

**BUSINESS REPORTING:
HARNESSING THE POWER OF THE INTERNET FOR USERS**

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RESEARCH REPORTS

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The Research Committee is grateful to all those who participate in the refereeing process.

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EXECUTIVE SUMMARY

Background

Use of the Internet to disseminate and access corporate information is growing rapidly and is being facilitated by regulatory changes. Preparers benefit from cost savings. Users can benefit in a variety of ways, depending on the extent to which the capabilities of the digital medium are exploited. Possibilities include enhanced timeliness, greater ease of access and search, and improved facilities for data extraction, automatic comparisons and analysis. In addition, the ability of the medium to handle the reporting of a greatly expanded information set fits well with recent calls for the increased disclosure of a broader range of information, including qualitative information, quantitative non-financial performance indicators, and forward-looking information.

Purpose of study and research approach

A discussion document published by the Research Committee of The Institute of Chartered Accountants of Scotland (ICAS, 1999) made seven proposals regarding business reporting, many of which directly involve the use of the web. The principal purpose of this study is to investigate the views held by interested parties regarding these proposals. A questionnaire was sent to 1,645 interested parties representing four primary groups involved with reporting by listed companies: expert users; private shareholders; finance directors; and audit partners. A total of 538 responses were received, giving an overall response rate of 33%. Sixteen follow-up telephone interviews were also conducted.

Secondary objectives of the study are: to ask general contextual questions regarding the reporting obligations of listed companies and those having a right to be consulted on issues to do with business reporting; and to explore specific issues to emerge from the wider debate on web-based reporting.

This study represents, to the best of our knowledge, the first study of users' attitudes to web-based reporting, thereby complementing the many studies of web-reporting practices. A major feature of the study is that it allows the views and attitudes of the main interest groups in business reporting to be systematically *compared*, so that points of general agreement and points of major disagreement can be identified. Evidence of this type is of particular value to standard setters, whose role it is to encourage best practice and to consider (and, if appropriate, attempt to reduce or resolve) conflicts of interest between different groups.

The questionnaire also covered content and assurance aspects of business reporting, and two separate reports will present these findings.

Key findings

In this summary of key findings, descriptive labels, rather than numbers, are used to present the questionnaire results. Levels of agreement are described as 'strong', 'reasonably strong' or 'mild'. The extent of usefulness is described as 'extremely useful', 'useful' or 'moderately useful'. An explanation of the precise meaning of these labels can be found towards the end of chapter one.

- **Requirement to place audio-visual record of general meetings on web**

Both user groups offer reasonably strong support for this, with audit partners giving mild support and finance directors being neutral. The level of dispersion varies from high for finance directors to low for audit partners.

- **Requirement to broadcast general meetings with financial analysts/institutional shareholders**

Perhaps surprisingly, there is no general support from *any* group for webcasting (or broadcasting *via* satellite television) these meetings – both user groups are, on average, neutral while finance directors and audit partners are against (audit partners mildly and finance directors reasonably strongly). The level of dispersion ranges from moderate for expert users to very low for audit partners.

- **Requirement to place minutes of one-to-one meetings on web**

There are extreme differences between the views of the four groups. The two user groups are, unusually, very divided. On average, expert users are mildly against the proposal while private shareholders are mildly in favour, although the dispersion in views is at least high in both cases. Although audit partners are, on average, neutral, finance directors are strongly opposed, with low dispersion.

- **Requirement to webcast AGM**

Both user groups, on average, gave reasonably strong support for this proposal, with audit partners offering mild support. Finance directors mildly opposed the proposal. The level of dispersion of views within groups was generally low (the exception being the finance director group).

- **Requirement to replace AGM with online questioning**

All groups, on average, rejected this proposal. With the exception of private shareholders, the level of rejection was mild, but private shareholders expressed reasonably strong disagreement. For all four groups, however, the level of dispersion was moderate or high.

- **Requirement to update website information periodically, not continuously**

On average, all groups agree (either mildly or reasonably strongly) that more frequent, periodic updating is preferable, with no significant differences between the groups. Audit partners, who most strongly support this proposal, display very low dispersion, with two-thirds responding 'agree'.

- **Requirement to disclose frequency of updating**

Finance directors' support for this proposal was, on average, reasonably strong, with strong support from the other three groups. There was also very low dispersion in the views of each group.

- **Ability to create graphs of data series**

Users (especially the private shareholder group) rate this feature significantly more highly than the other groups (especially finance directors) – the mean response for both user groups is within the ‘useful’ range, while those of finance directors and audit partners fall within the ‘moderately useful’ range. Within-group dispersion was either low or very low.

- **Next and previous buttons**

All four groups, on average, rank this feature as useful (borderline extremely useful). Within-group dispersion was in all cases very low.

- **Email alerts**

All four groups, on average, rank this feature as useful (borderline extremely useful). Within-group dispersion was in all cases very low.

- **File formats**

The ‘don’t know’ category is quite large for many of these questions, especially for users and for the XBRL format. If the responses of all groups are combined, the spreadsheet format is seen as being of most use, followed by word-processed files and the XBRL format. The more common current formats (HTML and PDF) trail slightly behind in the rankings. Expert users and audit partners appear to rate type tags that allow automatic comparisons more highly than the other two groups.

There are, however, distinct differences in the rankings of the groups. Expert users rank the spreadsheet format top and HTML last. Private shareholders, by contrast, rank HTML top. Finance directors do not appear to make a significant distinction between the five formats, while audit partners rate PDF significantly below the rest. The level of within-group dispersion was very variable, reflecting the groups’ varying levels of familiarity with the different formats. Private shareholders displayed either moderate or high dispersion for the five formats; at the other extreme, audit partners displayed either low or very low dispersion.

Related observations

Taking these findings as a whole, several further observations can be made:

- All of the features are considered by all respondent groups to be, on average, at least fairly useful (mean < 3.0).
- In general, the three features considered to be most useful were: index business reporting information on home page; hyperlinked site map or table of contents available; and hyperlinks between financial statements and notes.
- In general, the four features considered to be least useful were the availability of alternative file formats: word-processed; XBRL; HTML; and PDF.
- The views of the four groups were significantly different for about half of the features (four types of hyperlink; ability to create graphs of data series; four of the file formats and type tags). Preparers tended to rate the usefulness of features to users below the usefulness rating given by users themselves.
- Respondents who were more familiar with the Internet perceived four features to have a greater level of usefulness than those with less familiarity.
- During interviews, respondents identified a number of advantages and disadvantages in relation to some of the features.

Recommendation 4: There should be no immediate moves made to encourage or require the following three ICAS (1999) proposals:

- place minutes of one-to-one meetings on web
- broadcast general meetings
- replace AGM with online questioning.

Justification: On average, *all* groups either disagree or are neutral towards these proposals (the minor exception is that private shareholders mildly agree that the minutes of one-to-one meetings be placed on the web). It seems clear, therefore, that the perceived disadvantages of these proposals currently outweigh the advantages.

Recommendation 5: Further research should be conducted to investigate the nature, magnitude and incidence of the costs and benefits relating to two ICAS (1999) proposals:

- disclose key information
- webcast AGM.

Justification: On average, these proposals receive reasonably strong support from both user groups, yet preparers are in mild disagreement. Thus, these changes are unlikely to be instigated by preparers and would require regulation. It is, therefore, critical that the costs and benefits are well understood before there is regulatory intervention. In particular, many commentators argue that the disclosure of key information used to manage the company is essential to the development of business reporting. Unfortunately, there are perceived to be major potential disadvantages to be set against the major potential advantages (in particular, the issue of commercial confidentiality). To what extent are expressed concerns about commercial confidentiality excuses, genuinely perceived threats (yet without significant substance) or actual threats?

Recommendation 6: Further research is desirable to investigate the nature, magnitude and incidence of the costs and benefits relating to two ICAS (1999) proposals:

- update website periodically, not continuously
- provide pre-packaged information.

Justification: On average, these proposals receive only mild support from both user groups (the exception is that private shareholders agree reasonably strongly that pre-packaged information be provided), and preparers are also mildly supportive or neutral. Thus, these proposals are perceived to have some potential advantages and no major disadvantages.

CHAPTER ONE

INTRODUCTION

This introductory chapter presents the background to the study, by considering briefly the impact that the Internet is having on corporate reporting and outlining the proposals made by ICAS (1999) and others regarding the electronic delivery and dissemination of business reporting information. The purpose of the study and the research approach adopted is then set out. The final section outlines the structure of the report.

Background

This section considers trends in Internet use, regulatory changes relating to the use of the Internet for corporate reporting (*i.e.* web-based, Internet or digital reporting), the advantages of web-based reporting, and the implications of changes in the business environment for the traditional reporting model.

Trends in Internet use

Throughout the developed world, there has been a substantial increase in access to the Internet in recent years. For example, *Newsnight* reported that 30% of UK households now have access to the Internet (14 November 2000), while a survey by the Office for National Statistics reported in September 2000 that 45% of adults in Britain have accessed the Internet at some time.

Use of the Internet to access corporate information is also growing. A major telephone survey of 1000 private shareholders (weighted to reflect the demographic characteristics of the national population) was undertaken for ProShare in 1999 (ProShare, 1999). It was found that 7% expressed a current preference for receiving information *via* the Internet, 25% said they would in the future consider using the Internet, and 16% used the Internet as an information source when buying shares. A global study undertaken in 1996 reported that investors ranked websites a lowly fourth from bottom out of 23 possible sources of information. Only two years later, this information source had risen to 13th out of 26 sources (Taylor, 1998).

A consequence of this is that many commentators are predicting that the printed annual report will gradually disappear as corporate reports increasingly move to the worldwide electronic medium of the Internet (*e.g.* Bury, 1999; Nordberg, 1999; Romain, 2000). On the supply side, Deller *et al.* (1999) examined the use of the Internet to provide financial information by the top 100 companies in the US, UK and Germany. They found that over 90% of US companies provide extensive financial information, with UK and German companies also providing a considerable amount of information, although they lagged behind the US.

Regulatory changes

The shift towards web-based reporting could not occur without significant legal reform. The UK government launched a major review of company law in March 1998 (DTI, 1998). In February 1999, a consultation document was issued by the Company Law Review Steering Group (DTI, 1999a). This document indicates a willingness to introduce any legal changes necessary to facilitate desirable changes in company reporting, including those attributable to changes in information and communications technology. Following a second major Consultation Document (DTI, 2000a) in March 2000, the Steering Group published a third later in the same year. This proposes that, for listed companies, both preliminary announcements and full annual reports be

- Information within the database be layered, with links to external information sources and a facility for free search. The layering feature addresses the information overload concerns of some non-expert users, while providing for the detailed information desired by other users. This feature also facilitates effective search strategies. The free search principle satisfies the desire of users to retain, at their option, control over the search and selection process.
- Information be available in pre-packaged forms based on templates relevant to each stakeholder group. This addresses the needs of non-expert users who can opt to simply access the relevant template, drilling down to whatever level of detail they specify; it also provides the relevant focus suited to different stakeholder perspectives.
- Access to general company meetings be extended *via* live broadcast; records and minutes of both general and one-to-one meetings being accessible electronically; a facility for on-line questioning of management being made available³. The extension of access reduces the unfair advantage aspect of corporate communications while retaining the benefits of company meetings; it also facilitates the subjective assessment of 'quality of management', which was ranked as the most important generic factor driving company performance. On-line questioning allows interaction which, among other things, enhances corporate governance.
- The database be updated more quickly and frequently. This overcomes users' expressed moderate dissatisfaction with the timeliness of corporate reporting while retaining the perceived advantages of regular, periodic information flows.

Purpose of study and research approach

The principal purpose of this study is to investigate the views held by interested parties regarding the ICAS (1999) proposals. To do this, a questionnaire was sent to 1,645 interested parties representing four primary groups involved with reporting by listed companies: expert users; private shareholders; finance directors; and audit partners⁴. Sixteen follow-up telephone interviews were also conducted (7 with expert users, 2 with private shareholders, 3 with finance directors and 4 with audit partners).

In addition to asking specific questions about the ICAS (1999) proposals, this study also took the opportunity to explore related specific issues to emerge from the wider debate. These were identified from a comprehensive review of the professional and academic literature on changes in business reporting published up to mid-2000. As a consequence, the questionnaire was both wide ranging and detailed, and findings are, therefore, written up in three separate reports. This report focuses on web-reporting issues (*i.e.* the delivery and structure of the business reporting package); separate reports will address content and assurance⁵.

This study represents, to the best of our knowledge, the first study of users' attitudes to web-based reporting. This complements the many studies of web-reporting practices. A major feature of the study is that it allows the views and attitudes of the main interest groups in business reporting to be systematically compared, so that points of general agreement and points of major disagreement can be identified. Formal statistical tests are performed to determine whether observed group differences are statistically significant. Descriptive evidence of this type is of particular value to standard setters, whose role it is to encourage best practice and to consider (and, if appropriate, attempt to reduce or resolve) conflicts of interest between different groups. These conflicts generally arise from the different incentives, motivations and experiences of the groups. Small, private shareholders tend to have quite different incentives and experiences from institutional shareholders and other professional users. They were, therefore, surveyed as a separate group.

Presentation and display of results

Results for each question are presented mainly using graphic displays with supporting summary data. As the responses are limited to six categories (including 'don't know'), the frequency distribution of responses for each respondent group can effectively be shown graphically by means of a 100% divided bar chart. Where any of the categories represents 1% or less of total responses, it is excluded from the graphic display to aid clarity. For this reason, percentages may not add to 100%. The mean (average) and standard deviation provide additional useful summary data about the distribution of responses.

The standard deviation (SD) is a formal measure of the dispersion of responses and therefore indicates the level of consensus within a group. For example, given a five-point response scale of 1 to 5, the standard deviation is 0 if everyone responds '3' and 2 if half of the group responds '1' and the other half responds '5'. In practice, the standard deviations observed tend to fall between 0.5 and 1.5. Rather than reporting the actual numbers, descriptive labels have been used to indicate the level of dispersion as follows: very low ($SD \leq 0.9$); low ($0.9 < SD \leq 1.0$); moderate ($1.0 < SD < 1.1$); high ($1.1 \leq SD < 1.2$); very high ($SD > 1.2$).

In some cases, the reporting of results is limited to the summary measures (using a column graph to display mean responses). In other cases, a table is used to present the key summary data.

For each question, a statistical test is performed to determine whether the observed difference between the four respondent groups is statistically significant⁶.

