability and accessibility, and navigability. Examples of items include number of languages, availability of printable page, download support and hyperlinks for usability and accessibility attributes; built-in search features such as on-site search engine and sitemap for navigability attribute. The consideration of these attributes for assessing website design is consistent with a number of prior web-based reporting studies (Marston and Polei 2004; Abdelsalam et al. 2007; Hanafi et al. 2009; Samaha and Abdallah 2012; Samaha et al. 2012).

Timeliness

According to Louwers et al. (1998) a company website can be considered to be of high quality if the site is able to anticipate users' information needs not only in terms of breadth, depth and frequency but also timeliness. It is important for companies to keep their IR website up to date as users including institutional investors, individual investors and analysts are likely to depend on the website for immediate or latest news of corporate events. This is particularly relevant when companies post or update significant information over the website as soon as

they have it. It is also easier for companies to update the relevant information through their website than printed reports (Beattie and Pratt 2003). Moreover, paper-based reports may not always be as timely and accessible as some stakeholders may wish (Lodhia et al. 2004). Thus, corporate websites are expected to be kept updated in order to reflect not only the changes of the companies' financial information but also non-financial information in a timely manner.

In this study, it is proposed that IR website timeliness is measured using a number of attributes. These include date information on the latest update of website and IR information, email alerts, RSS content feeds and share price ticker bar. These items are consistent with a number of prior studies that specifically assessed the timeliness of web-based corporate disclosure (Abdelsalam and Street 2007; Abdelsalam and El-Masry 2008).

Interactivity

The Internet has a unique interactive feature that is able to integrate components and activities of IR to facilitate interactive communication. Xiao et al. (2002) argue that the Internet is capable of supporting not only one-way but also two-way and multi-way communications as well as the development of highly interactive applications. According to Johnson (1997:212), interactive can be described as "technologies that allow the user to control the flow of information, allow two-way communication between the communications practitioner and the receiver, or both". In this respect, it is worth noting that utilizing an IR function via corporate websites involves more than reporting information in online form and one-way communication. With advancements in web applications more interactive tools such as social media can be used for establishing interaction and dialogue between a company and its investment community stakeholders. Hence, an investigation on the extent of web IR interactivity will provide insight into the use of interactive tools to support corporate messages amongst non-financial listed companies in Malaysia.

In consideration of the above arguments, this study proposes that WIR interactivity dimension to include not only interactive analytical tools but also technology features that can facilitate two-way communication. These include the use of interactive stock chart, investment calculator, online feedback option and also social media such as Facebook, Twitter and YouTube as well as blogs. Although a number of previous studies have assessed the use of interactive features of the Internet in online reporting and IR activities, the focus was mainly on items such as webcasts, email alert services, email option to IR department, and online participating in meetings (Allam and Lymer 2003; Geerings et al. 2003; Bollen et al. 2006; Aly et al. 2010; AbuGhazaleh et al. 2012; Bozcuk et al. 2012). Hence, the use of a new attribute or element such as social media in this study can be considered, in part, to be an update to previous web-based reporting and IR studies. Importantly, the use of the social media tools is seen as able to complement existing IR communications channels amongst non-financial listed companies in Malaysia.

The WIR disclosure index provides assessment criteria to measure four dimensions of WIR, first, the content that includes financial and non-financial information; second, design; third, timeliness; and fourth, interactivity. Such a detailed assessment is expected to provide better variability in the companies' WIR practices. Based on a descriptive overview of the use of corporate website for IR, the data collected using the checklist will be utilised to examine cross-sectional variation in the level of WIR disclosures amongst the non-financial listed companies. In this study, unweighted approach is employed to assess the disclosure index. Using this approach, each item of disclosure is scored on a dichotomous basis taking the

commonly used approach of giving the item a score of 1 if it is disclosed and 0 if it is not, subject to the applicability of the item concerned (Bollen et al., 2006; Ghazali and Weetman, 2006; Abdelsalam et al., 2007; Al-Htaybat, 2011; Alali and Romero, 2012; Boubaker et al., 2012; Bozcuk, 2012; Samaha and Abdallah, 2012; Samaha et al., 2012; Bowrin, 2015). The scores for the overall WIR and its dimensions are calculated by assigning equal weightings to each item of disclosure, and the indices are derived by computing the ratio (proportion) of actual scores awarded to the maximum possible score attainable for items that were applicable to each company. The WIR index, calculated for each company, is mathematically represented as:

$$\text{WIR} = \frac{\text{Actual number of disclosed items}}{\text{Maximum possible disclosure items}}$$

where WIR disclosure index being categorized into: WIR total, WIR content, WIR design, WIR timeliness and WIR interactivity. These indices are calculated separately for each company of the sample.

The Reliability of WIR Index measures

The reliability of the WIR index utilized in this study was tested using Cronbach's coefficient alpha. Hair et al. (2010) consider a value of 0.7 or above as an acceptable level for Cronbach's alpha measure, and this acceptable level is often cited in disclosure studies. The Cronbach's alpha tests for WIR total, content, design, timeliness and interactivity generated scores of 0.8424, 0.8614, 0.8830, 0.8970 and 0.8902, respectively, suggesting an acceptable level of internal consistency in the results of the WIR disclosure index.

The following section presents the descriptive statistics of the overall WIR and its dimensions, and also describes the extent of WIR practices by the sampled companies.

