

## Does internet reporting improve the accessibility of financial information in a global world? A comparative study of New Zealand and Indian companies

Bikram Chatterjee  
*Charles Sturt University*

Lindsey Hawkes  
*Massey University, New Zealand*

Follow this and additional works at: <https://ro.uow.edu.au/aabfj>

Copyright ©2008 Australasian Accounting Business and Finance Journal and Authors.

---

### Recommended Citation

Chatterjee, Bikram and Hawkes, Lindsey, Does internet reporting improve the accessibility of financial information in a global world? A comparative study of New Zealand and Indian companies, *Australasian Accounting, Business and Finance Journal*, 2(4), 2008, 33-56. doi:[10.14453/aabfj.v2i4.3](https://doi.org/10.14453/aabfj.v2i4.3)

---

# Does internet reporting improve the accessibility of financial information in a global world? A comparative study of New Zealand and Indian companies

## **Abstract**

The accessibility of business reporting, including financial reports on company websites is not necessarily increased by providing more information on websites. The quality of Internet-based information is affected by both the accessibility and quantity of information provided. However, the accessibility of the information is an under researched area. This paper contributes to the existing body of knowledge on web-based business reporting, by considering the dimension of accessibility in terms of website appearance and visual design from four different perspectives. The aim is to consider the differences that occur in website organisation as a way of considering the accessibility of information provided on company websites. The paper considers the differences in the accessibility of website information between New Zealand and Indian companies as a means of demonstrating the variation that can occur across countries as well as within the same reporting structure. We conclude that Internet financial reporting does provide the illusion of comparability but without a more sustained focus on the harmonisation of terminology and attributes included in Internet reporting, the potential for comparison is reduced.

## **Keywords**

Comparative study, India, New Zealand, Internet, Web-based reporting; accessibility of information; information disclosure



# DOES INTERNET REPORTING IMPROVE THE ACCESSIBILITY OF FINANCIAL INFORMATION IN A GLOBAL WORLD? A COMPARATIVE STUDY OF NEW ZEALAND AND INDIAN COMPANIES

Bikram Chatterjee<sup>#</sup>

School of Accounting & Computer Science, Charles Sturt University, Australia

Lindsey Hawkes

School of Accountancy, Massey University, New Zealand

---

## Abstract

The accessibility of business reporting, including financial reports on company websites is not necessarily increased by providing more information on websites. The quality of Internet-based information is affected by both the accessibility and quantity of information provided. However, the accessibility of the information is an under researched area. This paper contributes to the existing body of knowledge on web-based business reporting, by considering the dimension of accessibility in terms of website appearance and visual design from four different perspectives. The aim is to consider the differences that occur in website organisation as a way of considering the accessibility of information provided on company websites. The paper considers the differences in the accessibility of website information between New Zealand and Indian companies as a means of demonstrating the variation that can occur across countries as well as within the same reporting structure. We conclude that Internet financial reporting does provide the illusion of comparability but without a more sustained focus on the harmonisation of terminology and attributes included in Internet reporting, the potential for comparison is reduced.

**Key Words:** Web-based reporting; accessibility of information; information disclosure

---

## 1. Introduction

In recent years the issue of web-based financial reporting has been the subject of attention by a number of researchers (Gallhofer, Haslam, Monk and Roberts, 2006; Lymer, Debrecey, Gray and Rahman, 1999; Marston, 2003; Oyeler, Laswad and Fisher, 2003). Two of the advantages of financial reporting on the Internet have been identified as, an increased frequency of financial information disclosures and the ability to increase the range of information disclosed (Davis, Clements and Keuer, 2003, Paisey and Paisey, 2006). Berk (2001) identified several reasons for companies to engage in Internet based business reporting. These include: the development of

---

<sup>#</sup>School of Accounting & Computer Science, Charles Sturt University, Panorama Avenue, Bathurst, NSW-2795, Australia. Ph: +61 2 6338 4427, Fax: +61 2 6338 4649, e-mail: [bchatter@csu.edu.au](mailto:bchatter@csu.edu.au)

\* The authors would like to acknowledge the comments of Mr. Ian Kirton, former Senior Lecturer, of School of Accountancy, Massey University in the process of writing the paper. The authors would also like to thank the participants at a research seminar at Central Queensland University, Australia, 2007 for their comments. We also wish to thank the two anonymous reviewers whose comments helped in improving the initial version of this paper.

communications that satisfy the requirements of stakeholders; the use of modern technology to present and disburse information; the ability to provide real-time financial reporting and an increased ability to report non-financial information.

Internet-based financial reporting also helps to mitigate incidental requests for information from non-shareholder financial statement users which can reduce the costs involved for companies as well as increase the responsiveness to these queries. Paisey and Paisey's (2006) exploration of the possibilities of mobilising Internet reporting to improve reporting on pension schemes is an example of this. The increase in information is envisaged to lead to an improvement in accessibility of information. A contrary view was considered by Upton (1998) who suggests that the use of modern technology improves the appearance of information rather than making business reporting more useful. Upton (1998) considered that in order to increase the usefulness of financial information, the Internet's flexibility need to be integrated with the information provided to facilitate navigation through the information and to make the information more dexterous. The interactive features and search facilities available in Internet reporting allow direct access to required information by users which can facilitate increased access and usefulness if they are used well. This facilitates a wider range of information being made available to interested groups without decreasing the accessibility of the information.

