

A Survey of Internet Financial Reporting in Sri Lanka

A.M.Sheham*

Key Words:

1. Internet,
2. Financial reporting,
3. Colombo Stock Exchange Sri Lanka,

Abstract

The purpose of this paper is to investigate the extent and variety of practices of internet financial reporting (IFR) by companies listed on the Colombo Stock Exchange, Sri Lanka. While IFR is fast becoming the norm in most western countries, there is little empirical evidence of the phenomenon in Sri Lanka. This paper attempts to fill some of the gap in the literature by providing evidence of IFR practices in Sri Lanka. The 142 companies listed on the CSE were investigated to ascertain whether they maintain websites and/or if these sites are being used for communicating financial information. Only 84 of the listed companies were found to operate websites, with even less (only 31) engaging in IFR. However, IFR is not restricted to the publication of annual financial statements only as the companies also disclose financial highlights through their websites. The results of this study indicate that IFR is still at an embryonic stage in Sri Lanka and there are lots of opportunities and challenges for all stakeholder parties in corporate reporting.

INTRODUCTION:

This paper investigates and reports on the extent and nature of internet financial reporting (IFR) among companies listed on the Colombo Stock Exchange (CSE) in Sri Lanka. While IFR is fast becoming the norm in most western countries, there is little empirical evidence of the phenomenon in the Sri Lanka. Until recently, hard copies (paper) have been the primary means for communicating financial information to shareholders and other interested corporate stakeholders. Technological advancement has made the internet a useful, timely and cost-effective tool for the communication of this information to stakeholders. The internet has the potential power to revolutionise financial reporting. Companies can include the traditional annual reports together with additional financial and non-financial information in multiple formats (Jones and Xiao, 2004). Questions persist as to whether corporate organisations in Sri Lanka are availing themselves of the opportunity provided by the internet to communicate financial information to their stakeholders. While the use of the internet for the communication of financial information raises a variety of challenging issues, there is little doubt about its benefits. This paper is an important first step in gauging the extent to which such benefits are being captured in the Sri Lanka. Given the increasing importance of IFR and the lack of empirical study on IFR practices in the Sri Lanka, this paper provides an important contribution to filling the gap in our knowledge of this subject.

Evidence of IFR practices in various countries have been

presented by a number of academic and professional studies (Craven and Marston, 1999; Deller et al., 1999; Gowthorpe and Amat, 1999; Hedlin, 1999; Lymer et al., 1999; Pirchegger and Wagenhofer, 1999; Trites, 1999; Marston, 2003; Oyeler et al., 2003; Gowthorpe, 2004; Fisher et al., 2004; Laswad et al., 2005; Chan and Wickramasinghe, 2006). They indicate the growing use of the internet for corporate dissemination including providing annual reports on the internet and that the extent and sophistication of IFR practices varies across countries. The current paper provides evidence of IFR in Sri Lanka.

The 142 companies listed on CSE were identified on the Colombo stock market and other related websites. The companies' web site links, where available were, in the first instance, accessed through these websites. Otherwise, a search was made for the company site using search engines. Finally, the companies were contacted by telephone and required to provide their web site address, if any. Eighty-four CSE listed companies were found to maintain websites; of these, only 31 engaging IFR, in a variety of formats, types and volume. From the results of this study, it is possible to preliminarily conclude that IFR is still at an embryonic stage in Sri Lanka, providing lots of opportunities and challenges for all stakeholder parties in corporate reporting. The study highlights some of these, as well as a number of areas for further study.

The rest of this paper is structured as follows. A review of relevant literature is provided in Section 2. This is followed by a discussion of the institutional framework of the proposed research. The proposed research methodology is discussed in Section 4. Section 5 provides analyses and discussions on the extent and nature of IFR by companies listed in Sri Lanka. Summary and conclusions are presented in Section 6.

*Faculty of Management and Commerce, South Eastern University of Sri Lanka, Oluvil and can be reached at sheham@seu.ac.in

LITERATURE REVIEW

During the last decade the IFR issue has become of significant interest to researchers across the world. In general, the extant IFR studies can be categorized as either descriptive studies providing statistics on the extent and nature of IFR or association studies addressing the determinants of IFR.