Where the agree-disagree scale is used (mainly chapter four), the commentary accompanying the results sometimes refers to the combined 'strongly agree' and 'agree' categories as a 'positive' view, and the combined 'strongly disagree' and 'disagree' categories as a 'negative' view.

The actual verbal anchors used in the questionnaire were, for the agree-disagree scale, 1 = 'strongly agree'; 2 = 'agree'; 3 = 'neutral'; 4 = 'disagree'; and 5 = 'strongly disagree'. For the usefulness scale they were 1 = 'very useful'; 2 = 'useful'; 3 = 'fairly useful'; 4 = 'of little use'; and 5 = 'not useful at all'. Because the mean responses are more tightly clustered than the response scales, alternative descriptive labels facilitate the discussion of results. For the agree-disagree scale, the following descriptive labels are used:

| Mean response | Descriptive label |
|---------------|--------------------------------|
| <2.0 | Strong agreement |
| 2.0 to 2.5 | Reasonably strong agreement |
| 2.5 to 2.8 | Mild agreement |
| 2.8 to 3.2 | Neutral |
| 3.2 to 3.5 | Mild disagreement |
| 3.5 to 3.8 | Reasonably strong disagreement |
| >3.8 | Strong disagreement |

For the usefulness scale (mainly chapter five), the range of mean group responses lies between 1.44 and 2.68 for the questions in chapter five and the following descriptive labels reflect this observed range:

| Mean response | Descriptive label |
|---------------|-------------------|
| 1.4 to 1.7 | Extremely useful |
| 1.7 to 2.3 | Useful |
| 2.3 to 2.68 | Moderately useful |

CHAPTER TWO

LITERATURE REVIEW

This chapter begins by considering briefly the expanding reporting obligations of companies. It then outlines representative views regarding the impact of technology on business reporting. Prototype web-based business reporting packages, which incorporate the unique, desirable features of the medium for corporate communication, are then discussed. This is followed by a discussion of the various Internet reporting formats, including an explanation of XBRL and its implications. The findings of recent surveys of company web reporting are then reviewed. Finally, the policy maker's dilemma in the face of conflicts of interest between interested parties is discussed.

Company reporting obligations

Corporate accountabilities are influenced by social, economic and political factors and so are subject to change. 'Accountability' can be defined as a process activated by an obligation: one party owes a timely reckoning to another about some past or future action and fulfills the obligation. Companies have many accountabilities, because they have many stakeholders: investors; suppliers; employees; customers; the government; and society at large. Elliott (1994, pp114-5) argues that information technology makes it easier to discharge accountability obligations because it is easier to record, report and transmit data, and concludes that existing accountabilities will be transformed.

In recent years, greater emphasis has been given to the needs of stakeholders other than shareholders. (A 'stakeholder' is defined as 'any group or individual who can affect or is affected by the achievement of the organisation's objectives' (Freeman, 1984, p46)). Stakeholder theory is based upon the twin premises that companies are accountable to all their stakeholders and that a major objective of management is to balance the conflicting demands of the various stakeholder groups (Ansoff, 1987, p51).

This stakeholder view has permeated through to the debate on business reporting. The RSA Inquiry envisioned a more inclusive approach to both business practices and business reporting. It recommended that the annual report be split into a single core document, published and available on the Internet, supplemented by reports aimed at specific stakeholder groups (RSA, 1995; 1998). (For a more detailed discussion, see ICAS (1999, pp17-18).) More recently, the 'inclusive' approach to business conduct has been debated during the company law review (DTI, 2000a, *p viii*).

Impact of technology on business reporting

In recent years, many influential individuals and organisations have considered the impact of developments in information and communications technology on business reporting. For example, the chairman of the American Institute of Certified Public Accountants (AICPA) Special Committee on Assurance Services, Robert Elliott (1992) argued that information technology is changing everything – it is changing profoundly the way that business is done and that this requires changes in external accounting. He called for greater disclosure of non-financial information, more frequent reporting and less aggregated reporting (pp74-75). Elliott (1994, p111) argued that companies could define 'views' into its database for different user groups.

HTML

HTML was first developed for text-based documents. Its popularity as an Internet language arose from the introduction of visual/graphic web browsers (Internet Explorer and Netscape Communicator are currently the two most popular web browsers). HTML specifies a set of structural and semantic tags to describe how elements are to appear on a page (*e.g.* tags relating to some formatting and the use of hyperlinks and multimedia). Documents can be viewed directly in the browser and HTML readily supports hyperlinking.

However HTML does not specify in detail how documents are to be presented. Consequently the printed document can look quite different from the original, which is a major limitation.

XBRL

The advantages of electronic financial information are likely to be greatly enhanced by the development of XBRL, which stands for eXtensible Business Reporting Language. It uses XML (eXtensible mark-up language - the next generation from HTML) to create documents where specific pieces of information are 'tagged' in plain language. This allows for easy exchange of information between formats. XML users can either create their own tags or use those created by others to describe document content (semantic meaning). Importantly, the tags separate semantic content from document presentation. New tags can be added as required, *i.e.* the language is 'extensible', which increases its usability.

XBRL is the XML standard for the financial reporting 'industry'. It is a classification scheme that lists all of the data elements that the XBRL Committee deems relevant and specifies how each element relates to others. For each data element, the taxonomy specifies:

- a unique identifier;
- the commonly used English name (element label);
- the immediate parent;
- the mathematical relationship between child and parent item (*i.e.* addition, subtraction or no relationship);
- a description;
- a customary order in which the item is presented in a financial statement; and
- the authority that indicates why the item is included in the taxonomy.

The taxonomy will be modified to suit each separate jurisdiction. A draft of the taxonomy based on IAS GAAP has recently been published (see <http://www.xbrl.org/core/2000-07-31/metamodel.xsd>).

The AICPA, in conjunction with others such as the International Accounting Standards Board (IASB), has set up a working party to develop a version of XML for corporate reporting. Every element of the financial statements, and Operating and Financial Review (OFR), will be coded using a simple tag. This technology supports tailor-made extraction of data and comparison across companies (XBRL, 2000). The technology would be freely licensed, to encourage adoption by annual report preparers and their auditors. The major software sellers have committed to developing software (automatic extraction tools) that will incorporate XBRL into their financial packages.

The advantages of XBRL are that information would be keyed in only once. With the click of a mouse, users would be able to automatically extract information from the Internet and transfer it to, say, Excel for comparison and further analysis.

Canada

A project undertaken for the Canadian Institute of Chartered Accountants (CICA) by Trites (1999a,b) surveyed the websites of 370 listed US and Canadian companies and considered the impact of technology on financial and business reporting. Among the issues considered are the difficulty in locating the boundary of the financial information, the need for easy export of information into user-designed models, and interactive reporting involving dialogue.

UK

In its survey of the websites of the FTSE 100 companies conducted in November 2000, *Financial Director* (2000) found that, in addition to HTML, 94 offer PDF⁹, 24 offer Microsoft Powerpoint (especially useful for downloadable analyst presentations), 17 offer Excel spreadsheets, and 14 offer Word. It concluded that, *inter alia*, sites should have: a clear link from the homepage to corporate (and financial) information; should offer an email service; offer as many different formats as possible (including an HTML version so that the document can be skim read on the web and PDF to allow downloading); and hyperlinking of the notes to the accounts to the relevant sections of the accounts themselves.

International

Deller *et al.* (1999) surveyed the top 100 companies in each of the US, the UK and Germany. They reported that, in January 1998, the percentage having a website was 95%, 85% and 76%, respectively. In considering the scope of accounting information disclosed, they identified six categories: balance sheet data; profit and loss data; notes; cash flow data; interim reports; and financial time series data. The percentages providing balance sheet data are, respectively, 95%, 74% and 65%, while the corresponding percentages for profit and loss data are almost identical: 95%, 75%, and 63%. Greatest variation between countries occurs in relation to the provision of time series data, supplied by 95% of US companies but only 28% of UK companies and 21% of German companies.

When they looked at features of the sites, they found that very few sites have hyperlinked accounting data (7%, 38% and 13%, respectively) or financial data in processable format (13%, 6% and 7%, respectively). Rather more supply PDF (35%, 35% and 17%).

Taylor (1998) reported on a wide-ranging survey of 100 websites of some of the world's largest international companies. 83% included the company's annual report, with nearly half of these requiring the user to open the document in PDF format (requiring special software) and slightly more offering HTML text. Only 13% made their presentations to analysts (slides or text) available on-line. Taylor observed that ease of site navigation is critical, with the first level of site navigation beginning on the home page.

In a large-scale study by the IASC (1999), the Internet presence of 660 companies, comprising the 30 largest listed companies from 22 countries, was examined. It was found that 84% had websites and 62% had some form of financial disclosure. Based on their findings and a review of technological opportunities, the study made recommendations for electronic business reporting in both the short term and the longer term.

PricewaterhouseCoopers (2000) undertook a survey of the web-reporting practices of 60 best practice websites worldwide during July 2000. In terms of ease of access, they found that the investor relations section was one click away from the home page for 88% of sites and two clicks for the remaining 12%. 62% offered a site map and 72% search facilities. Two-way communications was offered by most companies, with 83% giving email addresses and 57% using broadcast emails (*ie* email alerts) to warn of new information. Investor/analyst presentations were available as follows: 63% offered slides; 37% offered audio versions; 25% offered visual versions; and 50% included an archive of these presentations. In terms of document formats offered in addition

The objective for policy makers is twofold. First, they must seek to provide an environment where the area of overlap (area I in Figure 2.1) is maximised, *i.e.* maximise the information set that users find useful, companies are willing to disclose and auditors can verify. Developments in information technology are helping here, as it becomes cheaper to capture and disseminate large amounts of information and sophisticated software agents allow users to analyse this without suffering from information overload. Policy makers can also assist by, for example, putting in place safe harbour legislation to encourage greater disclosure by companies and reform the liability laws for auditors so that they become more willing to offer an opinion on a greater range of information types.

Second, policy makers must act as arbiters in resolving the remaining conflicts of interest. They must decide whether to take a user-oriented approach, a company-oriented approach or an auditor-oriented approach. In recent years, the user-oriented approach has been most in evidence, reflecting shifting social attitudes to corporate responsibilities. This is not to say that policy makers always opt for the users' preferred solution, but rather that they have a predisposition to that group. For each issue, policy makers will weigh up the costs and benefits (direct and indirect) of different options for each group and then decide. Costs and benefits are weighted to favour the user group.

In the present study, the existence of conflicts of interest can be measured via statistical analysis of the questionnaire responses, specifically by assessing the level of across-group consensus. The questionnaire responses also allow the homogeneity of each group's views to be assessed (within-group consensus). This concept is not part of the Cyert and Ijiri framework.

Summary of key points

This chapter has summarised recent professional and academic debate and empirical evidence relevant to the discussion of web-based corporate reporting. The nineteenth century view of companies being accountable purely to their shareholders has given way to an acceptance that there are wider corporate accountabilities and, consequently, wider reporting obligations. Technological developments, especially the Internet, facilitate the discharge of these obligations by making it easy to disseminate a large amount of information structured in a variety of ways. Changes in business practices also argue for the dissemination of more information, presented in a way that can be interrogated based upon users' choices. Once again, technology acts in a facilitating capacity.

Surveys of company practice show that most companies are still at the first stage of web-based reporting, in other words they view the web report as a substitute for the printed report and merely duplicate the printed report on the web. No attempt is made to harness the power of the web to present complex information in alternative ways or offer new information content or information search and analysis tools. Projects and initiatives such as *Fauxcom* and XBRL point the way forward.

Finally, the underlying nature of the policy maker's dilemma was discussed. Because key interested parties have different perspectives, they often assess the costs and benefits of proposed changes to business reporting differently, generating conflicts of interest. The role of the regulator is to seek to minimise these conflicts and arbitrate on those that remain.

Endnotes:

⁷ (<http://www.ep.cs.nott.ac.uk/pdfcorner/noddypdf.html>).

⁸ The introduction to the *FauxCom* website and IASC (1999, pp26-30; 41-43; 48; and 74-75) make many of the same points.

⁹ By contrast, Craven and Marston (1999, p327) report that in July 1998 (just over two years earlier) only 9 of the top 200 UK companies offered PDF.

CHAPTER THREE

COMPANY REPORTING OBLIGATIONS

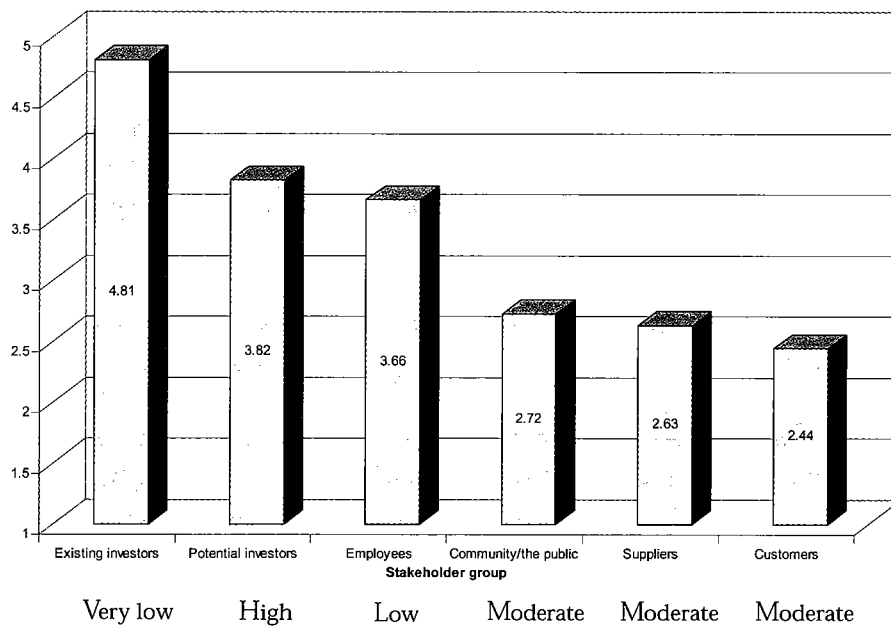
This chapter begins by looking at the views of all 538 respondents (*i.e.* the combined groups) regarding the extent of a listed company's obligation to report to six key stakeholder groups. These groups are: customers; employees; suppliers; existing investors; potential investors; and the community/the public. It then considers, for each stakeholder group, the variation in views between the four main respondent groups. Finally, the extent to which each respondent group considers that private shareholders should be consulted on issues related to company external reporting is addressed.

