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Corporate reporting on the internet: some implications for the auditing profession

Iqbal Khadaroo
School of Management and Economics, Queen's University Belfort, Belfort, Northern Ireland

Abstract

Purpose – The exponential growth in corporate reporting on the internet has created numerous opportunities and challenges for the accounting and auditing profession, and regulators. This study aims to examine internet reporting practices of companies in Malaysia for the purpose of exploring their auditing implications.

Design/methodology/approach – An examination of the 100 Kuala Lumpur Stock Exchange Composite Indexed (KLSE CI) companies in Malaysia in 2003 and 2004.

Findings – Although there has been an increase in both the number of companies and the types of information provided on the internet, the quality of internet reporting information to users has little improved. This problem is compounded because auditors have little control over web contents and the changes that can be made to audited information. Further guidance to standardise the types of internet reporting information may help protect the interest of users, provide more certainty to what information needs to be audited and reduce audit risks.

Practical implications – The hosting of audited information on an auditor's web site may provide auditors with better control, reduce audit risks and further improve the credibility and reliability of information to users.

Originality/value – Provides information on the financial reporting and auditing challenges posed by internet reporting.

Keywords Internet, Accounting, Auditing, Malaysia

Paper type Research paper

1. Introduction

The internet revolution has altered the traditional flow of accounting, auditing and accountability information to various interest groups. This has important ramifications for the accounting and auditing profession, and regulators alike. Many researchers argue that the internet reporting phenomenon is more prevalent among countries with well-developed information and communications technology (ICT) infrastructure, and stock exchanges (Lymer and Debreceny, 2003; Marston, 2003).

The phenomenal growth in the supply of internet information is primarily attributable to the fact that, companies can provide more information at lower cost on their web sites; the internet enables them to reach diverse and dispersed consumers of information (FASB, 2000), and securities regulators are increasingly mandating disclosures of corporate information on the internet (SEC, 2002, 2003a, b). Nevertheless, although companies may have a web presence, the types of information supplied on the internet vary. Some companies provide investor and public relation information only, whereas others provide full e-commerce infrastructure.

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On the demand side, investors and other interest groups can conveniently access more information at lower cost on companies' web sites. Many companies update the information on their web sites regularly, thereby keeping users informed of recent developments. The widespread use of the internet for disclosing information presents new opportunities and challenges for auditors. As well as bringing the accounting and auditing professions into new territory, internet reporting has presented them with numerous opportunities and challenges, and in the process, has gained widespread attention from the academic, business and regulatory community.

The phenomenal growth in the supply and demand of internet reporting information has raised serious concerns and has important implications for auditors who, in many countries, have to provide an independent opinion on the annual reports to assure the user community that they have been prepared in accordance with generally accepted accounting principles. Controls and security over updating of information on a company's web site are important concerns. The fact that audited reports are hosted on companies' web sites makes it difficult for auditors to have control over the security, access and changes to these reports (see for example, Liang *et al.* (2001), Higgins (2002), Broad *et al.* (2003) and Pathak (2003) on security in e-commerce environment). One important implication for auditors is the extent to which they should have the right to prohibit their reports being published online where such internal controls are found to be inadequate.

This paper contributes to the ongoing debate on internet reporting (FASB, 2000; Marston, 2003; Khadaroo, 2005a) and the important role of auditors in this process (Rezaee and Reinstein, 1998; IASB, 1999; IFAC, 2001; Debreceny and Gray, 1999; Lymer and Debreceny, 2003; Fisher *et al.*, 2004). More specifically, it surveys the internet reporting practices of companies listed on the Kuala Lumpur Stock Exchange (KLSE) in Malaysia in the period 2003-2004 and further explores the broader implications of the internet reporting trend to auditors by means of a review of the extant literature.

The remainder of this paper is organised as follows. Section 2 provides a review of the literature on internet reporting practices. Section 3 explains the research approach adopted in this paper. Section 4 discusses the survey findings of a content analysis of Malaysian companies' web sites in 2003-2004. Section 5 examines the auditing implications of companies providing information on the internet. Finally, Section 6 section concludes the paper.

