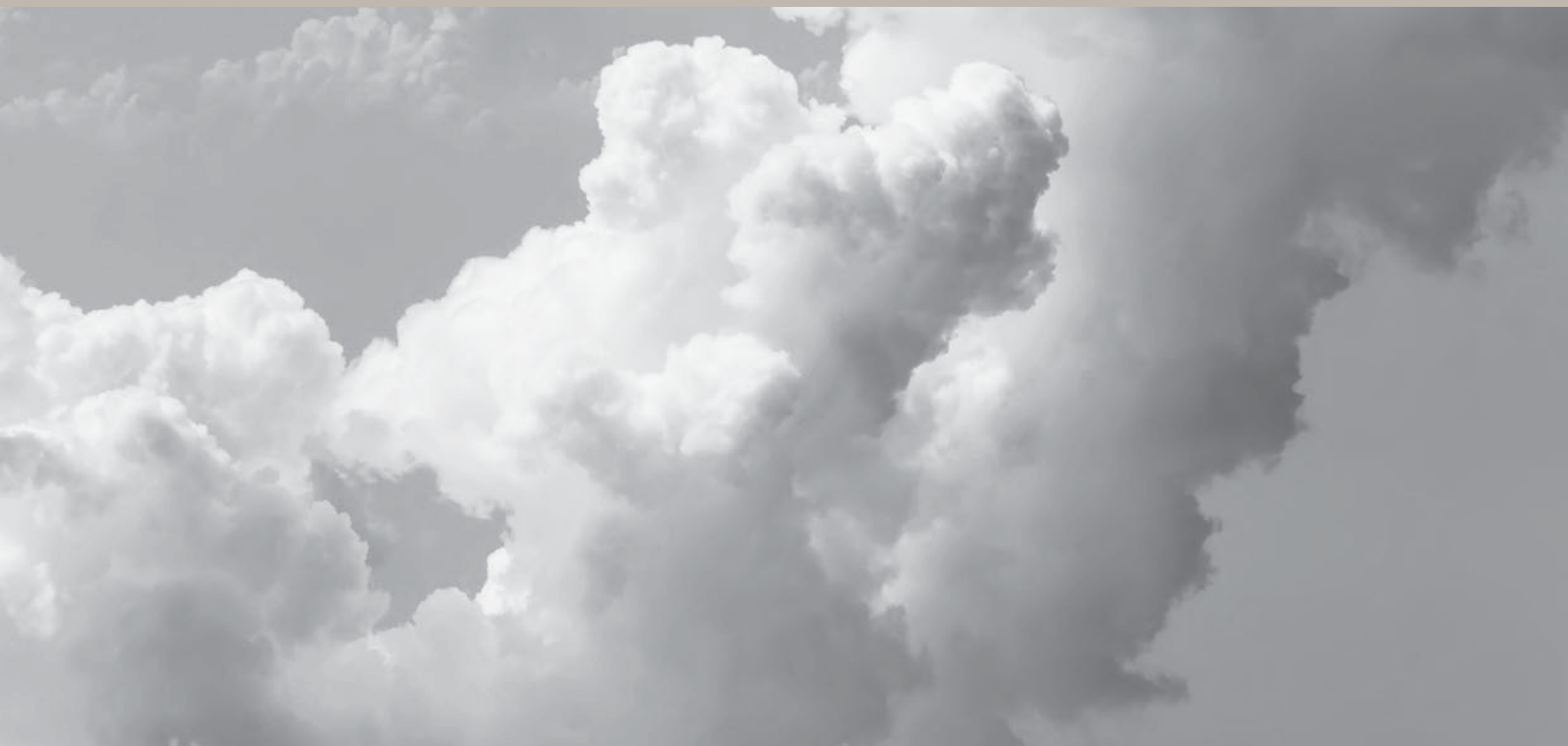ACCA

XBRL: The Views of Stakeholders

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Executive summary

eXtensible Business Reporting Language (XBRL) has been designed for the digital communication and representation of financial data to allow users throughout the world to access timely, accurate and relevant financial information from world-wide business organisations. An XBRL International Steering Committee oversees the development of XBRL, covering various jurisdictions and generally accepted accounting principle (GAAP) regimes, including the International Accounting Standards Board's International Financial Reporting Standards (IFRS). For each GAAP there is a separate XBRL taxonomy, or list of rules, about how particular items of data are represented in a set of financial statements. Organisations implementing XBRL adopt the relevant taxonomy in their reporting systems and map it onto their accounts.

At the completion of a reporting cycle, companies have a range of processes that summarise their financial activities to produce a set of financial statements. In an XBRL reporting framework, each item in these documents is **tagged** using the appropriate taxonomy. The outputs created from these tagging exercises are known as **instance documents**. These instance documents are not in themselves user friendly (eg not designed to be easily human-readable) and, therefore, they are then **rendered** into a conventional format which is more familiar to users. Unlike other documents that have not been through this process, the rendered documents are then digitally enhanced so that it is easier for stakeholders, both internal and external to an organisation, to use the information in spreadsheets or any other XBRL-enabled software without the need to re-key data or spend time trying to access relevant information.

Thus, a major benefit claimed for XBRL is the ease with which usable information can be obtained from companies as part of a reporting process. The use of the taxonomies to underpin the reports means that the XBRL information garnered from any company will be comparable to the XBRL information from any other company around the world that is using the same taxonomy. The potential benefits to external users could therefore be enormous. Further, if companies begin to adopt XBRL at the internal, transaction, level, the benefits to companies themselves may also be significant, as head offices and subsidiaries across the globe can access data faster, quicker, cheaper and more reliably.

Despite the potential benefits that the XBRL developer community claim will result from its use, few organisations have consciously adopted XBRL, in practice, in the UK to date. This study seeks to understand why there is resistance to adopting XBRL, and how the business case for the adoption of XBRL can be made more visible. In particular, the objectives of this study are to:

- examine general Internet use and the extent of digital reporting

- assess how widespread the knowledge of XBRL is currently within business

- explore the real (rather than claimed) practical benefits of XBRL

- investigate the reasons why XBRL is not being adopted

- examine the audit and assurance ramifications of XBRL

- assess government and regulators' actions with regard to XBRL, and

- explore what training and education has been undertaken by the business community.

In addressing these objectives, the study examines the views of four UK-based stakeholder groups on the adoption of XBRL in organisations. These stakeholders represent some of the key players in the adoption of XBRL in companies: business practitioners; auditors; tax practitioners; and users of financial information. Questionnaires were sent to each of the four stakeholder groups to ascertain their views on the seven research objectives.

The findings show that, although Internet use and basic forms of digital reporting are very common, with most people having knowledge of PDF and HTML documents, very few practitioners know anything about XBRL. The few that have knowledge of XBRL agree that the reporting technology could be very useful both in enhancing the integrity and reliability of data and speeding up processing times. The major obstacle appears to be the time and effort needed to learn about, and apply, XBRL; practitioners consider that they do not have time in their schedules or resources within their organisations to undertake to learn and implement the technology. Thus, the business case for XBRL has not been made. Software is now available that makes it easy to render XBRL documents into a usable format and spreadsheets are now available with XBRL facilities. These developments have not, however, been deemed adequate encouragement to a more general take-up of the technology.

Our evidence suggests some support in principle for checking that the correct taxonomies have been uploaded and that the tagging of data transactions has been completed in an accurate manner. Nonetheless, there was only limited support in principle for external auditors to carry out this checking, with respondents to the surveys being fairly blasé about this aspect of assurance at this stage of XBRL's development. Thus, the importance of ensuring the reliability and demonstrating the integrity of XBRL taxonomies and tagging does not appear to be currently of great concern to the business community.

Practitioners' views on the role of government and regulators in mandating XBRL use were fairly mixed, despite the fact that most of the agitation for XBRL comes from these sources. This is particularly interesting in the light not only of the Security and Exchange Commission's recent mandating of the use of XBRL for large company filings in the US, but also its use by Companies House and proposed use by Her Majesty's Revenue and Customs

(HMRC) for business and company tax filings in the UK. It would appear from the present results that, in general, UK businesses would prefer to decide voluntarily if and when to adopt XBRL, rather than being forced to use the technology by a regulator. There was also concern that companies currently do not have the IT expertise to be able to implement XBRL, despite the recent development of software that is now making this task far easier.

Overall, there is considerable lack of knowledge of XBRL within UK business. Some respondents in the study noted that they had never heard of XBRL until the questionnaire hit their desk but, gratifyingly, they at least took the time to google XBRL to find out a bit more about it!

From these findings the final chapter of this report makes some policy recommendations.

- The business case for organisations to adopt XBRL needs to be made more visible. HMRC, Companies House, professional bodies such as ACCA, and IT specialists should publicise the business case for XBRL more widely.

- The provision of 'hands-on', user-focused sessions that highlight the interoperability and flexibility of XBRL should be provided by key constituencies such as ACCA. Much of the current publicity is oriented towards technical and IT matters rather than business needs.

- Accountancy practices should set up XBRL specialist teams to advise clients about adopting XBRL.

- The XBRL Consortium in the UK should be enabled to be more proactive in working with key stakeholders to exploit XBRL's benefits.

- Companies should formally review their policies on digital reporting disclosures, and engage with stakeholders about their information requirements.

- The International Auditing and Assurance Standards Board (IAASB) should complete its XBRL project, and issue an ISA as soon as is feasible, to provide guidance on what auditors should be required to do for XBRL filings to give users confidence in the data.

- The FRC should introduce guidelines for the verification of taxonomies and the tagging of data items in the UK, in conjunction with the XBRL-UK Consortium and with the XBRL International Steering Committee as the international overseer of XBRL developments globally.

- The XBRL-UK Consortium should seek wider engagement with the user community.

- Analysts, fund managers and other institutional investors should be made aware of XBRL through their professional bodies, such as the Securities and Investment Institute, National Association of Pension Funds, and the Association of Investment Trust Companies.

- Individuals should assess their CPD requirements and, where necessary, attend courses and keep up to date with XBRL developments.

- IT specialists should develop better rendering tools to make XBRL more useful to businesses and external users of financial information.

In summary, the business case for XBRL needs to be made more effectively than is currently the case. XBRL has the potential to be extremely beneficial to numerous stakeholders, but the full range of possibilities can be realised only when a critical mass of businesses and stakeholders engage with the process and endeavour to move to an XBRL reporting environment. Although the XBRL community may have the technical abilities to develop solutions for widespread benefit, the lack of resources being targeted towards this key step in business reporting is limiting the speed of its application in practice. This is now particularly the case in Europe, for reasons quite apart from the technical ones. The recent direct support by the Securities and Exchange Commission (SEC) for XBRL in the US may leave European financial markets behind now, because they will not be able to take advantage of the opportunities that could be provided by regulatory support for the next generation of financial reporting technology.

1. Introduction

BACKGROUND TO THE STUDY

The electronic delivery and dissemination of financial information – or digital reporting – has developed significantly over the last few years. The first generation of digital reporting concentrated on the efficient dissemination of existing reporting formats over the Internet. The majority of these digital reports were Portable Document Format (PDF) and Hypertext Markup Language (HTML) versions of hard-copy corporate annual reports. The second generation of digital reporting aims to take this process a step further by standardising financial reporting using a digital reporting framework that will allow more analysis and interrogation of the underlying information across multiple platforms. One standard, eXtensible Business Reporting Language (XBRL), has emerged as the leading technical standard to facilitate this standardisation. The XBRL framework is currently being developed by a consortium of organisations, including professional bodies, software houses, large listed companies in the US and Europe, and the Big 4 accountancy firms (Rodgers 2003).