Views of combined respondent groups

The column graph in Figure 3.1 shows the overall mean response to the question about the extent of listed companies' reporting obligations, displayed in descending order of importance. Not surprisingly, the obligation to existing investors comes first; this obligation is viewed as little short of 'absolute'. Then comes the obligation to potential investors and employees, which are ranked similarly between 'moderate' and 'major'. The final cluster of three stakeholder groups includes the community, suppliers and customers, which are all ranked between slight and moderate.

The dispersion of responses is shown in Table 3.1. As explained in chapter one, the standard deviation (SD) is used as the basis for describing the level of dispersion as follows: $SD \leq 0.9$ (very low); $0.9 < SD \leq 1.0$ (low); $1.0 < SD \leq 1.1$ (moderate); $1.1 < SD \leq 1.2$ (high); $SD > 1.2$ (very high). It can be seen that there is most consensus regarding the obligation to existing investors and least consensus regarding that to potential investors.

Figure 3.1 Views of listed company reporting obligations



This point was also made by a fund manager:

We didn't really see any need to provide information for customers or suppliers. It was up to them to ferret for what information they could. (expert user)

Yet another audit partner considered that wider disclosures were commercially unacceptable:

People who are running larger organisations now have to be aware that there is this broader church of people who have legitimate interests but there's a line to be drawn and I guess it's a line of commerciality...how much information do you share with the customer about a specific product or its performance or whatever? (audit partner)

Potential investors

Table 3.1, row 2 shows the summary results in relation to potential investors. The differences observed between the views of the four respondent groups were significant at the 5% level. The level of dispersion of views varied considerably within groups, ranging from the finance director group, which exhibited low dispersion, to both user groups which exhibited high dispersion.

Employees

Table 3.1, row 3 shows the summary results for employees. The differences observed between the views of the four respondent groups were significant at the 1% level. The dispersion of views did not exceed 'moderate' for any group.

One finance director who rated the obligation to employees as absolute referred to the German model of corporate governance:

The dominance of the German lobby in Euro legislation is almost bound to result in the gradual creeping of the socialisation of corporate governance ... employee representation and all the rest of it. (finance director)

Two investment analysts who rated employees equally to investors justified this in relation to the importance of intellectual capital to many businesses:

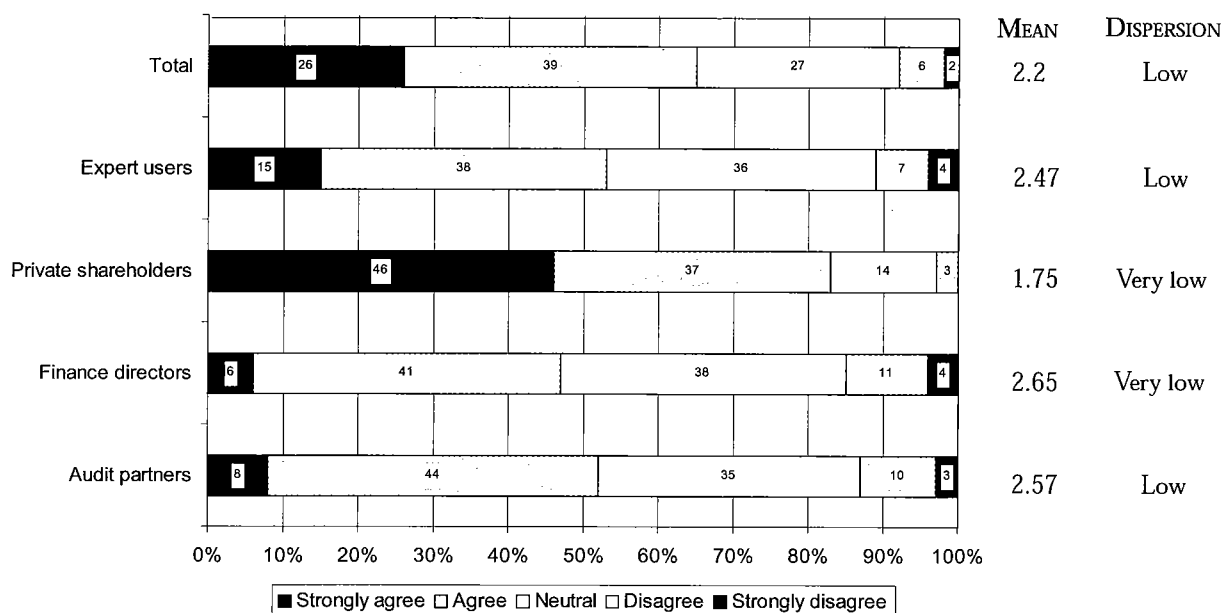
Unless you carry your employees with you then the success of the business can be compromised, now that intellectual capital is actually the core element in a lot of companies. (expert user)

Employees are much more significant than you might have immediately assumed, given things like intellectual capital. (expert user)

Community/the public

Table 3.1, row 4 provides the summary results for each respondent group in relation to the community/the public. The differences observed between the views of the four respondent groups were significant at the 5% level. Dispersion of views varied considerably within groups, ranging from audit partners having very low dispersion to private shareholders having high dispersion.

Figure 3.2 Need to consult private shareholders



On average, the four groups agree that private shareholders should be consulted, despite their possible lack of knowledge regarding business reporting issues (*i.e.* the means are less than 3). Not surprisingly, the group at the centre of the question, private shareholders, agree most strongly, with 83% expressing a positive view. The other group's views are closer to a neutral position. These differences between the groups' responses are found to be highly significant (at the 0.1% level).

Those who disagreed with consultation expressed the following reasons:

There is a practicality issue about consulting with private shareholders, but equally as a private shareholder myself I actually get a little bit fed up with a number of the consultation initiatives that are sent to me by companies I'm involved with as a private shareholder. Frankly I feel that there are esteemed bodies that are quite capable of shaping the agenda for me as a private investor. (audit partner)

The private shareholder increasingly understands less of the bigger issues that are facing the company...in terms of corporate governance my experience is that they are not up to the task. (expert user)

A more neutral position was justified thus:

I suppose I'm protecting the companies' interests here in terms of competitive advantage...I get concerned that sometimes what the private shareholder would want is not necessarily in the best interests...you can buy and sell your shares tomorrow and you've therefore got no allegiance to the company. (audit partner)

Those who agreed referred to the avoidance of bad publicity, the danger of antagonising this group, and fairness:

We are quite happy to have these kind of consultations and in fact we'd rather do that and pick up issues before they arise than be hit with them after. (finance director)

CHAPTER FOUR

ATTITUDES TO ICAS (1999) PROPOSALS RE WEB-BASED REPORTING

The ICAS (1999) discussion document offered explicit proposals regarding the content, structure and frequency of web-based business reporting packages. This chapter presents and discusses the views of users, preparers and auditors regarding these proposals. It should be noted that some of these proposals subsume those made by others, such as Elliott (1992; 1994) and Wallman (1995; 1997). A final section investigates the relationship between respondents' familiarity with the Internet and their stated attitudes and preferences.

General amount and type of information

ICAS (1999) proposed, broadly consistent with the recommendations in *Making Corporate Reports Valuable* (ICAS, 1988), that an electronic library-type resource, based on the corporate database used by management, be made available to external users. This proposal addresses the general amount and type of information that is made publicly available. Figure 4.1 reproduces the specific question asked and graphs the distribution of respondents' views; the mean and dispersion are shown in a panel on the right hand side of the graph.

Figure 4.1 Requirement to disclose key information

Question: To what extent do you agree that a company should be required to make available key information that it uses to manage the company (subject to legitimate concerns re commercial confidentiality and risk of misinterpretation).

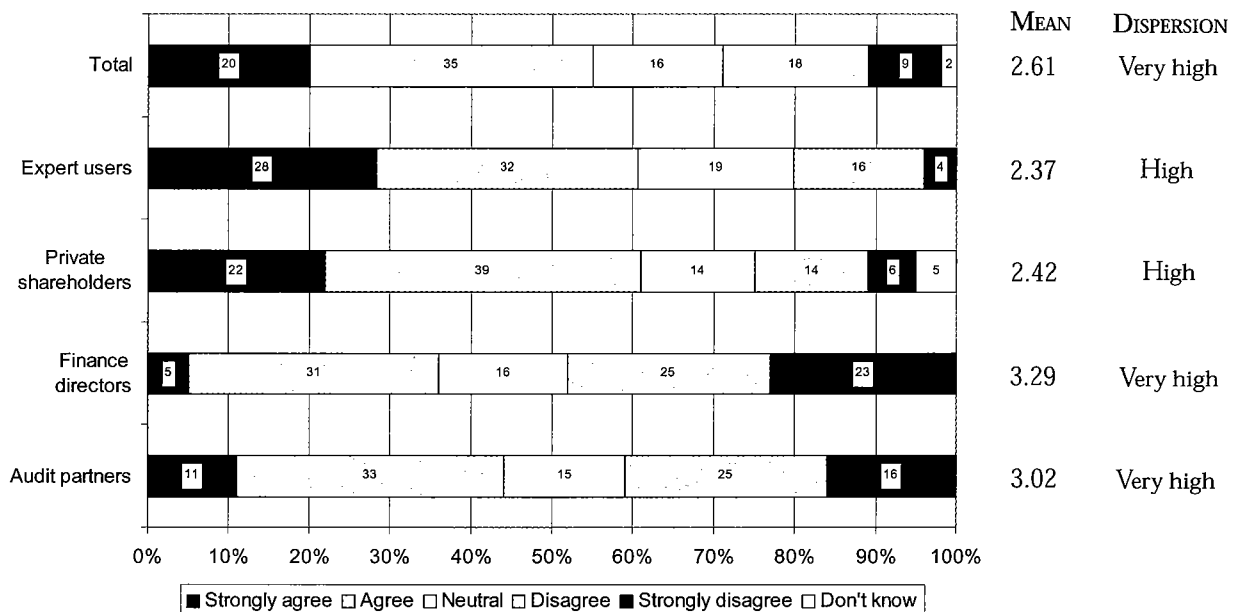
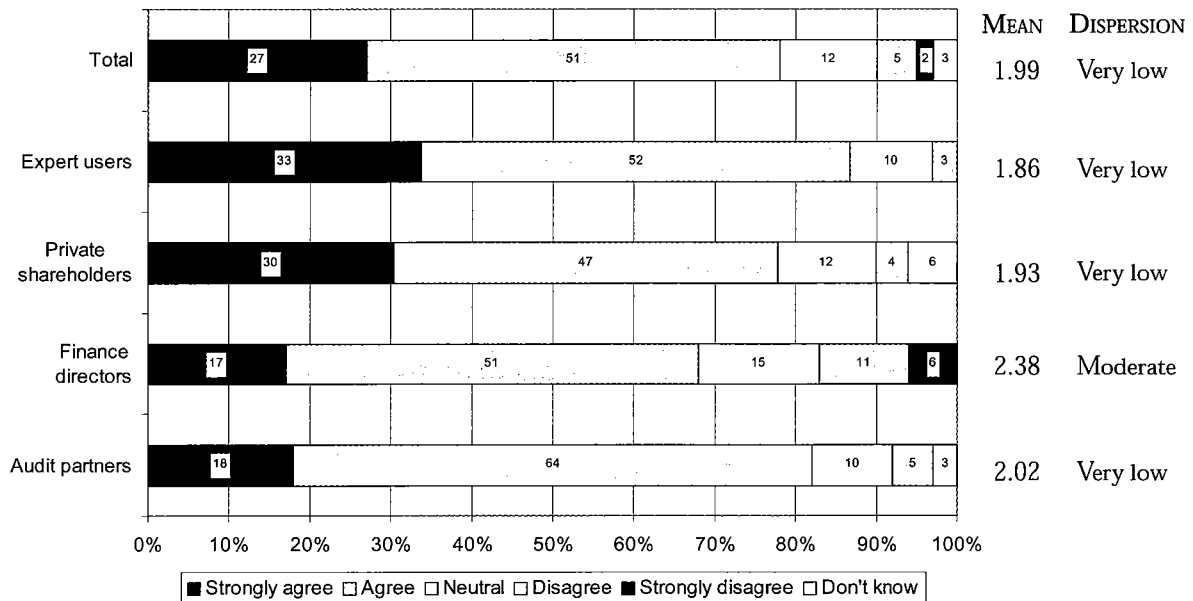


Figure 4.2 Requirement to layer information

Question: *To what extent do you agree that companies should be required to layer information to avoid information overload, while providing the detail desired by many (i.e. overview in top layer, becoming progressively more complex and detailed in lower layers).*



All groups agree, with reasonably high within-group consensus, that it is desirable to layer information to avoid information overload. Interestingly, expert users and private shareholder views are closely aligned and strongly in agreement with this requirement. It may be that the aspect of layering valued by expert users, who are less likely to suffer from information overload, is the structure imposed, while private shareholders value more the ability to restrict their view of the data to a broad overview.

Finance directors, though least strongly in agreement with this proposal, still offer reasonably strong support, as do audit partners. While 68% of finance directors are positive, 17% are negative, resulting in moderate dispersion of views. The differences between the groups' views are significant at the 0.1% level.

