EXPLORING THE USE AND USERS OF NARRATIVE REPORTING IN THE ONLINE CORPORATE ANNUAL REPORT

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Abstract

This paper explores the use and users of narrative reporting information contained within the corporate annual reports published online by large listed companies on the London Stock Exchange. Broadly, the study was motivated by the increasing supply of narrative reporting information and management commentary in annual reports, and the lack of empirical research investigating the use and users of this information. More specifically, there has been little investigation into who uses information delivered online, and how the users and the information they request may differ from those using hard copy annual reports, particularly where many commentators believe the Internet will become the primary channel for disseminating annual reports in the future. The paper details over 1 million instances where narrative reporting and annual reporting information is successfully delivered to users of the corporate Web sites of 15 UK FTSE 350 companies representing 11 industrial sectors. The most frequent users of the online annual report are private individuals and those registered under ISP, employees and professional investors and creditors. Employees are found to make significantly greater use of narrative reporting information, yet they do not make comparatively greater use of management commentary, suggesting that their focus is aimed at less technical, more summarised information. Consultants and unaffiliated organisations make significantly greater use of narrative reporting information and management commentary, suggesting an interest in understanding the business while lacking an interest in, or comprehension of, financial accounting data. Professional investors and creditors, and accounting firms make significantly fewer requests for both narrative reporting information and management commentary. Overall, the key financial statements, notes and segmental analysis generate the most information requests and summarised, narrative reporting information tends to be more popular with online users than management commentary or more detailed narratives. The results suggest that those with greater experience and expertise in preparing and using financial accounts adopt different information preferences with respect to the online annual report. Although experienced users such as professional investors, creditors and accounting firms use the annual report to download predominantly detailed financial accounting data, the widespread availability and accessibility of the online annual report allows narratives to provide a source of general company information for employees and a wider audience, many of whom would have lacked access to a hard copy annual report.

1 We gratefully acknowledge the financial support of the UK Economic and Social Science Research Council in undertaking this project: E-Society Research Programme grant number RES-335-25-0038.
1. Introduction

This paper aims to explore the use and users of narrative reporting information contained within the corporate annual report and accounts (hereafter ‘annual reports’) published online by large listed companies in the UK. Narrative reporting information is defined in this context as all annual report content published by companies other than the financial statements, notes and the auditors report (Deloitte, 2006; 2005). This broad definition of narrative reporting includes all contextual information that accompanies the financial statements and, despite its name, is expressed in narrative, quantitative, financial and non-financial terms.

The provision of narrative reporting information responds to concerns from user groups that annual reports and particularly financial statements do not provide sufficient information to enable them to understand the performance and position of modern companies (for example, see AICPA, 1994; Beattie et al., 2002; IASB, 2009). The extant system of financial accounting, developed within a traditional manufacturing environment, fails to capture the risks, opportunities and interdependent organisational relationships of businesses operating in modern, increasingly knowledge-based environments. For example, Holland (2004) argues that the growth of intangibles has led to changes in the value creation process, and the significance of intangibles has exacerbated the information asymmetry between companies and the providers of capital (see also FASB, 2001; IFAC, 2008).

Many commentators (for example, see AICPA, 1994; DiPiazza et al., 2006) have called for a broadening of the reporting model: from a focus on disclosing financial statement data to providing a wider array of financial and non-financial information to aid decision making. Hence, narrative reporting has developed as an outlet for management to disclose present or future orientated information demanded by those users seeking to appraise strategy, management quality and firm-specific intangibles (see Davison & Skerratt, 2007; PWC, 2007).

Historically, while a Directors’ Report has been required to accompany the company accounts laid before shareholders, other voluntary narratives such as the Chairman’s Statement have been increasingly supplied by companies over time. More recently, regulators have increasingly mandated or recommended specific, detailed narrative disclosures. For example, in the US, Management’s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) was first required by the SEC in 1968 (Collins et al., 1993; Schroeder & Gibson, 1990) whereas, in the UK, the ASB published voluntary guidance on the supply of the

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2 For this reason, the IASB (2009 p.26) describe narrative reporting information as ‘other financial reporting’.
Operating and Financial Review (OFR) in 1993. Specific, detailed narrative statements such as MD&A and the OFR have been described by the IASB as ‘management commentary’ which it defines as,

“information that accompanies financial statements as part of an entity’s financial reporting. It explains the main trends and factors underlying the development, performance and position of the entity’s business during the period covered by the financial statements. It also explains the main trends and factors that are likely to affect the entity’s future development, performance and position” (IASB, 2005 p.15).

The global accounting scandals in 2001-2002 prompted politicians to demand regulatory responses which led to revisions in narrative reporting guidance as part of attempts to strengthen the corporate reporting model. For example, the SEC required discussion of critical accounting policies in MD&A in 2001, and in 2003, after the ‘Sarbanes-Oxley’ Act, it extensively revised its rules governing the scope, content and disclosure of MD&A (IASB, 2006). In the EU, the 2003 Accounts Modernisation Directive (2003/51/EC) required all large and medium sized companies to publish a Business Review in the Directors’ Report and the 2004 Transparency Directive (2004/109/EC) made further narrative reporting requirements of listed companies (see ASB, 2007 n529). Currently, UK listed companies are required to publish a Directors’ Report with an enhanced Business Review and a Directors’ Remuneration Report by statute (Great Britain, 2006), and a report detailing compliance with the Combined Code on Corporate Governance under listing rules (see FSA, 2004; 2008). Internationally, the IASB issued an exposure draft detailing non-mandatory guidance for management commentary in 2009 (IASB, 2009).