MOTIVATION FOR THE RESEARCH

With increasing attention being devoted to financial reporting in general – and to Internet reporting in particular – as well as the negative press levelled at the accounting profession in the wake of accountability-based scandals such as Enron, Parmalat and Worldcom, it is timely to explore the potential for the increased transparency of financial information afforded by second-generation digital reporting. Further, because of the increasing resources for and emphasis on all Internet-related activities, it is projected that within a decade many companies may have jettisoned the use of hard-copy reports and may rely exclusively on digital reporting (Wildstrom 1997, Bónson 2001; Cox 2006). With such a key development likely to occur in hundreds of thousands of companies within the next few years, it is clearly important to identify the main issues that such a change in communication approach will produce, both for companies and their stakeholders. In particular, detailed knowledge is needed regarding the level of awareness of these technologies among key stakeholders – such as auditors, accountants, tax practitioners, and users of financial information such as analysts and fund managers – in order to determine the most effective strategies to support appropriate developments in this area. All these groups are key players in the XBRL industry (Cox 2006) and are likely to be affected by any move towards mandating the use of XBRL; however, little research has yet been systematically conducted into what they require from the next generation of business reporting systems. This research therefore seeks to contribute to addressing this omission, at least in the context of the UK market for financial data. The UK is an appropriate guide to knowledge levels internationally because the UK has had a key community of XBRL developers, but it is not as advanced as the US, where the

use of XBRL has now been made mandatory, through the SEC's announcements in December 2008 on the future of its Interactive Data project. The UK market is a useful yardstick against which further developments elsewhere in the world can be measured, both as directly comparable currently, and for those who may follow the lead of the US market in due course.

RESEARCH APPROACH

The purpose of this research was to conduct a questionnaire survey of accountants in UK listed companies (FTSE All Share), external auditors, tax practitioners and representatives of the investment management and analyst communities to investigate their views on how the development of second-generation digital reporting in general, and XBRL in particular, could affect the future of the business reporting and analysis process.

The questionnaire had four aims. The first was to investigate stakeholders' awareness and understanding of the technology. Recent surveys (for example, Accounting Web 2008) have suggested that familiarity with XBRL among US listed companies is quite poor. This poor knowledge of the technology exists despite recent significant developments in the US, where the SEC, led very vocally by its former chairman, Christopher Cox, is ensuring that XBRL-supported reporting technologies are core to the future business reporting context in the US. No such XBRL-centric scheme appears to be forthcoming in the UK. Nonetheless, regulatory filing of business data in other areas is on the UK government's short-term agenda. This agenda includes not only the mandating of corporation tax filings in XBRL by 2011, following Lord Carter's recommendation for online submission of corporation tax returns, but also its current voluntary use by Companies House to make submissions compliant with this technology – albeit largely unknown to the accounts filers in the latter case. As little is known regarding UK companies' awareness of XBRL, an exploration of corporate preparedness for these developments is timely.

The second aim of the research was to explore the perspectives of a range of interested parties on the benefits and difficulties associated with the technology. This is also appropriate given the approaching introduction of XBRL-supported reporting. This investigation should also facilitate an assessment of whether the predominantly positive business case made in the professional press has permeated stakeholder awareness.

The third aim was to explore the implications for auditing and assurance. The fourth and final aim was to investigate the need for training, and explore which roles regulators, the government and the professional bodies should play in the take-up of the technology.

STRUCTURE OF THE REPORT

This exploration of digital reporting uses a questionnaire survey of stakeholder perceptions of the technology. Chapter 2 provides some context and background to the research and presents an overview of the digital reporting literature. In particular, the key studies exploring the use of Internet reporting in general are outlined. The chapter also provides an overview of XBRL and discusses the benefits and difficulties associated with the technology. This background is designed to provide some context for the empirical work described later in the report.

Chapter 3 outlines the research approach employed in the study. The research was facilitated by means of a questionnaire survey to a variety of corporate stakeholders. This questionnaire was designed to:

- examine stakeholders' involvement in Internet reporting in general

- investigate stakeholders' awareness and understanding of XBRL in particular

- ascertain the perspectives of a range of interested parties on the benefits and difficulties associated with the technology

- explore the implications of digital reporting for auditing and assurance

- investigate the need for regulation of digital reporting activities

- ascertain whether there is a need for improved training and education on the role of XBRL.

Chapter 4 outlines the results of the questionnaire survey. The perspectives of preparers, tax practitioners, users and auditors on digital reporting facilitate a more holistic understanding of the implications of the technology. Chapter 5 draws on the evidence presented in the empirical chapters to highlight key findings and provide recommendations for practice.

2. Background and literature review

INTRODUCTION

This chapter provides some context and background to the present study in two ways. First, it provides a brief overview of digital reporting and XBRL, followed by a brief review of previous academic and professional research in the area. Second, it emphasises the impact that first- and second-generation digital reporting could have on accountability relationships between organisations and key stakeholders.

The first section of this chapter outlines the development of digital reporting, and discusses the literature on the development of the Internet as a medium for disseminating financial information. This discussion is followed by an overview of second-generation digital reporting tools, and the implications of the medium for audit and control are examined. The chapter concludes with a discussion of initiatives to introduce XBRL in the US and various European countries.

FIRST-GENERATION DIGITAL REPORTING

Several terms are used to describe the first incarnation of Internet reporting; these terms have included 'Level 1' or 'first-level' digital reporting (ICAEW 2004: 7) and 'first-generation digital reporting' (Cobb 2008: 5). All these terms are used to refer to the process whereby reports are published and disseminated in essentially the same formats as their hard-copy counterparts, using Internet reporting formats such as portable document format (PDF) for more efficient and widespread promulgation. Thus, 'first-generation digital reporting' is essentially the most basic level of Internet reporting whereby companies make their financial information available online; this is the term which will be employed throughout the report to refer to this foundation online reporting process.

The majority of first-generation Internet reports are generated by companies using PDF files or Hyper Text Mark-Up Language (HTML) software to display online versions of hard-copy financial statements on the Internet (Allam and Lymer 2003; Bónson and Escobar 2006). Displaying financial information in this manner affords companies the opportunity to define the boundaries and formatting of the content included online, and to take precautions to prevent the modification of the documents by users (Debreceny and Gray 2001; Lymer and Debreceny 2003; ICAEW 2004).

The use of HTML first-generation digital reporting has allowed many organisations to create a presence on the Web (Debreceny and Gray 1997) beyond the electronic paper representation produced by PDF documents. It has, therefore, provided stakeholders with more general company information in a more **interactive** environment (Beattie and Pratt 2003). Nonetheless, HTML lacks the ability to deal with detailed information, as it only recognises the appearance of **artefacts** for display purposes, and ignores their meaning or context (Bergeron 2003); in other words, the input is treated simply as data and not as information. Thus, the resulting output still possesses the same limited potential for analysis by interested parties as PDF documents (Malhotra and Garritt 2004). Typically, HTML documents are just converted pages from hard-copy reports, and so no additional insight is gained by stakeholders. Essentially, this means that the Internet is primarily used as another medium for disseminating the published financial statements (Lymer et al. 1999), rather than offering a new communication channel for interested parties. On the surface, the provision of existing information via a new medium may have limited implications for the discharge of enhanced accountability to stakeholders. Interested parties, however, do have the potential to acquire information online in a more convenient manner, and they might consider themselves to be better informed regarding the actions of management as a result (Cobb 2008). This may explain why online reporting has become such a significant tool for businesses of all sizes in a short space of time.

Academic and practitioner-based studies have focused on the use of the Internet as a financial reporting medium. Cobb (2008) discusses some of these key studies and provides a summary table of the main findings from this work; this table is reproduced below (Table 2.1).[1] In addition, other studies have tried to link this growth to company characteristics (see, for example, Marston and Leow 1998; Ahmed and Courtis 1999; Craven and Marston 1999; Gowthorpe and Amat 1999; Pirchegger et al. 1999; Allam and Lymer 2003; Marston 2003).

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1. This table primarily concentrates on studies conducted in the UK, the US and Europe. Other studies have focused on Internet reporting in Australia, New Zealand and other parts of Asia (see Debreceny et al. 2002; Marston 2003; Fisher et al. 2004; Lodhia et al. 2004).

Table 2.1: Summary of key Internet reporting studies

US studies	Data collection time frame	Population	Corporate website (%)	Financial data on websites (%)
Louwers, Pasewark and Typpo (1996)	March 1996	Top 150 Fortune 500 companies	65%	37%
Petravick and Gillett (1996)	May 1996	Top 150 Fortune 500 companies	69%	55%
Debreceny and Gray (1997)	Late 1996	50 largest US industrial corporations	98%	69%
Gowthorpe and Flynn (1997)	December 1996	Top 100 Fortune 500 companies	89%	>71%
Ashbaugh, Johnstone and Warfield (1999)	November 1997 – January 1998	290 non-financial US listed companies	87%	70%
Deller, Stubenrath, Weber and Wolfgang (1999)	January 1998	Top 100 Standard & Poor's companies	95%	91%
Financial Accounting Standards Board 2000	January 1999	Top 100 Fortune 500 companies	99%	93%
Ettredge, Richardson and Scholz (2001)	May 1998	259 Association of Investment Management Research companies plus 231 Compustat computer technology and biotechnology companies	82%	>80%
UK studies				
Hussey, Guillford and Lymer (1998)	August 1997	FTSE 100 companies	75%	54%
Hussey, Guillford and Lymer (1998)	March 1998	FTSE 100 companies	91%	63%
Marston and Leow (1998)	November 1996	FTSE 100 companies	63%	45%
Craven and Marston (1999)	July 1998	Largest 200 UK companies	74%	71%
Deller, Stubenrath, Weber and Wolfgang (1999)	January 1998	FTSE 100 companies	85%	72%
European studies				
Lymer and Tallberg (1997)	Mid 1997	All 72 Finnish listed companies	90%	82%
Debreceny and Gray (1999)	Late 1998	15 largest listed companies from each of the UK, Germany and France	98%	82%
Deller, Stubenrath, Weber and Wolfgang (1999)	January 1998	Top 100 DAX companies	76%	71%
Gowthorpe and Amat (1999)	July 1998	All Spanish listed companies	19%	49%
Hedlin (1999)	September 1998	60 listed Swedish companies	98%	83%
Pirchegger, Schader and Wagenhofer (1999)	December 1997 December 1998	32 companies listed on the Vienna Stock Exchange	72% 88%	63% 82%
Brennan and Hourigan (2000)	July 1998	94 companies listed on the Irish Stock Exchange	37%	26%
Brennan and Kelly (2000)	July 1999	99 companies listed on the Irish Stock Exchange	67%	56%
Lybaert (2002)	July 2000	188 AEX companies	86%	94%
Marston and Polei (2004)	July 2000	Top 100 DAX companies	100%	99%
Cross country analysis				
Lymer, Debreceny, Gray and Rahman (1999)	Mid 1998	Top 30 companies in 22 countries including Australia, Canada, Germany, Spain, Sweden, UK and US	Average 86%	Average 62%
Allam and Lymer (2003)	First quarter 2002	Top 50 companies in 5 countries (Australia, Canada, Hong Kong, the UK and the US)	99.6%	96.4%

Notes: This table provides an overview of the principal studies that have explored corporate use of the Internet. The final two columns provide detail respectively of the percentage of companies with a corporate website and the percentage of companies that provide financial information on their website. These studies are primarily concentrated around the time when the number of Web users increased from 44 million in 1995 to 182 million in 1998 (Larran and Giner 2002).

(Adapted from: Cobb 2008: 24)

Table 2.2: Advantages and disadvantages of using the Internet as a reporting medium

Advantages	Disadvantages
Accessible 24 hours a day from anywhere in the world	Not everyone can access the Internet
Low-cost form of information dissemination given size of audience	Resources required to develop and maintain the website
World's largest information retrieval system	The information content is vast and disorganised
Can be updated frequently, providing users with timely information	Data may or may not be audited
Availability of multimedia functions such as video, audio and graphics	Disclosure on websites is currently unregulated

Notes: The left-hand side of the table outlines some of the key benefits of using the Internet as a reporting medium identified by Adams and Frost (2004), while the right-hand side of the table lists the main disadvantages. These advantages and disadvantages are consistent with the rest of the literature on Internet reporting.