Findings and Discussions

Descriptive Statistics

Table 2 presents the descriptive statistics for the overall WIR (total) and its dimensions (content, design, timeliness, and interactivity). The results indicate a high level of cross-sectional variation in the overall WIR disclosure amongst the surveyed companies, with the minimum scoring website showing only 0.12 (12%) of the WIR index checklist items and the maximum scoring website showing 0.71 (71%) of the items. As indicated by the mean scoring website of 0.40 (40%), the companies show a relatively low level of overall IR disclosures on the websites. For the WIR dimensions, the statistics shows that, on average, items of WIR design (42%) are most commonly found at the websites, followed by WIR content (41%). In comparison with WIR design and content items, WIR timeliness items are less prevalent at the websites with the mean website score of 0.33 (33%). As indicated by the mean website score of only 0.23 (23%), items of WIR interactivity are the least prevalent at the corporate websites

Table 2

Descriptive Statistics of WIR (total) and its Dimensions

Dimension	Mean	Std. Dev.	Minimum	Maximum
WIR total	0.4001	0.1254	0.12	0.71
WIR content	0.4147	0.1396	0.10	0.74

WIR design	0.4200	0.1240	0.16	0.78
WIR timeliness	0.3264	0.1812	0	0.71
WIR interactivity	0.2302	0.1684	0	0.70

Generally, the results indicate that while there are large variations amongst the sampled companies, these indices and their ranges suggest that the overall WIR disclosure level is relatively low, implying that investment community in Malaysia may need to search for information outside of the corporate websites. In this context, the lack of voluntary IR-related disclosure on the companies' website could be attributed to the absence of encouragement and pressure from both market regulators and shareholders.

The results in Table 3 indicate that 196 companies (76%) score below 50% of the WIR total index items. Only 62 companies (24%) disclosed 50% or more of the WIR total index items. Furthermore, only two companies have WIR total scores in the range of 70% - 80%. These two companies are Sime Darby Berhad and Malaysia Airports Holdings Berhad with WIR total score of 71% and 71%, respectively. With regard to the WIR content dimension, 181 companies (70%) disclosed below 50% of the content items while 77 companies (30%) score 50% or more of the items. However, only four companies have WIR content scores in the range of 70% - 80%, namely, Sime Darby Berhad, IHH Healthcare Berhad, Malaysia Airports Holdings Berhad and Hartalega Holdings Berhad with scores of 74%, 71%, 72% and 73% respectively. The WIR design dimension has 183 companies (71%) disclosing less than 50% of the design items while 75 companies (29%) disclosing 50% or more of the items. Similarly, only four companies have WIR design scores in the range of 70% - 80%, namely, Malaysia Airports Holdings Berhad, Boustead Holdings Berhad, UEM Edgenta Berhad and Prestariang Berhad with scores of 75%, 78%, 72% and 72%, respectively.

Table 3

Frequency of Overall WIR and its Dimensions

WIR index score (%)	WIR total		WIR content		WIR design		WIR timeliness		WIR interactivity	
	Number of companies	%	Number of companies	%	Number of companies	%	Number of companies	%	Number of companies	%
100	0	0.0	0	0.0	0	0.0	0	0	0	0
90-99.9	0	0.0	0	0.0	0	0.0	0	0	0	0
80-89.9	0	0.0	0	0.0	0	0.0	0	0	0	0
70-79.9	2	0.8	4	1.6	4	1.6	11	4.3	6	2.3
60-69.9	17	6.6	26	10.1	14	5.4	15	5.8	7	2.7
50-59.9	43	16.7	47	18.2	57	22.1	47	18.0	13	5.0
40-49.9	59	22.9	59	22.9	68	26.4	17	6.6	37	14.3

30-39.9	74	28.7	66	25.6	70	27.1	6	2.3	38	14.7
20-29.9	53	20.5	44	17.1	40	15.5	145	56.2	54	20.9
10-19.9	10	3.9	12	4.7	5	1.9	15	5.8	75	29.1
0-9.9	0	0.0	0	0.0	0	0.0	2	0.8	28	10.9
Tota l	258	10.0	258	10.0	258	10.0	258	10.0	258	10.0

The WIR timeliness dimension has 185 companies (72%) disclosing below 50% of the timeliness items while 73 companies (28%) disclosing 50% or more of the items. Interestingly, this dimension has the highest number of companies (i.e. 11) that scored in the range of 70% - 80%. These companies are Digi.Com Berhad, QL Resources Berhad, KPJ Healthcare Berhad, My E.G. Services Berhad, GD Express Carrier Berhad, Tan Chong Motor Holdings Berhad, ZHULIAN Corporation Berhad, Ekovest Berhad, APM Automotive Holdings Berhad, Sarawak Plantation Berhad and Protasco Berhad, with each having score of 71%. However, most of the sampled companies (56%) scored in the range of 20% - 30% which reflect the lack of timely IR-related information being provided and updated on the corporate websites. In comparison with the other three dimensions WIR interactivity has the least number of companies (only 26) that disclosed 50% or more of this dimension items. Only six companies have interactivity scores in the range of 70% - 80% and these companies are Tenaga Nasional Berhad, Sime Darby Berhad, Digi.Com Berhad, Westport Holdings Berhad, Malaysia Airports Holdings Berhad and Sunway Berhad with each having score of 70%. In addition, 90% of the sampled companies have scores below 50% of the interactivity items which indicate the lack of interactivity elements on the companies' website.

With the high degree of variation in the overall WIR and its dimensions, and also with most of the companies' scores below 50% of the disclosed items, as shown in Tables 2 and 3, respectively, indicates the lack of corporate website usage for IR activities particularly for communicating information to investors. Importantly, the findings of the current study could shed light on the extent of WIR in Malaysian context and also provide an update on the current use of corporate websites for IR amongst non-financial listed companies in Malaysia. A further analysis was carried out based on descriptive analysis of the sub-dimensions of the WIR disclosure index. Specifically, the extent of WIR of the sampled companies is demonstrated by examining items of each of the WIR sub-dimensions. The results are discussed below:

WIR content

The WIR content dimension consists of 102 checklist items classified into two main categories, namely, financial and non-financial information. Specifically, financial information of WIR content includes the following composite categories, each category further comprising a number of individual elements or attributes: Accounting Reports, Shareholdings, and Share and Dividend Information. On the other hand, non-financial information consists of the following composite categories, each category further including several individual elements: Company Information, Shareholder Information, Corporate Governance, and Corporate Responsibility.