Over time, the majority of companies have been found to supply more narrative reporting information in their annual reports (for example, see Campbell & Slack, 2008; Davison & Skerratt, 2007; Orens & Lybaert, 2007). By 2006, Deloitte (2006) found the proportionate volume of narrative reporting accounted for 52% of an average annual report. UK guidance encouraging companies to produce an OFR in 1993 led to a large increase in their supply prior to the mandatory requirements set out in the UK Companies Act 2006. For example, Deloitte (2006

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3 Regulations applicable in other jurisdictions are described in IASB (2005).
4 Previously, the 4th and 7th company law directives had required a ‘fair review’ of the business in the Directors’ Report (Singleton-Green, 2006).
5 All listed companies must produce a management (commentary) report with both interim and annual reports.
6 Medium and large companies must also disclose information on employees, wages and pensions. Companies can still supply an OFR, as opposed to a Business Review, as long it meets the disclosure requirements detailed in the UK Companies Act 2006 (see DTI, 2006).
n533; 2005 n450) find that 76% of UK FTSE 350 listed companies produced a formal statement (an OFR) or clearly adopted OFR recommendations in 2006 (68% in 2000).

The paucity of empirical research establishing who uses corporate information and what information they use continues to be criticised by many commentators (see for example, AICPA, 1994; ICAEW, 2006; Young, 2006; IFAC, 2008). Research analysing user information needs is recommended specifically in respect of narrative reporting (see Campbell & Slack, 2008) and management commentary (see IASB, 2005). Hence, this paper aspires to contribute by exploring the use of narrative reporting information disclosed in online annual reports.

The Internet has become a key source of corporate information. For example, Hodge & Pronk (2006) claim that nearly 75% of non-professional investors use the Internet for investing activities. Corporate reporting information is increasingly disseminated via the Internet and online (or Internet based) disclosures have become an accepted and growing communication channel (see Beattie & Pratt, 2003; Gowthorpe, 2004; Bollen et al., 2006). For example, the UK Companies Act 2006 s430 requires that all listed companies must ensure their annual reports are unconditionally available on a Web site maintained by (or on behalf of) the company throughout the year (Great Britain, 2006 n526). Furthermore, corporate Web sites have developed as key media for publishing non-financial information and other investor related data (see Quagli & Riva, 2005; Xiao et al., 2002; Jones et al., 2001). For example, Trabelsi et al. (2004) find that the company Web site contains information unpublished in hard copy forms indicating that some corporate information is only publicly available online. Consequently, Campbell & Slack (2008 p.7) argue that the “website has become the vehicle of choice for most stakeholders seeking information on a company”.

Online dissemination of annual reporting information may cause information usage to differ from that of hard copy disclosures (Trites, 1999) and may be worthy of examination in its own right. Unlike online disclosures, hard copy information must be presented in order of sequence which is found to influence the narrative reporting readership preferences of private shareholders (Bartlett & Chandler, 1999). Online users may also quickly move between different parts of the annual report via hyperlinks which may affect user decision making (see Dull et al, 2003; Rose et al., 2004). McInnes et al. (2007) note that online dissemination permits the individual user to control when and what information is accessed, leading to more heterogeneity.

7 For example, the ICAEW (2006 p.44) state that ‘the first issue is to identify who are the users of financial reporting information and what use they make of it’.

8 The term, online reporting, refers to the communication of information via the World Wide Web and the wider Internet.
between information users as they define their own information ‘package’, rather than rely on a pre-defined ‘package’ (for example, see Debreceny et al., 2001).

By focusing on the online annual report, this paper provides a first attempt to empirically explore the users of online narrative reporting information using a Web log research method. Specifically, it analyses which user groups successfully access and/or download online narrative reporting information disclosed within the annual report, and assesses the relative requests for different forms of narrative reporting information.

The next section proceeds to review prior literature focusing on the users and use of narrative reporting information before generating specific research questions to be investigated. Section 3 describes the research design while analyses and conclusions are presented in sections 4 and 5.

2. The Use and Users of Narrative Reporting Information

This section firstly discusses the users of narrative reporting and management commentary before reviewing research investigating the readership and uses made of that information.

Narrative reports within the annual report are generally found to be targeted at private shareholders (Campbell & Slack, 2008; McInnes et al., 2007), customers, suppliers, employees and the general public (McInnes et al., 2007; Oliver, 2000). In respect of management commentary, the UK OFR and the Business Review, are targeted specifically at shareholders (ASB, 2006; Great Britain, 2006). Although it is suggested that the OFR will be of interest to other stakeholders, including customers, suppliers and employees, the ASB emphasise the primacy of the shareholder audience by stating that “the OFR should not, however, be seen as a replacement for other forms of reporting to a wider stakeholder group.” (ASB, 2006, p.9). This approach is also reflected in international proposals made by the IASB (2009).

Although management commentary (and narrative reporting) is targeted primarily at shareholders, prior research suggests that annual reports are not a key information source for professional investors and analysts. Such professional users are found to rely on private disclosure channels which provide information in advance of annual report publication (for example see Barker, 2001; Campbell & Slack, 2008; Holland, 2006; Marston & Straker, 2001; McInnes et al., 2007; Roberts et al., 2006). For example, Holland (2004 p.51) finds that the
‘value creation story’ is only “partially communicated through public disclosure like OFR and company Web sites”. However, professional users are generally found to use corporate Web sites as a reference source of historical information (Debreceny et al., 2001; McInnes et al., 2007). This is supported by Hodge & Pronk (2006) who find that financial analysts are the second most frequent visitors to the Philips NV corporate reporting Web site (see also Marston, 2004; Quagli & Riva, 2005).