Respondents supported this proposal because of the ability of layering to enhance communicative effectiveness, to mitigate information overload and the increasing complexity of reporting, and to serve multiple audiences (all of which are linked). For example:

[Layering] appeals to me in terms of getting across the information...it is very important for the private client. The danger is that it passes an editorial control over to the companies which I'm not totally happy with. (expert user)

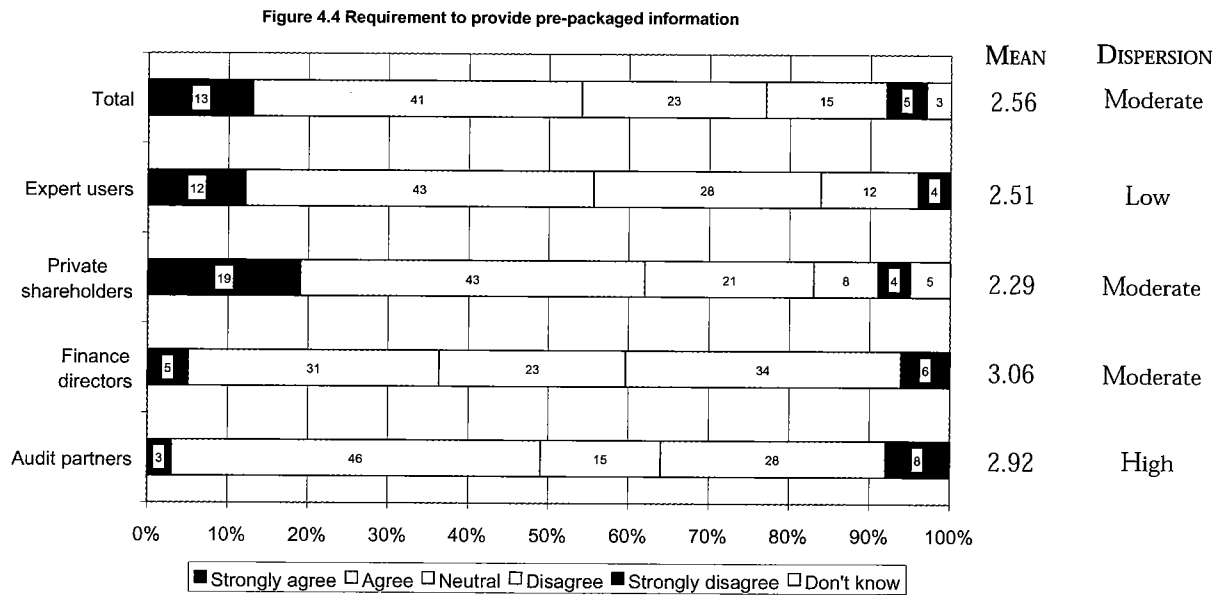
I've just thrown half a dozen weighty annual reports out because there were better things to do, plus for ignoramuses like me a lot of it is over my head. (private shareholder)

You can start with some overall information about the company as a whole and then start drilling down ... Part of the problem with reporting at the moment is the increasing complexity makes it very difficult for users to really get an understanding as to what's going on. (audit partner)

I'm very much in favour of the layering of information as a means of making the information available to those who want it, without overloading those who don't. (expert user)

Figure 4.4 Requirement to provide pre-packaged information

Question: *To what extent do you agree that companies should be required to provide a range of pre-packaged information, based on a standardised template for each group of users, specified by an external regulatory body.*



Although, on average, both user groups (especially private shareholders) favour this idea, support is only 'mild' for expert users. Finance directors and audit partners are, on average, neutral. It is to be expected that private shareholders, as non professionals, would benefit most from this proposal. The differences between the groups' views are significant at the 0.1% level.

Concerns regarding pre-packaging related to issues of cost, information equality across groups and the perceived disadvantages of over regulation:

It's cost again. It would be more work for the company. I think the user has to take some responsibility for selecting what they want. (expert user)

It's important that it is the same set of information that's available to everyone. (expert user)

I'm quite happy to see the mandatory inclusion of certain items of content but I think management should be left to its own devices as to how it presents that and the bias that it wishes to give. (expert user)

Figure 4.6 Requirement to place audio-visual record of general meetings on web

Question: To what extent do you agree that companies should, to reduce unfair advantage, be required to extend access to general company meetings with financial analysts/institutional shareholders by archiving an audio-visual record on website.

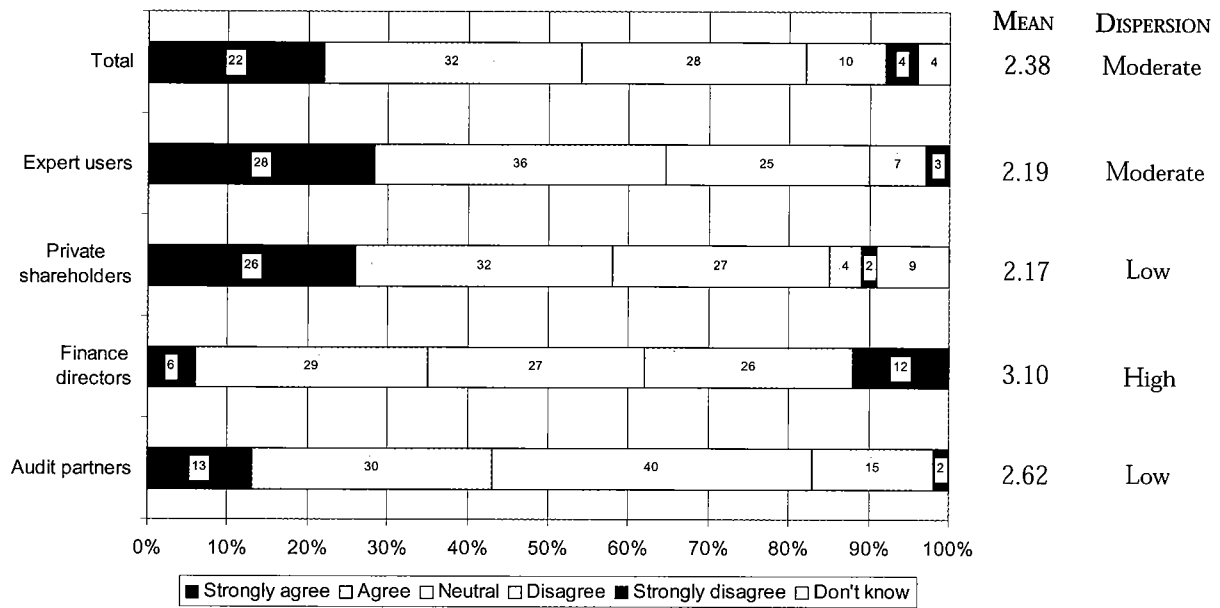
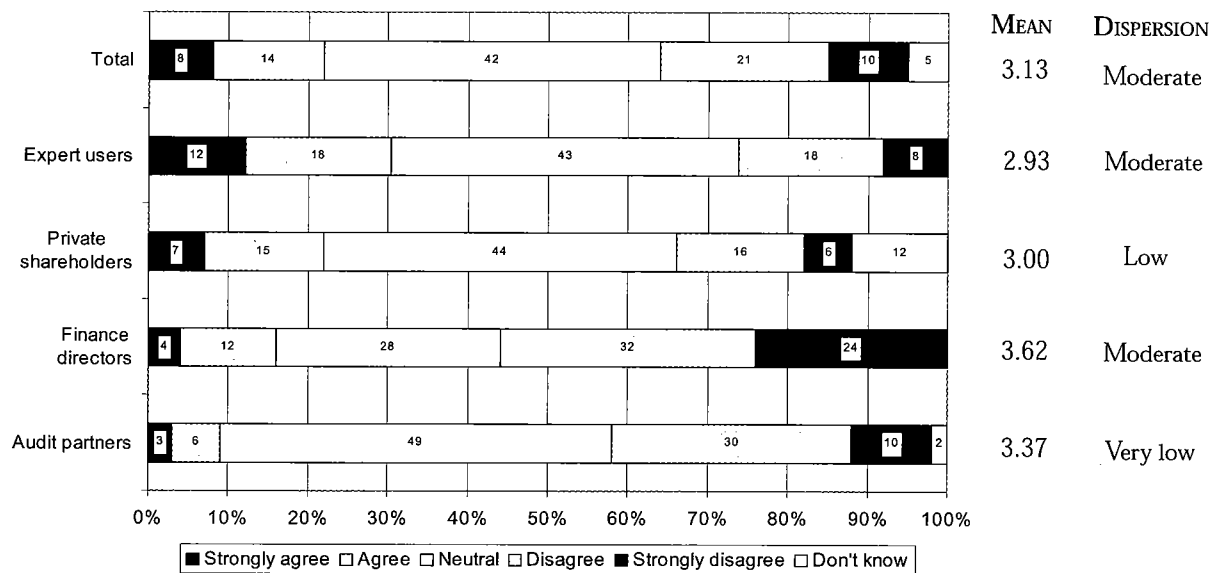


Figure 4.7 Requirement to broadcast general meetings

Question: To what extent do you agree that companies should, to reduce unfair advantage, be required to extend access to general company meetings with financial analysts' institutional shareholders by broadcasting live via satellite television channel or video webcast.

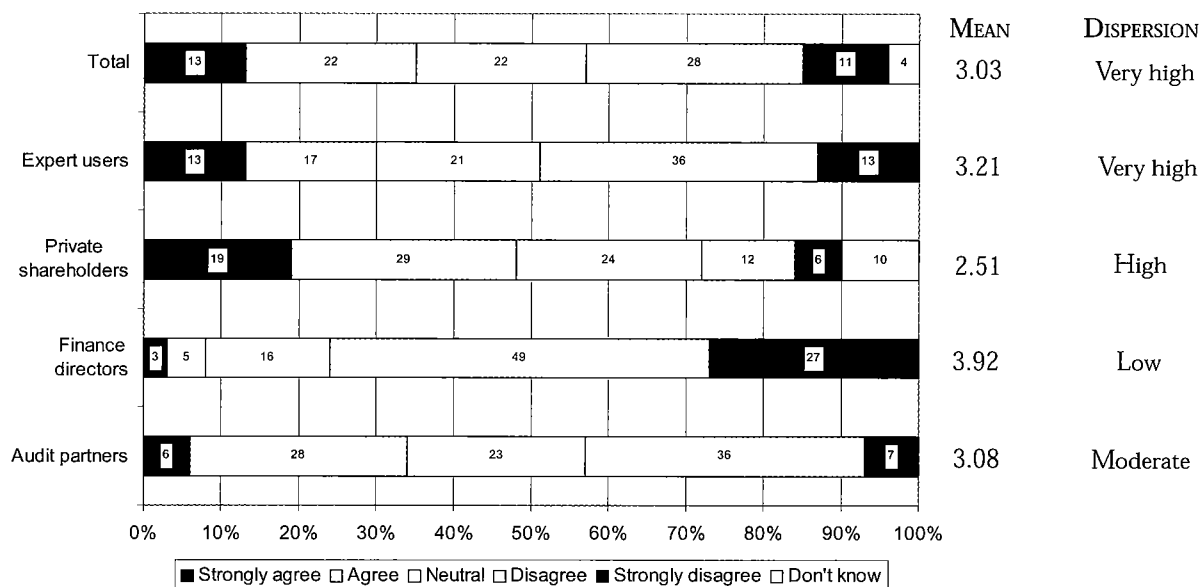


One-to-one meetings

In relation to one-to-one meetings, it is apparent that there is an extreme difference between the views of the four groups (see Figure 4.8).

Figure 4.8 Requirement to place minutes of one-to-one meetings on web

Question *To what extent do you agree that companies should be required to extend access to one-to-one meetings by placing detailed minutes on website, to reduce unfair advantage.*



The two user groups are, unusually, very divided in their views. On average, expert users are mildly against the proposal to place detailed minutes on the website while private shareholders are mildly in favour, although the dispersion in views is at least 'high' in both cases. This result is perhaps not surprising, as one-to-one meetings are the source of potential comparative information advantage for expert users, especially information intermediaries such as sell-side investment analysts. What is perhaps surprising is that 30% of expert users do in fact *support* this proposal. Although audit partners are, on average, neutral, finance directors are strongly opposed (only 8% are positive, with 76% negative). In fact, this represents the strongest opposition to any of the ICAS proposals to come from any group.

Those who agreed with the proposal were swayed principally by the apparent unfairness of the current situation:

The analyst has the advantage in terms of information and they are not using that to protect the shareholders in general, so I think if information's going to come into the market place, it should be available to all shareholders simultaneously. (audit partner)

There's one finance director of a public company that we act for and he is very candid with me when we discuss the extent to which analysts and suchlike have the privilege to access company information and yet it doesn't seem to make the analysts much better at their jobs... The existence of the unfairness rankles with me. (audit partner)

Figure 4.9 Requirement to webcast AGM

Question: To what extent do you agree that companies should teleconference (i.e. webcast) company AGMs to allow wider access.

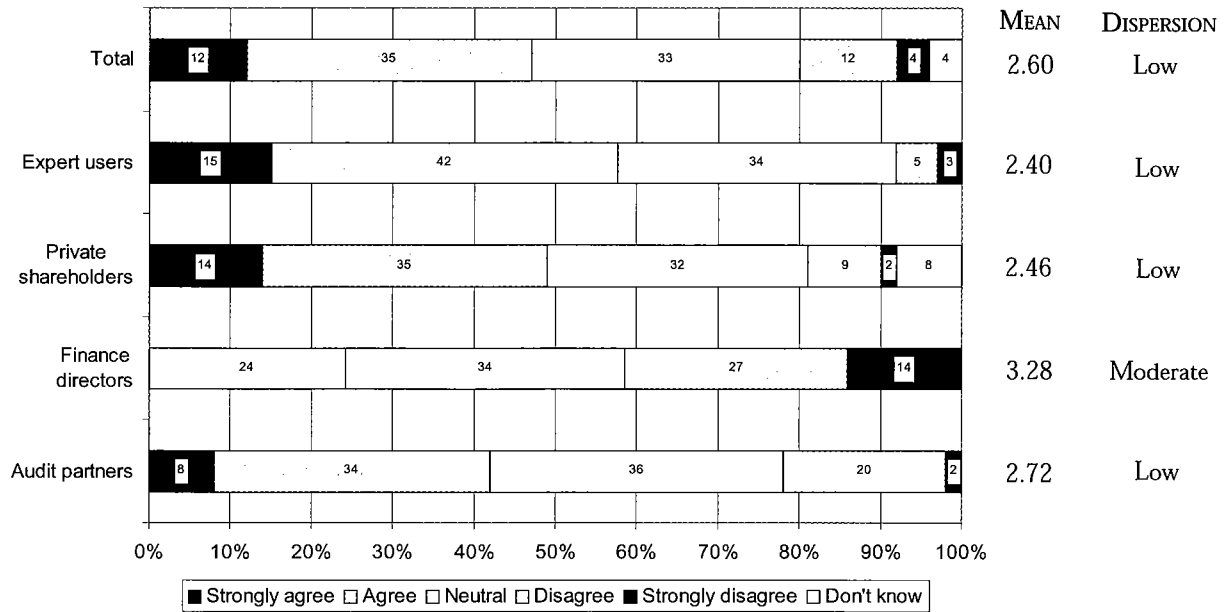
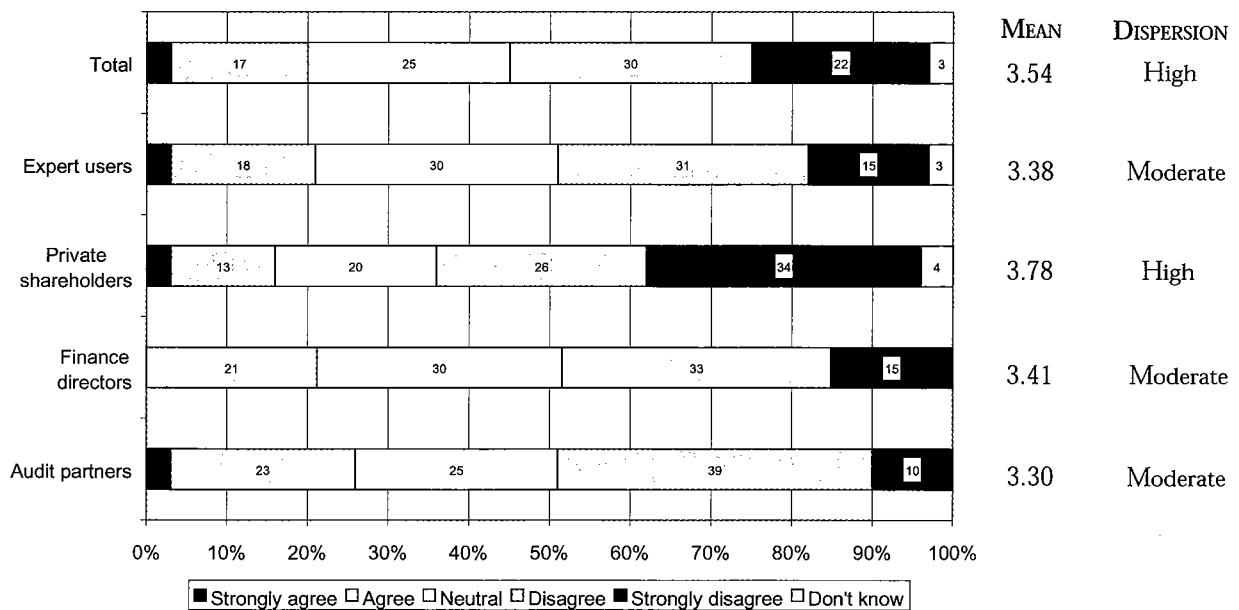