The issue of the ease of accessibility has gained considerable attention in various studies (Ashbaugh, Johnstone and Warfield, 1999; Oyelere et al., 2003; Upton, 1998). However, these studies do not provide a full measure of the usability of company websites, including an in-depth study of accessibility. Pirchegger and Wagenhofer (1999) opine that the Internet provides less time-consuming access to information. These authors partially addressed the dearth of study in regard to accessibility by examining the required number of clicks to access financial information, such as, net profit or cash flow, daily share price quotations and press releases. However, it can be suggested that the disclosure of a wide range of attributes at a specific level, such as at home page level or under an investor information category and the use of various terminology to mean the same attribute, also lead to the confusion of those accessing the information which would have an impact on accessibility of the information. This paper focuses on this dimension of Internet-based financial reporting to explore the structure of website information and its impact on the accessibility of information.

The present study contributes to the existing body of knowledge concerning web-based business reporting, with specific emphasis on financial information by examining the accessibility of financial information included on the websites of a sample of companies. A comparative study is completed of Indian and New Zealand companies to highlight the differences in website practices that can occur and how this can impact on the accessibility of information in a global economy.

## **2. Literature Review**

Previous studies have considered a range of attributes involved in Internet financial reporting although much of this research has focused on the attribute present rather than how the attributes identified are presented in the structure of the website. Lymer et al. (1999) surveyed the web-based financial reporting of 30 largest companies listed in the Dow Jones Global Index for each of 22 countries totaling 660 companies, by

identifying the attributes concerning the use of technology, performance reporting elements and financial statement elements. Their study reports that 410 companies in total had some form of financial information on their respective websites and 234 companies had detailed reports in HTML that indicates a higher level of investment by these companies to make this information available.

Debrecey, Gray and Rahman (2002) studied the Internet based financial reporting of 660 companies in 22 countries with the highest market capitalisation listed in the Dow Jones Global Index. These authors suggest that the presentation and content of Internet-based financial reporting is related to firm characteristics as well as environmental variables. Firm characteristics, such as, firm size, level of technology adapted, growth prospects and intangible assets have been found to be associated with Internet-based financial reporting. Firm size was measured by market capitalisation on 31 December 1998. Internet-based financial reporting was also related to listing(s) on United States' stock exchange(s), but general cross-listing was negatively related to Internet financial reporting. Similarly, Pirchegger and Wagenhofer (1999) investigated the use of the Internet to provide financial information by Australian compared with those of the German DAX 30 companies. These authors studied the Internet financial reporting by these companies by taking four basic criteria: the type of financial information published on the websites; the availability of press releases or information about stock prices that gives an indication of the timeliness of information; the extent of advanced technologies used by these companies; and lastly, the design and outline of the websites. Pirchegger and Wagenhofer (1999) conclude that the quality of Austrian websites improved in 1998 as compared to 1997. German websites did not significantly differ from Austrian websites. A strong relationship has been found between an advancement of the quality of Austrian websites with size and the percentage of the spread of ownership of shares, though this did not apply in case of websites of German companies.

Ashbaugh et al. (1999) surveyed 290 non-financial firms whose policies in regard to traditional financial reporting have already been critiqued by the Association for Investment Management and Research (AIMR). Websites were searched between November 1997 and January 1998. These authors reveal that 253 firms had websites and 177 (70 percent) engaged in Internet Financial Reporting (IFR). Ashbaugh et al. (1999) suggest that the differences in regard to operating as well as market performance measures had significant relation with IFR and non-IFR firms. A wide variation in regard to the quality of IFR practices has been found between IFR firms as well. Similarly, Ettredge, Richardson and Scholz (2001) surveyed 259 companies representing 15 industries that were followed by the AIMR. The sample was supplemented by all members of the biotechnology and computer technology industries. In total, companies belonging to 17 industries were surveyed. These authors reveal that websites of these companies presented about 38% of the accounting data items in their checklist and 30% of other financial data items. More established larger firms possessed a higher level of disclosure than smaller ones, that is, emerging technology firms. Most commonly disclosed financial data items were financial news releases, and most common items in regard to accounting were quarterly financial reports.

Craven and Marston (1999) surveyed the top 200 companies listed by market capitalisation in the United Kingdom in the *Financial Times*, 22 January 1998. These authors suggest that there is a positive relationship between the size of companies and the level of financial disclosure on the Internet. Firm size was measured in terms of turnover, number of employees, total assets employed and the average market value of companies.

Hedlin (1999) suggests that the development of websites of Swedish companies took place in three stages. The first stage, which started in 1995, comprised a generation of websites that contained mostly general information about the company. The second stage took place in 1996 and incorporated investor relations onto websites. Further development took place at the third stage, where unique features were used to provide information on websites further facilitating information dissemination in comparison to paper-based financial reporting. Hedlin (1999) surveyed the websites of 60 companies listed on the Stockholm stock exchange in 1998 and concluded that most of these corporate websites contain only information recycled from paper-based versions of annual and interim reports. However, there were signs of firms entering into the third stage of development.

Xiao, Yang and Chow (2004) focused on a developing economy, namely China, surveying the websites of 300 listed Chinese companies that have issued A-shares and are restricted for trading by Chinese citizens only. These authors conclude that the state share ownership has negative effects, while legal person ownership and an absence of ownership by individual shareholders has positive effects on Internet-based corporate disclosures. On the other hand, the effect of foreign share listings/ownership, use of Big-5 international auditors, proportion of directors that are independent, membership in the Information Technology industry, and the spillover from the China Securities Regulatory Commission's required to non-required disclosure items, suggest that Internet-based disclosures of Chinese companies are responsive to the environment.