Where professional users do use the annual report, prior research finds that they consistently consider narrative reporting information to be less important than the core financial statements, notes and segmental information (see Campbell & Slack, 2008; KPMG, 2007; PWC, 2007; Stainbank & Peebles, 2006). Professional users are more likely to view any relevant narrative information accompanying the preliminary results announcement which forms the basis of subsequent annual reporting narratives (McInnes et al., 2007). Analysts are found to perceive narrative reports in the annual report as template driven and not relevant to their forecasting models (Campbell & Slack, 2008) and narrative reporting may also be considered a public relations tool lacking in objectivity where management can provide a biased picture of their own performance (Campbell & Slack, 2008; Clatworthy & Jones, 2003; PWC, 2007). However, analysts are demanding more independent, non-financial information about companies via disclosure channels other than the annual report. For example, the Enhanced Analytics Initiative (EAI), representing $1,000 billion assets under management, was set up to encourage, score and reward analyst research into ‘extra financial issues’ claiming “the role of intellectual and human capital in selected industries remains under-researched” (EAI, 2006 p.4).

In identifying the users of management commentary, prior literature lacks consensus. Although the IASB (2009) asserts that management commentary is ‘routinely used’ by capital providers, the London Stock Exchange note that management commentary is not used by professional investors and is focused on retail investors (Treasury, 2005). In terms of readership, the MD&A (Epstein & Pava, 1995) and the OFR (Berry & Robertson, 2006; Campbell & Slack, 2008) are generally ranked below the main financial statements by professional users. However, research suggests management commentary information is used more by analysts and other professional users than other forms of narrative reporting information. For example, Clarkson et al. (1999) find that Canadian analysts perceive MD&A to be useful in providing incremental information, corroborating prior disclosures and providing information in one location.

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9 Companies listed on the London Stock Exchange are required to provide initial summaries of final year results in a preliminary announcement prior to publication of the annual report (see ASB, 1998; FSA, 2008).
particularly for new companies. Weetman et al. (1995) report that professional users find the OFR to be useful in providing general information enabling more time to be focused on gathering supplementary detail. Rogers & Grant (1997) find that US analyst reports contain more information disclosed in MD&A than any other part of the annual report suggesting that although professional users do make use of management commentary type information, it is collected via channels other than the annual report (PWC, 2007).

Contrastingly, prior research demonstrates that narrative reporting is ranked highly in terms of readership by the private shareholder\(^{10}\), commonly meeting or exceeding the readership of the core financial statements. For example, early research by Lee & Tweedie (1975) finds that the Chairman’s Statement and Directors’ Report are amongst the most popular forms of information read by the private shareholder, ranking above the Balance Sheet. An updated version of this survey by Bartlett & Chandler (1997) also finds that the Chairman’s Statement, the CEO Review and the Operating Review within the Directors’ Report were amongst the commonly read sections of the annual report, ranking above the financial statements. More recently, McInnes et al. (2007) find that the Chairman’s Statement and CEO Report are of considerable interest to, and read by, private shareholders. Finally, in respect of management commentary, Epstein & Pava (1995) find that MD&A is used more by inexperienced users.

Collectively, prior research suggests that narrative reporting information in the annual report is used more frequently by private shareholders because they lack access to alternative communication channels of corporate reporting information. For example, McInnes et al. (2007) opine that annual report narratives may aid private investors in judging company management where do not get the opportunity to meet management in one to one meetings.

The size of annual reports has grown on average over time and the growth in the number of pages has accelerated in recent years. For example, Davison & Skerratt (2007) report that the average length of the annual report has risen from 26 pages in 1965 to 103 pages on average in 2002. McInnes et al. (2007) find that private investors do not read audited financial information as it is perceived to be too complex and therefore cannot be trusted. This suggests that the increased volume and complexity of financial statement data can lead to information overload and may deter some users such as private investors (for example, see ASB, 2000). The UK Financial Reporting Council (FRC) have acknowledged this issue by initiating an

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\(^{10}\) Independent, non-institutional shareholders.
investigation into the complexity of financial statements, management commentary and other financial reports (FRC, 2009). Lee & Tweedie (1977) find that private shareholders have a better understanding of narrative reporting information that avoids non-technical terminology, and the ASB proposed that companies with a large number of shareholders could send smaller shareholders a simplified narrative review in place of summary financial statements (ASB, 2000). Hence, narrative reports and management commentary that contextualise complex financial statement data may be more useful to private shareholders and other stakeholders who lack the tools, expertise and resources needed to interpret that data.

Less research abounds on the use of narrative reports by other stakeholders. McInnes et al. (2007) finds that employees, customers and suppliers all read narrative information and management commentary in the annual report. In particular, employees are found to use annual report narratives to gain an understanding of their business, particularly where financial statements are considered too complex, for their communications with external parties such as customers. They are also used to assess job security or employment prospects (McInnes et al., 2007). Hodge & Pronk (2006) find that employees are the most frequent visitors to the corporate Web site.