Accounting reports

Accounting and financial information is considered as an essential component of any corporate website. Users particularly the investment community can obtain information or reports about companies' financial performance including interim and annual financial statements via the companies' website for their preliminary research. The Bursa Malaysia listing requirement requires that a listed issuer's website to contain announcements made to Bursa Securities including periodic financial statements and annual reports. The results show that in line with the listing requirement, majority (over 95%) of the surveyed companies disclose quarterly and annual reports on their website. Specifically, the current and past annual reports are available at 256 (99.2%) and 251 (97.3%) websites, respectively. While both the current and past quarterly reports are presented at 247 (95.7%) websites. In contrast, information on companies' financial highlights/summaries such as financial performance figures, gearing ratios and other financial statistics is less common, with 134 (51.9%) companies having such information on their website. With regard to excerpt or summary of current and past financial statements including statements of financial position, profit or loss, changes in equity and cash flows, less than one-third (33.3%) of the surveyed companies provide these reports on their website. In this regard, notes to the excerpt or summary of current and past financial statements appear to be the least disclosed information, with two (0.8%) and three (1.2%) websites, respectively, having such information.

Shareholdings

Regarding shareholdings analysis data, many of the surveyed companies did not publish this information on their website. The most common shareholder data is the number of shares issued, with 87 (33.7%) websites having such information. In addition, 57 (22.1%) of the surveyed companies provide number of shareholders data on their website. While 54 (20.9%) websites publish size of shareholdings data, only 7 (2.7%) websites provide classification of shareholdings based on category of shareholders, namely, individuals, corporate bodies (banks/finance companies, investment trusts/foundations/charities, industrial and commercial companies), government agencies/institutions, nominees and others. Furthermore, only 16 (6.2%) websites publish foreign shareholdings data and 29 (11.2%) websites disclose directors' shareholdings information. With regard to information on substantial shareholders (5% and above) and top thirty largest shareholders, the data is presented on 52 (20.2%) and 67 (26%) websites, respectively.

Share and Dividend Information

Share information is an essential aspect of the IR section of a website. Majority (70.2%) of the sampled companies provide stock name and trading code to help investors have clear identification of the traded shares on a particular stock market. Share price information including current price, day's range and current trading volume are also commonly made available, present at 52.7%, 50%, and 51.6% of the surveyed websites, respectively. Similarly, historical share price performance/stock trends (graphs) are available at 50% of the websites. On the other hand, information on 52 weeks range share price, historical share prices, historical share trading volumes and share price performance against benchmarks such as the markets (indices) and/or the sector are less common, present at 37.6%, 35.3%, 34.5% and 11.2% of the surveyed websites, respectively. These low percentages may be attributed to

companies assuming that the information is commonly available and also free of charge at other third-party websites such as the financial and stock investment portals. In term of dividend information, majority (87.6%) of the sampled companies have current and/or past dividends (dividend payment history) information in their website.

In the current study, survey on the IR content of corporate websites also includes a range of non-financial information such as company information, shareholder information, corporate governance and corporate responsibility. The results are discussed below.

Company Information

A range of corporate profile/overview features are commonly made available on the surveyed websites. In this regard, all 258 sampled companies provide description of their business activities (nature of business). Other corporate profile information commonly presented by the companies include corporate history/milestones, stock exchange listing(s), corporate structure, and awards and recognitions, which are available at 93%, 97.7%, 66.3%, and 77.1% of the websites, respectively. In contrast, only 38% of the companies under survey provide an overview of industry/sector such as information on issues relating to a particular industry/sector, market growth, and future challenges. Other company information includes vision, mission, and organization chart, which are available at 59.7%, 54.3% and 7.4% of the surveyed websites, respectively.

Regarding the board and senior management team information, of the surveyed websites, 243 (94.2%) companies display their directors' names, 150 (58.1%) display their photos and 185 (71.7%) provide detailed director biographies, while only 120 (46.5%) companies present their senior management members' names, 84 (32.6%) display their photos and 63 (24.4%) provide the management team biographies. The companies also present directors' (including chairman) and management members' speeches/messages, being available at 62 (24%) and 49 (19%) websites, respectively. In term of the board and senior management interviews, only 4 (1.6%) websites provide board of directors' interviews and 18 (7%) websites present senior management interviews, which are available in audio/video form. The speeches/messages and interviews are important in adding value and building investors' confidence as such information helps to further explain the company, its strategy and vision and also the right mix of people and skills to deliver strategy.

Other information includes head/corporate office contact details, company secretary and auditors, which are available at 99.6%, 54.7% and 41.1% of the surveyed websites. In general, the findings suggest that most of the surveyed companies do utilize their corporate website to disseminate general information relating to company profile, the board and senior management.

Shareholder Information

A number of shareholder information elements are analyzed in this study. Nearly all surveyed websites (98.1%) contain announcements made to stock exchange, Bursa Malaysia. Also, majority of the sampled companies provide information concerning annual general meeting (AGM) such as notice (and agenda) of the meeting (88.8%) and results of the meeting (88%) on their website. In contrast, only 3.1% of the surveyed companies provide proxy form on their website. Also, with regard to minutes and presentation slides of AGM, fewer companies have this information on their website. Specifically, 17.8% provide the former and 10.9% the latter. In addition, very few companies (1.2%) provide transcript of questions and answers (Q&A) from AGM. Similarly, only three websites (1.2%) offer webcast (audio/video) of AGM.

This shows that the surveyed companies generally do not use webcasts to provide access to the AGM presentations. Importantly, by making webcast available on the websites, companies are able to offer broad access to the AGM presentations to wider audience particularly individual investors who might not be able to attend the meeting.

With regard to analyst briefings/results presentation, the sampled companies present this information in a number of forms, including presentation slides, transcripts, webcast and another audio/video file such as podcast and video. 22.9% of the companies provide the analyst briefings/results in the form of presentation slides while only 0.4% presents the briefings/results in transcript of presentation including question and answer session. Although multimedia features such as webcast (audio/video) and other audio/video file can provide broad access to investor-related information and presentations, very few companies use these technological features on their website. Both webcast and other audio/video file of analyst briefings/results presentation are offered on the websites only by three companies (1.2%). Similarly, presentation slides, webcast (audio/video), and other audio/video file of other IR-related presentations/meetings (including roadshows, conferences, forums and investment presentations) are offered at 9.3%, 0.4%, and 1.2% of the websites, respectively.