2. Literature review

2.1 Accounting standard setters and regulators

The International Accounting Standards Board (IASB) (1999) commissioned a study as part of a project to develop standards in the area of internet reporting. The study examined the shortcomings of business reporting on the internet within current technologies; the role of technological changes in improving electronic business reporting and proposed a code of conduct for web-based business reporting. As regards auditing, the code recommended that (IASB, 1999, pp. 62-6):

- the boundaries of the "financial report" need to be clearly laid out so that users are given clear indication when a departure point has been reached from the audited financial report;

- users need to be able to distinguish information that is prepared using international accounting standards from those that are not;
- the audit report needs to make clear to users what pages are subject to audit opinion; and
- where translated financial statements are provided online and only the primary language financial statements were audited, that fact should be clearly noted in the translated version.

At IASB's meeting in May 2001, the IASB handed over the above project to the International Federation of Accountants (IFAC), which was also working on a similar project at that time. In turn, IFAC issued a proposed international auditing practice statement (IAPS) to assist auditors in addressing risks associated with e-commerce. The exposure draft (ED) deals with the knowledge and skills needed to understand the effect of e-commerce on the audit. In particular, ED examines the key aspects of the entity's business environment the auditor should know about and the implications of e-commerce risks on internal controls and audit evidence (IFAC, 2001). Although it has been about four years since the ED was issued, the auditing profession is still awaiting for the publication of the final IAPS.

At the national level, auditing standards setters are also becoming increasingly aware of the need to provide guidance to the local auditing profession. For example, in 1997, the audit issue task force (AITF) in the US issued AU550 – other information in electronic sites containing audited financial statements to provide guidance on the application of SAS 8 – other information in documents containing audited financial statements to companies disclosing corporate information on the internet (AICPA, 1997). In the UK, in 2001, the audit practice board (APB) issued a document titled Electronic publication of auditors reports (APB, 2001) to provide guidance to auditors. Similarly, the auditing standards bodies in both Australia and New Zealand issued a similar guidance audit issues relating to the electronic presentation of financial reports (AASB, 2002; PPB, 2003) related to this area. The themes common to these guidance were the role of auditors, internal control and security considerations in the internet reporting environment; integrity of internet reporting information; and the audit procedures to be followed. In addition, these guidance stress that the respective responsibilities of auditors and directors do not change when companies disseminate information on the internet.

In 2000, the Financial Accounting Standards Board (FASB)(2000) in the US commissioned a study to examine how Fortune 100 companies were using internet technology to distribute business information and to identify the impediments to realising the internet's full potential. The study revealed that 99 per cent of the Fortune 100 companies had web sites and 93 per cent of them included some form of investor relations and financial information on their web pages. According to the report, audit concerns, internet standard setting challenges, securities law, and other legal liability issues were the major factors delaying the internet's potential from being realised.

Securities regulators are increasingly mandating the disclosure of corporate information on the internet to protect the interest of users. For example, in November 2002, the US Securities and Exchange Commission (SEC) mandated companies to disclose in their annual reports where investors can obtain access to SEC filings

(Forms 10-K, 10-Q and 8-K) and whether they are available on the company's web site and, if not, provide reasons for not providing internet access to those reports (SEC, 2002).

In March 2003, the SEC adopted new rules to implement Sections 406 and 407 of the Sarbanes-Oxley Act of 2002. These rules require a public company to either disclose its corporate code of ethics as an exhibit in its annual report (Form 10-K or Form 20-F) or post the text of the code of ethics, or the relevant portions of it, on its internet web site, provided that it says in its annual reports that the code of ethics appears on their web sites and gives its internet address (SEC, 2003a). Moreover, in June 2003, the SEC mandated the electronic filing, and web site posting by issuers with corporate web sites, of beneficial ownership reports filed by officers, directors and principal security holders under Section 403 of the Sarbanes-Oxley Act of 2002 (SEC, 2003b).