Overall, prior literature suggests that while management commentary in the annual report is targeted is at all shareholders, it is used more frequently by private shareholders and wider groups of stakeholders, rather than professional shareholders. Narrative reports in the annual report are targeted at shareholders and wider groups of stakeholders, but are seldom used by professional users. This paper aims to investigate whether these findings hold in an online setting. Firstly, the paper captures which stakeholders access and/or download online corporate narrative reporting information and management commentary from the annual report. Secondly, the paper explores the comparative use of online narrative reporting and management commentary statements between stakeholders such as professional users and employees in comparison to other annual reporting information. Thirdly, the paper explores the comparative use of discrete online narrative reports and management commentary statements such as the Chairman’s Statement, CEO Review, Directors’ Report, Corporate Governance Statement and the OFR. Finally, the paper analyses the relative use of online narrative information in
comparison to quantitative financial accounting (or ‘non-narrative’) information (the financial statements, notes and the auditors report).

Research Question 1a: Who uses online narrative reporting information?
Research Question 1b: Who uses online OFR management commentary?
Research Question 2a: Is the user profile of those requesting narrative reporting information different to those requesting all annual reporting information?
Research Question 2b: Is the user profile of those requesting OFR management commentary different to those requesting all annual reporting information?
Research Question 3: What is the relative use of discrete narrative reports and management commentary in comparison to other annual reporting information?
Research Question 4: How does use of narrative reporting information compare to the use of quantitative financial accounting information?

In order to empirically answer the research questions, the remainder of this paper explores the use of online management commentary disclosures of large companies listed in the UK. The next section describes the research design used to capture the exploratory data.

3. Research Design

The empirical data used in this study captures those users accessing online annual reporting information disclosed by large companies listed on the London Stock Exchange. A purposive sample selection sought to investigate users from a cross section of the largest public companies in the UK supplying full and disaggregated online annual reports\textsuperscript{11}. Therefore, the selection criteria identified those companies which a) supplied a full set of Web logs for the sample period; b) supplied disaggregated online annual reports; and c) were a member of the FTSE 350\textsuperscript{12}. The selected companies represent 11 FTSE industrial sectors as shown in Table 1\textsuperscript{13}.

Table 1: Sample Companies by industry class / index

<table>
<thead>
<tr>
<th>FTSE Industrial Classification (ICB code)</th>
<th>FTSE 100</th>
<th>FTSE 250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace &amp; defence (2710)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{11} Disaggregated annual reports allow users to access and download separate sections of the annual report.

\textsuperscript{12} Representing the 350 largest companies on the London Stock Exchange. Prior research has shown that size is positively related to the volume of narrative disclosure (for example, see Beattie & McInnes, 2006).

\textsuperscript{13} Due to the commercial sensitivity of corporate Web server logs, our conditions of data access prevent the disclosure of company names.
To explore the users of online narrative reporting disclosures, a Web server log research method is used to quantify and detail requests made by users for information disclosed within the online annual report.

Each request for content (e.g. the particular Web page or downloaded document) received by a company’s Web server is recorded as separate lines of code in Web server log files. More specifically, log files maintain a record of the Internet Protocol (IP) address of the requesting computer, the date and time of the request and the name, size and Universal Resource Locator (URL) address of the requested page. Using software developed by the researchers, these logs were parsed and aggregated to identify the exact timing of each request, the nature of the content requested and some user identification characteristics.

To explore who is accessing information, the IP addresses of those successfully receiving information during each visit to the Website are analysed using IP registries and are anonymously classified into broad stakeholder groupings that proxy for online users. ‘Page Views’ or ‘Page Impressions’, identifiable from the Web server log files, provide a proxy for online use. Page Views measure the number of discrete Web pages requested and successfully delivered to users by removing ‘frames’, and other additional multiple linked files provided when a particular Web address is requested. In addition, Page Views are filtered to remove any computer generated requests or those originating from the researchers.

A key advantage of this research approach is that it can enable researchers to directly measure information requests, as distinct from estimating information demands indirectly. As Web server logs capture what information is actually accessed without the explicit awareness of

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banks (8350)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Beverages (3530)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Construction &amp; materials (2350)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Food &amp; drug retailers (5330)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Food producers (3570)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>General financial (8770)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>General retailers (5370)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Industrial transportation (2770)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Media (5550)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Oil &amp; gas producers (0530)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total (15)</strong></td>
<td><strong>9</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

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14 A ‘visit’ or ‘session’ is commonly defined as a series of information requests made within 30 minutes of each other (Zawitz, 1998).

15 For example, automated agents such as ‘Robots’, ‘Spiders’ and ‘Pushed Pages’. See Rowbottom et al. (2005) for further details.
the user, external validity is enhanced thereby providing an alternative perspective to traditional research methods employed to capture user behaviour such as questionnaires and interviews. This method can more easily, and more accurately, monitor the information requested by large numbers of online annual report users. While the Web log research method gives comparatively greater breadth in investigating online information seeking behaviour, it does not indicate how information is used and whether it is useful to the requestor. It assumes that where online information has been actively requested, demanded and successfully delivered, it is at least partially read and provides a proxy for online use (Hodge & Pronk, 2006). Furthermore, the proxy for online users, the IP address, identifies a network node rather than an individual, and does not detail why the Website is being accessed. Although companies use Web logs to analyse the usage of corporate Web sites, findings are seldom reported (for example, see Adams & Frost, 2006) and Web logs have rarely been employed in corporate communications research despite their popularity in assessing online usage in other disciplines (see for example, Nicholas et al., 2002).

The dataset covers the period 1 January 2003 – 30 April 2004, in which 18,593,159 Web server log entries were captured. After filtering, 6,397,309 successful requests for pages were processed, identified and classified. From this, 1,070,026 successful requests were made for annual report information. The next section presents the results from the study and discusses their significance in investigating the users of online narrative reporting information.