Another commonly presented item within the shareholder information is circulars/notice to shareholders, which is available at 221 websites (85.7%). In addition, nearly half (48.4%) of the surveyed websites provide press releases which contain information on financial results (annual, interim and preliminary reports), meetings (extraordinary and annual general meeting), and other corporate news that may interest investors. In general, this indicates that the surveyed companies are using the website as a medium to disseminate information in press or news releases form. Also, of the websites under study, 57.4% present newspaper clippings that can be used to inform investors on the development and current issues of the companies.

Contact details, including email address and/or telephone number for share registrar and IR-related matters (for investor enquiries or issues) are available at 47.7% and 70.9% of the websites, respectively. In addition, 55.8% of the surveyed websites feature name of IR contact person. The findings also suggest that listed companies in general choose to present little additional IR information on their corporate websites. The survey shows that less than one-third of the websites provide IR/shareholders' communication policy (23.3%), analyst listings/coverage (26.7%), analyst report (17.8%), financial calendar (28.3%), and shareholder newsletter/fact sheet /updates (19%). In addition, very few companies provide corporate event calendar (2.7%) and 'frequently asked questions' (FAQs) section (9.3%) for investors particularly private investors. The FAQs section that include questions and information related to business activities or involvement, dividend payments and financial information is helpful in a way that when new investors enter a particular corporate website, they are usually looking for information and the FAQs section may provide them with the specific information they need. The survey sample also shows that very few companies provide glossaries of terms including standard/industry-specific financial terms and industry-specific/other non-financial terms. Specifically, only 0.4% provides the former and 2.3% the latter.

Corporate Governance

With respect to the ethics and compliance issues, of the sampled companies, 60.9% present the general code of business conduct/ethics/practices and 59.7% display statement of compliance with corporate governance code, the Malaysian Code on Corporate Governance

2012 ("MCCG 2012"). In addition, most companies (80.6%) present the board charter which sets out the roles, compositions and responsibilities of the board of directors. Nearly 70% of websites display information on details of the committees the directors sit on and/or chair including audit, nomination and/or remuneration. However, the survey shows that fewer companies have the terms of reference of the audit (40.3%), nomination and/or remuneration (45.7%) committees, explaining their role and the power given to them by the board on the websites. Furthermore, the companies also disclose overview of directors' remuneration policy and appointments to the board, 57.4% and 65.9% of the websites, respectively. However, fewer companies (50.4%) disclose information on internal control and risk management. In term of the reporting issue, 48.4% of the sampled companies provide information on the whistleblowing policy and channels to help stakeholders raise concerns on any wrongdoings that they may observe in the company.

Corporate Responsibility

As part of non-financial information disclosure corporate responsibility reports can help companies gain competitive advantage in attracting investors (Eccles et al. 2011; Epping and Wilder 2011; Hoffmann and Fieseler 2012). In this regard, there has been an increasing number of companies around the world that engage in reporting on aspects of corporate responsibility including social and environmental responsibility (Cormier and Magnan 2004; Cormier et al. 2004; Amran and Devi 2008; Branco and Rodrigues 2008; Reverte 2009; Sotorrio and Sanchez 2010; Gamerschlag et al. 2011; Hahn and Kuhnen 2013; Skouloudis et al. 2014). In the current study, a majority of the sampled companies display some corporate responsibility information on their corporate website. 77.5% of the companies disclose statement of company policy on corporate responsibility and 69.8% present summary of internal arrangements for implementing corporate responsibility policies. Also, within the corporate responsibility elements, 43.4% of the surveyed websites provide statement of compliance with CSR guidelines and/or certifications, while 53.9% present highlights of corporate responsibility report. Generally, the results indicate that most companies recognize the importance of disclosing corporate responsibility information on their website. The more social and/or environmental information the companies provide, the more recognition they receive, which is important to the companies' reputation and long-term financial health (Eccles et al. 2011; Hoffmann and Fieseler 2012). Also, the concern of the companies for these issues by disclosing the relevant information on their website helps investors appreciate the business value of responsibility strategies (Skouloudis et al. 2014). Regarding images/photos of social responsibility activities, 56.2% of companies under study display this item on their website. However, only few companies (9.3%) have audio/video file of corporate social responsibility activities on their website. Although most companies under survey provide some form of social and/or environmental information, these companies have room to improve their web-based disclosure of corporate responsibility information.

WIR Design

The WIR design dimension comprises 33 checklist items classified into two categories, namely, usability and accessibility, and navigability. The first item under the usability and accessibility checklist shows that all the sampled companies have website or webpage in English version. Additionally, only 19 companies (7.4%) have website in other languages such as Malay, Chinese and Spanish. In this context, the use of the English language website by all the sampled companies indicates the importance given by the listed companies to provide

information in a language more familiar to wider groups of stakeholder. This is particularly important as listed companies are increasingly moving into global markets and this requires them to adopt corporate communications that suit the markets (Leventis and Weetman 2004). Also, information on the websites needs to be presented in a helpful manner. In this regard, 41.5% of the surveyed companies provide quick links (on homepage) to IR-related content including press releases, annual reports and FAQs. Nonetheless, only 1.2% of the sample companies have font size option on their website for changing text size. In term of downloaded documents such as PDF files of annual and quarterly reports, it is useful and convenient to users that the file sizes are listed as downloads can be overly large and take a long time. 118 (45.7%) companies have the file sizes indicated for the annual reports and 145 (56.2%) for the quarterly reports.

Furthermore, all the companies that provide annual reports on their website have presented the reports in English version. Apart from the English version of annual reports, only 11 companies (4.3%) have provided the reports in other languages such as Malay and Chinese. Again, this shows the importance given by the companies to cater for wider groups of users globally. This is particularly relevant in the context of Malaysia as an advanced emerging market that promotes stock market liberalization. With regard to the format of the annual reports, all the companies that disclosed the reports on their website used PDF format while only 46 (17.8%) companies presented the reports in additional format of HTML. By providing the annual reports in an alternative format such as HTML, the users are not only given a choice as to which they would like to use but also to enable them to quickly and easily navigate the report. On this point, although the HTML format can incorporate further user-friendly features such as hyperlinks from a table of contents, the PDF version is still the dominant format used by the companies when presenting annual reports on their website.