Figure 4.10 Requirement to replace AGM with online questioning

Question: To what extent do you agree that companies should be required to replace company AGMs by a facility for online questioning on management by users and conduct voting online.



One finance director embraced very positively the two-way dialogue afforded by online questioning. His experience with online questioning and chatrooms is worth reproducing in full:

[finance director] *I actually think that there is a popularisation vehicle now growing in strength, very fast, through corporate websites, that is absolutely going to break this one open. Our Chief Exec/Chairman and myself are very keen on the idea of moving to something that is becoming increasingly common in the States, which is almost moving away from analyst briefings and getting into more of a chat room environment. What you actually do is, if you're putting a briefing presentation pack together, ... you put it on your website and you make yourself available between the hours of X and X to respond to any queries that any shareholder may have on that information.*

[interviewer] *So your company's very positive about that. I can see it being time consuming, having to reply individually to people.*

[finance director] *But what do you think two days spent tramping round the City is? That is what I did on Monday and Tuesday of this week. We went to see the same eight people whom we go and see each interim and final, and that process is just as burdensome and time consuming. But the issue with that one is that it's the same eight faces. Yes, they happen to represent 80% of our share register and therefore the popularist in you, frankly, gets knocked into touch by the 80/20 rule. The big lions have got the biggest bark but at the end of the day, I think the momentum behind this thing is going to be very powerful, in that those companies that haven't got something like that will find that people will start getting the knives out to them. We are an unusual company because, amongst a certain community of investors, we are a very visible stock. And if you look on the US chatrooms, apparently we're one of the most discussed UK companies. Now, what we actually find is that through our investor relations website, which at the moment is just a very bog-standard one as we literally just post up all the stuff that gets onto the stock exchange, we get quite a lot of communication in. People want to know about the company and they are very happy to use the investor relations email to say "What's happening to the share price? Why did this happen?"*

[interviewer] *And you would typically respond to these things, would you?*

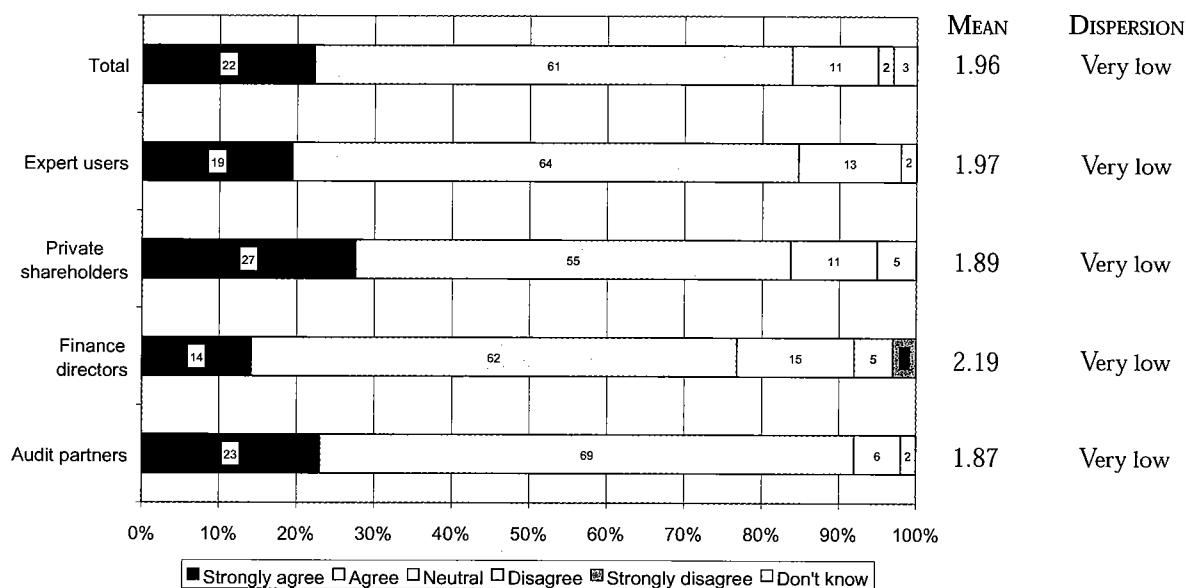
[finance director] *Yes. Well, it's an interesting balance between whether we just let it happen in chatrooms or whether we intervene, because there is no doubt that you can get yourself into a dangerous position if you feel you have to respond to every bit of chit-chat that is going on. What I actually find is that the users sort of regulate themselves. We have an investor relations site with the ability to email us on it, and there are various chat rooms where people can gossip to their hearts content. What we find is that the cross over between the two - that is to say people asking silly gossipy questions through the investor relations bit - doesn't really happen. The people who ask the questions through the investor relations bit normally ask fairly sensible balanced questions. They are either investors or would be investors. If they are sensible and balanced questions I am quite happy to respond or at least to guide my colleagues in which way I'd like them to respond.*

These management experiences of online questioning indicate that, for this company at least, there are no real practical constraints to the process.

Within this section, the differences between the groups' views to all six questions asked are significant at the 0.1% level. This indicates the very different views held by the four main groups with regard to these issues.

Figure 4.12 Requirement to disclose frequency of updating

Question: To what extent do you agree that companies should be required to distinguish clearly information that is continuously updated from more stable information that is updated only periodically.



Responses seem to support the ICAS view, as all groups agree (either mildly or reasonably strongly) that more frequent, periodic updating is preferable, with no significant differences between the groups. It is interesting to note that audit partners, who most strongly support this proposal, display very low dispersion (two-thirds respond 'agree').

Those interviewees who agreed with the proposal to update only periodically cited the suitability of periodic reporting for efficient working practices:

If one structures things around sensible calendar intervals, everybody can work towards it, everybody knows where they are ... and that makes planning a lot easier. (expert user)

The problem with continuous reporting is that you don't know when new information will appear ... you don't want to have to go round a website everyday just to see if there's anything new there. If there is any news I'd much rather have it distributed by email. (private shareholder)

Richardson and Scholz (2000) identify two other possible reasons (one technological, the other legal) why continuous reporting is unlikely in the near future. The first is that companies' out-dated internal systems are unable to support continuous reporting – the introduction of enterprise-wide systems is a prerequisite. They offer the following anecdotal evidence to support this argument:

Consider the revenue reporting process of one anonymous Fortune 500 company. Disparate reporting systems are maintained by each of the company's ten divisions. Furthermore, these "systems" often consist of several unrelated programs within the division or enterprise (a sub-unit of a division). For example, one enterprise within one division uses three separate modules to determine their sales figure. The modules are a chaotic mix of legacy systems that are not based on similar platforms, languages or terms.

Table 4.1 Internet use by respondents

| Group | Percentage of respondents | | | |
|---------------------|---------------------------|----------|-------------------|--------------|
| | Never | Rarely | About once weekly | Almost daily |
| Expert user | - | 3 | 13 | 84 |
| Private shareholder | 27 | 12 | 20 | 41 |
| Finance director | 1 | 11 | 22 | 66 |
| Audit partner | 3 | 7 | 31 | 59 |
| Total | 12 | 9 | 19 | 60 |

Perhaps surprisingly, however, the correlations between frequency of Internet use and responses to the ICAS proposals were not generally very high¹⁰. More frequent Internet users were associated (at the 5% level, at least,) with stronger agreement with the following six questions: requirement to disclose key information; requirement to layer information; requirements (three) re general meetings; and requirement to replace AGM with online questioning. The highest correlation was with the requirement to replace AGM with online questioning – a correlation of -0.23. This response is perhaps driven by the attitudes of those less familiar with the Internet, who would lose *de facto* access to the shareholder democratic process under this proposal.

Overview and summary of key points

To form a basis for summarising the key points to emerge from the findings presented in this chapter, three tables have been prepared that provide an overview of respondents' reactions to the ICAS (1999) proposals. Table 4.2 presents, in descending order of agreement, the combined mean response to the twelve proposals. All but three proposals receive, on average, at least mild support from the combined group.

Table 4.2 Combined mean response to the ICAS (1999) proposals

| Proposal | Mean response | Descriptive label |
|--|---------------|-----------------------------|
| Place records of general meetings on web | 1.94 | Strong agreement |
| Disclose frequency of updating | 1.96 | |
| Layer information | 1.99 | |
| Maintain free search facility | 2.35 | Reasonably strong agreement |
| Place audio-visual record of general meetings on web | 2.38 | |
| Update website periodically, not continuously | 2.53 | Mild agreement |
| Provide pre-packaged information | 2.56 | |
| Webcast AGM | 2.60 | |
| Disclose key information | 2.61 | Neutral |
| Place minutes of one-to-one meetings on web | 3.03 | |
| Broadcast general meetings | 3.13 | Mild disagreement |
| Replace AGM with online questioning | 3.54 | |

Note 1: Mean responses are shown in descending order of agreement.

The reason for distinguishing these different patterns is because the implications, especially for regulators, are very different. Where *within*-group consensus is generally absent, there would seem to be uncertainty regarding the true identity and/or magnitude of the costs and benefits to a specific group that shares a common interest. There is, therefore, clearly a need to investigate the costs and benefits further, so they become defined more clearly and their magnitude better evaluated. Where *across*-group consensus is absent, the outcome of a cost-benefit analysis would appear to differ depending on the nature of the group's interest, *i.e.* there is a conflict of interests. Where the issue is one that regulators feel should be addressed, there will be a need to resolve the conflict of interests, by regulating in favour of one particular group and/or seeking to mitigate the extent of the conflict.

Table 4.3 reveals that the most common dispersion pattern is pattern 1, *i.e.* within-group consensus generally present combined with across-group consensus absent. This indicates that the different groups broadly agree amongst themselves upon the desirability of the proposal, but that the groups hold quite distinct views. These different perspectives are reflected in the points raised by interviewees. Given this pattern, the appropriate policy response is to consider how to resolve the apparent conflict of interest, with the focus being on those proposals receiving strong support from at least one interested party

All respondents tend to agree that it is mildly desirable to update the website periodically, rather than continuously (pattern 2). Given this pattern, and the consensus that the proposal is desirable, the appropriate policy response is to consider introducing a mandatory requirement (or best practice guidelines). If the consensus had been that the proposal was *not* desirable, no regulatory action would have been called for.

By contrast, there is neither within-group, nor across-group consensus regarding the desirability of disclosing key information (pattern 3). In these circumstances, the appropriate policy response is to undertake further investigation to establish the nature and magnitude of the various perceived costs and benefits of the proposal to the various interested parties, prior to policy formulation

Table 4.5 summarises the main points raised by interviewees regarding the proposals. Only advantages are identified for those proposals receiving, on average, strong support. For the other proposals, as would be expected, there tends to be a mix of perceived advantages and disadvantages.

CHAPTER FIVE

USEFULNESS OF NAVIGATION AIDS, SEARCH AIDS AND FILE FORMATS

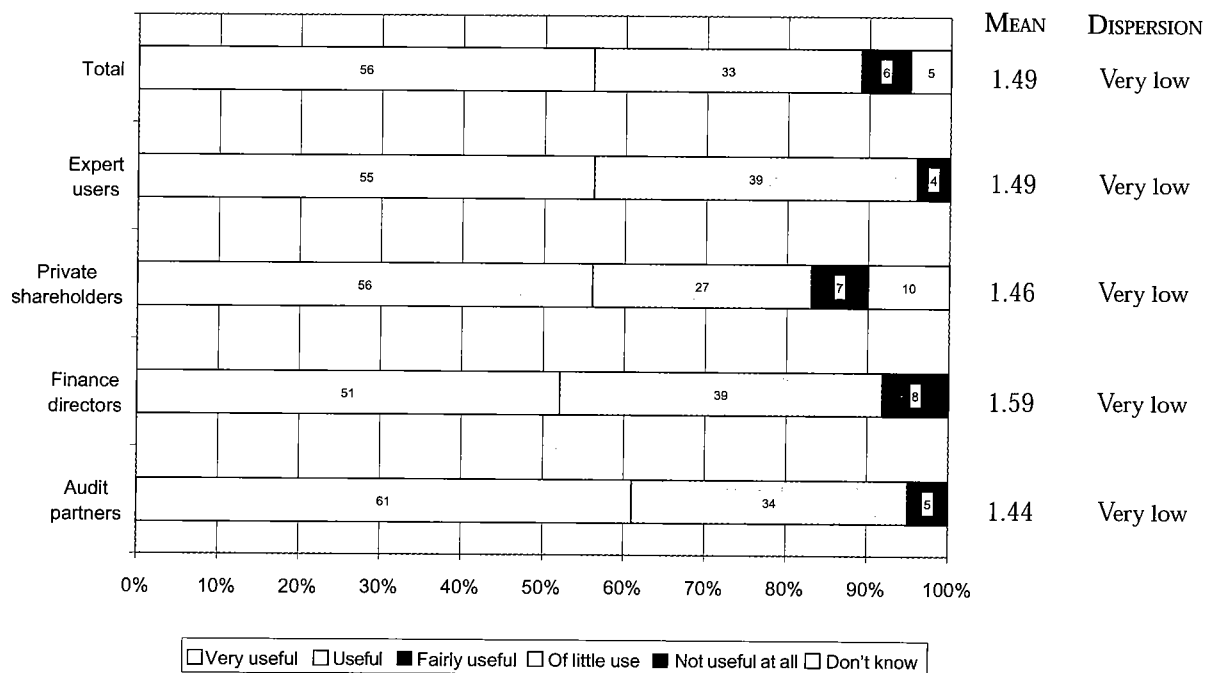
Chapter two discussed the FASB *Fauxcom* project, as well as the surveys of web-reporting practices. These studies suggest a variety of desirable features of web-reporting. This chapter reports on the views of users, preparers and auditors regarding the usefulness of these features. For all features considered in this chapter, the response scale used was 1 (very useful); 2 (useful); 3 (fairly useful); 4 (of little use) and 5 (not useful at all). A final section investigates the relationship between respondents' familiarity with the Internet and their stated views.