2.2 Academia

Hodge (2001, p. 675) found that firms can influence users' perceptions about earnings potential by "hyperlinking unaudited information to information in their audited financial statements". In particular, the author's experiment revealed that investors who viewed hyperlinked materials on the web misclassified more unaudited information as audited, inflated the credibility of unaudited information and judged the firm's earnings potential to be higher, as compared to investors who viewed similar information in hardcopy format. The author argues that users mix audited information with unaudited information because hyperlinking them to and from one another give them the impression that all the information are part of one comprehensive database. In short, hyperlinking confuses them.

Pike and Lanis (2003, p. 143) carried out a similar study to Hodge (2001) but argue that "firms hyperlinking auditing financial statements to unaudited information" increase the perceived credibility of the unaudited information and that the problem may be exacerbated by the presence of a recognisable or symbolically trustworthy logo such as the WebTrust[1]. The authors propose a model to ascertain the extent of expectation gap among users and argue that a simple disclosure is sufficient eliminate the potentially misleading effects of web-based financial information, thereby reducing the risk of corporate fraud and legal liability of auditors.

Debreceny and Gray (1999) surveyed 45 large listed companies in the UK, France and Germany. The authors found that 44 of them had a web site; 36 of them published their annual financial statements on their web sites; 10 of the 17 corporations reporting information in HTML included the auditors' report on their web site; none of these reports linked back to the auditors' own site and none included a scan of the auditor's "signature"; 4 of the HTML-based auditors' reports had hypertext links to other locations within the financial statements. The authors question whether the web-based audit report should reside at the auditor's or the client's web site and whether changes made to the web-based version of the financial statements may affect the audit opinion.

Lymer and Debreceny (2003, p. 103) argue that the guidance provided by securities regulators and audit standard setters "fall considerably short" to meet the challenges posed by internet reporting technologies. According to the authors, the shortcomings mainly relate to the way in which users interact with web sites. They argue that, although standard setting bodies are addressing the procedural issues related to auditing of online financial information, the wider implications of the impact on the audit function have not yet been addressed and their responses to technological developments are inadequate.

Fisher *et al.* (2004) surveyed internet reporting practices of 210 listed companies in New Zealand. The authors found that only 188 had web sites; 131 companies provided some financial information on their web sites; 128 provided audit reports; 101 included the auditors' signatures; 1 had hyperlink "from" the audit report to other locations within the web site (Pike and Lanis, 2003) and 11 had hyperlink "to" the audit report from other locations within the web site (Hodge, 2001). According to the authors, some of the implications of internet reporting for auditors are, the need to place more emphasis on preventive controls and real time detective controls; the need for continuous auditing; and, considering the possibility of changing audit reporting routine, for example, "shorter interval" reporting, "evergreen" reporting (i.e. always available and dated) or "report on demand".

3. Research approach

The research approach adopted in this paper is similar to the FASB (2000) study, which examined the internet report practices of Fortune 100 companies in the US. This study examines the internet reporting practices of the 100 companies that make up the Kuala Lumpur Stock Exchange Composite Index (KLSE CI) in Malaysia. Listed companies are selected for examination on grounds that companies with high market capitalisation are more likely to have web sites (Debreceny and Gray, 1999; FASB, 2000; Marston, 2003). The following steps were followed for the purpose of data collection and analysis.

(1) The web page attributes examined in this study are similar to those examined by the FASB (2000) and Fisher *et al.* (2004). A questionnaire was developed to examine the attributes relevant to the business and auditing community. The attributes identified required a "yes" or "no" answer and were divided into those which:

- are common to all web pages (Table I);
- specifically relate to investor relations (Table II);

Table I.
General web page attributes

Attributes	Percentage of companies disclosing the respective items in February 2003	Percentage of companies disclosing the respective items in March 2004	Pearson's Chi-Square test (*p* value)
Graphic images	60	87	0.001**
Animated graphics	36	39	0.744
Sound files	15	16	0.749
Video files	19	18	0.857
Search box (or link to search page)	47	55	0.288
Table of contents/site map for whole web site	79	81	0.670
Company profile	84	96	0.012*
Advertisement of own products/services	71	74	0.672
Goods or services sold online (e-commerce)	31	32	0.868