4. Results & Analysis

This section addresses each research question, detailed in section 2, in turn. To answer research question 1a – who uses online narrative reporting information – the first column of Table 2 displays the relative proportion of requests for narrative reporting information in the annual report from different stakeholder groups. The majority of requests (30%) originate from computers registered to private individuals and those registered under Internet Service Providers (ISP). Private individuals are commonly registered in the UK whereas requests from ISPs are predominantly from the UK and US. As medium and larger organisations tend to own or lease

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16 The data will be subject to some noise if, for example, Web pages have been mistakenly requested by users.
17 Adams & Frost (2004) find that 41% of surveyed firms track individual users while 77% identified the number of Web site visitors.
18 This sample period covers the 2003 and 2004 year ends and aims to cover a full ‘reporting cycle’. During this time, the disclosure of management commentary was subject to voluntary guidance by the ASB while the Government had announced its intention to require a mandatory OFR in its reform of company law.
fixed IP addresses, it is likely that many of the ISP-based requests will represent individuals or small businesses who are not granted fixed IP address and are registered en masse under their ISP who allocates IP addresses on demand. However, other stakeholder groups such as employees or professional investors may also access corporate reporting Websites via their private ISPs rather than their place of employment. ‘Employees’ are the second largest user of narrative reporting information (23%) and represent requests from all parts of the group structure of the sample companies across the world. The third and fourth largest users of narrative reporting information are ‘Customers / Suppliers / Competitors’ and ‘Consultants’, both generating approximately 11% of requests. ‘Customers / Suppliers / Competitors’ frequently represented large organisations in the same industry and, in many cases, key competitors indicating that companies monitor the online narrative reporting information and disclosure practices of their industry peers. ‘Consultants’ generally represented large international practices based in the UK, USA or Europe. Finally, requests originating from (generally higher) educational institutions (8%) were the fifth largest users of narrative reporting information.

In respect of research 1b – who uses OFR management commentary – the third column of Table 2 displays the relative proportion of requests for the OFR in the annual report from different stakeholder groups. Similar to narrative reporting, ‘Private Individuals / ISP’ (34%) and ‘Employees’ (18%) generate the majority of requests, and ‘Consultants’ and ‘Educational Institutions’ were the fourth and fifth largest users. However, the OFR attracts comparatively greater requests from ‘Professional Investors / Creditors’ (11%), mostly representing large international financial services providers, banks, pension and hedge funds.

Table 2: Proportionate Origin of Online Narrative Reporting, Management Commentary and Annual Report Requests Successfully Delivered by Sample Companies (Jan. 03 – Apr. 04).

<table>
<thead>
<tr>
<th>Stakeholder Group</th>
<th>A. Proportion of requests for narrative reporting</th>
<th>B. Proportion of requests for OFR management commentary</th>
<th>C. Proportion of requests for annual reports</th>
<th>Difference between the means (H0: A-C = 0) t test statistic</th>
<th>Difference between the means (H0: B-C = 0) t test statistic</th>
<th>Difference between the means (H0: B-A = 0) t test statistic</th>
</tr>
</thead>
</table>

19 No clear distinction could be made between competitors, customers and suppliers. For example, competitors were often collaborators in some markets or projects e.g. in banking syndication or joint ventures.

20 No separation is made between professional investors and creditors, as requests frequently originated from large financial services organisations providing banking, broking, analysis and asset management.

21 The analysis is based on the most frequent visitors to the annual reporting Web pages of each company, who account for 37% of total visits on average.
<table>
<thead>
<tr>
<th>User Group</th>
<th>First Column</th>
<th>Second Column</th>
<th>Third Column</th>
<th>t-test Statistic 1</th>
<th>t-test Statistic 2</th>
<th>t-test Statistic 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Individuals / Internet Service Providers</td>
<td>28.19%</td>
<td>33.09%</td>
<td>29.07%</td>
<td>-0.229</td>
<td>0.938</td>
<td>2.564**</td>
</tr>
<tr>
<td>Employees</td>
<td>22.64%</td>
<td>17.75%</td>
<td>18.91%</td>
<td>3.426***</td>
<td>-0.631</td>
<td>-2.814**</td>
</tr>
<tr>
<td>Customers / Suppliers / Competitors</td>
<td>11.12%</td>
<td>6.52%</td>
<td>6.45%</td>
<td>1.372</td>
<td>0.058</td>
<td>-1.136</td>
</tr>
<tr>
<td>Consultants</td>
<td>11.03%</td>
<td>10.81%</td>
<td>7.08%</td>
<td>2.141**</td>
<td>2.364**</td>
<td>-0.230</td>
</tr>
<tr>
<td>Educational Institutions</td>
<td>9.58%</td>
<td>8.56%</td>
<td>7.15%</td>
<td>1.247</td>
<td>1.356</td>
<td>-0.631</td>
</tr>
<tr>
<td>Professional Investors / Creditors</td>
<td>6.13%</td>
<td>10.87%</td>
<td>18.70%</td>
<td>-4.124***</td>
<td>-2.475**</td>
<td>2.456**</td>
</tr>
<tr>
<td>Accounting Firms</td>
<td>4.47%</td>
<td>3.51%</td>
<td>6.83%</td>
<td>-3.676***</td>
<td>-2.692**</td>
<td>-1.065</td>
</tr>
<tr>
<td>Other Commercial Organisations</td>
<td>4.11%</td>
<td>5.73%</td>
<td>1.12%</td>
<td>2.722**</td>
<td>3.936***</td>
<td>1.931*</td>
</tr>
<tr>
<td>Infomediaries</td>
<td>1.22%</td>
<td>1.62%</td>
<td>3.39%</td>
<td>-1.456</td>
<td>-1.218</td>
<td>1.004</td>
</tr>
<tr>
<td>Lawyers</td>
<td>0.65%</td>
<td>0.50%</td>
<td>0.94%</td>
<td>-0.646</td>
<td>-1.026</td>
<td>-0.730</td>
</tr>
<tr>
<td>Non-Profit Organisations</td>
<td>0.46%</td>
<td>0.42%</td>
<td>0.12%</td>
<td>1.380</td>
<td>1.479</td>
<td>-0.151</td>
</tr>
<tr>
<td>Government</td>
<td>0.40%</td>
<td>0.62%</td>
<td>0.24%</td>
<td>0.836</td>
<td>1.314</td>
<td>0.592</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*=10%, **=5% and ***=1% statistical significance levels