Of the sample, 24.8% offer software download support such as the free Adobe Acrobat Reader and Adobe Flash Player to help users view documents or files and certain webpage content in Adobe (PDF) format and audio/video playback, respectively. The sample also shows that only 11.6% of the websites have download library/investor kit/investors' briefcase, which compiles investor-related documents including quarterly reports, annual reports and presentation slides for easy selection of the documents or files the users wish to download. Moreover, only 13.2% of the surveyed companies provide downloads of financial data (including the share price history) in process able format such as in a spreadsheet format. With regard to the use of webcast, only three companies (1.2%) offer webcast synchronized with presentation slides, which provides users the option to view the facts or key points being presented.

The use of the Internet unique features can help the investment community access relevant information in user-friendly ways. However, the survey shows that the listed companies generally do not utilize the technological advances in disseminating information which includes options such as email page, printable pages, 'share' tool, quick response code (QR code), and bookmark tool. Only 61 companies (23.6%) provide the option to email page/information, 94 companies (36.4%) have the printable pages option, 80 companies (31%) offer the 'share' page/link (via social media icons), 21 companies (8.1%) have the QR code, and 16 companies (6.2%) offer bookmarks (bookmarking) to save favourite webpages for quick access on their website. With respect to disclaimer and website agreement terms and conditions, 64.3% of the surveyed companies present the terms of use (legal disclaimer), 61.2% present privacy policy and 29.1% cover the use of cookies for record-keeping purposes.

Navigation tools should facilitate easy and quick access to information on the corporate website. In term of the ease of accessing 'Investor Relations' or other equivalent titles section, the survey indicates that 91.9% of the listed companies provide easy access to the section, within 1 (mouse) click from the website homepage. Other navigation tools such as a search engine/box and a site map/table of content help users quickly find or locate relevant information on the websites. However, not all websites provide these basic web navigation features. Specifically, 52.7% of the surveyed companies offer a site map/table of content and 38.4% provide a search engine/box on their website. Other basic features include top/bottom page navigation, next and previous page option and pull-down menu, and are available at 38.8%, 39.9% and 82.2% of the surveyed websites, respectively. However, very few websites (1.9%) offer help site/section to help users answer technical questions about a company's website as well as explain some of the functions that are provided on the website including web browsers to access the site, external site links and software downloads for media files.

Also, 51.9% of the companies provide highlights of news or relevant updates of current events on their corporate homepage. Importantly, these recent updates make the latest additions of investor-related information easy and quick to access. In addition, 17.8% of the surveyed websites provide filter options for announcements releases which allow users to categorize company announcements and also filter them by year. Other navigation supports include links to relevant IR sections or pages of the website (84.5%), which allow multiple points of access to IR-related information, and hyperlinks to relevant external or third-party sites (59.3%) such as Bursa Malaysia stock exchange, industry associations and stock quote services. With these tools available on the corporate websites the users would be easily guided and navigated to obtain information from related sections of the website as well as useful third-party sites.

WIR Timeliness

This study measures the extent of WIR timeliness using 7 checklist items. The results indicate that in general, the level of timeliness offered by the surveyed websites is low. The survey shows that the most common item available in this dimension is the update date of IR-related information such as press releases, company announcements and shareholdings, found at 99.2% of the surveyed websites. Importantly, by providing the date that information was last updated users particularly investors would be able to know how recent the information is and decide on its relevance. This is particularly important and useful when the information is time-sensitive. In contrast, only 1.6% of the sampled companies provide an update date of their general corporate website. The date information is particularly relevant to ensure that the corporate website in general and IR section in particular are regularly updated and reviewed. Importantly, a timely and consistent corporate website helps reduce confusion from mixed communications or messages.

Another available timeliness item on the websites is email alerts. The innovative feature of this email alert service allows investors who have registered an interest to receive relevant information including the latest company news, presentations, and corporate events. However, the findings indicate that only 33.7% of the surveyed companies offered the email alert service on their website. Similarly, the use of RSS content feeds allows the users to subscribe to news and site updates. This automatic update facility however is available only at 12.8% of the surveyed websites. Another technological tool that is used by companies to improve timeliness is updated events (financial/IR) calendar with Outlook. This facility allows users to automatically update their own calendar for upcoming events of a particular

company. However, only 6 (2.3%) companies provide this calendar update tool on their website. Furthermore, although online services such as the email alerts provided on corporate websites allow users to register to be alerted when relevant news is posted, it is important that the companies also provide option to unsubscribe from the service on their website. Specifically, 74 (28.7%) companies provide this option, to stop the information flow on request, on their website. Share price ticker bar/tape which provides real time information of share prices and indices is useful for retail or individual investors who do not have access to subscribed systems or financial portals. However, only 15.9% of the companies under survey provide this information on their website. This low incidence may be due to the fact that the same information is provided by other stock quote services or third-party websites.

Although it is a challenge for most companies to keep their IR website timely and up to date to meet the needs of the investment community, it is worth noting that the website possibly the main resource for investors seeking information about a company and also the main communication channel for interaction with the capital markets. Hence, it is important for the listed companies to maintain their IR-related content or pages regularly updated to help investors decide on its importance and relevance. In this regard, the results of the timeliness elements indicate that there is a significant scope for the listed companies to increase their use of web-based technologies in order to present timely and up to date information on their website.

WIR Interactivity

This interactivity dimension of WIR is measured using 10 checklist items based on three interactive elements, namely, analytical tools, feedback tools, and dialogue. Based on the survey results of the items, generally, the level of interactivity provided by the companies via their website is low. The results show that majority of the companies overlook the potential of innovative tools that can be provided on their website to enhance interactivity with the investment community.