Note: * significant at 95 per cent confidence level
** significant at 99 per cent confidence level

Attributes	Percentage of companies disclosing the respective items in February 2003	Percentage of companies disclosing the respective items in March 2004	Pearson's Chi-Square Test (p value)
Link to news releases	60	72	0.088
Link to investor relations from homepage	43	46	0.653
Press releases	47	53	0.436
Postal address for investor relations	35	38	0.614
E-mail address for investor relations	33	36	0.694
Phone number for investor relations	37	41	0.662
Current stock prices	25	32	0.355

Table II.
Presentation of investor relations information

- specifically relate to information on the board and management (Table III); and
- specifically relate to financial reporting and auditing (Table IV).

(2) Because web pages are dynamic, the objective was to collect data on the corporate web pages within a short time period. Data were collected in the beginning of March 2004 by the researcher and his assistant. A standard web page browser, Microsoft Internet Explorer Version 6, was used for the purpose of data collection.

(3) To improve the validity of the information gathered, both the researcher and his assistant recorded each company's web page attributes on separate questionnaires. A comparison between the two questionnaires was made and discrepancies found were resolved.

(4) Comparative data for KLSE listed companies in February 2003 comes from a comparative study of internet reporting practices of Malaysia and Singapore listed companies previously carried out by the researcher (Khadaroo, 2005a). This is expected to provide some indications of the changing trend in internet reporting practices between the two years. Four additional attributes which specifically relates to auditing are explored in the current study (Hodge, 2001; Pike and Lanis, 2003). To test the significance of the changes between the two years, Pearson's Chi Square statistical test is used.

Attributes	Percentage of companies disclosing the respective items in February 2003	Percentage of companies disclosing the respective items in March 2004	Pearson's Chi-Square test (p value)
Chairman message	48	54	0.453
Chairman signature on message	28	29	0.935
Names and composition of board	63	64	0.887
Management discussion and analysis	69	69	0.868
Statement of management responsibilities	20	21	0.889
Management signature on statement of responsibilities	19	19	0.998

Table III.
Information on board and management

Attributes	Percentage of companies disclosing the respective items in February 2003	Percentage of companies disclosing the respective items in March 2004	Pearson's Chi-Square test (p value)
Downloadable annual report	56	69	0.078
Quarterly reports	25	34	0.222
Summary balance sheet	63	65	0.772
Summary statement of income	60	62	0.840
Statement of cash flow	59	60	0.817
Consolidated statements	45	46	0.916
Financial highlights	31	41	0.182
Notes to financial statements	57	59	0.794
Changes in shareholders' equity	45	47	0.805
Auditor reports on web page	48	50	0.744
Auditor's signature included in audit report	20	21	0.889
Links from auditor's reports to other web pages	[a]	2	–
Links to auditor's reports from other web pages	[a]	14	–
Links to auditor's own web site	[a]	0	–
Warning to users when leaving audited pages	[a]	0	–

Note: [a] Comparative data on these variables was not collected in February 2003

Table IV. Financial information and audit

4. Survey findings

The KLSE CI in Malaysia represents the average capitalisation of 100 companies. There was a significant increase (p value = 0.007) in the number of KLSE indexed companies having a web site from 75 in February 2003 to 91 in March 2004. This provides some evidence that more and more companies are "jumping on the internet report bandwagon" and are using the internet to supply information to the public.

4.1 General web page attributes

General web page attributes are core features common to many web sites. They include the use of graphics, sound and video and the provision of navigation aids such as search box and table of contents. Table I shows a list of these attributes and the percentage of Malaysian companies displaying each of these on their respective web site.

There has been a significant increase in the use of graphic images from 60 to 87 per cent over the two years. The percentage of companies using video files has decreased from 19 per cent in February 2003 to 18 per cent in March 2004 whereas the percentage of companies using animated images and sound files have increased marginally. However, none of these increases is significant. The use of complex animated graphics, sound and video files does not seem very common probably because they require considerable amount of expensive web-hosting space and take time to load. This is despite the recent increase in internet bandwidth, from the traditional 28 k modem to broadband internet.