Descriptive studies:

In reviewing a decade of academic and professional research, Lymer (1999) concluded that, as of the late 1990s, Europe lags the U.S. in both the amount of data reported on the internet and the sophisticated utilization of Internet technology. Further, he concluded that there was a considerable divergence of corporate usage of the internet within and between European countries, with the U.K. being the first in the list and Spain being the last. Marston and Polei (2004) surveyed the IFR practices of German companies between 2000 and 2003 and found significant improvements in the quantity and presentation of financial information at corporate websites.

In the international context, Debreceeny et al., (2002) examined IFR practices of 660 large companies in 22 countries and found that the majority of the sampled firms have websites in English and these sites are being used for both financial and non-financial information. Oyelerere et al., (2003) examined IFR practices of 90 New Zealand listed companies and found that 53.7% of 90 companies have websites and 61.1% of the companies provided their financial information in PDF format. Marston (2003) surveyed IFR practices of top Japanese companies in 1998 and 2001, and found that about 79% of the sample companies had a website in English in 2001 compared to 69% companies in 1998. In a similar study, Khadaroo (2005) examined IFR practices of Malaysian companies between 2000 and 2004 and found an increase in quantity, but little improvement in quality of internet reporting information to users.

Association Studies:

In addition to describing IFR, researchers have more recently begun to draw motivations from signaling and agency theories and conduct empirical research focused on linking several company specific characteristics with IFR disclosures. Independent variables studied include, among other things, size, industry, free float, profitability, analyst following, ownership diffusion, and director independence. For example, Ettredge et al., (2001) examined IFR practices of 402 U.S. companies using a 17-item disclosure index addressing accounting and other financial information attributes. They found that company size and industry variable were significantly associated with the extent of financial disclosure. Allam and Lymer (2003) examined corporate internet reporting in U.S., Canada, U.K., Australia, and Hong Kong utilizing a 36-item disclosure index addressing 12 general attributes and 24 Financial/Annual Report related attributes of IFR. They found that company size was significantly positively associated with the quality of financial disclosure in Australia only. Marston and Polei (2004) examined the IFR practices of 50 German companies listed on DAX 100

between 2000 and 2003. They found that, for the year 2000, company size and free float were significantly positively associated with the quality of financial disclosure. For the year 2003, the evidence links company size, profitability, and ownership diffusion with the quality of IFR. Xiao et al., (2004) examined IFR practices of 300 Chinese-listed companies and found that, for the 203 with website, the variables size, industry, ownership, and leverage were the determinants of voluntary internet-based disclosure of listed companies. In a more recent study, Abdelsalam et al., (2007) examined the association between the comprehensiveness of corporate internet reporting disclosures and corporate governance factors for a sample of 110 London-listed companies. After controlling for company size, profitability, and industry, they found that the comprehensiveness of corporate internet reporting is associated with analyst following and three corporate governance measures.

While international research on IFR has been voluminous, studies conducted in the Middle East region have typically focused on the challenges companies would face in the IFR environment. For example, Shareef (1998) and Mohammed (2001) have noted a number of IFR-related challenges, of which are the possible errors in the publishing process and the security and integrity of the financial information published. They also noted that if IFR represents the only tool for communicating financial information, there is the likelihood that access to such information would be limited to only those who possess computers and maintain internet skills. Our review of the literature reveals that Mohamed and Oyelerere's study (2008) and Mohammed et al.'s study (2009) might probably be the only two studies that are somewhat related to our present study. Mohamed and Oyelerere (2008) collected and analyzed data on the 49 companies listed on the stock market of Bahrain. Only 39 of these companies (79%) were found to be maintaining websites, of which 31 report financial information on their websites. Mohammed et al., (2009) investigated the extent and variety of IFR practices by the 142 companies listed on the Muscat Securities Market in Oman. They found that only 84 of the listed companies operate websites, of which 31 engage in IFR. Our study extends this descriptive line of work and documents the present state of IFR practices in Qatar.

Institutional frame work

This paper presents a proposed methodology for the investigation of the extent to which companies in the Sri Lanka use the Internet to communicate financial information to their stakeholders. The study will examine the extent of financial reporting on the websites of companies listed on the CSE in Sri Lanka. The environment and institutional framework of the location of the proposed study are discussed in this section.