The second research question aims to explore those users of the annual report who make comparatively more or less use of narrative reporting information and management commentary. The most frequent users of both full and disaggregated online annual reports, shown in the third column of Table 2, are ‘Private Individuals / ISP’, ‘Employees’ and ‘Professional Investors / Creditors’. Other significant user groups include ‘Consultants’, (predominantly big 4) ‘Accounting Firms’, ‘Educational Institutions’ and ‘Customers / Suppliers / Competitors’. The user profile across the fifteen sample companies is fairly consistent with the only prior research investigating online users. Using an online questionnaire, Hodge & Pronk (2006) find the most frequent visitors to the Philips NV quarterly reports to be, respectively, employees, financial analysts, private shareholders, students, institutional shareholders, business partners, journalists, customers, competitors, lenders, academics and government.

The fourth (and fifth) columns of Table 2 present t-test statistics presuming no difference between the profile of those using narrative reporting information (and management commentary), and those using any annual report information. The tests indicate that there are significantly more requests from employees, consultants and ‘Other Commercial Organisations’ for specific narrative reporting information and significantly fewer requests from professional...
investors / creditors and accounting firms. Similar results are found in respect of management commentary: there are significantly more requests from consultants and other companies (but not employees) and significantly fewer requests from professional investors / creditors and accounting firms.

Employees are found to be the second most frequent users of online annual reports, presumably aided by convenient access to online corporate disclosures where many companies encourage demand by advertising publication of new information via internal newsletter and providing easily accessible links to the corporate Web site via the intranet (for example, see McInnes et al. 2007). From those accessing disaggregated annual reports, employees make significantly greater use of narrative reporting information rather than the quantitative financial statements and notes. However, they do not make comparatively greater use of management commentary, suggesting that their specific information needs are generally less technical and more summarised. This is consistent with McInnes et al. (2007) who find that employees use narrative information to understand the business and appraise employment prospects while lacking an understanding of complex financial statements.

Consultants make significantly greater use of narrative reporting information and management commentary, suggesting an interest in understanding the business of current or potential clients while lacking an interest in, or comprehension of financial accounting statements. ‘Other Commercial Organisations’ (representing requests from businesses in different industries with no public affiliation to the sample company) also make comparatively greater use of narrative reporting information and generate significantly more requests for management commentary.

The comparative lack of use in narrative reporting information by professional investors / creditors supports prior research investigating offline user needs (for example, see Campbell & Slack, 2008; KPMG, 2007; McInnes et al. 2007; PWC, 2007; Stainbank & Peebles, 2006). However, they also make significantly fewer requests for management commentary, even though professional shareholders are considered (part of) the key target audience (see ASB, 2006; IASB, 2005). Although prior research finds that professional users prefer private disclosure channels (see Barker, 2001; Campbell & Slack, 2008; Holland, 2006; McInnes et al., 2007), the empirical results indicate that they generate 19% of all annual report requests. While professional users are found to use management commentary information (for example, Clarkson et al., 1999; Rogers
& Grant, 1997), the results indicate they do not obtain this information from the disaggregated online annual report and are more likely to download complete reports. Where professional investors / creditors do use disaggregated online annual reports, they focus significantly more on the quantitative financial accounting data found in the financial statements and related notes.

Accounting firms exhibit similar preferences to professional investors / creditors by generating significantly fewer requests for narrative reporting information and management commentary, and both categories represent experienced, professional users who make greater use of the audited sections of the online annual report.

The results suggest that those with greater experience in preparing and using financial accounts adopt different online information preferences. When searching for specific information, experienced users such as professional investors, creditors and accounting firms are found to exhibit greater interest in quantitative financial data. Together with prior research detailing their acquisition of current information via other communication channels (for example see Barker, 2001; Holland, 2006; McInnes et al., 2007) this suggests the corporate Web site is used as a library or reference source of accounting information. Those likely to have less accounting experience such as employees, consultants and unaffiliated companies make significantly more specific requests for narrative reporting information. Here, the online annual reports appear to be used as an easily available source of general company information, perhaps used to encourage employee advocacy and inform briefings or sales pitches. By offering disaggregated online annual reports, companies allow users to pursue their information preferences more efficiently which demonstrates more clearly how different annual reporting information is consumed by difference audiences. With the growth of the online disclosure channel, it is argued that current technology can easily be used to further diversify and customise information sets with forms of report customisation to meet different user needs and audiences rather than a ‘one size fits all’ approach (for example, see Beattie & Pratt, 2001; DiPiazza et al., 2006; FRC, 2009; ICAEW, 2004; Jensen & Xiao, 2001).