(Adapted from Adams and Frost 2004: 3)

Table 2.1 illustrates that the development of the Internet as a reporting medium is now well established and it is used by corporations in the developed world to publish financial information. Some studies (including, for example, Bónson and Escobar 2006) have also sought to investigate the Internet reporting practices of companies in less developed markets.

Both the academic and professional accounting literatures are replete with articles debating the advantages and disadvantages associated with the adoption of Internet reporting technologies (Beattie 1999; Lymer et al. 1999; FASB 2000; Lybaert 2002; Beattie and Pratt 2003; Adams and Frost 2004). Adams and Frost (2004) provide a summary of the key advantages and disadvantages of employing the Internet as a reporting medium; these are reproduced in Table 2.2.

It is notable that many of the pros and cons of Internet reporting mentioned in Table 2.2 are also associated with the publication of hard-copy documents. For example, there are up-front costs associated with creating and maintaining an expensive website (Ashbaugh et al. 1999; Shermach 1997). The arguments for maintaining company websites, however, extend beyond that of simply providing a medium for the dissemination of financial statements. Jones and Xiao (2003) suggest that the efficiency of the process for disseminating financial statements has been enhanced by developments aimed at improving the user-friendliness of Internet reporting tools. There is also some evidence that the use of corporate websites results in cost savings associated with printing and distributing fewer hard-copy annual reports (Beattie 1999; Beattie and Pratt 2003). The Internet has been especially useful for the dissemination of specialist non-statutory material, such as

corporate social or environmental reports (Adams and Frost 2004; Rowbottom et al. 2006).

Some concerns have also been raised, however, about the developments in Internet reporting (Ashbaugh et al. 1999; Debreceny and Gray 1999; Lymer et al. 1999; Xiao et al. 2004). For example, Debreceny and Gray (1999) acknowledge the potential for information overload to occur because of the volume of data available to investors; they argue that **useful** information could potentially be lost among the mass of data that is made available on corporate websites. Despite these and other concerns regarding the development of corporate websites for reporting purposes, there has been phenomenal growth in the popularity of the Internet in this area. The literature contains many academic and professional studies that provide evidence of the proliferation of corporate websites for the majority of large listed companies in developed markets (Ashbaugh et al. 1999; Deller et al. 1999; Lymer et al. 1999; Pirchegger et al. 1999; Debreceny et al. 2001; Ettredge et al. 2001; Lybaert 2002; Marston 2003; ICAEW 2004; Marston and Polei 2004; Bónson and Escobar 2006) and it looks as though this trend is set to continue.

In a forward-looking study, Jones and Xiao (2003) sought the opinions of 19 interested parties as part of a Delphi study on the role of Internet reporting and the potential developments that could be envisaged by the year 2010. This study offered some interesting insights. For example, the interviewees still envisaged a role for hard-copy annual reports in providing audit assurance and for filing purposes. They also argued that the much-toted benefits of providing complete access to daily corporate data to external stakeholders was unlikely to materialise owing to the complex and sensitive nature of corporate material and

to the potential implications for the competitive advantage of the reporting entity. There was some recognition among the interviewees that current accounting and auditing regulations would need to be revisited as Internet reporting developed. They also predicted that new forms of technology, such as audio files, visuals and 3D information, would be integrated into traditional corporate websites.

First-generation digital reports appearing on the Internet have progressed in line with the trends suggested by Jones and Xiao (2003); the provision of audio messages from company chairs, the use of better-quality graphical images, and the provision of downloadable annual general meeting webcasts are now commonplace in many large companies (ICAEW 2004). The reporting technology adopted has also progressed, partly as a response to the early problems experienced with HTML technologies. The availability of more advanced technologies such as XML (eXtensible Mark-Up Language), coupled with the need to tailor the reporting process to overcome the difficulties associated with first-generation tools, has resulted in second-generation reporting technologies such as XBRL.

Nordberg (1998) was one of the first to discuss a possible transition from first-generation to second-generation digital reporting in terms of: (i) the move away from pure HTML and PDF-based reporting formats to more advanced Internet reporting languages; (ii) the incorporation of more detailed graphical and audio displays in financial statements; and (iii) the changing format of financial statements and the provision of greater detail for corporate stakeholders.

SECOND-GENERATION DIGITAL REPORTING

Second-generation digital reporting has been described by the ICAEW as being:

the means of making the underlying information available in a more effective form for analysis and interoperability with other systems, through standardisation of the framework within which the information is stored, processed and presented for reporting purposes. (ICAEW 2004: 6)

The ICAEW argues that in order to facilitate decision makers' more detailed analyses of financial reporting, the format of financial statements and digital reports needs to be changed. Traditional hard-copy financial reporting, as well as PDF or HTML financial statements, is frequently criticised for its lack of electronic usability (Zarowin and Harding 2000; Bergeron 2003; Southwell and Nicolaou 2004). Once these types of document are created, it is frequently difficult for users to change or extract the information without needing to re-key the data. The creation of XML, and its subset XBRL, which was designed specifically to deal with financial information (Connolly and

Bosak 1997; Connolly et al. 1997), is argued to have the potential to herald a new era in reporting financial information. Bergeron (2003: 15) describes XBRL as:

an open, platform-independent, international standard for the timely, accurate, efficient and cost effective storage, manipulation, repurposing, and communication of financial and business reporting data.

Vasal and Srivastrava (2002) trace XBRL back to April 1998, to a Certified Public Accountant (CPA) named Charles Hoffman who was working with the concept of using XML to produce electronic financial reports in the US. The American Institute of Certified Public Accountants (AICPA) became involved in October 1998 and funded a pilot project to create a prototype set of online financial statements, which were published in January 1999. The AICPA funded a more detailed follow-up study in July 1999 to examine the business case for the production of financial statements using a subset of XML – eXtensible Financial Reporting Mark-Up Language (XFRML), which ultimately led to the creation of XBRL (Vasal and Srivastrava 2002).

The XFRML project gathered momentum and ultimately led to the establishment of the XFRML Steering Committee, which met for the first time in October 1999. This grouping changed its name in April 2000 to the XBRL International Steering Committee (ISC) (XBRL 2007a). The XBRL ISC governs XBRL International and is responsible for setting technical, financial and operational strategy within a wider consortium now actively involved in XBRL development, which consists of approximately 550 members from around the world, including professional bodies such as ACCA, ICAEW, Canadian Institute of Chartered Accountants (CICA), the Institute of Chartered Accountants in New Zealand (NZICA), all the 'Big 4' accountancy firms, regulators and standard setters such as the International Accounting Standards Board (IASB), and leading companies such as Deutsche Bank, IBM, Microsoft, JP Morgan and Reuters (XBRL 2007b). [2]

The next section in this chapter begins with a discussion of the differences between HTML, XML (and thus XBRL) to illustrate how the development of this second-generation digital reporting technology could provide solutions to the previously highlighted shortcomings of first-generation technologies. It then goes on to give an overview of the basic structure and principles of XBRL.

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2. A full history of the development of XBRL can be found at http://www.xbrl.org

AN OVERVIEW OF XBRL FOR THE NON-SPECIALIST

XBRL is an off-shoot of the more general-purpose, broader-based, computing language – XML or 'Extensible Mark-Up Language' – itself, as the name suggests, a part of a wider group of computer languages called 'mark up languages'.[3] The development of XML enables easier processing of data from multiple sources, particularly, although not exclusively, when this involves distribution over the Internet. An XML document will contain both the data themselves and extra information that describes the data in a way that will add context to them for users (computer or human) to exploit to make the data more flexible to process. This extra information is 'tagged' to the data items and therefore stays with them as they are manipulated. The data in an XML document are therefore said to be 'marked-up' with their tags.

Malhotra and Garritt (2004: 64) describe XML as:

a mark-up language that focuses on describing the content of the data as opposed to the structure of the document or display [as in HTML].

Lymer and Debreceny (2003: 116) also note that:

XML enables information to be marked in such a way as to encapsulate not just numbers or sequences of words for display, but as objects containing information – numbers and words with attached meaning and context.

XML is a general language for integration purposes. It was not designed for specific types of data. This means that XML is particularly helpful with the integration of data sources of different types. Nonetheless, the development of more focused sub-languages has been useful in enhancing the basic capabilities of XML when it comes to manipulation of specific data types.[4] XBRL builds itself on XML as a special-purpose variant aimed at meeting the specific needs involved in manipulating business and financial reporting information.

XML-based languages are **platform independent,** which means that the same language can be used on many different hardware platforms, using software from any of the major software vendors, resulting in cost savings from not having to write extra software to allow systems to operate together. In addition, the codes used in XML languages are typically open source (freely available, not tied to a particular vendor), thus providing companies with free access to the various XML languages to use for data integration purposes, as may be needed.

In corporate reporting, XBRL is based on the principles of XML, but uses a specific **taxonomy** containing a dictionary of agreed terms, with a basic set of 'grammar' rules describing how to link these terms, that together dictate the makeup of the various **tags** that form an XBRL document (Hussein and Tam 2002, Bergeron 2003). This is the most important difference between XBRL and earlier generations of Internet communications languages used for financial information, such as HTML or PDF. In these earlier languages tagging also occurs to link data items contained in the document to further information about those data. The tags are not there primarily to aid the understanding of the data; instead, they control the display of the data for a human user (eg by a Web browser in the case of HTML documents, or in a PDF reader in the case of PDF documents).

Both generations of Internet languages use systems of mark-up tags, but these differ in important ways. HTML coding can be described as using a series of predefined tags to describe how each piece of information will appear on the Web (for example, the font type, font size, and/or colour). When using HTML no real context is provided for the data (Bergeron 2003). PDF formatting serves a similar purpose, namely to control display of information, although this format also can support added functionality for documents, eg to make them searchable. In both cases the focus is not about describing the data themselves. In XBRL predefined tags are also used, but aim to give context and structure to the reported content rather than display context and control.
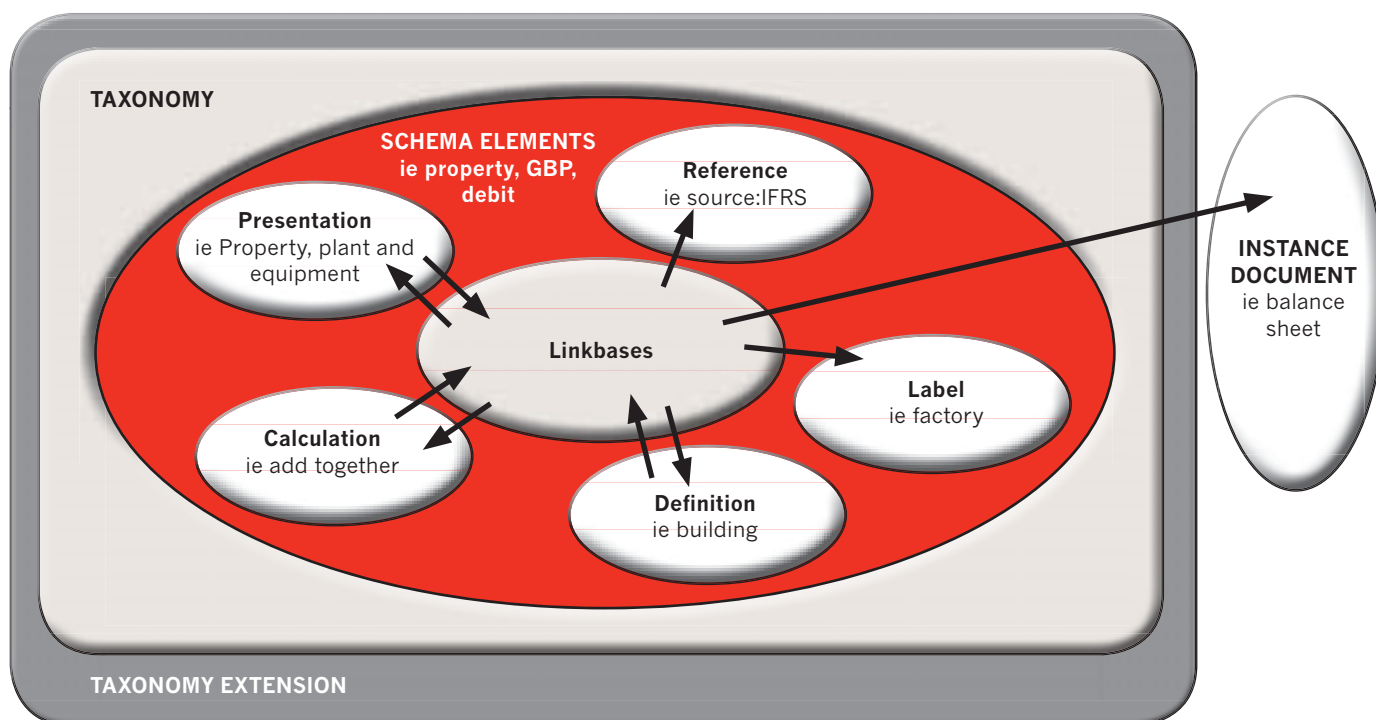
This different form of tagging enables other computer programs to share and process the data in order to produce meaningful information. XBRL tags are assigned to specific data items in the financial information to identify their specific characteristics as pieces of financial information. This allows the figures to be automatically read, understood and manipulated by a variety of computer programs that can understand the same collection of tags (ie use a common taxonomy). Thus, XBRL allows organisations to describe and deliver rich, structured data easily in a standard, consistent way, using predefined tags (Bergeron 2003; Deshmukh 2006).