The government of Sri Lanka realized sometime ago that in order to keep pace with international developments and enable the vision of a solid economy that will be recognised internationally, it was necessary to have a strong financial sector based on well-established financial companies. This will also facilitate a suitable environment for successful companies and projects that will add value to the economic



cycle. To realise these objectives, it was decided to set up a stock exchange. The exchange, called Colombo Stock Exchange, was set up. The decree set the legal framework for the establishment of the market as an independent organisation to regulate and control the Sri Lankan securities market and to participate with other organisations in setting up the infrastructure of the Sri Lankan financial sector. After ten years of continuous growth of the national economy in general and the market in particular, and to cope with new developments in the local and international financial sector, particularly in the securities industry, it was decided that there was a need for better control and regulation of market activities.

The government of Sri Lanka aimed to institute a well-established securities industry in the country, to help develop and sustain investors' confidence in the stock market. As a continuing process in the development of the securities market, the CSE has developed its web site to make information and financial data related to the performance of all listed companies available to and directly accessible by investors. This is aimed not only at ensuring transparency of activities, which is considered one of the main principles of a well organized market, but also at supporting the market by encouraging investors to make the right investment decisions. The CSE currently lists 142 companies.

METHODOLOGY

The aim of this study is to investigate and document the extent and nature of IFR practices among companies listed on CSE in Sri Lanka. The research methodology employed to accomplish this aim is presented in this section. The list of 142 companies listed on CSE was obtained from the CSE websites. Data regarding whether these companies have web site or not were obtained via links at the CSE websites. Where these do not exist, a search was made for the company web site using google.com and yahoo.com search engines. Finally, the companies were contacted by telephone and required to provide their web site address, if any. A similar sequence for identifying corporate websites was used by Craven and Marston (1999), Fisher et al. (2004) and Oyelere et al. (2003). Where corporate sites are available, we moved to the next stage of the data collection process by investigating the type of information provided at these sites. Four categories of information:

RESULTS AND DISCUSSION

There are 142 companies listed on the CSE as at the end of June 2006. These companies are from three main industrial

sectors, with 31 of them (about 22 per cent) in the banking and investment sector, 49 (about 33.5 per cent) in the insurance and services sector, and 62 (about 44.5 per cent) in the industrial sector.

Eighty-four (about 59 per cent) of these companies were found to have corporate websites. Of these "websites", 23 (about 27 per cent) are from the banking and investment sector, 28 (about 33 per cent) are from Insurance and Services, while 33 (about 39 per cent) are from the industrial sector. The remaining 58 companies (about 41 per cent) are without websites. These "non-websites" consist of 29, 21 and 8 companies from the industrial, insurance and services and banking and investment sectors, respectively. Sixty-two (44.50 per cent) of the CSE-listed companies operate in the industrial sector. However, only 33 of the 62 companies (53 per cent) in this sector have websites. This compares unfavourably with companies in the banking and investment sector, where about 74 per cent of companies have websites (23 out of 31). While, in the insurance and services sector 57 per cent (28 out of 49) are "websites". Generally, the proportion of web site ownership appears low among CSE-listed companies when compared with developed western countries such as the USA, UK,

Australia and New Zealand (Lymer et al., 1999; Oyelere et al., 2003). However, it is expected to compare favourably with those of similar countries in the Gulf/Middle East region. Eighty-four of the 142 companies listed on the CSE have websites. However, 14 of these companies still have their websites under construction, leaving an effective percent of 49.3 per cent (70 out of 142). This compares with a rate of 53.7 per cent for companies listed on the New Zealand stock exchange (Oyelere et al., 2003), 89 per cent of the top 100 Fortune Global 500 companies (Flynn and Gowthorpe, 1997), 92 per cent of the top 50 UK companies by market capitalisation (Lymer, 1997), 74.2 per cent of the Spanish IBEX-35 listed companies and 90 per cent of all 72 listed Finnish companies (Lymer and Tallberg, 1997). All the remaining 70 companies provide a variety of information on their sites. These include company history, product, financial and other information. A summary the various types of information provided is presented in Table 2.