Global navigation aids

Clearly it is important that business reporting information can be located easily on the company website. In particular, the practice of indexing financial information on the home page is considered by Ashbaugh *et al.* (1999, p251) to improve the usefulness of disclosures. Figure 5.1 reproduces the specific question asked and graphs the distribution of respondents' views; the mean and dispersion are shown in a panel on the right hand side of the graph.

Figure 5.1 Index business reporting information on home page

Question: Business reporting information is clearly indexed on the home page (*e.g.* titled Investor Relations) and not buried (*e.g.* under company history).



I do look at reports and accounts off the web, though my natural inclination is to find a hard copy because it's very difficult to read information on the screen. If somebody's unexpectedly coming you have to print it off, but it's a hundred pages long and that's a lot of printing; it's still not very user friendly. (expert user)

One preparer seemed aware of these problems:

Having got the information up there ... we're well into thinking of ways that we can make the information more accessible. (finance director)

Value of hyperlinks

Hyperlinks allow the user to jump directly from one section of a website to another (or indeed to jump to a completely different website). The hyperlink, normally highlighted in blue, is activated by mouse clicking on this source point. Having hyperlinked from the source point to the destination, it is common to find another link that allows the user to jump back to the original source. The *FauxCom* demonstration site (FASB, 1998) incorporates a number of these 'jump gates'. In particular, there are links between items in the financial statements ('the heart of the business report') and (i) the relevant note to the accounts, (ii) the relevant section of the Operating and Financial Review (OFR), and (iii) the five-year summary¹¹. In addition, it also provides links between the OFR and the notes and, because the website seeks to combine the best of current practice in Internet distribution with the comprehensive reporting package envisioned by the AICPA (1994), between the OFR and relevant forward-looking information and relevant company background.

The importance of hyperlinks is endorsed by Ashbaugh *et al.* (1999). An experimental study conducted by Hodge (2001), indicates that firms can influence financial report users' perceptions by hyperlinking unaudited information to information in their audited financial statements. It was found that this influence is attenuated by attaching a simple 'audited/not audited' label.

The value of hyperlinks between different sections of the business reporting package was addressed in the present study by two multi-part questions. Table 5.1 presents summary data of the mean and dispersion for each group and the combined groups, while Figure 5.3 gives a visual representation of the overall ranking of their usefulness by all respondents.

Table 5.1 Usefulness of hyperlinks

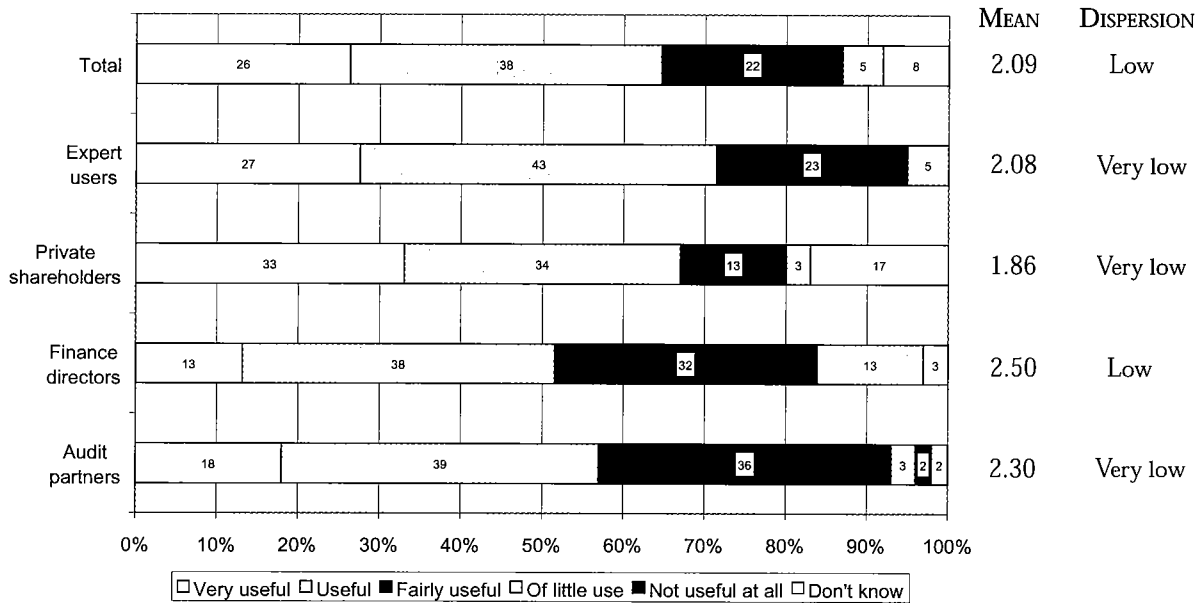
| Hyperlink | Mean responses (dispersion) | | | | |
|--|-----------------------------|------------------|---------------------|------------------|------------------|
| | Total | Expert User | Private Shareholder | Finance Director | Audit Partner |
| Financial statements – note to accounts | 1.66 Very low | 1.53 Very low | 1.67 Very low | 1.84 Very low | 1.74 Very low |
| Financial statements – OFR | 1.86 Very low | 1.80 Very low | 1.86 Very low | 2.11 Low | 1.72 Very low |
| Financial statements – 5-year summary | 2.12 Low | 2.17 Low | 1.91 Low | 2.31 Moderate | 2.37 Moderate |
| Note to accounts – OFR | 2.16 Low | 2.15 Low | 2.13 Low | 2.41 Low | 1.98 Low |
| OFR – relevant forward-looking information | 2.13 Low | 2.11 Low | 2.07 Low | 2.44 Low | 1.93 Very low |
| OFR – relevant company background | 2.30 Low | 2.32 Low | 2.22 Low | 2.54 Moderate | 2.20 Low |

Ability to create graphs of data series

The *FauxCom* site also provides a wealth of graphic information – by ‘pointing and clicking’ on financial items it is possible to get a time series graph of the item. Figure 5.4 presents respondents’ views of the usefulness of this feature.

Figure 5.4 Point and click graph facility

Question: The facility to ‘point and click’ on financial items to get a time series graph of the item.



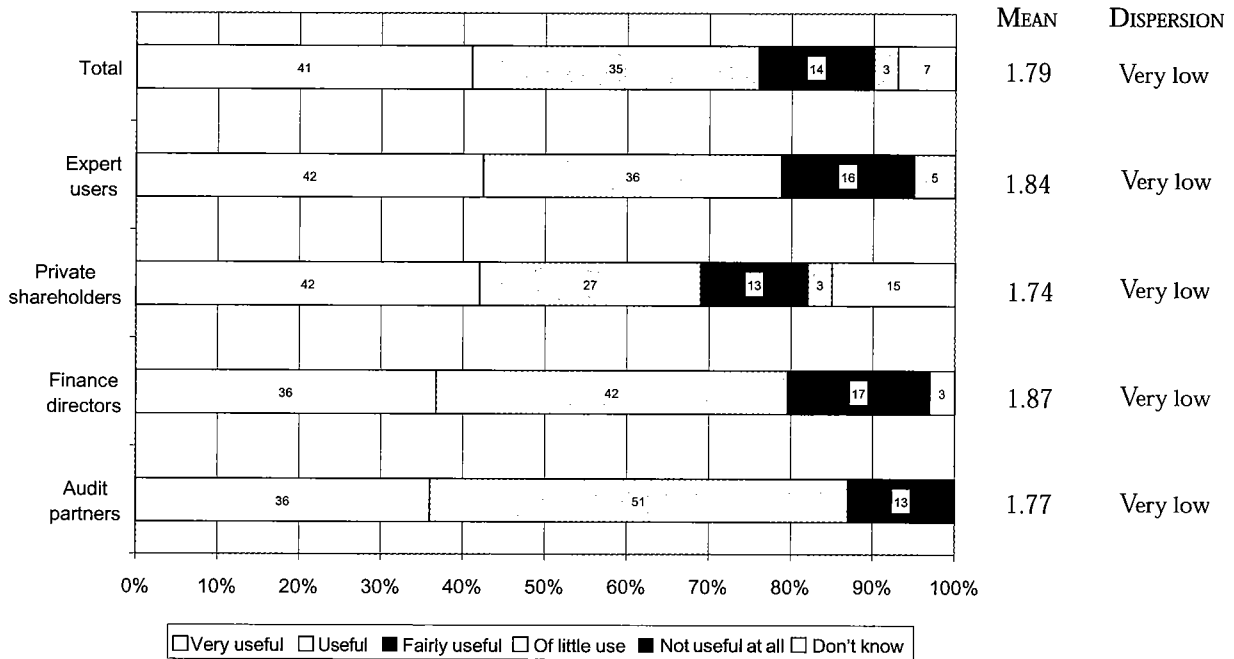
The differences between the groups’ views are highly significant (0.1% level). It seems that users (especially the private shareholder group) rate this feature more highly than the other groups (especially finance directors) – the mean response for both user groups is within the ‘useful’ range, while those of finance directors and audit partners fall within the ‘moderately useful’ range. Within group dispersion is either low or very low.

Next and previous buttons

The provision of ‘next’ and ‘previous’ buttons on each web page allows users to move through the report in a linear fashion in the same way as the paper-based annual report. FASB (2000, p24) reports that 42% of the US sites surveyed included this feature. Figure 5.5 presents the views of the survey respondents.

Figure 5.6 Email alerts

Question: Users can sign up for email alerts, to receive press releases and other updates *via* email or notification that new information is posted on the web



As in the case of next and previous buttons, all four groups rank this feature fairly highly. The differences between the groups' views are not significant and within-group dispersion is in all cases very low. One interviewee commented:

It comes back to this continuous issue ... What I see this doing is the ability to get away from the profit warnings ... If you get more drip-feed information it takes out the overreactions in the market place and that can only be good news. These days there are decent enough search engines that filter out the emails that you want to see.
(audit partner)

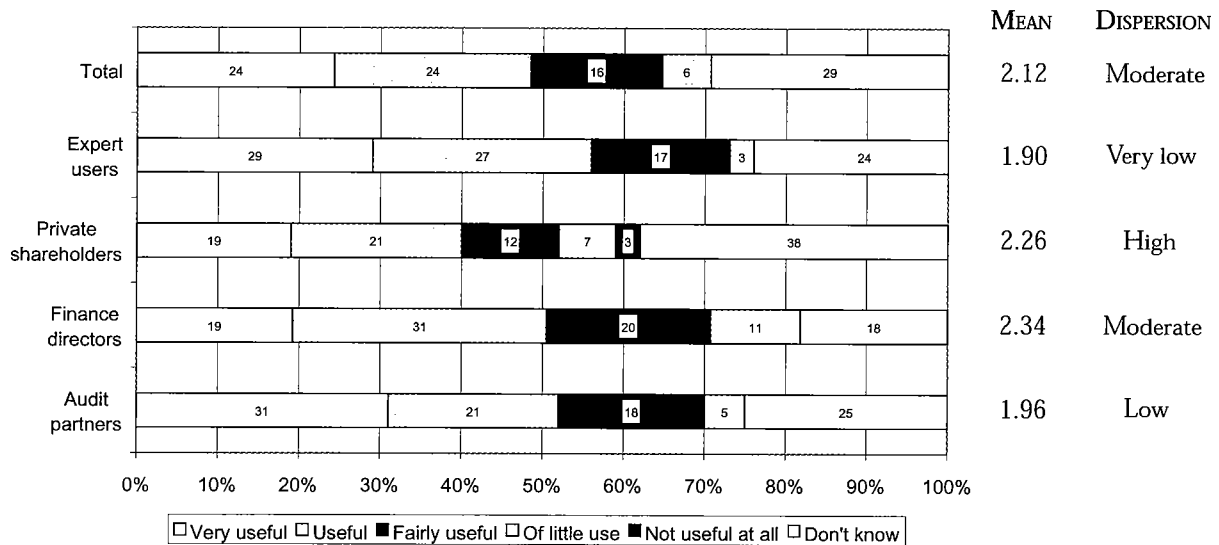
Arthur Andersen (2001) report that 45% of the top 250 FTSE companies include an email alert facility on their website.

File formats

It is apparent from surveys of company practice that the websites of even the best companies generally provide only one or two file formats. Yet the provision of multiple formats is, arguably, highly desirable, given the variety of contexts in which information is used. This study asked about the usefulness of five different formats and the summary results are shown in Table 5.2.

Figure 5.7 Type tags facilitate automatic comparisons

Question: XBRL incorporates type tags that hook information together, allowing one company to be compared to others automatically.



Once again, there is a high proportion of 'don't know' responses. Of those offering an opinion, group views differ significantly (at the 1% level). Expert users and audit partners appear to rate this feature more highly than the other two groups. It is interesting (and somewhat surprising) that finance directors are the group that rates this feature lowest. Perhaps some preparers are not looking forward to users routinely making explicit comparisons between 'their' company and others?