Having described the principles on which XBRL is based, XBRL itself is now looked at in more detail. IASB (2007) provides a good overview of the four key XBRL elements (taxonomy, schema, linkbases and instance documents) and demonstrates how these elements link together to create XBRL-enabled reporting.

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3. For further details on the principles of XML, see http://xml.coverpages.org/xml.html

4. For further details of the many hundreds of XML-based languages, see http://xml.coverpages.org/xmlApplications.html

Figure 2.1: XBRL key elements

XBRL specifically enables accountants and IT staff to describe the financial aspects of business reporting. The majority of the required tag elements for this purpose have already been developed, defined and agreed upon as a dictionary of usable terms (referred to collectively as a taxonomy) by the appropriate designer (eg an accounting regulator or government body), usually in conjunction with, or ratified by, the XBRL community. For example, the IASB defined and agreed the terms for the IFRS XBRL taxonomy in collaboration with the XBRL Consortium. The same process applied for the various US GAAP taxonomies and the UK GAAP taxonomy, among others.[5] This process ensures consistency of approach in the design of basic taxonomies with the aim of maximising the integration capability not only when using the same taxonomy, but also across XBRL taxonomies. It also ensures the majority of taxonomies are developed in the public domain (ie are open source) rather than are under commercial limitations.

Like all XML-based languages, each of XBRL's taxonomies consist of core **elements**, collectively known as the **schema**, which interact with each other and the external environment in specifically defined ways through a series of **linkbases**, which, when put together with specific data, enable users to produce **instance documents**.

The taxonomy **schema** is the core part of an XBRL taxonomy which holds the basic information defining each of the specific **elements** making up the taxonomy (see Figure 2.1). For example, each element needs to have a unique name, be described by type (what currency it is in, or whether it is a percentage, etc), detail what type of balance it would normally be expected to represent (ie debit or credit) and by other potentially relevant characteristics (eg the accounting period to which it relates). In XBRL taxonomies, elements will exist for each of the items that would form a business' financial statements. The schema's function, therefore, can be thought of as enabling a computer to understand the basic elements of accounting (without, at this level, needing to worry about what specific numeric, or other, values need to apply to those elements).

In an XBRL schema elements are unrelated to each other – they stand alone simply as components of an accounting system. To be useable as a working accounting system, however, rules defining the usual relationships that exist are needed, ie what it is acceptable to do to elements, how they relate to each other to form wider collections of accounting phenomena, etc. This is the role of the **linkbases.** They are used to describe the various ways in which the core elements can be manipulated, relate to each other, or to their external environment (eg to accounting standards that outline their definitions). For example, to describe what elements can be appropriate to sum together to produce subtotals that may reflect items typically found in a statutory document.

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5. For a complete list of current approved XBRL taxonomies see http://www.xbrl.org/FRTaxonomies/

Five different linkbases are illustrated in Figure 2.1 – label and reference linkbases illustrate links for elements to external references, whereas the presentation, calculation and definition linkbases outline 'internal' operations that are allowable between the schema elements. The Label linkbase enables links into elements in, for example, other languages, and the Reference linkbase enables elements to be linked to their external regulatory source, eg the IFRS standard to which they may relate. The Presentation linkbase stores information that enables elements to be related to other elements for presentational purposes, eg the various elements that may go together to form 'current assets' in a balance sheet. A Calculation linkbase improves the quality of an XBRL taxonomy by detailing what computations are valid to be performed on elements or collections of elements (eg to limit when it may be appropriate to total items of different accounting periods and to enforce the core principles of double entry accounting). Finally, the Definition linkbase enables the taxonomy to define different relationships between elements, such as where one element is to be thought of as a specific example of another, eg 'zip code' in the US being a specific example of the more general element of 'postcode', recognised in other countries for similar, but not necessarily identical, purposes.

Despite the extensive work that goes into defining all these relationships to produce sets of tags that comply with specific taxonomy rules, there are occasions where specific documents to be released cannot be fully described in the way the creator wishes them to be with the tags that have been approved in the taxonomy they wish (or are required) to use. Like all 'X' (extensible) languages (including all XML sub-languages) there are built-in features to the language that enable the creator of a document to extend the core taxonomy they are applying as they need to, and include these extra tags with the final document. While this decreases the wider comparability of documents (as others may not have used the same extensions in producing their marked-up documents) this may be necessary on occasions so is kept as a core feature of XBRL. Over time it would be hoped that the need for such extensions will decrease as these new tags are recognised as important and are brought into the core taxonomy enabling others to also make use of them and restore the higher levels of comparability.

Finally, the XBRL instance document, shown on the right-hand side of Figure 2.1, can be created when a specific set of data (eg a company's annual statutory accounts) has its various data items tagged with a specific XBRL taxonomy's rules (and any extensions, if required). It is this document that is supplied to users who can then make use of both the data it contains, and the XBRL tags that describe those data in specific terms.

The benefit to the user of using an XBRL instance document over other forms of document delivery that may contain the same core data is that the XBRL-tagged financial information it contains is both versatile and re-useable compared with traditional HTML or PDF formats (Hays et al. 2005; Deshmukh 2006; IASB 2007). For example, instance documents can be:

- read directly by computer programs

- input and integrated directly into further processing tools by external and internal stakeholders

- submitted directly to regulatory bodies (HMRC, Companies House, SEC) for direct verification and their onward processing without manual intervention, and

- **rendered** to show financial statements and reports for presentation on corporate websites, or in other personal rendering tools on the local user's machine in a familiar format (Pinsker 2003; Hays et al. 2005; Hoffman and Tie 2005; Deshmukh 2006; Robinson 2006).

The **rendering process** is required so that human stakeholders (as opposed to computers) can read the documents in a user-friendly manner.[6]

Importantly, all these processes can be carried out without manual intervention from source to final analysis and use. Each stage can make appropriate use of the XBRL tags to understand the manipulations it is appropriate to undertake on the data.
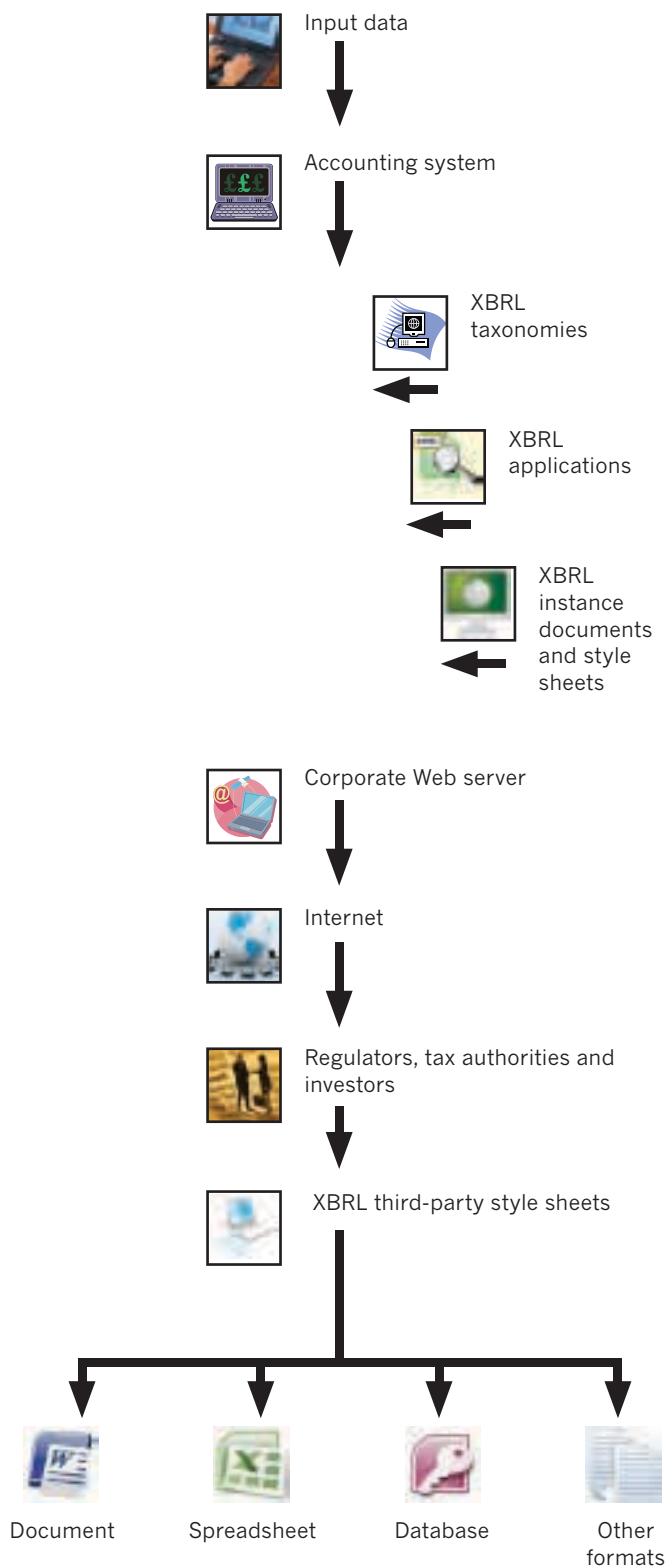
The original development of XBRL taxonomies focused upon external reporting activities. Because a core part of the added value to users of XBRL would result from greater internal use of these principles for such tasks as group consolidations, etc, an additional unique taxonomy has also been developed by the XBRL International Steering Committee to aid the collation of data and facilitate the **internal** reporting function within organisations. This is known as the XBRL Global Ledger taxonomy (XBRL GL).[7]

The application of the XBRL process to the conventional financial statement production of a company is shown in Figure 2.2.