Sixty-four companies provide historical/background information about them and 67 provide product/service information. This is compared with only thirty-one companies (44.3 per cent) that provide financial information at their web site, indicating perhaps that IFR, being a relatively new phenomenon, is not an overly

Table 1 : Types of information on companies website

Table II. Types of information on companies website	Sector	Company history			Product and services			Financial information		
		Yes	No	Total	Yes	No	Total	Yes	No	Total
Table II. Types of information on companies website	Banking and investment	11	4	15	12	3	15	8	7	15
	Industrial	30	1	31	31	0	31	12	19	31
	Insurance and services	23	1	24	24	0	24	11	13	24
	Total	64	6	70	67	3	70	31	39	70



Table 2 : Format of publication and nature of published financial information

Format of publication and nature of published financial information		Annual reports			Financial highlights			Both: A.R and F.H		
		PDF	HTML	MS Word	PDF	HTML	MS Word	PDF	HTML	MS Word
Banking and investment Industrial Insurance and services Toatal		3	2	2	3	3	2	3	2	2
		3	4	0	5	7	0	3	4	0
		10	0	0	10	1	0	10	0	0
		16	6	2	18	11	2	16	6	2

Table 3 : Number of years and nature of published financial information.

Number of years and nature of published financial information		Financial highlight		Annual reports		Both: A.R and F.H	
		One year	Two years	One year	Two years	One year	Two years
Banking and investment Industrial Service Total		2	6	1	6	1	6
		6	6	4	3	4	3
		0	11	0	10	0	10
		8	23	5	19	5	19

widespread practice among Omani companies. However, this result, taken on its own, may not provide us with a complete picture given that there are links to current but limited financial information about almost all the 142 CSE-listed companies at the CSE web site(providing financial information on their web site compares with 73.2 per cent of NZSE-listed companies (Oyelere et al., 2003) with websites, 81 per cent of US Fortune 150 companies (Petravick and Gillett, 1996), 55.7 per cent of quoted Spanish companies (Gowthorpe and Amat, 1999) and 50 per cent of the top 50 UK corporations (Lymer, 1997).

Analysis of the nature and extent of financial information provided by the 31 companies that provided financial information is presented in **Table 2 and 3**. Only 23 out of the 31 (74 per cent) companies providing financial information do so for two-year periods or more, the other eight companies (26 per cent) provide financial information only for one year. Of the 31 companies providing financial information, only 24 (77 per cent) provide both annual reports and additional financial highlights,

While the remaining seven provide only financial highlights. These means all 31 companies are providing financial highlights. Most (18 out of 31) of these companies provided their financial information in PDF format. This compares with 55 out of 90 (61.1 per cent) in a study of New Zealand listed companies (Oyelere et al., 2003). Of these, 16 provided both annual reports and financial highlights, while the remaining two provided financial highlights only. Six

companies provided both annual reports and financial highlights in HTML format, while another five companies used HTML in providing only financial highlights. On the other hand, MSWord was used by two companies that provided both annual reports and financial highlights.

Further statistical tests were undertaken to compare the types of information provided across different sectors. χ^2 tests were used to confirm possible difference or similarity across the three industrial sectors. The results of the test are presented in **Table 4**.

As presented in Table V, the results of statistical tests indicate that there are no statistically significant differences in the provision or non-provision of financial information by companies in the three industrial sectors of the CSE. While the banking and investment sector had the greatest proportion of providers (53per cent) to non- providers of financial information ,and the industry sector had the lowest(39percent providers), the level of difference between the three sectors is not statistically significant at the10 percent level or higher In other words, the three Industrial sectors are relatively similar in terms of the proportion of companies that provide financial information and those that do not provide .This result is similar to the findings of Craven and Marston(1999).