In commenting on the usefulness of alternative file formats, several interviewees remarked on the dangers of information being tampered with:

When we do new transactions there is a definite trend appearing where people are sending out the information memoranda on secure websites. The resistance that you will run into is that companies will see any procedure which accelerates [information dissemination] in a format that they might not have complete control over as dangerous, because somebody might sneak in and feed some information in. (expert user)

There are people out there in the market at the moment with financial information in a format that can be easily manipulated... At the end of the day, you can't substitute for actually extracting those numbers yourself and understanding what is behind the actual output. You know the composition of the numbers. Unless you understand what figures you put in to make the formulas, it is difficult to do a straight comparison or outputs ... Though it certainly would save a bit of time. (expert user)

We are very nervous about companies effectively using reports produced by us and sort of playing around with them to change them to a different presentation to make the point they want to make. (audit partner)

Impact of familiarity with the Internet

Perhaps surprisingly, the correlations between frequency of Internet use (see Figure 4.1 above) and the usefulness of navigation and search aids were not generally very high. More frequent Internet users were statistically more likely to believe that four features, in particular, were useful: index on home page; hyperlinked site map or table of contents; hyperlinks between the financial statements and the notes; and email alerts¹².

The responses to four questions regarding file formats were significantly negatively correlated with frequency of Internet use.¹³ This shows, not surprisingly, that more frequent Internet users were statistically more likely to believe that four formats, in particular, were useful: PDF; word processed; spreadsheet; and XBRL.

Overview and summary of key points

As in chapter four, to serve as a basis for summarising the key points to emerge from the findings presented in this chapter, three tables have been prepared. Table 5.3 presents, in descending order of usefulness, the combined mean response to the seventeen features.

Table 5.3 Combined mean response to the suggested web features

| Feature | Mean response ¹ | Descriptive label |
|--|----------------------------|-------------------|
| Index business reporting information on home page | 1.49 | Extremely useful |
| Hyperlinked site map or table of contents available | 1.57 | |
| Hyperlinks between financial statements and notes | 1.66 | |
| Next and previous buttons | 1.77 | Useful |
| Email alerts | 1.79 | |
| Hyperlinks between financial statements and OFR | 1.86 | |
| Point and click graph facility | 2.09 | |
| Hyperlinks between financial statements and 5-year summary | 2.12 | |
| Type tags facilitate automatic comparisons | 2.12 | |
| Hyperlinks between OFR and forward-looking information | 2.13 | |
| Hyperlinks between notes and OFR | 2.16 | |
| Spreadsheet format | 2.21 | |
| Hyperlinks between OFR and company background | 2.30 | |
| Word-processed format | 2.31 | Moderately useful |
| XBRL format | 2.41 | |
| HTML format | 2.50 | |
| PDF format | 2.51 | |

Note 1: Mean responses are shown in descending order of agreement.

Table 5.4 Patterns of within-group and across-group consensus observed

| Feature ¹ | Within-group consensus | | | | Across-group consensus | Pattern |
|--|------------------------|-----|-----|-----|------------------------|---------|
| | EU | PS | FD | AP | | |
| Index business reporting information on home page | Yes | Yes | Yes | Yes | Yes | 2 |
| Hyperlinked site map or table of contents available | Yes | Yes | Yes | Yes | Yes | 2 |
| Hyperlinks between financial statements and notes | Yes | Yes | Yes | Yes | No | 1 |
| Next and previous buttons | Yes | Yes | Yes | Yes | Yes | 2 |
| Email alerts | Yes | Yes | Yes | Yes | Yes | 2 |
| Hyperlinks between financial statements and OFR | Yes | Yes | Yes | Yes | No | 1 |
| Point and click graph facility | Yes | Yes | Yes | Yes | No | 1 |
| Hyperlinks between financial statements and 5-year summary | Yes | Yes | Yes | Yes | No | 1 |
| Type tags facilitate automatic comparisons | Yes | No | Yes | Yes | No | 1 |
| Hyperlinks between OFR and forward-looking information | Yes | Yes | Yes | Yes | No | 1 |
| Hyperlinks between notes and OFR | Yes | Yes | Yes | Yes | Yes | 2 |
| Spreadsheet format | Yes | No | Yes | Yes | No | 1 |
| Hyperlinks between OFR and company background | Yes | Yes | Yes | Yes | Yes | 2 |
| Word-processed format | Yes | Yes | Yes | Yes | Yes | 2 |
| XBRL format | Yes | No | Yes | Yes | No | 1 |
| HTML format | Yes | Yes | Yes | Yes | No | 1 |
| PDF format | Yes | No | Yes | Yes | No | 1 |

Note 1: Features are presented in the order shown in Table 5.3

Table 5.5 Main points raised by interviewees regarding features

| Feature | Advantages | Disadvantages |
|--|---|--|
| Navigation aids | Helps overcome awkwardness of using on-screen reports | |
| Hyperlinks between financial statements and 5-year summary | | Rapid change renders summary unhelpful or misleading |
| Email alerts | Drip feed helps overcome market over-reactions | |
| Downloadable/cut and paste file formats | Speed and ease of data transfer | Dangers of information being tampered with |
| XBRL and type tags | Aids comparisons | Integrity of comparisons |

CHAPTER SIX

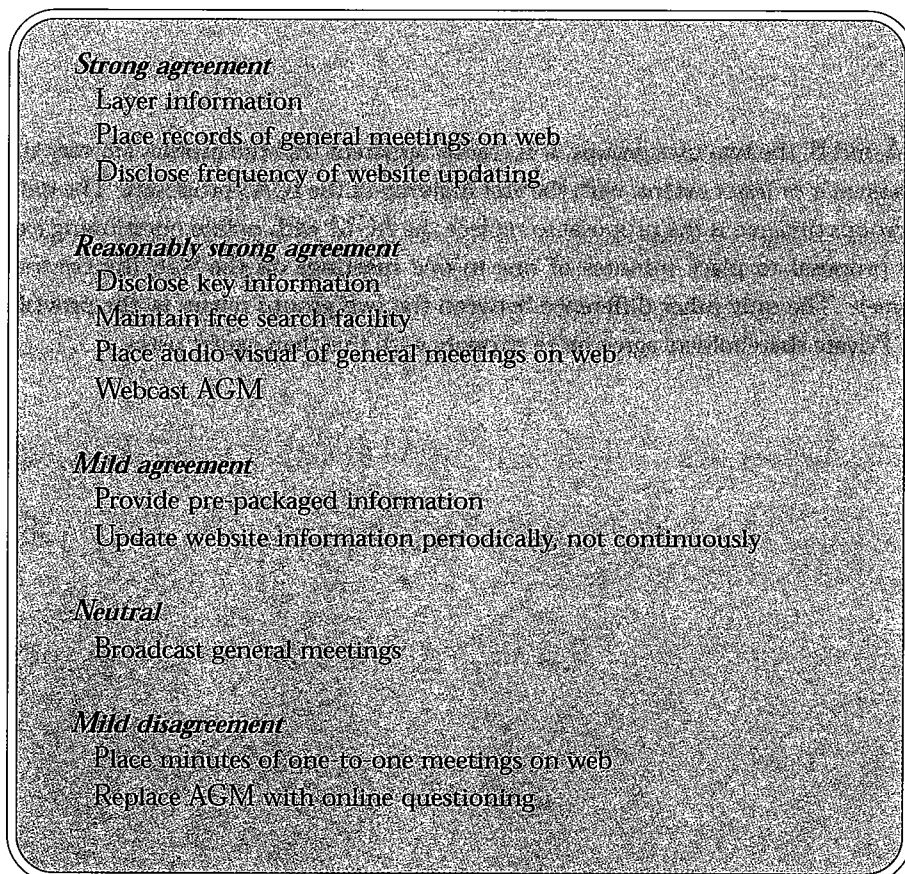
GROUP PROFILES

In chapters four and five, questions have been examined one at a time, establishing and then comparing and contrasting the views of the four groups. Additional insights can emerge by reviewing each group's set of responses. This complementary perspective allows a better appreciation of the characteristic mind set for each group. In other words, it provides a 'profile' of each group. In this chapter, group profiles are presented and discussed. Two profiles are presented for each group, one covering the ICAS (1999) proposals, the other dealing with the perceived usefulness of various web-reporting features.

Group profiles for the ICAS (1999) proposals

Panels A to D set out each group's level of agreement with the ICAS proposals, based on the observed group mean. The descriptive labels used are those set out in chapter one (p5).

Panel A Summary of expert users' views of ICAS proposals



Panel C Summary of finance directors' views of ICAS proposals

| |
|---|
| <p><i>Strong agreement</i></p> |
| <p><i>Reasonably strong agreement</i></p> <ul style="list-style-type: none">Layer informationDisclose frequency of website updating |
| <p><i>Mild agreement</i></p> <ul style="list-style-type: none">Place records of general meetings on webUpdate website information periodically, not continuously |
| <p><i>Neutral</i></p> <ul style="list-style-type: none">Maintain free search facilityProvide pre-packaged informationPlace audio-visual of general meetings on web |
| <p><i>Mild disagreement</i></p> <ul style="list-style-type: none">Disclose key informationWebcast AGMReplace AGM with online questioning |
| <p><i>Reasonably strong disagreement</i></p> <ul style="list-style-type: none">Broadcast general meetings |
| <p><i>Strong disagreement</i></p> <ul style="list-style-type: none">Place minutes of one-to-one meetings on web |

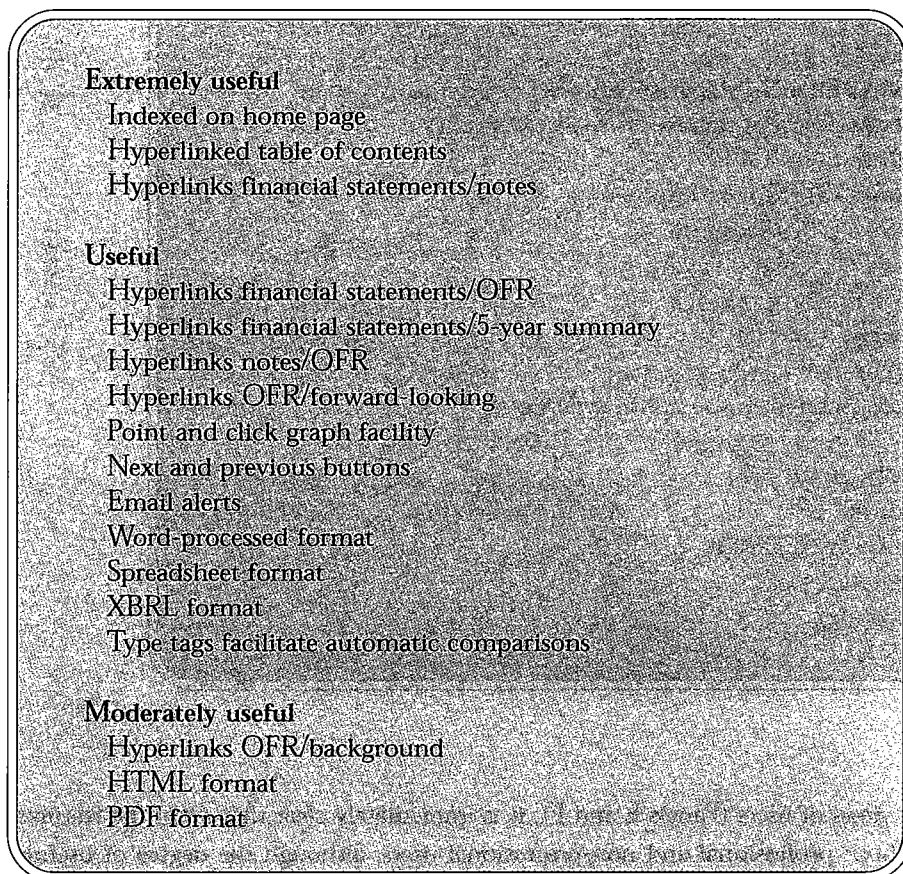
It is interesting to next compare the views of users with preparers (Panel C). This discussion focuses on comparing expert users with finance directors. (Given the close similarity between the user groups, there is little point in repeating the exercise for private shareholders as well.) The first thing to note about the finance director profile is the greater balance between agreement and disagreement with the proposals. In fact, finance directors are, on average, negative about five proposals and positive about only four.

Finance director views fall into a different descriptive category than expert user views for ten of the twelve proposals. In all cases, finance directors' level of agreement is below that of expert users. In two cases, the difference is particularly great: while expert users and private shareholders are reasonably strongly in agreement with the proposals to disclose key information and to webcast the AGM, finance directors are in mild disagreement (*i.e.* three categories of difference).

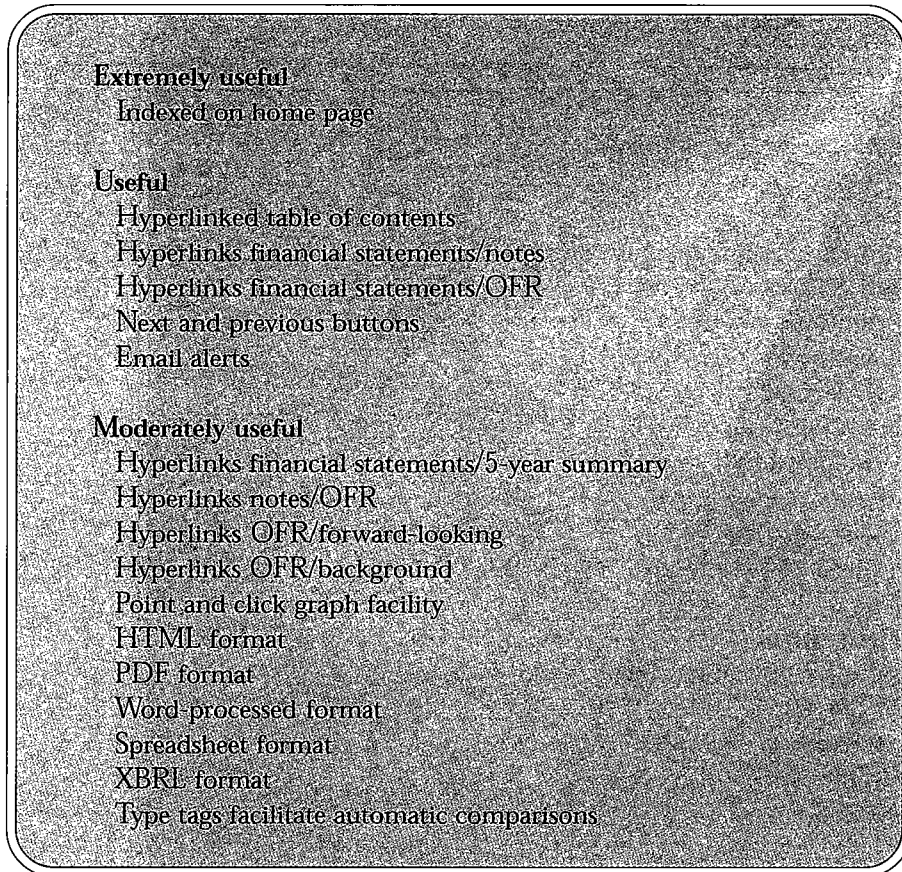
Group profiles for web-reporting features

Panels E to H set out each group's view of the perceived usefulness of various web-reporting features, based on the observed group mean. The descriptive labels used are those set out in chapter one, page five.