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6. For further details on rendering XBRL documents see http://broadcast. oreilly.com/2008/09/to-render-or-not-to-render-xbr.html. For details on the main rendering specification currently – iXBRL or 'Inline XBRL', see http://www.xbrl.org/Specification/inlineXBRL/CR-2008-06-30/inlineXBRL-CR-2008-06-30.html

7. The XBRL GL taxonomy has been designed to use the XBRL tags and other internal accounting information necessary to link legacy charts of accounts and other accounting information to a standardised chart of accounts in order to improve communication within organisations (Hannon 2003; Hays et al. 2005). Further information on the GL taxonomy is available at: http://www.xbrl.org/GLTaxonomy/

Figure 2.2: Steps between the accounting system and the display of documents on the Internet

Input data

Accounting system

XBRL taxonomies

XBRL applications

XBRL instance documents and style sheets

Corporate Web server

Internet

Regulators, tax authorities and investors

XBRL third-party style sheets

Document   Spreadsheet   Database   Other formats

(Adapted from IASB 2007)

Figure 2.2 shows that XBRL introduces extra steps between the accounting system and the display of documents on the Internet. Instead of financial statements being put up on the Web as they are, XBRL tagging using the appropriate taxonomy takes place, creating the instance documents that are rendered into style sheets and placed on the Web. This has implications for audit and assurance as there are more steps involved in the financial statement process. Auditors, preparers and users of accounts need to decide whether assurance stops at the accounting system stage or whether assurance is also required for the tagging, taxonomy, instance document and rendering stages.

THE XBRL BUSINESS CASE

Both the professional and academic literatures contain articles outlining the potential benefits that an organisation or regulator could realise from the adoption of XBRL (Carey and Foster 2001; Gray 2001; Teixeira 2002; Boritz and No 2003; Jones and Willis 2003; MacDonald et al. 2003; ICAEW 2004; SEC 2005; Willis 2005; Carter 2006; PwC 2003, 2004, 2006). Many of these articles argue that claims for the main benefits of XBRL are based on the promise of the development of a more efficient, better controlled and detailed financial reporting process.

The SEC (2005) suggests that benefits of this nature are likely to accrue to organisations implementing the technology. It argues that XBRL would reduce manual reporting tasks and the resources could be used instead to facilitate work that adds value to the business; information is entered only once and the output can be rendered in many different forms to accommodate varying user needs. Efficiency improvements in the financial reporting and analysis process for stakeholders are also noted by the ICAEW (2004); eliminating the need to re-key financial information as a result of the format of XBRL reports would be a cost-saving benefit. This could, therefore, lead stakeholders to exercise increased monitoring and control over organisations as it becomes cheaper to process more financial information. In particular, Wright (2000) points to the benefits for lenders, analysts, regulators and other stakeholders, who could integrate financial reports much more efficiently by using tagged data in their systems in a more timely manner.

All these efficiency benefits should aid the discharge of accountability, with companies adopting XBRL better able to compile more specific information for particular stakeholders in an efficient manner. Organisations could report faster and possibly more frequently, thereby increasing the level of accountability to stakeholders (PwC 2003).

The SEC (2005) notes that XBRL could lower the cost of information through automation; this would result in the increased availability of accurate tagged financial information. Teixeira's (2002) study has a similar conclusion and adds that market efficiency could be improved by the employment of XBRL systems for the electronic filing of annual accounts or quarterly earnings to

regulators. The standardisation and digitalisation of corporate filings to regulators has frequently been touted as a major benefit of, and incentive to, the adoption of XBRL; regulators would be able to process returns more efficiently (Willis et al. 2002; Jones and Willis 2003; Boritz and No 2003, 2004; SEC 2005; Carter 2006). The publication of the Carter Report (Carter 2006) in the UK specifically argues that XBRL should be used for corporation tax filing purposes by March 2010 (later amended to 2011), while Companies House began receiving accounts in XBRL from audit-exempt companies in 2006. Furthermore, the Carter Report (Carter 2006) notes that the use of XBRL would indeed benefit not only HMRC, but other users and stakeholders.

XBRL-tagged data may assist auditors, in that such data could allow them to carry out better risk assessments and analyses which, in turn, should make them more effective and efficient in conducting their audit processes (Heitmann and Ohling 2005; SEC 2005). Both Coffin (2001) and Hucklesby and MacDonald (2001) note the potential of XBRL to facilitate the concept of continuous auditing and reporting; they argue that this development could revolutionise the auditing process. Thus, considering the recent scandals regarding failures in financial reporting and auditing, the need for improved assurance and monitoring over the reporting process would be beneficial for stakeholders (Agrawal and Chadha 2005; Clarke 2005).

With these reported benefits attributed to enhanced reporting efficiency, shorter reporting cycles and more assurance regarding the production of financial information, the adoption of XBRL in organisations may improve the accountability of companies and their corporate governance processes.

Nonetheless, in order for XBRL to be considered effective and for organisations to realise the potential benefits in their entirety, a **critical mass** of auditors, preparers, users and regulators have to be willing to accept XBRL as an integral element in the financial reporting process (Bruce 2006; ICAEW 2004; Lymer and Debreceny 2003). Evidence reported by the ICAEW suggests that XBRL is, at present, perceived as a technology-driven innovation and, if this trend continues, it could seriously inhibit the potential demand for the technology. The misconception that XBRL is too technical has arisen as a result of the current published material, which focuses primarily on the technical aspects of the reporting medium such as taxonomies, schema, linkbases and instance documents, rather than on tools that can be built on this technology platform, as the recent SEC projects are helping to make clearer (Bónson 2001; Bergeron 2003; Bovee et al. 2002, 2005; Boritz and No 2003, 2004).

More fundamental to the development of XBRL is the problem associated with using the Internet to disseminate financial statements. Concern has centred on the potential for financial information to be modified without the communicators' consent (Lymer et al. 1999; Xiao et al. 2004). Thus, authentication and assurance issues need to be addressed if there is to be more widespread use of

digital reporting technologies; stakeholders using web-based information are likely to require greater evidence regarding the authenticity of the information, and seek a greater level of assurance, before they will have confidence in the reported disclosures (Tomkins 2001; Lymer and Debreceny 2003). It is only when this level of confidence has been established and can be guaranteed that digital reporting can advance corporate governance communications and improve the accountability between organisations and stakeholders.

AUDIT AND CONTROL IMPLICATIONS OF XBRL

Developments in Internet reporting technology in general, and XBRL in particular, have raised concerns about the audit and assurance of the reported materials. Potentially, the adoption of XBRL requires a new form of audit process to be introduced, to ensure that each item of data not examined in the context of a whole report still maintains its integrity, to provide assurance to external stakeholders. Figure 2.2 demonstrates the extra processes involved within the financial statement production process that may require assurance attestation.

Concerns about XBRL include the security and integrity of the audit report and the information to which it relates, and the practices for presenting audited and non-audited information on websites. The inclusion of an audit report is seen as fundamental for indicating that the financial information presented is a true and fair view of the financial performance of the company (Lymer and Debreceny 2003; Pike and Lanis 2003). Advances in corporate websites mean, however, that the amount of information that can be presented in one document is no longer curtailed; thus the boundaries of the information to which the current audit report refers need to be examined. A number of academic and professional studies have focused on the practice of displaying audit reports on corporate websites (Debreceny and Gray 1999; Lymer et al. 1999; FASB 2000; Allam and Lymer 2003; Fisher et al. 2004). These studies find that practice varies markedly. For example, Lymer et al. (1999), on behalf of the IASC, note that only 27% of their sample provided an audit report on their website as part of their financial statements at the time of their survey, while 18 of the 34 companies sampled by Debreceny and Gray (1999) included this information.

With the increasing proliferation of the Internet as a reporting medium, another major concern is that of authenticating the reported material itself. The challenges for auditors can be highlighted when comparing the differences between hard-copy and digital reports. For example, the format of hard-copy reports has become fairly standardised from one company to another, primarily because of the development of detailed financial reporting and auditing standards. As a result, the assurance concept is based on the hard-copy financial statements and whether the complete document presents a true and fair view of all aspects of the financial position and results of an individual organisation. In contrast, second-generation digital reports, facilitated by technologies such as XBRL,

provide stakeholders with the ability to **drill down** from the standard-format financial statements via the tagged data available in instance documents on websites. Thus, auditors might find it difficult to define the boundaries of their audit (Hodge 2001; Hunton et al. 2003; Pike and Lanis 2003; Ball 2006; Barrett and Gendron 2006).

Debreceny and Gray (1999) also express concern regarding the security of the auditor's report in a networked environment such as the Internet. They highlight the potential for modifications to be made to financial statements on the Web by companies that are not tracked by auditors. Conflicting views have emerged from the research to date on this topic, with some arguing that fundamental changes to the audit process are needed, while others argue that no amendments are necessary as the audit process is already concluded by the time the audit reports are posted on the Web.

The topic of audit and assurance is an area where the professional bodies have had some input. In November 1999, the IASC (Lymer et al. 1999) issued a report which proposed that, in the short term, a code of conduct was needed which would lead to a long-term review of specific accounting standards that related to the production of Internet financial statements and the release of reporting information in a digitised format. Particular issues relating to the audit of digital reports were highlighted, including:

* whether specific financial statement items had been subject to external verification

* which GAAP principles had been used in their creation and calculation

* how audit statements and their related financial information should be shown if they were to be viewed in isolation from the full financial statements (Lymer et al. 1999).

The suggested code also contained the comment that auditors should play a role in:

* indicating the areas of the Web presence they were responsible for examining

* monitoring deviations from the code by organisations

* monitoring changes and developments to organisations' corporate websites (Lymer et al. 1999).

Currently, the code of conduct does not exist in practice, as it was abandoned before it was completed.[8] However, the important audit elements continued to be developed and were published in the August 2002 Staff Discussion Paper by IFAC as guidance for organisations that sought to provide Internet-based financial statements supplementary to the traditional hard copy (IFAC 2002; Lymer and Debreceny 2003). The Staff Discussion Paper (IFAC 2002: para. 9) highlights that:

> The directors…need to ensure that any financial information provided has the same integrity as that published in paper form.

The Staff Discussion Paper (IFAC 2002: para. 12ii) also suggests that:

> Management should discuss and agree with the auditors the extent to which audited information will be included on the enterprise's corporate web site [sic].

The Staff Discussion Paper (IFAC 2002) argues that a clear distinction needs to be made between audited and unaudited information, and that the directors should ensure access to the audit report, even if this is facilitated by means of a link to the auditor's website where the report could be housed securely.

In November 2006, the Assurance Working Group of XBRL International, led by Gerald Trites, issued a working paper (Trites et al. 2006) discussing the probable impact of XBRL for assurance policies and procedures. This paper acknowledges that amendments to existing assurance procedures and the associated auditing standards would differ depending on the ultimate form of XBRL that emerges. For example, if XBRL is used to supplement the traditional reporting process, the report argues that a specific standard (based on International Standard on Auditing, ISA3000) is needed to deal with XBRL filings.[9] On the other hand, if XBRL were to be used to prepare the primary financial statements, Trites et al. (2006) argue that more fundamental changes are required to deal with financial statements in XBRL format; at present, ISA700 deals only with the paper medium and does not provide any guidance on providing an opinion in an electronic format.[10] The Trites paper highlights the importance of multiple-stakeholder engagement in considering the implications for audit and assurance, and issues a 'call to action' to those involved in the assurance profession to 'liaise with the XBRL community' (Trites et al. 2006: 27) to

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8. The code of conduct was established initially as a joint project between the IASC and IFAC during 2000 but was suspended as an IASC staff project when the IASC ceased operation and was reconstituted as the IASB in July 2001 (Lymer and Debreceny 2003).

9. ISA3000 deals with *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information*.

10. ISA700 is entitled *The Independent Auditor's Report on General Purpose Financial Statements*.

develop a long-term strategy to deal with the implications of the reporting tool.