There have been a number of studies conducted in regard to the Internet-based financial reporting by companies in New Zealand. Fisher, Laswad and Oyeler (2000) surveyed the websites of 123 New Zealand stock exchange listed companies and examined the nature of information published on their websites and the nature of published financial information, financial highlights presented on websites, the formats used, and the electronic features used in disclosing financial information on their respective websites. McDonald and Lont (2001) updated the study by Fisher et al. (2000) by taking a sample of 150 websites of New Zealand stock exchange listed Companies. Their study examined the nature and number of years that information has been disclosed on the respective websites of these companies together with the disclosure of financial information, format of financial information and financial highlights disclosed. Oyeler et al. (2003) surveyed the websites of 123 companies listed on the New Zealand stock exchange as at the end of 1998. These authors opine that Internet-based financial reporting is directly related with firm size, liquidity, industrial sector and the spread of ownership. Oyelere et al. (2003) measured 'size' in terms of market capitalisation and total assets.



Progression in the development of Internet-based reporting over time as well as differences between companies in regard to the style and attributes of the Internet-based reporting has been identified in previous literature. In this era of globalisation Internet reporting is considered by some to be a visible example of such endeavour and considered to be contributing to the rise of knowledge economies (Gallhofer and Haslam, 2006). This creates the impression that Internet reporting is an enabling feature of globalisation which greatly improves the quantity, quality and accessibility of company information. The open access and constant availability of the information on the web creates an impression that investors and other users of financial information are able to easily access desired information and compare these information items of various companies belonging to different countries at a click of their computer mouse button. The present study contends that the variation in company websites means this idea is not currently achieved.

### **3. The Sample**

The sample companies for the present study comprise the top 30 companies by market capitalisation of New Zealand and India respectively. New Zealand and India were selected because these two countries possess different cultural values and hence different accounting values (see, Hofstede, 1980, 1984, 1991; Gray, 1988). Hofstede (1980) first identified four value dimensions of national cultures as: large versus small power distance, individualism versus collectivism, masculinity versus femininity and strong versus weak uncertainty avoidance. Gray (1988) theorized associations between Hofstede's (1980) cultural values and accounting values. These accounting values are Professionalism, Uniformity, Conservatism, and Secrecy. The cultural value dimensions of India and New Zealand remained the same in Hofstede (1991) as they were ranked in Hofstede (1980). New Zealand and India have similar backgrounds with a common colonial past, and similar accounting systems based on a common UK influence (Chatterjee, 2005).

Since Gray (1988) theorized the association between Hofstede's cultural values with accounting values, Hofstede-Gray framework has been widely used in previous literature. There exists an ever growing number of studies that utilized Hofstede-Gray framework, which suggests the acceptability of the model among researchers in the field of accounting (see for example, Pratt and Behr, 1987; Perera, 1989; Doupnik and Salter, 1995; Baydoun and Willet, 1995; Sudarwan and Fogarty, 1996; Williams and Tower, 1998; Nobes, 1998; Jaggi and Low, 2000; Haniffa and Cooke, 2002; Armchambault and Armchambault, 2003; Santema, Hoekert, van de Rijt and van Oijen, 2005; Ding, Jeanjean and Stolowy, 2005; and Qu and Leung, 2006).

The application of Gray's (1988) model to the cultural values of New Zealand and India results in differing accounting values, with professionalism being low in India while high in New Zealand, secrecy being high in India and low in New Zealand, uniformity being high in India while low in New Zealand, and conservatism being low in both countries. Hence, it is expected these cultural differences provide an example of the differences that exist between countries and that users of financial information face when accessing information from company websites.

The list of top 30 New Zealand companies has been obtained from *The Weekly Diary*, published by the New Zealand stock exchange, as on 15<sup>th</sup> July 2004. The Indian

companies were selected from <http://www.indiainfoline.com> as on 30<sup>th</sup> July 2004. The use of market capitalisation is a popular measure of firm size in previous studies so is used as the basis for identifying the sample of the present study (Craven and Marston, 1999; Debreceny et al., 2002). It has been hypothesised that larger firms find Internet financial reporting more advantageous than smaller firms, as larger firms possess the resources and expertise essential for the production and publication of financial statements to meet the diverse requirements of many shareholders and creditors (Ahmed, 1994).

Company websites of New Zealand and India were identified via the New Zealand Stock Exchange website and <http://www.yahoo.com> respectively. All 30 New Zealand company websites could be accessed, while only 29 Indian company websites were found.

## **4. Results**

### **4.1 Disclosure of various attributes by companies**

#### **4.1.1 Attributes disclosed on websites**

This section investigates the attributes presented by respective New Zealand and Indian companies at two levels: on the website home page and under the investor information category. The attributes reviewed have been developed from the literature and from the websites reviewed to ensure the capture of a wide range of information items.

The analysis of the home pages identified the presence or non presence of 26 attributes. Attributes were categorised as “present” if they could be viewed on the home page without the need to perform further clicks. Information presented on the home page is the most easily accessible information.

The analysis of information items in Table I shows that a significantly higher number of Indian companies reveal employment opportunities, site map/index and a search option on their home pages than New Zealand companies. A difference of greater than 40% is considered to be significant. Notably greater percentage of Indian companies disclosed social/environmental information, contacts, financial information, terms and conditions attributes on their home pages than that of New Zealand companies. Notably greater is defined as a difference of greater than 15%.

The disclosures under the investor information pages of the company websites were examined for 20 attributes. The investor information category refers to information that can be accessed by clicking once on an investor information link. To be included in the analysis the Investor Information category has to be present on the company home page.