Summary and conclusion

This paper has investigated and reported on the extent and

Table 4 : χ^2 test of sectorial differences in IFR

Sector	Financial information						X ² test of sectoral differences in IFR
	Yes		No		Total		
	No.	Per cet	No.	Per cet	No.	Per cet	
Banking and investment	8	53.3	7	46.7	15	21.4	
Industrial	12	38.7	19	61.3	31	44.3	
Insurance and services	11	45.8	13	54.2	24	34.3	
Total	31	N/A	39	N/A	70	100	
Pearson X ²	Value		df		Asymp. sig.		
Likelihood ratio	0.912		2		(to-sided)		
No. of valid cases	70				0.634		

nature of IFR practices among companies listed on the CSE. Given that there is hardly any piece of empirical study on IFR practices in the this region, this paper is an important contribution to filling the gap in our knowledge of this subject. The paper provides a valuable insight into IFR in this region that will benefit all stakeholder parties in corporate reporting. We collected and analyzed data on the 142 companies listed on the stock market in Sri Lanka. Only 84 of these companies maintain websites, of which 31 provide financial information on the sites. We did not find statistically significant differences across Industrial sectors among companies that provide financial information on their websites. Majority of these companies use the PDF format to publish the financial information. Some companies also choose to use the Internet to provide additional financial information, in the form of financial highlights.

The findings of this study reveal a seemingly limited use of the internet for financial reporting purpose in Sri Lanka. It appears that despite the growing use of the internet as a medium for the dissemination of corporate information in other regions and countries of the world, many companies either do not have a corporate web site, or are not using their web site to disseminate such information. It is however possible that listed companies in Sri Lanka do not see an incremental benefit in engaging in IFR, given that the financial information of most of them is already published through the websites of the CSE (www.cse.lk). This should, however, not be the case, as companies should endeavour to take control and responsibility for the information communicated to their stakeholders. Despite such links to regulator and stock exchange websites in other countries (UK, the USA, Malaysia and Singapore, for example), IFR is already the norm, rather than the exception, among companies.

Perception about cost and technological expertise may be

other issues limiting the widespread implementation of IFR among companies in the Middle East. However, apart from initial set-up costs, which are relatively minor, the ongoing long-term costs of operating and maintaining corporate websites for IFR purposes are minimal.

The benefits to be derived from IFR in the current age of globalization and endemic market inter-linkages are likely to far outweigh the pecuniary costs. The current level of technological expertise and development in the regions more than adequate for the creation, operation and maintenance of corporate websites for IFR purposes. Perhaps, the "novelty" factor is the main factor responsible for the current low uptake of IFR among companies in Sri Lanka. This is likely to be generalizable to other countries in the region. If that is the case, the region is likely to witness an upsurge in IFR over the next five years and regulators and other governmental agencies, as well as other stakeholder groups will need to be prepared for this near-future development.

Currently, to the best of our knowledge, there is little by way of regulatory guidance or pronouncement on IFR in Sri Lanka and perhaps in most countries of the Middle East region.

This situation needs to be remedied in advance. Regulatory guidance needs to cover issues such as the general responsibility of companies to shareholders; whether IFR is a direct substitute or complement for hard copy financial statements that companies are required by law to provide to shareholders; rules regarding the publication of audited and non-audited financial information on the internet; the responsibility of external auditors for audited and non-audited financial information published on the internet (Fisher et al., 2003); corporate governance issues related to IFR (Oyelere et al., 2006);, etc. Such regulation may also aim to streamline web-reporting practices to avoid the problem of excessive variety of non-standardised practices

currently available in many countries.

This is a limited and preliminary survey of IFR practices of companies listed in Sri Lanka. It may not provide an in-depth view of the variety and specifics of practices currently available in Sri Lanka. This is the subject of an ongoing larger study. Future studies may further investigate the motivation of companies that engage in IFR in region. Such investigations may focus on both internal and environmental determinants of such practices. Studies may also survey various corporate stakeholder groups, including shareholders, management, relevant governmental agencies, auditors, etc. to ascertain their perceptions of the nature and extent of IFR practices in this region.