In 2008, the Assurance Services Executive Committee of the American Institute of Certified Public Accountants (AICPA) issued a White Paper on 'emerging reporting and assurance opportunities and needs' (AICPA 2008: 1), which outlined a recommended migration path towards integrating XBRL into mainstream reporting practices in the US. The White Paper discussed the role of various bodies such as AICPA itself, the SEC, and Congress in advancing the agenda, and stressed the importance of individual accountants developing their own XBRL competencies.

In July 2008, in discussing its planned programme of work and forthcoming projects, the International Auditing and Assurance Standards Board (IAASB) listed the development of guidance for auditors regarding XBRL as a key priority, and planned to begin work in this area early in 2009 (IAASB 2008).

In the UK, the Auditing Practices Board (APB) issued guidance in a report called *The Electronic Publication of Auditors' Reports* (APB 2001). In this report, the APB suggests that the provision of assurance for companies' websites is outside the normal audit engagement contract, and that a company's management, rather than the auditors, is responsible for the integrity of its website.[11]

Research has been carried out on developments aimed at providing better assurance regarding financial statements through the use of technology such as eXtensible Assurance Reporting Language (XARL). This technology is focused on providing assurance, continuous auditing and reporting, and is set to revolutionise the auditing process (Hodge 2001; Boritz and No 2003, 2004, 2005; Pike and Lanis 2003; Moller 2004; Santos et al. 2005). In theory, the company would prepare its financial statements in XBRL and the resulting instance document would then be validated in XARL by the auditors. The XBRL instance document would be sent to the auditors by some secure means. Once the instance document had been received, the auditors would perform assurance tests to substantiate the validity of the information, in accord with their usual practice. Then, using an XARL taxonomy, elements mapped to the XBRL instance document would be used to create an XARL document. The assurance information contained in the XARL document could therefore relate to the financial statements as a whole, to individual statements, or to specific items within the documents. External stakeholders wishing to gain access to the financial statements would have to contact the auditors to gain access to the XARL document. The notion that the auditors would hold the audit report was highlighted by Debreceny and Gray (1999). To date, however, there is no evidence that such a practice exists.

XARL leads naturally on to a process known as continuous auditing. The discussion of continuous auditing is not new to the accounting profession. It has been argued that continuous auditing could change the nature of evidence, timing, procedures and the effort involved in audit work (Kogan et al. 1999; Vasarhelyi and Halper 1991; Vasarhelyi 2002; Alles et al. 2002, 2004a, 2004b, 2006; Moller 2004).

XBRL INITIATIVES

At an international level, initiatives are underway aimed at advancing the use of XBRL. For example, in March 2005 the SEC established the XBRL Voluntary Filing Program (VFP) in the US. This initiative allowed public companies to submit XBRL documents voluntarily using specified rules relating to the content and format of the information provided. In support of the voluntary filing initiative the SEC committed US$54m to update the EDGAR database (the US company filing database) to facilitate the receipt of XBRL-enabled documents. Over 50 companies participated in the pilot programme and agreed to submit their annual, quarterly and other reports in XBRL for a period of one year. Initial indications are that the first attempt to tag the financial statements took an average of 80–100 hours, although this figure reduced significantly for subsequent periods (Advisory Committee on Improvements to Financial Reporting 2008).

In January 2008, the Advisory Committee on Improvements to Financial Reporting (ACIFR) discussed ways to improve the delivery of financial information to investors and the market; the primary method they focused on was XBRL. The report (ACIFR 2008: 81) outlines a number of 'significant benefits' (in line with those discussed earlier in this chapter) for both: (i) reporting companies; and (ii) users, including retail investors, market modellers and research analysts. The Committee, while recognising the long-term benefits likely to accrue to small companies, nonetheless expressed some concern about the initial implementation costs, and suggested that a 'phased-in approach' would be appropriate for these companies (ACIFR 2008: 78).

Following the recommendations of ACIFR regarding phasing-in the technology, on 18 December 2008, the SEC approved a draft rule change that will require US GAAP preparers to submit their primary financial statements and notes to the accounts in XBRL. It intends to introduce a phased approach to adoption. The first phase will come into effect on or after 15 June 2009, with larger filers (defined as those with a worldwide value of US$5bn or more) required to submit their XBRL-enabled documents to the newly unveiled Interactive Data Electronic Applications (IDEA) financial reporting system. This system is designed to supplement, and eventually replace, the EDGAR database. The move to this new system was

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11. For a fuller review of the issued guidance on the audit aspects of online reports see Lymer and Debreceny (2003).

recently described by Christopher Cox, the chairman of the SEC, in *The Washington Post* as 'replacing the family station wagon with a Ferrari' (*Washington Post* 2008). The remaining US GAAP filers will be required to file in XBRL over the next two years, while companies reporting under IFRS will need to file in XBRL for year-ends on or after 15 June 2011. The US XBRL consortium welcomed the proposed rule change, although it acknowledged that it was likely to result in 'incremental cost and effort beyond what companies currently expend on their financial reporting process' (XBRL-US 2008: 2), and that maximum benefits are only likely to accrue to users in the medium term when several years of XBRL-enabled data are available.

Exploration of the implications of XBRL is not confined to the private sector. In September 2008, the Association of Government Accountants issued a report on the results of a pilot project aimed at exploring the potential impact of XBRL for public sector financial reporting purposes (Association of Government Accountants (AGA) 2008). The advisory group research team comprised a range of individuals with technical, functional or practical expertise, with support from PricewaterhouseCoopers (PwC). Essentially the project involved tagging the State of Oregon's Comprehensive Annual Financial Report (CAFR). Some practical insights emerged as a result of the tagging exercise. First, the team reported that there was a 'learning curve' (AGA 2008: 23) associated with the use of the technology in order to realise the reported benefits. It was clear that the members had knowledge with regard to their particular area of expertise, but that this knowledge was not shared by all. Thus, the IT professionals were very au fait with technical matters, and the accountants were very familiar with the accounting rules and principles underpinning the financial statements. The team suggested that future projects should engage in 'a bi-directional educational overview' (AGA 2008: 23) to ensure that everyone can appreciate the challenges and aims of the project as a whole. Second, it was evident that some refinement of the taxonomies would be necessary to meet the differing needs of public sector organisations. Third, the timeline for the project was much greater than originally envisaged; this delay in part related to the slow learning process mentioned earlier and in part to difficulties in acquiring suitable rendering software.

The XBRL agenda is also gathering speed in Europe. For example, in the Netherlands, supported by the Dutch government, the Nederlands Instituut Van Register Accountants (NIVRA), in cooperation with XBRL NL, launched a project aimed at saving €3bn in processes involving the exchange of business information (NIVRA 2008). Meanwhile in Belgium, a number of organisations, including the Banque National de Belgique, engage in XBRL filing. In Ireland, the Department of Enterprise Trade and Employment's Higher-Level Group has issued a report on business reporting. It argues that, by phasing-in

mandatory e-filing using XBRL that could be readily accessed by multiple agencies, the reporting burden on Irish business would be significantly reduced (O'Kelly 2008). In addition, the Irish Central Statistics Office launched an XBRL pilot project to co-ordinate its quarterly industry surveys (Cohen et al. 2005). In Spain, take-up of the technology has been marked. Indeed, the entire banking industry has made use of the technology, and the rest of the corporate sector and municipalities are set to follow (Kernan 2008).

With the potential move towards introducing IFRS in the US, XBRL is being touted as a suitable enabling technology for speeding up the transition process. The International Accounting Standards Committee Foundation (IASCF) recently set up two new XBRL committees – the XBRL Advisory Council (XAC) and the XBRL Quality Review Team (XQRT) – to advance the use of the technology in IFRS-reporting countries. XBRL is seen as a technology that can transcend language barriers, thereby enhancing its acceptability as 'a universal language in the truest sense' (Bruce 2008: 88).

In the UK, the move towards the introduction of XBRL is also gathering some momentum. In March 2006, Lord Carter of Coles released his *Review of HMRC Online Services* (Carter 2006). Lord Carter recommended that companies file their company tax returns online using XBRL by 31 March 2010. The government accepted Lord Carter's recommendations but has since pushed the applicable date back to 2011. HMRC is currently working towards requiring companies to file corporation tax returns using XBRL to meet this deadline and intends to run a pilot programme for volunteer companies in 2009. In tandem with developments at HMRC, Companies House is also moving the XBRL agenda forward in the UK. At the end of 2005, it adopted XBRL for the electronic filing of audit-exempt accounts. In general, the service was well received (Neveling 2007), with Companies House reporting a 36% increase in documents filed electronically in 2007/8 compared with 2006/7 (Companies House 2008). Both Companies House and HMRC, in line with the Carter Report (2006) recommendations, are working towards a joint filing facility to ensure that the maximum benefits of XBRL can be realised.

CONCLUSION

This chapter provides an overview of the digital reporting process and discusses the academic and professional literature that has emerged to date. This discussion highlights the emergence and increasing sophistication of digital reporting technologies and the potential implications of these tools for streamlining the financial reporting process. Nonetheless, a note of caution is urged with regard to the consequences for auditing and control purposes. Despite the almost universal plaudits XBRL has received in the professional press, and the plans by SEC, Companies House, HMRC and others to mandate the technology over the next few years, a survey by *Compliance Week* (Accounting Web 2008), undertaken in June 2008, suggests that many US listed companies are not aware of the reporting tool. *Compliance Week* reports that of the 236 companies surveyed, almost 80% indicate that nobody on their staff is well-versed in XBRL, while 15% of respondents claim that they have no knowledge of the tool (Accounting Web 2008). A 2007 Chartered Financial Analysts (CFA) survey of investment professionals (CFA Institute 2007) found that although 41% of respondents were aware of XBRL, 78% of all respondents were not up to date on its use in financial reporting. The majority (81%) of respondents indicated that some form of independent audit or review of the tagging process was necessary to ensure that appropriate tags are assigned to reported amounts. In August 2008, *BPM Express* conducted a survey of 196 companies and government agencies as reported by Waters (2008), yet only 1% of respondents worked in companies that implemented XBRL. The biggest barrier to implementation of the technology was the time and effort needed to learn about XBRL (Waters 2008).

A 2006 survey by ACCA (ACCA 2006) exploring the training needs of members, found that XBRL was not a significant feature, with only 2% of those based in the UK indicating that XBRL was likely to have a considerable impact on their training needs. Knowledge of the technology and its reported benefits seems to be low, and it appears that the corporate world is not expending a great deal of effort on preparing itself for the impending mandate of XBRL. The present survey aims to provide an updated picture of the attitudes towards, and awareness of the technology among corporate stakeholders in the UK. The results of this exercise are provided in Chapter 4. Chapter 3 will focus on the research approach adopted in the survey, namely, a questionnaire survey of corporate stakeholders.

3. Research approach

INTRODUCTION

This chapter provides details about the questionnaire survey used in the present study. The sampling methods that were undertaken and the response rate for each group are described.

The postal questionnaire survey was sent to 1,733 people:

- accountants working in business,
- auditors,
- tax practitioners, and
- users of corporate reports (investment analysts and fund managers).

Four versions of the questionnaire were sent to these four groups of stakeholders. The questionnaire focused on the four main research aims of the study:

- to investigate stakeholders' awareness and understanding of digital reporting technologies in general, and XBRL in particular

- to explore the perspectives of a range of interested parties on the benefits and difficulties associated with the technology

- to assess the audit and control implications of the technology

- to examine the role of training and regulation in driving the XBRL agenda forward.

The postal questionnaire elicited the views of a broad cross-section of financial reporting preparers, users and auditors on the impact of second-generation digital reporting and XBRL in order to assess the impact that the tools may have on stakeholders. The findings contribute to the growing literature on XBRL, and enable us to reflect on the implications of the new reporting regime for organisations, users and stakeholders.