**Table I: Attributes at the home page level**

Serial No.	Attributes	New Zealand Companies		Indian Companies	
		No.	%	No.	%
1	Company Profile	29	96.67%	29	100%
2	Product and/or service information	29	96.67%	28	96.55%
3	Media releases	20	66.67%	23	79.31%
4	Investor Information	24	80	23	79.31%
5	E-commerce	2	6.67%	5	17.24%
6	Employment opportunities	9	30%	23	79.31%
7	Social/Environmental Information	5	16.67%	14	48.28%
8	Stock quotes	7	23.33%	10	34.48%
9	Contacts	21	70%	27	93.10%
10	Site map/index	11	36.67%	24	82.76%
11	Search	9	30%	23	79.31%
12	Help	4	13.33%	2	6.90%
13	Privacy	9	30%	9	31.03%
14	Management	4	13.33%	4	13.79%
15	Financial Information	3	10%	8	27.60%
16	Performance	4	13.33%	2	6.90%
17	Publications	5	16.67%	3	10.34%
18	Glossary	3	10%	0	0%
19	Stock Events	1	3.33%	0	0%
20	Financial Reports	2	6.67%	0	0%
21	Links	3	10%	4	13.79%
22	Terms and Conditions	12	40%	18	62.09%
23	Financial Presentation(s)	2	6.67%	2	6.90%
24	Corporate Governance	1	3.33%	1	3.45%
25	Interim Reports	1	3.33%	0	3.45%
26	Annual Reports	3	10%	3	10.34%

Note: Percentages have been calculated, out of 30 companies in case of New Zealand and out of 29 companies in case of India, as the website of one Indian company could not be accessed.

The analysis of information items in Table II shows that while ten New Zealand companies provide interim reports under the 'investor information' category, none of the Indian companies provide such report under this category. The number of New Zealand companies disclosing stock quotes, annual reports and shareholder key dates is notably greater than that of Indian companies. On the other hand, notably greater number of Indian companies reveals information in regard to the distribution of shares and shareholders than New Zealand companies.

**Table II: Information disclosed under Investor Information category**

Serial No.	Attribute	New Zealand Companies		Indian Companies	
		No.	%	No.	%
1	Stock quotes	7	29.17%	3	13.04%
2	Financial Summary	11	45.83%	8	34.78%
3	Annual Reports	13	54.17%	8	34.78%
4	Interim Reports	10	41.67%	0	0%
5	Quarterly Reports	2	8.33%	2	8.70%
6	Financial Presentation	8	33.33%	7	30.43%
7	Investor Contact Details	15	62.5	14	60.87%
8	Dividend Information	7	29.17%	4	17.39%
9	Social/Environmental Information	1	4.17%	0	0%
10	Sponsorship	1	4.17%	0	0%
11	Media Releases	2	8.33%	1	4.35%
12	Distribution of shares and shareholders	1	4.17%	7	30.43%
13	Corporate Governance	8	33.33%	6	26.09%
14	Shareholder key dates	10	41.67%	2	8.70%
15	Shareholder Meeting(s)	3	12.5%	1	4.35%
16	Shareholder Circular	1	4.17%	0	0%
17	Bye-Laws	3	12.5%	0	0%
18	Printed Documents Request	1	4.17%	0	0%
19	Investor Links	3	12.5%	1	4.35%
20	Investment Statement and Prospectus	1	4.17%	0	0%

Note: Here percentages have been calculated out of 24 in case of New Zealand companies and out of 23 in case of Indian companies.

A separate analysis, shows that while 21 New Zealand companies out of the 30 companies provided interim reports, only one Indian company out of 29 provided interim reports on it's website under the investor relations heading. It seems that Indian companies are lagging behind in regard to providing up to date information compared to New Zealand companies. This conclusion is tempered by the fact that while only two New Zealand companies provided quarterly reports on their websites, five Indian companies provided their quarterly reports.

#### **4.1.2 Attributes disclosed within annual reports**

This section investigates the attributes presented by New Zealand and Indian companies in their annual reports. The section is divided into three subsections: disclosure of selected performance reporting elements of companies in annual reports;

disclosure of selected financial statement elements; and the disclosure of historic information signified by the number of years for which annual reports were available.

The analysis of information items in Table III shows that greater percentage of New Zealand companies included a year-in-review, management report and social information than Indian Companies in their annual reports. On the other hand, notably greater percentage of Indian companies provided financial ratios and information on corporate governance than New Zealand Companies.

**Table III: Selected Performance Reporting Elements of Companies in Annual Reports**

Serial No.	Attributes	New Zealand Companies		Indian Companies	
1	Chair's Report	30	100%	26	100%
2	Year-in-Review	28	93.33%	23	88.46%
3	Management Report	27	90%	23	88.46%
4	Social Information	12	40%	7	26.92%
5	Financial Ratios	5	16.67%	11	42.31%
6	Information on Corporate Governance	19	63.33%	26	100%

Note: Percentages in the above table have been calculated by taking 30 as the basis in case of New Zealand companies, as all New Zealand companies revealed Annual Reports. On the other hand, percentages have been calculated by taking 26 as the basis in case of Indian companies, as only 26 companies revealed Annual Reports on their respective websites.

The analysis of information items in Table IV shows that all the companies who provided their annual reports disclosed Statement of financial position, an income statement, a cash flow statement, notes to accounts and an audit report in both New Zealand and India. This is due to mandatory requirements in both of these countries to provide these details. However, a significant difference lies in regard to the statement of movement in equity. In this regard, while 86.67% of New Zealand companies prepared this statement, none of the Indian companies did. This is due to the fact that, the preparation of this statement was not mandatory in India, while it is mandatory in New Zealand.