To investigate the third research question - what is the relative use of discrete narrative reports and management commentary in comparison to all annual reporting information - Table 3
shows the most popular Web Pages accessed and downloaded over the sample period from disaggregated annual reports.\textsuperscript{22}

Table 3: Top 20 Annual Report Web Pages Requested From Sample Users (Jan. 03 – Apr. 04).

<table>
<thead>
<tr>
<th>Content</th>
<th>% of Total annual report Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit &amp; Loss Account</td>
<td>8.85%</td>
</tr>
<tr>
<td>Notes</td>
<td>7.43%</td>
</tr>
<tr>
<td>Balance Sheets</td>
<td>7.22%</td>
</tr>
<tr>
<td>Segmental Analysis</td>
<td>7.01%</td>
</tr>
<tr>
<td>Shareholder Information</td>
<td>4.86%</td>
</tr>
<tr>
<td>Financial Year Highlights</td>
<td>4.33%</td>
</tr>
<tr>
<td>Company Profile</td>
<td>3.68%</td>
</tr>
<tr>
<td>Operating and Financial Review</td>
<td>3.58%</td>
</tr>
<tr>
<td>Five Year Summary</td>
<td>3.49%</td>
</tr>
<tr>
<td>Directors’ Report</td>
<td>3.36%</td>
</tr>
<tr>
<td>Corporate Governance Report</td>
<td>3.18%</td>
</tr>
<tr>
<td>Director Biographies</td>
<td>3.17%</td>
</tr>
<tr>
<td>Remuneration Report</td>
<td>3.14%</td>
</tr>
<tr>
<td>Chairman’s Statement</td>
<td>3.08%</td>
</tr>
<tr>
<td>Chief Executive’s Review</td>
<td>3.00%</td>
</tr>
<tr>
<td>Cash Flow Statement</td>
<td>2.91%</td>
</tr>
<tr>
<td>Auditors Report</td>
<td>2.79%</td>
</tr>
<tr>
<td>Statement of Total Recognised Gains &amp; Losses</td>
<td>2.32%</td>
</tr>
<tr>
<td>Environmental Impacts\textsuperscript{24}</td>
<td>1.72%</td>
</tr>
<tr>
<td>Financial Calendar</td>
<td>1.61%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>80.73%</strong></td>
</tr>
</tbody>
</table>

The key financial statements, notes and segmental analysis generate the most online information requests from users, consistent with prior research analysing the use of the online (Debreceny et al., 2001) and offline annual report by professional users (see Campbell & Slack, 2008; KPMG, 2007; PWC, 2007; Stainbank & Peebles, 2006). With respect to narrative reporting information, more traditional narrative reports such as the Directors’ Report, Chairman’s Statement and Chief Executive’s Review, ranking tenth (3.36%), fourteenth (3.08%) and fifteenth (3.00%), are accessed and read less frequently by online users in this study in

\textsuperscript{22} In order to analyse the data laterally between companies, the categories represent the annual report sections presented online by sample companies. Each company received an average of 5,013 requests per month during the sample period.

\textsuperscript{23} A weighted average based on the number of companies in the sample supplying either a singular OFR or separate Operating Review and Financial Review.

\textsuperscript{24} A specific section of the annual report (not standalone sustainability reports or other Web pages) discussing the company’s impact on the environment.
comparison to private shareholders in ‘offline’ settings (for example, see Lee & Tweedie, 1975; Bartlett & Chandler, 1997). Management commentary (the OFR) is more frequently requested, generating 3.58% of annual report requests, although this may have been influenced, at the time, by Government proposals to require a statutory OFR during the company law review. Shareholder Information (detailing information on the AGM, voting and dividend policy), Financial Year Highlights and the Company Profile generate the greatest number of online requests for narrative reporting information.

Generally, summarised, narrative reporting information tends to be more popular with online users than management commentary or more detailed narratives. For example, Financial Year Highlights and Company Profile (and the Five Year Summary ranked ninth) contain high level, aggregated information which, while lacking detail, may aid the user in obtaining a quick understanding of the business and its performance. Both sections generate more requests than management commentary (the OFR), which aims to provide a more detailed and in-depth analysis of the business and its future prospects. The most popular narratives in the online annual report are also voluntary, and there is no correlation between the level of online use and whether the information is required by law or recommended by the ASB or FRC. ‘Offline’ research suggests the Corporate Governance Statement is read by private shareholders (Bartlett & Chandler, 1997) rather than professional users who do not believe it represents the best indicator of corporate governance performance (see Campbell & Slack, 2008; PWC, 2007). From the online annual report, the Corporate Governance Statement is ranked eleventh and generates 3.18% of requests.

Overall, online annual report information usage reflects ‘offline’ research on professional users where the popularity of discrete narrative statements is relegated below the core financial statements, notes and segmental information. However, in respect of online narrative reporting information, the relative popularity of summarised, aggregated information arguably reflects its role as a source of general company information for employees and wider groups of stakeholders such as consultants and unaffiliated organisations (found in Table 2) who may lack an interest in, or understanding of, financial accounting matters.