Panel E Summary of expert users' views of web features



Panel G Summary of finance directors' views of web features



Once again, because of the remarkable similarity of views between the two user groups, user and preparer views are compared only in terms of the expert user group. Finance directors rate as extremely useful only one feature (indexing on home page) and only a further five as useful. Thus, preparers generally rate the usefulness of features below users; this is the case for eight features, all rated one descriptive category lower by finance directors. The three features rated only moderately useful by expert users are rated likewise by preparers.

(arguably only the less radical ones). Auditors fall in between, tending more towards the users' views than the preparers' views. These findings indicate the existence of important conflicts of interest between the groups. The implications of these differences for policy making are considered in chapter seven.

In relation to the web-reporting features, the differences are much less pronounced. All features are considered by all groups to be, at least, moderately useful (*i.e.* group mean < 2.7). However, the majority of features are considered by both user groups and auditors to be extremely useful (group mean < 1.7) or useful (group mean between 1.7 and 2.3), whereas preparers consider the majority of features only moderately useful (*i.e.* group mean between 2.3 and 2.7). This suggests that preparers systematically *underestimate* the perceived usefulness of web-reporting features to users. Implications are discussed in chapter seven.

CHAPTER SEVEN

CONCLUSIONS AND RECOMMENDATIONS

This chapter summarises and discusses the main findings to arise from this study. The three areas of the study are considered in turn:

- company reporting obligations;
- attitudes to ICAS (1999) proposals re web-reporting; and
- usefulness of navigation aids, search aids and file formats.

It then considers the implications of these findings for preparers and policy makers. A number of tentative recommendations follow.

Company reporting obligations

There was a very high level of agreement regarding the reporting obligations that a listed company has in relation to various stakeholder groups. Existing investors were given highest priority, with 84% of the respondents rating the obligation as 'absolute'. Potential investors and employees also ranked highly, with 73% of the respondents rating the obligation to potential investors as 'major' or 'absolute', while the figure for employees was 63%. The interview evidence suggested that employees were rated highly because of the importance of intellectual capital to many businesses and their increasing role in corporate governance. The other three groups (community/public, suppliers and customers) rated less highly, but nevertheless significantly.

These findings indicate that all six groups are considered to be legitimate user groups, in the sense that they have a moral right to receive information of relevance to them. To date, however, the regulatory framework has focused on the needs of shareholders. There is clearly a need for research to establish whether the other stakeholder groups have specialist information needs and, if so, exactly what they are. The findings of this study suggest that corporate reporting practices should develop to satisfy any additional information needs.

On average, private shareholders agreed strongly with the principle that private shareholders should be consulted on issues to do with company external reporting whereas the level of agreement of other respondent groups was mild. (Note that the question addressed the principle of consultation and did not specify the identity of the consulting body.) The vast majority of private shareholders either agreed strongly or agreed, whereas the vast majority in the other groups either agreed or were neutral. Given that no interested party appeared to oppose this principle, and some parties were strongly supportive, the inference must be that, despite the lack of interest and understanding sometimes attributable to members of this group, its views should not be ignored in the development of business reporting.

In combination, these findings are consistent with a more inclusive approach to corporate reporting that both consults and reports more widely than has historically been the case.

In general, the picture is one where audit partners' views fall between the views of users and preparers. This is perhaps to be expected. The audit partners are members of a professional body that has public interest responsibilities, and users (specifically, shareholders) are the auditors legal client, yet it is with the company that the auditor has the closest relationship. It is to be expected, therefore, that auditors will be more aware than users of the problems in implementing the proposed changes in business reporting. In addition, it is the company management and not the users who effectively (*i.e. de facto*) appoint and set the remuneration of the auditor. For this reason, auditors may feel obliged (consciously or sub-consciously) to lobby on behalf of the client company (Watts and Zimmerman, 1986, ch.13). It is also possible that auditors can also be expected to exhibit a degree of self interest, linked to the risks and returns available from the provision of auditing services.

In examining the individual proposals more closely, the analysis in chapter four examined not only the absolute level of agreement/disagreement of each group with the proposal, but also on the degree of within-group and across-group consensus. A lack of across-group consensus indicates the existence of conflict of interests. A lack of within-group consensus suggests that there is uncertainty regarding the true identity and/or magnitude of the costs and benefits to a specific group that shares a common interest. This calls for the costs and benefits to be investigated further, so they become defined more clearly and their magnitude better evaluated.

All but three of the proposals received, on average, at least mild support from the combined group, as follows:

- there was strong agreement with three proposals (placing records of general meetings on the web, disclosing the frequency of updating and layering information);
- there was reasonably strong support for two proposals (maintaining a free search facility and placing an audio-visual record of general meetings on the web);
- there was mild support for four proposals (updating website periodically, not continuously, providing pre-packaged information, webcasting the AGM and disclosing key management information);
- on average, respondents were neutral towards two proposals (placing minutes of one-to-one meetings on the web and broadcasting general meetings); and
- there was mild disagreement towards one proposal (replacing the AGM with online questioning).

The most commonly observed dispersion pattern was pattern 1, *i.e.* within-group consensus present but across-group consensus absent. In these circumstances, policy makers should consider how to resolve the apparent conflict of interest, with the focus being on those proposals receiving strong support from at least one interested party.

Once instance of pattern 2 (both across-group and within-group consensus present) was observed (update website periodically, not continuously) and this was combined with either mild or reasonably strong agreement from the four respondent groups. In this situation, where the consensus level of support is weak, policy makers could either consider introducing a mandatory requirement (or best practice guidelines) or take no further action.

Finally, there were two instances of pattern 3 (a lack of consensus both across groups and within groups). These occurred for the proposal to disclose key information (where the group responses ranged from mildly disagree to reasonably strongly agree) and the proposal to place minutes of one-to-one meetings on the web (where the mean group responses ranged from strongly disagree to mildly agree). In these cases, the policy response should be to undertake further investigation to establish the nature and magnitude of the various perceived costs and benefits of the proposal to the various interested parties prior to policy formulation.

It was found that those respondents who were more familiar with the Internet (*i.e.* more frequent users) expressed a stronger level of agreement with six proposals involving the extended use of the Internet for business reporting. It is, therefore, to be expected that as familiarity with the Internet increases among the user population, the strength of user agreement will also increase.

Attitudes to ICAS (1999) proposals re web-reporting

Recommendation 3: Policy makers should consider requiring (or at least encouraging *via* best practice guidelines) the following five ICAS (1999) proposals:

- place records of general meetings on web
- disclose frequency of web updating
- layer information
- maintain free search facility
- place audio-visual record of general meetings on web.

Justification: On average, both user groups support these proposals strongly or reasonably strongly and preparers are at worst neutral. It seems clear, therefore, that the advantages of these proposals outweigh the disadvantages.

Recommendation 4: There should be no immediate moves made to encourage or require the following three ICAS (1999) proposals:

- place minutes of one-to-one meetings on web
- broadcast general meetings
- replace AGM with online questioning.

Justification: On average, *all* groups either disagree or are neutral towards these proposals (the minor exception is that private shareholders mildly agree that the minutes of one-to-one meetings be placed on the web). It seems clear, therefore, that the perceived disadvantages of these proposals currently outweigh the advantages.

Recommendation 5: Further research should be conducted to investigate the nature, magnitude and incidence of the costs and benefits relating to two ICAS (1999) proposals:

- disclose key information
- webcast AGM.

Justification: On average, these proposals receive reasonably strong support from both user groups, yet preparers are in mild disagreement. Thus, these changes are unlikely to be instigated by preparers and would require regulation. It is, therefore, critical that the costs and benefits are well understood before there is regulatory intervention. In particular, many commentators argue that the disclosure of key information used to manage the company is essential to the development of business reporting. Unfortunately, there are perceived to be major potential disadvantages to be set against the major potential advantages (in particular, the issue of commercial confidentiality). To what extent are expressed concerns about commercial confidentiality excuses, genuinely perceived threats (yet without significant substance) or actual threats?

Recommendation 6: Further research is desirable to investigate the nature, magnitude and incidence of the costs and benefits relating to two ICAS (1999) proposals:

- update website periodically, not continuously
- provide pre-packaged information.

Justification: On average, these proposals receive only mild support from both user groups (the exception is that private shareholders agree reasonably strongly that pre-packaged information be provided), and preparers are also mildly supportive or neutral. Thus, these proposals are perceived to have some potential advantages and no major disadvantages.

audio-visual of general meetings on web; and webcast AGM) and those that ease access by restructuring of the information set (layering; free search; and prepackaging). There is also support for the use of technical web features that enhance the ease of access.

However by rejecting the proposal to replace the AGM with online questioning, respondents are rejecting the idea of *substituting* people-based communication with web-based communication. The proposals to 'broadcast AGMs' and 'place minutes of one-to-one meetings on the web', are also rejected however, despite being supplementary in nature. This may be attributable to the tension that appears to exist between the desire to widen access and the fear that, in so doing, the information quality of these people-based communications may be compromised (the expressed fear that the tenor of these meetings may change for the worse).

APPENDIX

EXTRACT FROM QUESTIONNAIRE

SECTION A

Reporting obligations

A1. In your view, what is the extent of a listed company's obligation to report to each of the following stakeholder groups?

| | None | Slight | Moderate | Major | Absolute | Don't know |
|------------------------|------|--------|----------|-------|----------|------------|
| • Customers | 1 | 2 | 3 | 4 | 5 | dk |
| • Employees | 1 | 2 | 3 | 4 | 5 | dk |
| • Suppliers | 1 | 2 | 3 | 4 | 5 | dk |
| • Existing investors | 1 | 2 | 3 | 4 | 5 | dk |
| • Potential investors | 1 | 2 | 3 | 4 | 5 | dk |
| • Community/the public | 1 | 2 | 3 | 4 | 5 | dk |

A2. To what extent do you agree that private shareholders should be consulted on issues to do with company external reporting?

| Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Don't know |
|----------------|-------|---------|----------|-------------------|------------|
| 1 | 2 | 3 | 4 | 5 | dk |

Internet-based information

It is now clear that business reporting will increasingly occur via the Internet. This technology allows much larger information sets to be made available although, to avoid information overload, these will need to be structured to facilitate easy navigation and search. The questions in this section relate only to information provided using the Internet *via* company websites. They are based upon recent reports by accounting standard-setting bodies and professional bodies.

A3. How often do you use the Internet?

Never Rarely About once weekly Almost daily

Integration of information: navigation and search aids

Companies can be expected increasingly to design their business reporting packages for the Internet medium, rather than simply placing an exact reproduction of the printed Annual Report and Accounts on their website. Listed here are features relating to the navigation and search aids that have been adopted by leading edge companies or demonstration sites.

A5. Please indicate how useful you think each of the following features would be in using an Internet-based business reporting package.

| | Very useful | Useful | Fairly useful | Of little use | Not useful at all | Don't know |
|---|-------------|--------|---------------|---------------|-------------------|------------|
| Business reporting information is clearly indexed on the home page (e.g. titled Investor Relations) and not buried (e.g. under company history) | 1 | 2 | 3 | 4 | 5 | dk |
| A hyperlinked site map or table of contents is available that shows all the major components in the business reporting package (hyperlinks allow the user to jump directly from one section to another, the link being activated by mouse-clicking on the source point) | 1 | 2 | 3 | 4 | 5 | dk |
| Hyperlinks exist between items in the financial statements and: | 1 | 2 | 3 | 4 | 5 | dk |
| • the relevant note to the accounts | 1 | 2 | 3 | 4 | 5 | dk |
| • the relevant section of the management discussion and analysis (known as the Operating and Financial Review (OFR) in the UK) | 1 | 2 | 3 | 4 | 5 | dk |
| • the five-year summary | 1 | 2 | 3 | 4 | 5 | dk |
| Hyperlinks exist between the: | | | | | | |
| • individual notes to the accounts and the management discussion and analysis | 1 | 2 | 3 | 4 | 5 | dk |
| • management discussion and analysis and relevant forward-looking information | 1 | 2 | 3 | 4 | 5 | dk |
| • management discussion and analysis and relevant company background | 1 | 2 | 3 | 4 | 5 | dk |
| The facility to 'point and click' on financial items to get a time series graph of the item | 1 | 2 | 3 | 4 | 5 | dk |
| 'Next' and 'previous' buttons at the bottom of each page | 1 | 2 | 3 | 4 | 5 | dk |
| Users can sign up for email alerts, to receive press releases and other updates <i>via</i> email or notification that new information is posted on the web | 1 | 2 | 3 | 4 | 5 | dk |

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Business Reporting: Harnessing the power of the Internet for users

Use of the Internet to disseminate and access corporate information is growing rapidly and is being facilitated by regulatory changes. Preparers benefit from cost savings. Users can benefit in a variety of ways, depending on the extent to which the capabilities of the digital medium are exploited. Possibilities include enhanced timeliness, greater ease of access and search, and improved facilities for data extraction, automatic comparisons and analysis. In addition, the ability of the medium to handle the reporting of a greatly expanded information set fits well with recent calls for the increased disclosure of a broader range of information, including qualitative information, quantitative non-financial performance indicators, and forward-looking information.

This study reports users' attitudes to web-based reporting, thereby complementing the many studies of web-reporting practices. A major feature of the study is that it allows the views and attitudes of the main interest groups in business reporting to be systematically compared, so that points of general agreement and points of major disagreement can be identified. Evidence of this type is of particular value to standard-setters, whose role it is to encourage best practice and to consider (and, if appropriate, attempt to reduce or resolve) conflicts of interest between different groups.

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