**Table IV: Selected Financial Statement Elements**

Serial No.	Attributes	New Zealand Companies		Indian Companies	
		No.	%	No.	%
1	Balance Sheet/Statement of Financial Position	30	100%	26	100%
2	Income Statement/Profit & Loss Statement	30	100%	26	100%
3	Cash Flow Statement	30	100%	26	100%
4	Notes to the Accounts	30	100%	26	100%
5	Changes in Equity Statement/Statement of Movements in Investors' Funds	26	86.67%	0	0%
6	Audit Report	30	100%	26	100%

Note: Percentages in the above table have been calculated by taking 30 as the basis in case of New Zealand companies, as all New Zealand companies revealed Annual Reports. On the other hand, percentages have been calculated by taking 26 as the basis in case of Indian companies, as only 26 companies revealed Annual Reports on their respective websites.

The following section provides a comparison of the number of years for which annual reports were available for New Zealand and Indian companies. This part of the analysis is significant, as it will indicate whether interested parties can get detailed historic information on New Zealand companies and Indian companies, by accessing their websites.

**Table V: Number of year(s) Annual Reports was available**

Years	New Zealand Companies		Indian Companies	
	No.	%	No.	%
1	4	13.33	5	19.23
2	2	6.67	4	15.38
3	4	13.33	6	23.08
4	7	23.33	1	3.85
5	3	10	7	26.92
6	4	13.33	3	11.54
7	3	10		
8	2	6.67		
9	1	3.34		
Total	30	100	26	100

The analysis of information items in Table V shows that, while three New Zealand companies provided annual reports for seven years, none of the Indian companies provided their annual reports for more than six years.

#### **4.2 Accessibility of financial information on websites**

Usefulness of websites is not necessarily enhanced by disclosure of a wide range of information. Information should be presented in such a manner that they can be accessed easily. This section concentrates on this issue of ‘accessibility.’

Accessibility has been reviewed from four perspectives. Firstly, a general comparison is provided by mapping the Indian and New Zealand company websites, revealing the number of companies that provide a list of information items and where these items are located on the companies’ websites. The location where these information items are disclosed is important because information that can be obtained via an increased number of clicks is harder to retrieve. To explore the location of various information items, the home page was considered to be level one. ‘Home page’ is easiest to access as visitors to websites arrive at ‘home pages’ first, as they enter a website. Secondly, an analysis of the routes that need to be followed to obtain annual reports is provided. If an annual report is disclosed on the home page, it is easiest to access. On the contrary, if it is disclosed at second or third level and can be obtained by several clicks it is harder to access.

After analyzing the routes to annual reports, a list of different words used to mean the same information item by different companies is provided, which gives an indication as to whether the different terminology is confusing to website users. Lastly, the technology used by the companies to disclose their annual reports on their respective websites is provided. An investigation into the technology used is important as HTML format helps in getting the required information easily and in less time compared to PDF format which does not provide such flexibility.

##### **4.2.1 Maps of websites of respective companies**

The levels at which information is disclosed by the companies is mapped in Appendix A and B. None of the Indian companies disclosed stock events and financial reports on their home pages, while some New Zealand companies disclosed such information, though they were few in number. However, some Indian companies introduced the term financial reports at the second level of reporting, that is, under their corporate profile, while others have disclosed these reports under an investor information category, which is again at the second level of web-based reporting.

##### **4.2.2 Routes to annual reports**

The pathways, which interested parties can take to access company annual reports was considered in this section. The main purpose of this segment of the present study was to investigate whether there is more than one way to access company annual reports of respective companies, which may lead to further confusion and make it more time consuming for users to find and access the information they require from the website.

The present study revealed that there are several different paths that could be followed to retrieve annual reports, which can be portrayed in the form of maps: Refer to

Appendix C for the map of New Zealand companies and Appendix D for the map of Indian companies. It is interesting to note that two New Zealand companies have provided annual reports under the heading 'media releases.' This demonstrates the variety of ways that information is disclosed on company websites.

A majority (24) of New Zealand companies presented annual reports on their websites at the second level. On the other hand, 13 Indian companies provided annual reports at the third level. This is significant because reaching the third level is more time consuming for users and it also represents a significant variation in the way information can be accessed.

#### **4.2.3 Use of Synonyms**

A wide range of synonyms were used by respective New Zealand companies to label the same information. This increases the level of confusion for users who may not be able to find the information they are looking for because of the different terminology used. The use of synonyms by New Zealand companies is detailed in Tables VI and VII, while Indian companies' details are given in Tables VIII and IX.

The analysis of Tables VI to IX reveals that, at the home page level, New Zealand companies used significantly wider variation in the terms used to label media releases and investor information, employment opportunities and financial summary than Indian companies. On the other hand, Indian companies used wider variation in the terms used to label financial information than New Zealand companies. Within annual reports, New Zealand companies used wider variation in the terms to label social information than Indian companies while Indian companies used wider variety of terms to label the year-in-review.

This variation in terminology represents a barrier to the accessibility of information both within countries and across countries. The variation between websites within countries can cause confusion but when this is added to a lack of familiarity with the dominant terminology within a country by users from outside the country the opportunity for confusion is greatly magnified.