RESEARCH METHOD

The literature shows that XBRL technology is primarily being targeted at the following key stakeholder groups: accountants working in business; auditors; tax practitioners; and users of corporate reports (Cobb 2008). In addition, particularly within preparer organisations, the Internet reporting process also typically involves other functions, such as those involved in Information Technology (IT), internal audit, the company secretariat and data-processing units (Cobb 2008). Various combinations of these functions are typically involved in the digital reporting process, and these are likely to have differing perspectives on the XBRL reporting environment. These potential stakeholders were classified into four groups, based on their particular role in the reporting hierarchy. For example, fund managers and investment analysts were grouped together in the 'User' category, while those working within preparer organisations (such as financial accountants working in business, IT staff,

company secretaries, internal auditors and data-processing managers) were grouped together as 'Business'. Because of the potentially different insights to be gained from exploring each group's perspective, it was essential that the questionnaire survey specifically addressed the perspectives of these groups. Four questionnaires were developed, referred to as business (BUS), auditors (AUD), tax practitioners (TAX) and users (USERS). Some of the questions were unique to each survey instrument and others were asked in all four versions of the questionnaire.

THE QUESTIONNAIRES

The business questionnaire contained ten general questions that covered how each company published its annual accounts, who used the published information, and how its documents on the Internet were used. The second section covered specific features of XBRL; the third section examined the respondents' perceptions of the benefits of XBRL. The fourth section looked at XBRL training; and the final section covered demographic information such as the age and gender of the respondent and the size of the company.

The first section of the auditors' questionnaire covered details about their clients' use of HTML, PDF and XBRL, and examined who was responsible for producing and checking digital reports in their client companies. This section also covered some of the questions about the use of the Internet that were included in the business questionnaire as well. The second section asked specific questions about XBRL; some of these were unique to the auditors' questionnaire and others were replicated in all four versions of the survey. The third section covered the implementation of XBRL in organisations; the fourth section covered XBRL training; and the final section mirrored the demographic information elicited in the business questionnaire.

The first section of the tax questionnaire covered the type of taxation work that was undertaken and obtained some general information on respondents' familiarity with and usage of the Internet. The second section explored the use of XBRL from a tax perspective and also included some of the generic XBRL questions. The third section dealt with XBRL implementation in organisations; the fourth section focused on training; the final section garnered basic demographical information.

The final questionnaire was targeted at users, and again contained five sections, all similar in content to the previous versions of the questionnaire. These sections included: general questions; XBRL; implementation issues associated with XBRL; XBRL training; and the provision of demographic information.

Table 3.1 provides some basic information about the distribution of the questionnaires and the response rate.

Table 3.1: Questionnaire distribution and response rate

Group	Questionnaire	No. posted	No. of responses	% response rate
Tax	Tax practitioners	250	33	13
IT	Businesses	123	13	11
Company secretaries	Businesses	140	21	15
Data processing managers	Businesses	100	8	8
Financial accountants	Businesses	250	19	8
General practitioners	Businesses	251	22	9
Internal auditors	Businesses	50	2	4
Auditors	Auditors	250	13	5
Fund managers	Users	286	17	6
Investment analysts	Users	33	4	12
N/A			1*	–
Total		1,733	153	9

Note: This table details the number of respondents to the questionnaire survey. In particular, the table shows, for each category of stakeholder, the number of questionnaires sent out and the number and percentage of replies received.

*One respondent did not wish to be identified and removed the front cover and all identifying codes on the questionnaire; thus, it was not possible to classify this respondent.

THE SAMPLES

The samples were either:

- randomly selected from the ACCA database of members (such as for financial accountants, general practitioners, tax practitioners and auditors)

- a complete population of ACCA members (such as for company secretaries, IT professionals, data-processing managers, internal auditors)

- all the UK-based fund managers listed on the Association of Investment Companies website database

- the attenders at a Securities and Investment Institute seminar in May 2008.

The questionnaires were posted in March 2008 with a second mailing in late April 2008. Although the overall response rate was low at 9%, the individual response rate varied between the types of practitioner, ranging from 15% for company secretaries to only 4% for internal auditors and 5% for auditors. This latter finding meant that only 13 questionnaires were received from auditors; thus it is very difficult to draw meaningful conclusions from such a small sample. Nonetheless, the observations from this small group of respondents have been noted below to assist in a comparison between auditors and the other groups. The overall poor response rate seems to be in line with other business-related surveys where researchers cite 'questionnaire fatigue' (Saunders et al. 2007: 215) as a possible reason for the typical response rate of 10–20% to business-related postal questionnaire surveys (Neuman 2000; Saunders et al. 2007).

SUMMARY

This chapter considers the research approach and method underpinning the present research. The study's research objectives are identified and the postal questionnaire is briefly outlined. This is followed by a discussion of the response rate. Chapter 4 discusses the findings gained from the empirical survey while the limitations of the research are explored in the concluding chapter.

4. Results and discussion of the findings

INTRODUCTION

Chapter 2 outlined the background and context to the study, while Chapter 3 provided an overview of the research approach adopted in the project. This chapter discusses the findings of a postal questionnaire survey of stakeholder attitudes and perspectives on Internet reporting in general and on XBRL in particular. The findings from the four questionnaire surveys described in Chapter 3 are analysed from the perspectives of accountants working in business, auditors, tax practitioners, and users of corporate reports. The unique questions asked within each questionnaire directed at the four different stakeholder groups are discussed first by respondent group: businesses, auditors, tax practitioners and then users. This is followed by a cross-sectional analysis of the common questions in the questionnaires on XBRL.

THE BUSINESS PERSPECTIVE

Most business respondents were financial accountants, financial directors, or worked in related roles involved with the production of data. Thirty five per cent were involved in financial reporting, one-fifth were located in the management accounting function, and nearly one-quarter was involved in operations, finance or similar business-related roles. Most of the respondents had over 15 years' experience, were in their 40s, and nearly 80% were male. Sixty-two per cent worked in companies with less than £10 million turnover, but 10% were employed in companies with turnover greater than £1 billion. Thus, the 86 respondents to the business questionnaire represented varied types of businesses and functions, facilitating a broader perspective on the use of digital reporting and providing some insight into the awareness and knowledge of XBRL within UK businesses.

All the sampled companies produced hard-copy annual reports, although only 58% of companies produced interim statements, and just over 33% produce quarterly reports. Very few businesses used HTML to publish their annual reports, but half of them produce PDF versions, which are then made available online. As one respondent noted:

Content [is] *driven by hard-copy accounts which* [are] *put into Web format by* [an] *external designer* [and] *then checked by* [the] *investor relations department.*

Another business respondent claimed that:

A project is being established this year to look at the design, layout, and functionality of our website. This, however, will not include the publication of our financial results.

None of the 86 respondents, however, produced XBRL-enabled financial statements, either a balance sheet or income statement, but, surprisingly, one person out of the 86 claimed that other disclosures are made using XBRL. Indeed, only one respondent's company used XBRL for external reporting of any description, and just one other used it for both internal and external reporting. This

finding could understate the true level of use of the technology as the Companies House filing service does not inform filers that it (ie Companies House) is using the technology when they file their returns online.

Only 5% of businesses reported that XBRL had ever been discussed within their organisations. The overwhelming majority stated that the technology had never even been discussed in their companies. Thus, there is very little awareness of XBRL and businesses do not appear to have XBRL on their radar at present. This finding is in line with *Compliance Week*'s survey (Accounting Web 2008) which found that knowledge among US listed companies was quite low, with nearly 80% of respondents claiming that nobody on their staff is well-informed about XBRL. Companies are continuing to use traditional, tried and tested, but ad hoc software, such as spreadsheets for financial reporting and accounting; only 15% of respondents stated that they even use integrated customised accounting packages.

For companies that make their annual reports available on the Web, the responsibility for Internet reporting varied between the financial reporting department (in 29% of cases), the IT department (23%), management (20%), external Web designers (18%) and various other people (10%). In the companies surveyed, the investor relations function was rarely involved in corporate financial reporting via the Web. The Internet reporting strategy of these companies is usually determined by management and the financial reporting department. In fact, most respondents were not sure whether anyone in their organisations ever checked their digital reporting and, more worryingly, 24% claimed that no one had any responsibility for checking financial information on their websites.

THE AUDITORS' PERSPECTIVE

Only 13 auditors replied to the questionnaire survey and roughly one-third of these auditor respondents were partners within their firms, another third were managers and the final third were general auditors. Most were employed within the audit function, although a couple worked in risk or transaction services. The auditor respondents were generally younger than the other three groups in the survey, with over three-quarters being under 40 years old, and most had five to nine years experience in their roles. The size of practice was split, with 39% working in practices with two to five partners, and most of the rest working in practices with more than 30 partners. The practice background of the auditors affected the responses, as the respondents from smaller firms claimed that their clients do not display their financial reports on the Internet. All the auditors, with one exception, claimed that they look at company websites, some of them doing so quite frequently.

Surprisingly, one-half of the auditors' clients that report digitally started to use Internet reporting only in 2001–2003. The auditors were asked to state when their clients' financial reports were first displayed on the Internet and were given boxes to tick of pre-1995, 1995–2000 (the

expected response), 2001–2003, 2004–2007 or that none report on the Internet. Echoing the business responses, PDF was more commonly used by their clients than HTML, and XBRL was not yet used by any of the respondents' clients. In general, the financial reporting staff, the IT department or external third parties prepared the digital reports in their client companies, but the financial reporting department was usually responsible for checking the digital output. This conflicted slightly with the business respondents, who claimed that digital output was not checked. It may be that auditors assume that digital output is checked without necessarily verifying that this is actually happening, or perhaps that they know exactly what is happening whereas their clients do not.

The auditors generally agreed that standardised reporting and terminology are useful to users and that the Internet is a good medium for increasing users' access to information. The purported benefits of XBRL will help to achieve these aims, as XBRL will allow users to analyse data more easily, users will not have to re-key data and better-quality disclosures will result. In fact, the auditor respondents were more neutral about whether XBRL will achieve these aims than they were about the claimed benefits of standardisation per se.

Among the few respondents who knew anything at all about XBRL, the views were mixed about who should audit XBRL documents; suggestions range from specialist IT staff, to specialist auditors to general audit practitioners. One-third of the auditors claimed that they had audited an XBRL balance sheet, income statement or cash flow statement. This appears contrary to their answers to a previous question (see above) where the auditors stated that none of their clients had implemented XBRL. As a result, there appears to be some confusion among auditors about what XBRL actually is and whether they have ever audited any XBRL documents!

Over half the auditors thought that auditors should be involved in the conversion of clients' annual reports into XBRL documents, irrespective of whether the technology is voluntary or mandatory. Around two-thirds of the auditors also thought that they should be involved in converting both statutory and non-statutory information. They also either agreed with, or were neutral about, the statement that clients will need their auditors to be more knowledgeable about XBRL within the next five years. Thus, auditors are probably beginning to be aware that XBRL is something about which they are likely to need to find out more.

THE TAX PRACTITIONERS' PERSPECTIVE

The tax practitioners had a similar demographic profile to the business respondents; most were men, under 50 years old, with more than 15 years' experience. Sixty per cent work in practices with two to five partner/directors, but 25% work in firms with more than 30 partners or directors. Over 50% of the respondents used basic off-the-shelf tax packages, some with spreadsheets, and 42% used integrated customised tax preparation packages

without any spreadsheets. Over 75% of the respondents prepared corporation tax and personal tax calculations, but very few prepared tax returns outside the UK. Importantly for this study, three-quarters of respondents were used to filing tax returns online; although most of these had only started doing so in the last few years. Only three respondents had clients that were using XBRL both internally and externally, were currently installing XBRL or were in discussions about it.