Companies generally provide search boxes and site maps to reduce the time spent by users when navigating and extracting information from their web sites. The percentage of companies providing search boxes and site maps increased from 47 and 79 per cent to 55 and 81 per cent, respectively. This provides some indications that companies are taking steps to make information on their web sites more searchable and accessible to users.

It is also a common practice for companies to use their web sites to provide information about their line of business and to promote their products. The number of companies providing information on their profile has increased significantly from 84 to 96 per cent. The number of companies using their web sites for advertising and e-commerce purposes has increased marginally from 71 and 31 per cent to 74 and 32 per cent. This provides some evidence that the full potential of e-commerce is yet to be realised by Malaysian companies.

4.2 Investor relations and financial information

It is a common practice for companies to provide investor relations information and financial information on their web sites. Investor relations information represents information of interest to current investors, potential investors as well as other users, including academics, customers, suppliers and lenders. They include press releases, postal and e-mail address, contact number and current stock prices. Table II shows a summary of the findings regarding the presentation of investor relations information.

Although companies are increasingly using their web sites for investor relation purposes, these increases are not significant. In March 2004, 72 per cent provided link to news releases; 46 per cent provided link to investor relations from their home page; and 53 per cent provided press releases on their web sites. Provision of information on share prices does not seem very popular. This may be because of the dynamic nature of share price information, which needs constant updating.

It is also common for companies to provide information about the board of directors, management team, and discussion and analysis of financial performance on their web sites. Table III presents a summary of these findings. The percentage of companies providing chairman messages has increased from 48 to 54 per cent in the period February 2003-March 2004. However, the percentage of web sites providing chairman signature on these messages have only increased marginally from 28 to 29 per cent. Similarly, the percentage of companies providing management signature on the statements of responsibilities is unchanged at 19 per cent.

Table IV shows the information provided by KLSE indexed companies, as part of their accountability and performance reporting obligations (Mraovic, 2003; Demirag *et al.*, 2004). The various types of financial information provided on corporate web sites increased across the board in the period February 2003-March 2004. KLSE indexed companies mostly provide financial information in Adobe Acrobat format for download or in HTML format for direct viewing in a web browser. These two file formats appear to be very popular nowadays probably because the Adobe Acrobat Reader software is freely available for download and the fact that Microsoft Internet Explorer software is embedded in the Microsoft Windows operating systems. In addition, these two file formats are compatible with most handheld computers and the new generation of cellular telephones.

Although the percentage of companies providing audit reports on their web pages increased from 48 to 50 per cent, less than half of them provided (a scan of) the auditor's signature on these reports. Another important finding is that 2 per cent of the KLSE listed companies provided links from the audit reports to their unaudited web pages whereas 14 per cent had links from their unaudited pages to the audit report (Pike and Lanis, 2003), on hyperlinking audited web pages to unaudited web pages and Hodge (2001), on hyperlinking unaudited web pages to audited web pages). No web sites prompted users with a screen warning them when they were about to leave the annual report section or other pages containing audited information. This finding is also consistent with the IASB (1999) study of Fortune 100 companies, which revealed that only Intel warned users when they were leaving audited web pages.

5. Auditing implications of corporate reporting

The survey of internet reporting practices shows that over the period February 2003-March 2004, an increasing number of companies are using the internet to supply information to end users. It also provides some indication that little changes have occurred in terms of the assurance provided to users about the reliability and integrity of information provided on corporate web sites. The preceding findings are consistent with Fisher *et al.* (2004) study of internet reporting practices of companies in New Zealand which found that there are a number of concerns for the auditing profession arising mostly from poor presentation of information to users.

This study shows that a large number of the KSLE listed companies (14 per cent) are hyperlinking audited financial statements to unaudited information which may confuse users. This further support Pike and Lanis (2003, p. 144) claim that corporate reporting is unregulated and that "there is a potential for companies to manipulate" and influence users in the internet reporting environment. Hodge (2001) also suggests that the perceptions of users may be influenced by blending unaudited information to audited information through hyperlinks. This may consequently lead to litigation by dissatisfied users and increase audit risks.