**Table VI: Synonyms used on websites – New Zealand companies**

<b>Word</b>	<b>Synonym(s)</b>
Company Profile	Company Information; About us; About; Profile; Corporate Overview; Corporate Introduction; History
Media Releases	News & history; Media; News; Media Centre; Newsletters; News Archives; Media Room; Corporate Announcements; Newsroom; News Center; News & Events; Media Statements; News & Press; Press Releases; Investor News; News; News Release
Investor Information	Investor relations; Shareholder center; Shareholders; Investors; Investor Centre; Shareholders; Investment; For Investment; Shareholder & Investment; Shareholder Information; Investing made easy
Social/Environmental Information	Environmental Management; Community; Environmental care; Environment, Community; Environmental
Stock quotes	Share Price(s)
Contacts	Contact us
Search	Search site
Help	Online help; help center
Privacy	Privacy statement
Management	Board of Directors; Board; Managerial; Director & Management
Financial Information	Financials
Performance	Our Performance
Publications	Articles; Company Reports
Links	External Links; Quick Links; useful links; Investor links
Terms & Conditions	Terms of use; Legal
Employment opportunities	Careers; working at....; Career opportunities; Career Centre
Financial summary	Key statistics; Financial History; Financial Overview; Financial Highlights; Results
Financial Reports	Results & Shareholders Reports
Financial Presentations	Presentations; Web casts; Web-cast Presentations
Investor Contact Details	Shareholder Enquiries; Investor Contact Info
Dividend Information	Dividend Policy; Dividend History
Corporate Governance	Corporate Information; Governance-directors and management; Corporate Governance Policy
Shareholder key dates	Investor dates; Financial calendar; Key dates; Calendar of Events
Shareholder Meetings	Annual General Meeting; ASM (Annual Shareholders Meeting)
Bye-Laws	Constitution
Share Prices	Share Price History

**Table VII: Synonyms within Annual Reports of New Zealand companies**

<b>Words</b>	<b>Synonyms</b>
Chair's Report	Director's Report; Chairman's Review; Chairman's Report; Chairman's Statement; Letter to Shareholders; Chairman's Letter
Year-in-Review	CEO's Review (Chief Executive Officer's Review); Investor Snapshot; Review of Operations; Overview of Results; Highlights & key Figures
Management Report	Director's Report; Chief Executive Officers' Report; Executive Manager's Report; Letter to Shareholders; Management Discussion of Results
Social Information	Sponsorship & Community; Community and Environment; Environment people and community; Community; Environmental Philosophy; Our Responsibilities; Social, environmental and community participation; Safety, Health and Environment Report; Environment Report
Financial Ratios	Returns & Ratios; Key Ratios
Information on Corporate Governance	Governance Statement; Corporate Governance; Corporate Governance and the Board
Income Statement/Profit & Loss Statement	Statement of Financial Performance; Consolidated Statement of Earnings
Cash Flow Statement	Statement of Cash Flows
Notes to the Accounts	Notes and Accounting Policies; Notes to the Financial Statements
Changes in Equity Statement/Statement of Movements in Investors' Funds	Statement of Movements in Equity

**Table VIII: Synonyms used on websites – Indian Companies**

<b>Words</b>	<b>Synonyms</b>
Company Profile	Our company; Know us; About us; Corporate Profile,
Product &/or service information	Business categories
Media Releases	News Centre; Press release(s); Announcements & Press Releases
Investor Information	Investors Centre; Get Investor Services; Investor Relation(s); Shareholder Information
Social/Environmental Information	Environment, Health & Safety (EHS); Community; Our commitment; Community Initiatives; Social Responsibility
Contacts	Contact us
Management	Board of Directors; Organization chart; Chairman's Address; Director's Report; Management team; Management Profile
Financial Information	Financial News; View our financials; Financial Results; Financials
Performance	Sales Performance; Performance Reports
Publications	Archive
Terms & Conditions	Disclaimer; Website Agreement; Legal Disclaimer; Legal
Employment opportunities	Career
Financial summary	Financial Highlights; Performance Profile
Bye-Laws	Memorandum of Association

**Table IX: Synonyms used within Annual Reports – Indian companies**

Chair's Report	Directors' Report; Chairman's Statement; From the Chairman's Desk; Message from the Chairman; Chairman's Communiqué; Chairman's Letter
Year-in-Review	Performance at a glance; Ten years at a glance; Performance Trends; Highlights; Five Year Profile; Five Year Summary; Decade at a glance; The Results at a glance
Management Report	Management Discussion and Analysis Report; Management Discussion; Management's discussion and analysis of financial condition and results of operations
Social Information	Social Report; Environmental Report; Safety, Health, & Environment
Financial Ratios	Financial Performance Ratios; Balance Sheet Ratios; Key Ratios
Information on Corporate Governance	Corporate Governance Report; Corporate Governance
Notes to the Accounts	Schedules

#### 4.2.4 Use of technology

This section provides a comparison of the technology that is used to provide annual reports on websites by 30 New Zealand and 26 Indian companies that provided annual reports on their websites.

**Table X: Use of technology**

Technology	New Zealand Companies		Indian Companies	
	No.	%	No.	%
HTML	2	6.67	2	7.69
PDF	26	86.67	23	88.46
HTML and PDF	2	6.66	1	3.85
Total	30	100	26	100

The analysis of Table X shows that most of the companies in both countries did not use the HTML format when providing their annual reports on their websites. Hence, it can be stated that companies in both the countries are reluctant to use advanced technologies to disseminate annual reports over the Internet. This may be due to enhanced cost or due to treating the disclosure of annual reports on the Internet as electronically delivered "paper" documents, that is, the annual reports disseminated

on the Internet are similar to electronic copies of the traditional paper based annual reports that companies are familiar with producing.

All 30 companies in New Zealand provided their latest annual reports on their website while only 26 of the 29 Indian companies provided their latest annual report on their websites. Hence, Indian companies were lagging behind New Zealand companies, in this regard, although by a very small margin. The position of Indian companies in regard to providing interim reports on websites is significantly lagging behind the New Zealand companies. While 21 of the 30 New Zealand companies provided interim reports on their websites, only one of the 29 Indian companies, provided this report.