In terms of interactive analytical tools, only 31.4% of the surveyed websites include interactive stock chart that allow users particularly investors to view historical share prices charts over different periods and also make comparisons against a range of stock market indices. Other features of this interactive chart include chart event indicators that show charts with dates for stock splits, dividends and other key corporate news or events, and customizable views (candlesticks and line charts). Another interactive analytical tool is investment calculator that enables shareholders to calculate the value of their shareholdings. However, only 22.1% of the surveyed companies offer this investment calculator tool on their website.

Another interactivity element used in the current study is interactive feedback tools which include online services such as investor information order service, request for IR meeting, and feedback or comment section. The online feedback option or comment section appears to be the most commonly available service within this element, found at 45.7% of the surveyed companies. Importantly, such option allows investors to provide feedback for improvements in online IR-related disclosure and communication as well as the companies' website in general. Furthermore, 12% of the companies offer online investor information order service (via online request form) that enables visitors particularly the shareholders to request information which is not available on the corporate websites such as financial reports, an up-to-date fact sheet of investor information, annual meeting materials and other publications. With regard to request for IR meeting (via online request form), only 1 company (0.4%), namely, Tenaga Nasional Berhad offers this facility on its website. Although this facility

enables the investors to arrange meetings with the IR officer or team responsible for IR matters, it appears that most companies have not considered this useful and convenient tool in their shareholder communication.

With regard to interactive dialogue, the most common item within this element is IR email using email address or email form. 68.2% of the surveyed companies have this facility on their website which suggests that majority of the sampled companies do have IR officer or team responsible for shareholder communication. This study also includes key social media applications such as Twitter, Facebook and YouTube as well as blogs as interactive dialogue items. The use of social media as an IR communication tool not only can increase the reach of corporate communications to potential investors but also enhance corporate engagement with existing investors and analysts (Bonson and Flores 2011; Alhtaybat and Al-Htaybat 2016; Manetti and Bellucci 2016). Also, by engaging on these social media channels companies can improve control of corporate messaging. For instance, a Twitter feed can be used to promote company news and companies at the same time are able to keep track of what the investment community is saying about them online.

The most commonly provided social media application on the websites is YouTube with 20.5% of the surveyed companies, followed by Facebook and Twitter with 18.6% and 10.1%, respectively. The companies have made strategic content available on their YouTube videos including corporate video that features the company's key products or services, corporate goals, strategies and vision. Blogs however, are available only at 1.2% of the surveyed websites. Only three companies (1.2%), namely, AirAsia Berhad, Supermax Corporation Berhad and TDM Berhad use blogs to get investors interacting with the companies, where they are invited to share information or comment certain issues while the experts from the companies give their thoughts on the issues being discussed. Overall, the relatively low percentages of social media usage among the surveyed websites indicate that majority of the companies have not engaged on the social media applications for IR communication. Hence, based on the results, it can be concluded that engaging in dialogue with investors on social media is still underdeveloped amongst listed companies in Malaysia.

Overall, given the low level of WIR disclosure amongst the surveyed companies, investment community particularly investors, who have the right to know the latest development in a company which includes the operational effects on the company's well-being were not able to do so. Thus, it is important for listed companies in Malaysia to enhance their WIR as an effective tool for improving investors' decision-making process.

Conclusion

This study provides exploratory information regarding the extent of WIR practices amongst non-financial companies listed on the Main Market of Bursa Malaysia. The results show that the companies provide a relatively low level of WIR, with only 41%, 42%, 33% and 23%, respectively, of the content, design, timeliness and interactivity dimensions items. Furthermore, the examination reveals that the companies' WIR practices vary considerably not only in terms of utilizing the web technology, but also regarding the amount of information provided on the websites. These variations in WIR practices may be related to the lack of formal guidelines for these practices in Malaysia, with companies having discretion in terms of what to disclose and what not to disclose on their corporate website. Accordingly, it can be concluded that WIR practices amongst the non-financial listed companies in Malaysia are still limited. This evidence reflects the voluntary nature of WIR practices and the absence of a regulatory framework for organizing and monitoring such practices. Regulatory bodies

could, thus, standardize the content of corporate websites and facilitate in improving comparability of IR information disseminated via the web. WIR deserves attention in market like Malaysia as investors seek to invest in companies that they find to have potentials and sustainability. In this context, Malaysia being an advanced emerging market, there is considerable room for improvement in WIR practices.

This study adds to the academic literature in a number of substantive ways. Specifically, it extends the limited Malaysian literature on IR disclosure, and fills a gap for empirical studies on WIR practices. The WIR index used in this study has focused not only on the content, design and timeliness but also on the interactive aspect of IR via the Web, which broadens the scope for exploring the extent of WIR practices by public listed companies. In this regard, this study contributes to enriching the literature on the IR communicative practices particularly in the Malaysian context. This study therefore offers insight into best practices in WIR in Malaysia that may contribute to the further establishment of IR as a strategic communication function in the Malaysian capital market.

This study has a number of limitations. First, the current study is exploratory and does not attempt to investigate determinants of WIR practices. Second, this study provides only a snapshot of WIR practices at an investigated period and, taking into consideration the dynamic nature of the web in general and companies' corporate website in particular, which represents the limitation of this study. Additionally, since this study is cross-sectional, it would be necessary for future research to adopt a longitudinal approach to shed light on the WIR practices over a longer period of time. Third, a disclosure index was used in this study as a proxy for measuring the extent of WIR disclosure by the sampled companies. However, construction of the WIR disclosure index and assigning scores implicitly involves subjective judgment. Hence, any index cannot be a perfect indicator of the level of disclosure (Omar and Simon 2011). However, it is worth noting that extensive steps were taken to reduce these biases.