The accounting profession has an important role to play in improving the quality of information provided and assuring users about their reliability. However, Lymer and Debreceny (2003) argue that not withstanding the recognition of the need for further accounting and auditing guidance, the actual pronouncements made so far were considerately short of the challenges posed by both current and future internet reporting technologies.

5.1 Auditing of internet reporting information

Auditing standards require the auditor to verify that the information provided in the operational and financial review is consistent with the audit report and other information contained in the annual report. Verification of internet information is not clearly covered in these standards, thereby creating the need for further guidance.

In Australia, auditing guidance recommends the auditor to use "professional judgement to determine what other information presented with the annual report on the web site" is relevant (AASB, 2002, p. 11). Publication of the operational and financial review, together with other investor relation information on a company's web site may provide false assurance to users or confuse them about the reliability of the information provided on the web pages. In addition, hyperlinks to and from an audit report may provide false assurance about other information disclosed to users. In this respect, audited and unaudited information need to be clearly segregated on a company's web site and properly disclosed. This might also provide more meaning to the signature and date on the audit report as it would not become associated with information, which may have been updated subsequent to the issue of the audit report.

Changes made by audit clients or other parties to financial information disclosed on corporate web sites may have important implications on the audit opinion. Auditing guidance issued in Australia and New Zealand (AASB, 2002; PPB, 2003) recommends that auditors audit the security and controls that are in place to prevent and detect unauthorised changes of financial information on the client's web site. These controls, which are the responsibility of management, are expected to provide assurance about the integrity of information disclosed, including the audit report. Some of the specific audit procedures that need to be performed are as follows (AASB, 2002; PPB, 2003).

- During the planning stage of the audit, the auditor needs to identify the general and specific risks relating to the electronic publication of information on the internet by discussing with the company's management, internal auditors or audit committee matters such as: the nature and extent of financial information provided on the entity's web site; the electronic format of the audited financial report; the web site construction, including methods used to differentiate between audited and unaudited information; the use of hyperlinks to and from the audit reports; the security and controls over information provided on the entity's web site to maintain the integrity of the information being presented electronically; and the controls and security over updating information on the web site.
- The auditor needs to document the above communications with management regarding the use of the audit report on an entity's web site and to record the auditor's reasoning on matters relating to the security and completeness of audited financial information provided in the audit working paper file.
- If the auditor is not satisfied that management has addressed matters relating to the electronic presentation of the audited financial report and audit report on the entity's web site, the auditor may deny the inclusion of the audit report on the client's web site.
- The auditor needs to compare the hard copy format with the electronic version to ensure that they are consistent, "prior" to its inclusion on the entity's web site. After inclusion, if the auditor becomes aware that the audit report is being used inappropriately on the entity's web site, the auditor may request the audit report to be withdrawn from the company's web site.

In addition, one way of achieving better control over financial statement information is for auditors to host the web pages containing "audited information" on behalf of their clients, for a fee. Users would have access to these audited web pages from hyperlinks from the client's own web site.

Internet reporting should not be used to provide massive and unreliable to investors and in the process mislead them. Rather, internet reporting should be used to supplement or even complement performance reporting and analysis. In the wake of recent scandals, many researchers have examined "what went wrong?" instead of asking the fundamental question of "what can be done to create a more prosperous business climate?" (see for example, Clark and Demirag (2002) and Unerman and O'Dwyer (2004), on the Enron and Worldcom scandals). One important step in this direction is to build public trust and foster a culture of transparency and accountability in the (internet) financial reporting system. A global set of generally accepted (internet) accounting and auditing principles might be an important step in that direction in providing investors with a common language for understanding performance of companies across countries (Khadaroo and Shaikh, 2003; Khadaroo, 2005b).

5.2 Standardisation of internet reporting and the XBRL project

Standardisation of the various (financial) information on corporate web pages through an internet reporting standard would not only protect the interest of users but also help the accounting standard setters. The extensible business reporting language (XBRL) project instituted by the AICPA with support from six information technology companies, the five largest accounting firms, and other organizations is an important step in that direction (Rezaee *et al.*, 2001; Shin, 2003).