## **5. Discussion**

When comparing the attributes of the company websites in India and New Zealand some significant differences were identified. Accounting values derived from Gray's (1988) model can explain differences in the attributes disclosed on the websites and the accessibility of such information items on New Zealand and Indian companies' websites.

The differences in the attributes disclosed and the level at which information items have been disclosed on Indian companies' websites compared to New Zealand companies, represent a reduced visibility and accessibility of financial reports on the websites of the Indian companies. A reduced level of disclosure of interim reports, a greater number of annual reports begin available on the third level of the website and disclosure of a wide range of non financial information on the home page resulted in a lower visibility of the financial reports on Indian companies' website. This could be attributed to the high level of secrecy identified in India from the application of Gray's model (1988).

The inference is that the availability of a higher level of factual information on shareholdings, employment and social and environmental information is a way of decreasing the visibility of the financial information and therefore allows a lower level of financial disclosure to be achieved. On the other hand, New Zealand companies' websites include a greater level of up to date financial information, that is, more interim reports and current annual reports, as well as disclosure of information at a more accessible level on their websites which reflects the lower value of secrecy in New Zealand as identified in Gray's model (1988).

Coupled with the differences identified above, other variations were also observed between companies within their websites. This included a variation in terminology, structure of the website and the level at which similar information was included on the websites, which meant no consistent appearance existed for the websites reviewed. This means that the same approach could not be used to access multiple websites by users. The inability to replicate a search approach and find similar information labeled in the same terms means that some users would be unable to easily identify common information for comparison across companies. This fails to support the idea of a readily available, open and easy access to common information on companies across a global economy that many perceive Internet financial reporting to represent.

## **6. Conclusion**

The present study has explored a different dimension of web based financial reporting. Most of the available literature concentrates on the range of information disclosed on company websites (Ashbaugh et al, 1999; Debreceeny et al., 2002; Lymer et al., 1999). However, the disclosure of a wide range of information does not necessarily enhance the usefulness of websites if the required information cannot be accessed in an easy manner. It is this second perspective that has been the focus of the present paper along with a consideration of whether cultural differences have an impact on the approach taken to Internet reporting by Indian and New Zealand companies.

A comparison of the websites of New Zealand and Indian companies suggests that Indian companies are lagging behind the New Zealand companies in regard to reporting some attributes of investor information such as interim reports, stock quotes and annual reports. On the other hand, Indian companies provide more analytical information, such as financial ratios, compared to New Zealand companies. This may be a reflection of a greater level of secrecy in the accounting values of Indian culture which results in a reduced focus on financial statements and up to date financial information on company websites.

The idea of a global economy signifies an always available pool of comparable and accessible information on companies' websites. The review of the websites of 30 New Zealand and 30 Indian listed companies does not support the view that this goal has been achieved. Significant variations have been observed in the structure of websites, the level at which information was accessible within the websites and the terminology used. The observed variation in web design and the information disclosed reduces accessibility and provides the possibility of confusion when trying to compare information across companies.

Following the above discussion, it can be concluded that Internet financial reporting does provide the illusion of comparability. However, without a more sustained focus on the harmonization of terminology and attributes included in Internet reporting, the potential for comparison is reduced by the variation in level at which information items are disclosed, terminology used on websites, and the information items provided on company websites.