To investigate the fourth research question - how does use of narrative reporting information compare to the use of quantitative financial accounting information? – the results

25 The proposals were later withdrawn before the Companies Act 2006 required listed companies to disclose an enhanced Business Review in the Directors’ Report by 2008
indicate that narrative reporting information collectively attracts 68.48% of user requests, while accounting for 52% of annual report volume (Deloitte, 2006) or 79% of the disaggregated annual report sections on average. However, traditional, financial accounting data (the Profit & Loss Account, the Balance Sheet and the Notes) still attracts significantly more requests from users than other parts of the annual report. Specific narrative reporting statements generate significantly fewer requests, but they are used more frequently than more recent quantitative financial statements required by companies – namely, the Cash Flow Statement and the Statement of Total Recognised Gains & Losses. Overall, Table 3 indicates that despite criticism of its growing complexity in attempting to communicate the performance of modern businesses, quantitative financial accounting data is still the most demanded part of the online annual report. However, since the sample period, the impact of the 2007-8 financial crisis and the Companies Act 2006, requiring listed companies to supply an enhanced Business Review by 2008, may lead to changes in the relative demand for management commentary information.

5. Summary & Conclusions

This paper aimed to explore the use and users of narrative reporting information contained within the corporate annual reports published online by large listed companies in the UK. Broadly, the study was motivated by the increasing supply of narrative reporting information and management commentary in corporate annual reports, and the lack of empirical research investigating the use and users of this information. More specifically, there has been little investigation into who uses information delivered online via the Internet, and how the users and the information they request may differ from those using hard copy annual reports, particularly where many commentators believe the Internet will become the primary channel for disseminating annual reports in the future.

The paper details the instances where narrative reporting and annual reporting information is successfully delivered to users of the corporate Web sites of 15 UK FTSE 350 companies representing 11 industrial sectors. The study observes over 1 million requests from users, of whom private individuals and those registered under ISP, employees and professional investors and creditors are found to be the most frequently represented groups using the online annual report. By empirically tracking online users, the paper aims to inform debate on who reads annual reports. Although the relatively high level of requests from private individuals, professional investors and creditors, as representing primary users, is consistent with the
hierarchy of users identified in conceptual frameworks, the high level of requests originating from the reporting company suggests that online financial reporting may also play a more internal, introspective role.

The study explores four broad research questions. Firstly, the study finds that the most frequent users of narrative reporting and management commentary are private individuals and those registered under ISP, and employees. Secondly, employees appear to take advantage of the ease with which they can access online annual reports to make significantly greater use of narrative reporting information, yet they do not make comparatively greater use of management commentary, suggesting that their focus is aimed at less technical, more summarised information. Consultants and unaffiliated organisations make significantly greater use of narrative reporting information and management commentary, suggesting an interest in understanding the business while lacking an interest in, or comprehension of financial accounting data. Professional investors and creditors, and accounting firms make significantly fewer requests for narrative reporting information and management commentary. Both groups represent experienced users, who generally use the online annual reports to download quantitative financial accounting data. Where narrative reporting and management commentary information is used by experienced users (as indicated in prior research), this study suggests that it is generally obtained via alternative communication channels. Thirdly, the key financial statements, notes and segmental analysis generate the most online information requests, consistent with prior research analysing the use of the offline annual report by professional users. Generally, summarised, narrative reporting information tends to be more popular with online users than management commentary or more detailed narratives. High level, aggregated information which may aid the user to obtain a quick understanding of the business and its performance generates more requests than more detailed management commentary (the OFR). Finally, the paper finds that although online narrative reporting information collectively generates the majority (68%) of requests from users, the most frequently used sections of the online annual report contain traditional financial accounting information.

The results suggest that those with greater experience and expertise in preparing and using financial accounts adopt different information preferences with respect to the online annual report. Experienced users such as professional investors, creditors and accounting firms are found to exhibit greater interest in quantitative financial data and, together with prior research,
suggests the corporate Web site acts as a library or reference source of accounting information. Those likely to have less accounting experience such as employees, consultants and those wider groups of stakeholders make significantly more requests for narrative reporting information. However, in respect of online narrative reporting information, the relative popularity of summarised, aggregated information arguably reflects its role as a source of general company information for employees and wider groups of stakeholders who may lack an interest in, or understanding of, detailed financial accounting statements.

Overall, the results do indicate that the communication channel (internet dissemination) does lead to changes in how information is used. The format of the online annual report allows users to more easily control which sections they wish to view, being unrestrained by the sequential order of a hard copy document. Although it is used as a record of account by experienced users such as professional investors and creditors, the widespread availability and accessibility of the online annual report means that it provides a source of general company information for employees and a wider audience, many of whom would have lacked access to a hard copy annual report.

By offering disaggregated online annual reports, companies allow users to pursue their information preferences more efficiently which demonstrates more clearly how different annual reporting information is consumed by difference audiences. With the growth of the online disclosure channel, it is argued that current technology can easily be used to further diversify and customise information sets with forms of report customisation to meet different user needs and levels of experience rather than a ‘one size fits all’ approach. Further research, using contemporary datasets, could extend this enquiry in considering online user preferences for XBRL-tagged information where users will have greater flexibility over presentation and format.

The findings of the study are subject to several limitations. The dataset records the successful delivery of information to those network nodes that have downloaded pages from corporate Web sites which, it is argued, proxy for online use and online users. In terms of online use, it does not indicate the extent to which the information is read, used and useful and will introduce noise where information is downloaded but unused. In terms of online users, the IP address denotes a network node and does not indicate why, and in what role, information is being requested. Although the research method employed captures large numbers of information requests with high external validity, further complementary investigation would help understand why and how online information is used.
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