References

- Abdelsalam, O. H. and Street, D. L. (2007). Corporate governance and the timeliness of corporate internet reporting by UK listed companies. *Journal of International Accounting, Auditing and Taxation*, 16(2), 111-130.
- Abdelsalam, O. H., Bryant, S. M. and Street, D. L. (2007). An examination of the comprehensiveness of corporate internet reporting provided by London-listed companies. *Journal of International Accounting Research*, 6(2), 1-33.
- Abdelsalam, O. and El-Masry, A. (2008). The impact of board independence and ownership structure on the timeliness of corporate internet reporting of Irish-listed companies. *Managerial Finance*, 34(12), 907-918.
- AbuGhazaleh, N. M., Qasim, A. and Roberts, C. (2012). The determinants of web-based investor relations activities by companies operating in emerging economies: the case of Jordan. *Journal of Applied Business Research*, 28(2), 209-226.
- Al Arussi, A. S., Selamat, M. H. and Hanefah, M. M. (2009). Determinants of financial and environmental disclosures through the internet by Malaysian companies. *Asian Review of Accounting*, 17(1), 59-76.
- Al-Htaybat, K. (2011). Corporate online reporting in 2010: a case study in Jordan. *Journal of Financial Reporting and Accounting*, 9(1), 5-26.

- Alhtaybat, L. V. A. and Al-Htaybat, K. (2016). Investor relations via web 2.0 social media channels: a qualitative study of Middle Eastern corporations and investors. *Aslib Journal of Information Management*, 68(1), 33-56.
- Alali, F. and Romero, S. (2012). The use of the internet for corporate reporting in the Mercosur (southern common market): the Argentina case. *Advances in Accounting*, 28(1), 157-167.
- Ali Khan, M. N. A. and Ismail, N. A. (2011). The level of internet financial reporting of Malaysian companies. *Asian Journal of Accounting and Governance*, 2(1), 27-39.
- Ali Khan, M. N. A. and Ismail, N. A. (2014). Determinants of web based financial reporting in Malaysia. *GIABR Journal of Business*, 1(1), 28–56.
- Allam, A. and Lymer, A. (2003). Developments in internet financial reporting: review and analysis across five developed countries. *The International Journal of Accounting Digital Research*, 3(6), 165-199.
- Alvarez, I. G., Sanchez, I. M. G. and Dominguez, L. R. (2008). Voluntary and compulsory information disclosed online: the effect of industry concentration and other explanatory factors. *Online Information Review*, 32(5), 596-622.
- Aly, D., Simon, J. and Hussainey, K. (2010). Determinants of corporate internet reporting: evidence from Egypt. *Managerial Auditing Journal*, 25(2), 182-202.
- Amran, A. and Devi, S. S. (2008). The impact of government and foreign affiliate influence on corporate social reporting: the case of Malaysia. *Managerial Auditing Journal*, 23(4), 386-404.
- Beattie, V. and Pratt, K. (2003). Issues concerning web-based business reporting: an analysis of the views of interested parties. *The British Accounting Review*, 35(2), 155-187.
- Bollen, L., Hassink, H. and Bozic, G. (2006). Measuring and explaining the quality of internet investor relations activities: a multinational empirical analysis. *International Journal of Accounting Information Systems*, 7(4), 273-298.
- Bonson, E. and Flores, F. (2011). Social media and corporate dialogue: the response of global financial institutions. *Online Information Review*, 35(1), 34-49.
- Boubaker, S., Lakhali, F. and Nekhili, M. (2012). The determinants of web-based corporate reporting in France. *Managerial Auditing Journal*, 27(2), 126-155.
- Bowrin, A. R. (2015). Comprehensiveness of internet reporting by Caribbean companies. *Journal of Accounting in Emerging Economies*. 5(1), 2-34.
- Bozcuk, A. E. (2012). Internet financial reporting: Turkish companies adapt to change. *Managerial Finance*, 38(8), 786-800.
- Branco, M. C. and Rodrigues, L. L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics*, 83(4), 685-701.
- Buniamin, S., Alrazi, B., Johari, N. H. and Rahman, N. R. A. (2008). An investigation of the association between corporate governance and environmental reporting in Malaysia. *Asian Journal of Business and Accounting*, 1(2), 65-88.
- Celik, O., Ecer, A. and Karabacak, H. (2006). Impact of firm specific characteristics on the web based business reporting: evidence from the companies listed in Turkey. *Problems and Perspectives in Management*, 4(3), 100-133.
- Chau, G. and Gray, S. J. (2010). Family ownership, board independence and voluntary disclosure: evidence from Hong Kong. *Journal of International Accounting, Auditing and Taxation*, 19(2), 93-109.
- Cormier, D. and Magnan, M. (2004). The impact of the web on information and communication modes: the case of corporate environmental disclosure. *International Journal of Technology Management*, 27(4), 393-416.

- Cormier, D., Gordon, I. M. and Magnan, M. (2004). Corporate environmental disclosure: contrasting management's perceptions with reality. *Journal of Business Ethics*, 49(2), 143-165.
- Davey, H. and Homkajohn, K. (2004). Corporate internet reporting: an Asian example. *Problems and Perspectives in Management*, 2, 211-227.
- Dolinsek, T., Tominc, P. and Skerbinjek, A. L. (2014). The determinants of internet financial reporting in Slovenia. *Online Information Review*, 38(7), 842-860.
- Eccles, R. G., Serafeim, G. and Krzus, M. P. (2011). Market interest in nonfinancial information. *Journal of Applied Corporate Finance*, 23(4), 113-127.
- Epping, L. L. and Wilder, W. M. (2011). Factors impacting the credibility of website disclosures. *Journal of Financial Reporting and Accounting*, 9(1), 27-46.
- FASB. (2000). Electronic Distribution of Business Reporting Information. Business Reporting Research Project. Steering Committee Report Series. Norwalk: Financial Accounting Standards Board. Retrieved on April 25, 2013, from <http://www.fasb.org/jsp/FASB/Page/SectionPage&cid=1175801855002>
- Gamerschlag, R., Möller, K. and Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Review of Managerial Science*, 5(2-3), 233-262.
- Geerings, J., Bollen, L. H. H. and Hassink, H. F. D. (2003). Investor relations on the internet: a survey of the Euronext zone. *European Accounting Review*, 12(3), 567-579.
- Ghanem, H. B. and Ariff, A. M. (2016). The effect of board of directors and audit committee effectiveness on internet financial reporting: evidence from Gulf Co-Operation Council Countries. *Journal of Accounting in Emerging Economies*, 6(4), 429-448.
- Ghazali, N. A. M. and Weetman, P. (2006). Perpetuating traditional influences: voluntary disclosure in Malaysia following the economic crisis. *Journal of International Accounting, Auditing and Taxation*, 15(2), 226-248.
- Hair, J. F., Black, W. C., Babin, B. J. and Anderson, R. E. (2010). *Multivariate Data Analysis*. New Jersey: Pearson Prentice Hall.
- Hahn, R. and Kuhnen, M. (2013). Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production*, 59, 5-21.
- Hamid, F. Z. A. (2005). Malaysian companies' use of the internet for investor relations. *Corporate Governance*, 5(1), 5-14.
- Hamid, F. Z. A. and Salleh, M. S. M. (2005). The determinants of the investor relations information in the Malaysian companies' website. *Corporate Ownership and Control*, 3(1), 173-185.
- Hanafi, S. R. B. M., Kasim, M. A. B., Ibrahim, M. K. B. and Hancock, D. R. (2009). Business reporting on the internet: development of a disclosure quality index. *International Journal of Business and Economics*, 8(1), 55-79.
- Hashim, F. and Saleh, M. N. (2007). Voluntary annual report disclosures by Malaysian multinational corporations. *Malaysian Accounting Review*, 6(1), 129-156.
- Hindi, N. M. and Rich, J. (2010). Financial reporting on the internet: evidence from the Fortune 100. *Management Accounting Quarterly*, 11(2), 11-21.
- Ho, P. L. and Taylor, G. (2013). Corporate governance and different types of voluntary disclosure: evidence from Malaysian listed firms. *Pacific Accounting Review*, 25(1), 4-29.