## REFERENCES

- Ahmed, K. (1994). An empirical study of corporate disclosure practices in Bangladesh. *Accounting Forum*, 18(2), 38-56.
- Archambault, J. & Archambault, M. (2003). A multidimensional test of determinants of corporate disclosure. *The International Journal of Accounting*, 38, 173-194.  
[https://doi.org/10.1016/S0020-7063\(03\)00021-9](https://doi.org/10.1016/S0020-7063(03)00021-9)
- Ashbaugh, H., Johnstone, K.M., & Warfield, T.D. (1999). Corporate reporting on the Internet. *Accounting Horizons*, 13(3), 241-257. <https://doi.org/10.2308/acch.1999.13.3.241>
- Baydoun, N., & Willett, R. (1995). Cultural relevance of Western accounting systems to developing countries. *ABACUS*, 31(1), 67-92. <https://doi.org/10.1111/j.1467-6281.1995.tb00355.x>
- Berk, J. (2001). Leveraging the internet for financial reporting. *Financial Executive*, May, 54-56.
- Chatterjee, B. (2005). Global convergence of financial reporting standards: Implications for India. *Indian Accounting Review*, 9(1), 29-54.
- Craven, B.M., & Marston, C.L. (1999). Financial reporting on the Internet by leading UK companies. *European Accounting Review*, 8(2), 321-333. <https://doi.org/10.1080/096381899336069>
- Davis, C.E., Clements, C., & Keuer, W.P. (2003). Web-based reporting: a vision for the future. *Strategic Finance*, September, 45-49.
- Debreceny, R., Gray, G.L., & Rahman, A. (2002). The determinants of Internet financial reporting. *Journal of Accounting and Public Policy*, 21, 371-394.  
[https://doi.org/10.1016/S0278-4254\(02\)00067-4](https://doi.org/10.1016/S0278-4254(02)00067-4)
- Ding, Y., Jeanjean, T., & Stolowy, H. (2005). Why do national GAAP differ from IAS? The role of culture. *The International Journal of Accounting*, 40, 325-350.  
<https://doi.org/10.1016/j.intacc.2005.09.004>
- Doupnik, T., & Salter, S. (1995). External environment, culture, and accounting practice: A preliminary test of a general model of international accounting development. *The International Journal of Accounting*, 30, 189-207.
- Ettredge, M., Richardson, V.J., & Scholz, S. (2001). The presentation of financial information at corporate websites. *International Journal of Accounting Information Systems*, 2, 149-168.  
[https://doi.org/10.1016/S1467-0895\(00\)00017-8](https://doi.org/10.1016/S1467-0895(00)00017-8)
- Fisher, R., Laswad, F., & Oyelere, P. (2000). Financial reporting on the internet. *Chartered Accountants Journal of New Zealand*, 79(3), 68-72.
- Gallhofer, S., & Haslam, J. (2006). Online reporting: Accounting in cybersociety. *Accounting, Auditing and Accountability Journal*, 19(5), 625-630.  
<https://doi.org/10.1108/09513570610689631>
- Gallhofer, S., Haslam, J., Monk, E., & Roberts, C. (2006). The emancipatory potential of online reporting: The case of counter accounting. *Accounting, Auditing and Accountability Journal*, 19(5), 681-718. <https://doi.org/10.1108/09513570610689668>
- Gray, S. J. (1988). Towards a theory of cultural influence on the development of accounting systems internationally. *ABACUS*, 24(1), 1-15. <https://doi.org/10.1111/j.1467-6281.1988.tb00200.x>
- Haniffa, R., & Cooke, T. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *ABACUS*, 38(3), 317-349. <https://doi.org/10.1111/1467-6281.00112>
- Hedlin, P. (1999). The Internet as a vehicle for investor relations: the Swedish case. *The European Accounting Review*, 8(2), 373-381. <https://doi.org/10.1080/096381899336104>
- Hofstede, G. (1980). *Culture's consequences: International differences in work-related values*. London: SAGE Publications Inc.
- Hofstede, G. (1984). Cultural dimensions in management and planning. *Asia pacific journal of management*, January, 81-99. <https://doi.org/10.1007/BF01733682>
- Hofstede, G. (1991). *Cultures and Organizations: Software of the mind* (1st ed.). England: McGraw-Hill Book Company, Europe.
- Jaggi, B. & Low, P. (2000). Impact of culture, market forces, and legal systems on financial disclosure. *The International Journal of Accounting*, 35(4), 495-519.  
[https://doi.org/10.1016/S0020-7063\(00\)00076-5](https://doi.org/10.1016/S0020-7063(00)00076-5)
- Lymer, A., Debreceny, R., Gray, G.L., & Rahman, A. (1999). *Business reporting on the internet: A report prepared for the International Accounting Standards Committee*.
- Marston, C. (2003). Financial reporting on the internet by leading Japanese companies. *Corporate Communications: An International Journal*, 8(1), 23-34.  
<https://doi.org/10.1108/13563280310458894>
- McDonald, R., & Lont, D. (2001). Financial reporting on the web-A 2001 review. *Chartered Accountants Journal of New Zealand*, September, 64-68.
- Nobes, C. (1998). Towards a general model of the reasons for international differences in financial reporting. *ABACUS*, 34(2), 162-187. <https://doi.org/10.1111/1467-6281.00028>



- Oyeler, P., Laswad, F., & Fisher, R. (2003). Determinants of internet financial reporting by New Zealand companies. *Journal of International Financial Management and Accounting*, 14(1), 26-63. <https://doi.org/10.1111/1467-646X.00089>
- Paisey, C., & Paisey, N.J. (2006). And they all lived happily ever after: Exploring the possibilities of mobilizing the internet to promote a more enabling accounting for occupational pension schemes. *Accounting, Auditing and Accountability Journal*, 19(5), 719-758. <https://doi.org/10.1108/09513570610689677>
- Perera, M. (1989). Towards a framework to analyse the impact of culture on accounting. *The International Journal of Accounting*, 24, 42-56.
- Pirchegger, B., & Wagenhofer, A. (1999). Financial information on the Internet: a survey of the homepages of Austrian companies. *The European Accounting Review*, 8(2), 383-395. <https://doi.org/10.1080/096381899336113>
- Pratt, J., & Behr, G. (1987). Environmental factors, transaction costs, and external reporting: a cross-national comparison, *The International Journal of Accounting Education and Research*, Spring, 1-24.
- Qu, W., & Leung, P. (2006). Cultural impact on Chinese corporate disclosure- a corporate governance perspective. *Managerial Auditing Journal*, 21(3), 241-264. <https://doi.org/10.1108/02686900610652991>
- Santema, S., Hoekert, M., Van de Rijdt, J. & Van Oijen, A. (2005). Strategy disclosure in annual reports across Europe: a study on differences between five countries. *European Business Review*, 17(4), 352-366. <https://doi.org/10.1108/09555340510607398>
- Sudarwan, M., & Fogarthy, T.J. (1996). Culture and accounting in Indonesia: an empirical examination. *The International Journal of Accounting*, 31(4), 463-481. [https://doi.org/10.1016/S0020-7063\(96\)90032-1](https://doi.org/10.1016/S0020-7063(96)90032-1)
- Upton, W.S. (1998). The internet and financial information- is there a future here? *Accounting and Technology*, June, 28-32.
- Williams, S., & Tower, G. (1998). Differential reporting in Singapore and Australia: A small business managers' perspective. *The International Journal of Accounting*, 33(2), 263-268. [https://doi.org/10.1016/S0020-7063\(98\)90029-2](https://doi.org/10.1016/S0020-7063(98)90029-2)
- Xiao, J.Z., Yang, H., & Chow, C.W. (2004). The determinants and characteristics of voluntary Internet-based disclosures by listed Chinese companies. *Journal of Accounting and Public Policy*, 23, 191-225. <https://doi.org/10.1016/j.jaccpubpol.2004.04.002>



Appendix B – MAPPING OF INDIAN COMPANIES' WEBSITES