REFERENCES

- Allam, A. and Lymer, A. (2002), "Benchmarking financial reporting online: the 2001 review", working paper, University of Birmingham, Birmingham.
- Ashbaugh, H., Johnstone, K. and Warfield, T. (1999), "Corporate reporting on the internet", *Accounting Horizons*, Vol. 13 No. 3, pp. 241-57.
- Baker, C.R. and Wallage, P. (2000), "The future of financial reporting in Europe: its role in corporate governance", *The International Journal of Accounting*, Vol. 35 No. 2, pp. 173-87.
- Boritz, J. and No, W. (2005), "Security in XML-based financial reporting services on the internet", *Journal of Accounting and Public Policy*, Vol. 24 No. 1, pp. 11-35.
- Chan, W.K. and Wickramasinghe, N. (2006), "Using the internet for financial disclosures: the Australian experience", *International Journal of Electronic Finance*, Vol. 1 No. 1, pp. 118-50.
- Craven, B. and Marston, C. (1999), "Financial reporting on the Internet by leading UK companies", *The European Accounting Review*, Vol. 8 No. 2, pp. 321-33.
- Debrecey, R., Gray, G. and Rahman, A. (2002), "The determinants of Internet financial reporting", *Journal of Accounting and Public Policy*, Vol. 21 Nos 4/5, pp. 371-94.
- Deller, D., Stubenrath, M. and Weber, C. (1999), "A survey on the use of the internet for investor relations in the USA, the UK and Germany", *The European Accounting Review*, Vol. 8 No. 2, pp. 351-64.
- Ettredge, M., Richardson, V. and Scholz, S. (2001), "The presentation of financial information at corporate websites", *International Journal of Accounting Information Systems*, Vol. 2, pp. 149-68.
- Ettredge, M., Richardson, V. and Scholz, S. (2002), "Dissemination of information for investors at corporate web sites", *Journal of Accounting and Public Policy*, Vol. 21 Nos 4/5, pp. 357-69.
- Financial Accounting Standard Board (FASB) (2000), "Electronic distribution of business reporting information", Business Reporting Research Project, available at: <http://accounting.rutgers.edu/raw/fasb/brp1.pdf>
- Fisher, R., Oyeler, P. and Laswad, F. (2003), "Corporate reporting on the internet: audit issues and content analysis of practices", paper presented at the 2003 Annual Conference of the British Accounting Association, Manchester, 23-25 April.
- Fisher, R., Oyeler, P. and Laswad, F. (2004), "Corporate reporting on the internet: audit issues and content analysis of practices", *Managerial Auditing Journal*, Vol. 19 No. 3, pp. 412-39.
- Flynn, G. and Gowthorpe, C. (1997), "Volunteering financial data on the World Wide Web. A study of financial reporting from a stakeholder perspective", paper presented at the First Financial Reporting and Business Communication Conference, Cardiff, July 3-5.
- Gowthorpe, C. (2004), "Asymmetrical dialogue? Corporate financial reporting via the internet", *Corporate Communication: An International Journal*, Vol. 9 No. 4, pp. 283-93.
- Gowthorpe, C. and Amat, O. (1999), "External reporting of accounting and financial information via the internet in Spain", *The European Accounting Review*, Vol. 8 No. 2, pp. 365-71.
- Gowthorpe, C. and Flynn, G. (2001), *Smaller Listed Companies' Financial Reporting on the Internet 2000/2001*, Institute of Chartered Accountants in England and Wales, London, UK.
- Green, G. and Spaul, B. (1997), "Digital accountability", *Accountancy*, International edition, May, pp. 49-50.
- Hedlin, P. (1999), "The internet as a vehicle for investor relations: the Swedish case", *The European Accounting Review*, Vol. 8 No. 2, pp. 373-81.
- Hodge, F. (2005), "Hyperlinking unaudited information to audited financial statements: effects on investor judgements", *The Accounting Review*, Vol. 76 No. 4, pp. 675-91.
- Jones, M. and Xiao, J. (2004), "Financial reporting on the internet by 2010: a consensus view", *Accounting Forum*, Vol. 24, pp. 237-63.
- Khadaroo, I. (2005), "Corporate reporting on the internet: some implications for the auditing profession", *Managerial Auditing Journal*, Vol. 20 No. 6, pp. 578-91.
- Laswad, F., Fisher, R. and Oyeler, P. (2005), "Determinants of voluntary internet financial reporting by local government authorities", *Journal of Accounting and Public Policy*, Vol. 24, pp. 101-21.
- Laswad, F., Oyeler, P. and Fisher, R. (2000), "Internet financial reporting, opportunities and challenges", *African Finance Journal*, Vol. 2 No. 2, pp. 40-6.
- Louwers, T., Pasewark, W. and Typpo, E. (1996), "Silicon Valley meets Norwalk", *Journal of Accountancy*, Vol. 186, pp. 20-4.
- Lymer, A. (1997), "The use of the internet for corporate reporting – a discussion of the issues and survey of current usage in the UK", *Journal of Financial Information Systems*, available at: www.shu.ac.uk
- Lymer, A. and Debrecey, R. (2003), "The auditor and corporate reporting on the internet: challenges and institutional responses", *International Journal of Auditing*, Vol. 7 No. 2, pp. 103-20.
- Lymer, A. and Tallberg, A. (1997), "Corporate reporting and the internet – a survey and commentary on the use of the WWW in corporate reporting in the UK and Finland", paper presented at the 20th Annual Congress of the European Accounting Association, Graz, April.
- Lymer, A., Debrecey, R., Gray, G. and Rahman, A. (1999), *Business Reporting on the Internet*, International Accounting Standards Committee, London, November.
- McCafferty, J. (1995), "Investor relations: how much to reveal online", *CFO*, p. 12.
- Marston, C. (2003), "Financial reporting on the internet by leading Japanese companies", *Corporate*