XBRL aims at combating the limitation of traditional HTML, which does not provide information about the data between the HTML tags. For example, say an investor wishes to calculate the return on capital employed (ROCE) over a ten-year period for 100 companies located in ten different countries. It would take hours if not days to search and extract the specific profits and capital employed elements and input them on an Excel spreadsheet to calculate the ROCE under the current HTML system. XBRL is expected to facilitate this process by providing the business community with a standards based framework that would allow for more efficient preparation of financial statements and for reliable extraction of specific information from the financial statements of different organizations in different countries using similar GAAP (Shin, 2003).

ICT companies and accounting profession are working together because of the need to agree on a standard set of Extensible Markup Language (XML) tags that users and developers will use in their internet applications. In addition to the AICPA's initiative, the SEC is exploring the potential use of XBRL in electronic data gathering, analysis, and retrieval (EDGAR). Nevertheless, XBRL is not a panacea; it merely facilitates the ease with which information is generated and used. The relevance and reliability of information still depends on (internet) accounting and auditing standards and on an independent audit opinion on the information disseminated.

6. Conclusion

The objective of this paper was to examine internet reporting practices of companies that make up the KLSE CI and to discuss the auditing implications of companies reporting on the internet. The survey of internet reporting practices shows that there has been an increase in the number of companies providing information on the internet as well as the various types of financial and non-financial information provided. The survey also provides some evidence that there has been little improvement in the quality and reliability of information provided to users. In this respect, the important contributions of the accounting and auditing profession in enhancing the integrity, credibility and reliability in internet reporting information were discussed.

The internet reporting era has broadened the scope of the traditional audit function by creating the need to provide assurance for internet corporate reporting information. This in turn has created numerous challenges and opportunities. Internet reporting increases the risk of auditors giving an inappropriate opinion on their clients' financial statements (i.e. audit risk), thereby exposing them to the risks of litigation claims and even bankruptcy. To mitigate these risks, they have to demonstrate due diligence in their application of extant auditing guidance when auditing their clients' internal control systems (i.e. control risk). Nevertheless, internet reporting also creates a lucrative business opportunity for auditors as the increase in risks and internet auditing costs are usually passed on to audit clients in the form of higher audit fees. In addition, internet reporting provides the opportunity for audit firms to earn higher fees from their other services, such as IT consultancy and web site design, but not to their same audit clients because it may compromise their independence.

Regulators play an important role in protecting users and improving trust and the quality of internet reporting information. By mandating the types of information disclosed by companies, security regulators are making good progress towards protecting users' interest and improving trust in the system. Similarly, by providing internet auditing guidance, auditing standard setters are (indirectly) making the business community and users alike more aware of good practices and the types of control that can be expected in the internet reporting environment. However, more needs to be done. The guidance issued by the auditing standard setters is not mandatory. An international internet accounting standard is crucial in this era of "regionalisation" and globalisation. This would bring standardisation in financial reporting, reduce confusion among users, and may also facilitate the process of implementing the XBRL project.

This study has addressed internet reporting and some of its auditing implications. Further research is required to address auditing and accountability issues from different perspectives. One important area for research may be to examine auditors' perceptions of risks in the internet reporting environment and further explore the role that regulators and the accounting and auditing profession can play in minimizing risks to create a more prosperous business climate. Although auditing standards require auditors to compare the hard copy audit report with the electronic version "prior" to its inclusion on the client's web site, researchers may further contribute to this area by further exploring how audit reports are being used on the internet and whether there are any discrepancies between the hard copy reports and the electronic versions "after" they are published online. These studies would undoubtedly be useful to regulators to formulate a mandatory accounting standard for financial disclosures on the internet and in the process provide an unequivocal warning to users of the possible pitfalls associated with using corporate information on the internet.

Note

1. WebTrust is an attestation service for web sites in the areas of privacy, security, business practices/transaction integrity, availability, confidentiality or non-repudiation. The WebTrust seal is awarded to web sites that adhere to certain business standards established by the Canadian Institute of Chartered Accountants (CICA) and the American Institute of Chartered Public Accountants (AICPA).

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