- Hoffmann, C. and Fieseler, C. (2012). Investor relations beyond financials: non-financial factors and capital market image building. *Corporate Communications: An International Journal*, 17(2), 138-155.
- Hong, H. and Huang, M. (2005). Talking up liquidity: insider trading and investor relations. *Journal of Financial Intermediation*, 14(1), 1-31.
- Investor Relations Society (2013). Best Practice Guidelines for Corporate Websites, Retrieved on May 10, 2015, from <http://www.irs.org.uk/resources/websites>
- IR Global Rankings (2013). IR Website. Retrieved on January 7, 2014, from <http://www.irglobalrankings.com>.
- Jiang, Y., Raghupathi, V. and Raghupathi, W. (2009). Content and design of corporate governance web sites. *Information Systems Management*, 26(1), 13-27.
- Johnson, M. A. (1997). Public relations and technology: practitioner perspectives. *Journal of Public Relations Research*, 9(3), 213-236.
- Kelly, K. S., Laskin, A. V. and Rosenstein, G. A. (2010). Investor relations: two-way symmetrical practice. *Journal of Public Relations Research*, 22(2), 182-208.
- Kelton, A. S. and Yang, Y. W. (2008). The impact of corporate governance on internet financial reporting. *Journal of Accounting and Public Policy*, 27(1), 62-87.
- Kuperman, J. C. (2000). The impact of the internet on the investor relations activities of firms. *Journal of Communication Management*, 5(2), 147-159.
- Laskin, A. V. (2009). A descriptive account of the investor relations profession: a national study. *Journal of Business Communication*, 46(2), 208-233.
- Lee, R. L. and Joseph, R. C. (2013). An examination of web disclosure and organizational transparency. *Computers in Human Behavior*, 29(6), 2218-2224.
- Leventis, S. and Weetman, P. (2004). Impression management: dual language reporting and voluntary disclosure. *Accounting Forum*, 28, 307-328.
- Lodhia, S. K., Allam, A. and Lymer, A. (2004). Corporate reporting on the internet in Australia: an exploratory study. *Australian Accounting Review*, 14(34), 64-71.
- Louwers, T. J., Pasewark, W. R. and Typpo, E. W. (1998). Silicon valley meets Norwalk. *Journal of Accountancy*, 186, 20-26.
- Manetti, G. and Bellucci, M. (2016). The use of social media for engaging stakeholders in sustainability reporting. *Accounting, Auditing & Accountability Journal*, 29(6), 985-1011.
- Marston, C. and Polei, A. (2004). Corporate reporting on the internet by German companies. *International Journal of Accounting Information Systems*, 5(3), 285-311.
- Mendes-Da-Silva, W. and Onusic, L. M. (2014). Corporate e-disclosure determinants: evidence from the Brazilian market. *International Journal of Disclosure and Governance*, 11(1), 54-73.
- Omar, B. and Simon, J. (2011). Corporate aggregate disclosure practices in Jordan. *Advances in Accounting, Incorporating Advances in International Accounting*, 27(1), 166-186.
- Reverte, C. (2009). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics*, 88(2), 351-366.
- Samaha, K. and Abdallah, S. (2012). Further evidence on web-based corporate disclosures in developed versus developing countries: a comparative analysis of nature and determinants in Egypt and the United Kingdom. *International Journal of Disclosure and Governance*, 9(2), 148-180.
- Samaha, K., Dahawy, K., Abdel-Meguid, A. and Abdallah, S. (2012). Propensity and comprehensiveness of corporate internet reporting in Egypt: do board composition and

ownership structure matter? *International Journal of Accounting and Information Management*, 20(2), 142-170.

Skouloudis, A., Jones, N. and Malesios, C. (2014). Trends and determinants of corporate non-financial disclosure in Greece. *Journal of Cleaner Production*, 68,174-188.

Sotorrió, L. L. and Sánchez, J. L. F. (2010). Corporate social reporting for different audiences: the case of multinational corporations in Spain. *Corporate Social Responsibility and Environmental Management*, 17(5), 272-283.

Vlittis, A. and Charitou, M. (2012). Valuation effects of investor relations investments. *Accounting and Finance*, 52(3), 941-970.

Xiao, Z., Jones, M. J. and Lymer, A. (2002). Immediate trends in internet reporting. *European Accounting Review*, 11(2), 245-275.

Yanjie, F. and Wan, T. (2013). Website-based investor relations: a comparison between developed and developing economies. *Online Information Review*, 37(6), 946-968.