Communication: An International Journal, Vol. 8 No. 1, pp. 23-34.

Marston, C. and Polei, A. (2004), "Corporate reporting on the internet by German companies", *International Journal of Accounting Information Systems*, Vol. 5, pp. 285-311.

Oyelere, P., Laswad, F. and Fisher, R. (2003), "Determinants of internet financial reporting by New Zealand companies", *Journal of International Financial Management and Accounting*, Vol. 14 No. 1, pp. 26-63.

Oyelere, P., Mohamed, E. and Al Shidi, S. (2006), "Accountability and transparency through the internet: a study of GCC corporate governance practices", *Proceedings of the 6th Annual Hawaii International Conference on Business*, 25-28 May, Honolulu, Hawaii, USA.

Petravick, S. and Gillett, J. (1996), "Financial reporting on the World Wide Web", *Management Accounting*, Vol. 78, pp. 26-9.

Pirchegger, B. and Wagenhofer, A. (1999), "Financial information on the internet: a survey of the homepages of Austrian companies", *The European Accounting Review*, Vol. 8 No. 2, pp. 383-95.

Ravlic, T. (2000), "Wild Wild Web", *Australian CPA*, August, pp. 26-30. Securities and Exchange Commission (SEC) (2002), "Final rule: acceleration of periodic report filing dates and disclosure concerning website access to reports", Securities and Exchange Commission, available at: www.sec.gov

Securities and Exchange Commission (SEC) (2003a), "Final rule: disclosure required by sections 406 and 407 of the Sarbanes-Oxley Act of 2002", Securities and Exchange Commission, available at: www.sec.gov

Securities and Exchange Commission (SEC) (2003b), "Final rule: mandated electronic filing and website posting for form 3,4 and 5", Securities and Exchange Commission, available at: www.sec.gov

Smith, B. and Peppard, D. (2005), "Internet financial reporting: benchmarking Irish PLCs against best practice", *Accountancy Ireland*, Vol. 37 No. 6, pp. 22-4.

Trites, G. (1999), "The impact of technology on financial and business reporting", *Canadian Institute of Chartered Accountants*.

Trites, G. and Sheehy, D. (1997), "Electronic disclosure making a hit on the net", *CA Magazine*, March, p. 10.

Wagenhofer, A. (2003), "Economic consequences of internet financial reporting", *Schmalenbach Business Review*, Vol. 55, pp. 262-79.

Wallman, S. (1997), "The future of accounting and financial reporting. Part 5: access accounting", *Accounting Horizon*, Vol. 11 No. 2, pp. 103-16.

Wickramasinghe, N. (2006), "Knowledge creation: a meta-framework", *International Journal of Innovation and Learning*, Vol. 3 No. 5, pp. 558-73.

Wickramasinghe, N. and Lichtenstein, S. (2006), "Supporting knowledge creation with e-mail", *International Journal of Innovation and Learning*, Vol. 3 No. 4, pp. 416-26.

Xiao, J., Yang, H. and Chow, C. (2004), "The determinants and characteristics of voluntary internet-based disclosures by listed Chinese companies", *Journal of Accounting and Public Policy*, Vol. 23 No. 3, pp. 191-225.