The tax practitioners were asked about whether auditors or tax practitioners should be involved in checking XBRL taxonomies, for example the HMRC-specific corporate tax taxonomy. Half did not know, most of the others agreed that auditors and tax practitioners should be involved in checking taxonomies. Tax practitioners also agreed that clients will require them to be more knowledgeable about XBRL within the next five years. The tax practitioners seem to be more knowledgeable about XBRL than either auditors or business users, which may be a result of the HMRC initiative to introduce XBRL filing via their Carter Review implementation projects.

THE USERS' PERSPECTIVE

The user respondents' roles varied from investment managers to analysts to corporate finance specialists. Most were in their 40s, male, and worked in organisations with few than 1,000 employees.

The users generally obtained information on the companies that they analyse from third-party providers with some data manually extracted from source documents. Data were also obtained from speaking to, and meetings with, company management. Nearly all the users of financial information took a fundamental approach to their analyses, looking at economic data and company-specific information with only a limited amount of technical analysis being used whereby charts and historical data is used to predict price movements. The analysis of companies was usually done on spreadsheets, although a minority used off-the-shelf software packages and spreadsheets.

The users acknowledged that the availability of data on the Internet has changed the way that companies are now analysed, although the respondents did not specify how this has changed. None of the users, however, had ever used any XBRL information. Most of them did not know anything about checking XBRL taxonomies, nor did they express an opinion about whether preparers or auditors should check for any updates. Nevertheless, four of the users agreed that XBRL usage will increase if digital filing of company returns becomes mandatory. Thus, users are not very knowledgeable about XBRL, but realise that if there is a groundswell towards XBRL then they will need to educate themselves about it.

CROSS SECTIONAL ANALYSIS

The next section of this report analyses the responses to questions that were common across the stakeholder groups.

Table 4.1: Users of Internet reports

Users of Internet reports	Business (%)			Auditors (%)		
	Agree	**Neutral**	**Disagree**	**Agree**	**Neutral**	**Disagree**
Customers	46	19	21	46	46	8
Lenders	44	22	15	31	69	–
Investors	42	7	31	46	46	8
Analysts	42	20	22	53	38	8
Suppliers	38	25	21	46	54	–
Companies House	36	34	16	31	54	16
Employees	33	26	23	38	46	15
HMRC	32	31	21	38	62	–
Charities/NGOs	25	23	36	23	61	16
Others	14	35	9	8	85	8

Note: This table reports the users of Internet reports as determined by the business and auditor respondents, ranked in order of agreement by type of business.

USERS OF INTERNET REPORTS

The first question was a general question to business respondents and auditors, to find out who these respondents regarded as the main users of Internet published information; responses to this question are summarised in Table 4.1. The business respondents ranked customers and then lenders as the top two users, with 46% and 44% agreeing respectively. Investors and analysts were ranked jointly third, with 42% of business respondents agreeing that these two types of stakeholder use Web-based reports. Nonetheless, nearly one-third of business respondents did not think that investors use Internet reports, and nearly one-quarter did not think that analysts use Internet reports. This is surprising as these respondents were claiming that a large proportion of a major user group does not use Internet reports. Thus, in the minds of respondents, it appears that digital reporting is eschewed by a significant number of external users. If such limited use is actually being made of Internet reports by investors, this could be one possible explanation as to why XBRL has not taken off as quickly or as widely as the literature would suggest that it should have done. Nonetheless, other recent studies (see Rowbottom and Lymer 2007) have suggested that downloads of reports by such users accounts for a sizeable proportion of Internet use of corporate websites, so this response may be anecdotal.

The auditors' ranking differs from that of the business respondents, with over half thinking that analysts are the main users of Internet reports, and investors, customers and suppliers were all ranked second.[12] Lenders were ranked much lower down. Interestingly, charities and NGOs were not considered to be major users of Internet-based financial reports by most respondents, despite the furore that these bodies have created over the approval of IFRS 8[13] and the lack of reporting on certain areas of business!

The differences reported in the rankings of auditors and business respondents is interesting and worthy of further research as most stakeholders would not usually consider customers as the main users of their accounts. This could, however, relate to the different ways in which each type of respondent interacts with these various groups. Auditors' views appear to match more closely with other recent studies (Rowbottom and Lymer 2007).

12. This is in keeping with the evidence from a recent study of downloaded data from Internet websites (Rowbottom and Lymer 2007).

13. IFRS 8 takes a management approach to financial reporting. Companies are required to report segmental information in the same manner as is reported internally for management purposes. There are no detailed disclosure requirements in IFRS 8 as there are in many other IFRS.

Table 4.2: Use of the Internet

What uses do you currently make of the Internet in your work? Percentage of respondents using:	Business (n=86)			Auditors (n=13)			Tax (n=33)			Users (n=21)			Total (n=153)		
	Never	1–2 times/ week	Daily	Never	1–2 times/ week	Daily	Never	1–2 times/ week	Daily	Never	1–2 times/ week	Daily	Never	1–2 times/ week	Daily
Email	1	–	96	–	–	100	–	9	85	5	–	95	1	2	94
General news	7	21	66	–	38	62	12	24	55	–	14	86	7	22	66
Business news	8	30	54	15	62	23	–	39	52	–	10	90	6	32	56
FRC/IASB/HMRC/Treasury websites	50	34	10	38	31	31	–	27	70	–	19*	81*	31	30	35
Other audit/tax/accounting websites	19	64	9	31	61	8	27	46	15	10	15**	75**	20	53	21
Professional body websites	10	81	4	15	62	23	15	67	12	29	57	14	14	73	8

Note: This table reports the use of the Internet by respondents. Percentages may not add up to 100% as some respondents did not reply to all questions. * Users were asked about their use of corporate websites. ** Users were asked about their use of news vendor websites.

USE OF THE INTERNET

The next question examined the use of the Internet by the respondents at work and the results are presented in Table 4.2. Two of the 153 respondents did not use email. Many of the respondents used general news sites on a daily basis and the business news sites are also popular, especially with the users, but to a lesser extent with the auditors. Tax practitioners were likely to use the HMRC website daily, and users were likely to look at corporate websites on a daily basis. Business people and auditors were less likely to look at specialist websites on a frequent basis. Other websites were not used to a large extent, but users read news vendor websites such as Reuters and Bloomberg on a regular basis.

The auditors' questionnaire also asked respondents to make any comments about their use of the Internet, and eight of the thirteen replied. Auditors tended to use the Internet for 'planning and business analysis', 'update on industry products' or 'information about [a] company', 'obtain general business information' and 'keeping up to date'. These all appear to be areas where XBRL information would be useful for auditors, helping them to assess their clients' profitability and competitiveness and estimate the inherent risks within their audit clients.

Table 4.3: Internet reporting and electronic documents

	Business (n=86)		Auditors (n=13)		Tax (n=33)		Users (n=21)		Total (n=153)	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
Having a corporate website allows organisations to make more information available for accountability purposes	71	4	61	–	N/A	N/A	95	–	74	3
The search facilities on corporate websites are effective in directing you to the information that you are seeking	N/A	N/A	54	8	27	12	29	10	33	10
When transmitting documents by the Internet										
Confidentiality is guaranteed	15	42	15	61	21	30	24	29	18	39
Recipients can be assured that data has not been changed	29	31	92	–	30	15	48	24	37	24

Note: This table shows the percentage of respondents that agree or disagree with the questions on corporate websites and transmitting documents by the Web. Neutral responses are not shown.

INTERNET REPORTING

All the respondents were asked about their use of websites, and their responses are summarised in Table 4.3. Most respondents agreed that corporate websites enable organisations to make more information available to users and that they increase their accountability to stakeholders. There was also some agreement that search facilities on websites are easy to use. Information held on corporate Web pages is helpful to users, thus XBRL could also be looked upon favourably if it became widely adopted.

XBRL is about providing useful, accurate information that can be used for further analysis. It is essential, therefore, that electronic data are perceived as being complete and accurate. All the auditors in this study strongly agree that when transmitting documents by the Internet, the data will not have been changed or altered. The users and tax practitioners were divided about this, while the business managers tended to disagree with this statement. Thus, businesses are concerned about the integrity of data transmitted by the Internet, while the other groups are less concerned with this issue. One of the benefits of XBRL is that users can be assured of the integrity of the data, but it appears that some businesses still need to be convinced.

In general, the respondents did not think that confidentiality is guaranteed when documents are transmitted by the Internet. XBRL at the GL level[14] will need to assure businesses that security can be maintained and that access to confidential internal information is not possible when transmitted online.

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14. See note 7 on page 15.

Table 4.4: Awareness of benefits of XBRL

	Business (n=86)		Tax (n=33)		Users (n=21)		Total (n=140)	
	Agree	**Disagree**	**Agree**	**Disagree**	**Agree**	**Disagree**	**Agree**	**Disagree**
No re-keying of data	21	1	18	0	10	0	18	1
Data comparability	21	1	12	0	10	0	17	1
Inter-operability	20	0	12	0	5	0	16	0
Speed	19	2	27	0	5	0	18	1
Re-use of data without losing integrity	17	2	12	0	5	0	14	1
Reliable source	14	2	12	3	5	0	12	2
Easily integrated with other applications	14	6	12	3	0	50	11	5
More analytical	13	1	15	0	10	0	13	1
Reduces processing errors	11	5	15	0	10	0	12	3

Note: This table reports the percentage of respondents agreeing and disagreeing on the benefits of using XBRL ranked in business order of agreement. Most respondents answered 'do not know'.

BENEFITS OF XBRL

Three of the four groups of respondents, apart from auditors, were asked whether they agreed that some of the benefits of XBRL suggested in the literature were obtainable in practice (Table 4.4). Most respondents replied that they did not know anything about XBRL and the majority answered 'Don't know'. Nonetheless, it is apparent that of those who were familiar with the technology, the majority were aware of the reported benefits.

The business case for adopting XBRL has, therefore, been recognised by some key stakeholders. The majority of the respondents answered 'do not know', however, and more needs to be done to convince them of the business case for adopting XBRL. Indeed, the SEC's Advisory Committee on Improvements to Financial Reporting (SEC 2008) acknowledges the significant benefits that businesses and users (including retail investors, market modellers and research analysts) would gain by adopting XBRL.

Table 4.5 Obstacles to the adoption of XBRL

	Business (n=86)		Auditors (n=13)		Tax (n=33)		Users (n=21)		Total (n=153)	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
Time and effort to learn XBRL	37	–	92	–	36	3	10	–	38	1
Cost of software	24	2	77	8	28	6	15	–	27	3
No need for XBRL	33	2	69	8	30	6	5	–	31	3
Implementing new reporting procedures	33	2	61	–	30	–	10	–	31	1
Little software available for displaying and analysing XBRL data	17	7	54	8	24	3	10	–	21	5
Other packages exist that do the same as XBRL	13	8	46	8	15	3	–	5	14	9
Proliferation of taxonomy elements	17	2	31	8	21	3	15	–	19	3

Note: This table reports the percentage of respondents agreeing and disagreeing to the obstacles of adopting XBRL ranked by auditor agreement. Most respondents answered 'do not know'.

OBSTACLES TO THE ADOPTION OF XBRL

As well as the advantages of XBRL, the questionnaire also asked about the obstacles to its adoption The list of potential obstacles to take-up of the technology was based on a review of those most frequently cited in the academic and professional literature. A summary of the responses is presented in Table 4.5. The majority of the respondents in three of the groups did not know enough about XBRL to answer these questions; the auditors, however, appeared to have more definite views about the obstacles to adopting XBRL. In general, across all the groups, respondents agreed that there are still obstacles to the adoption of XBRL.

The time and effort necessary to learn XBRL appears to be the main stumbling block to more widespread adoption of the technology by businesses. Ninety-two per cent of the auditors agreed that this is a problem, and over one-third of the business and tax practitioners also believed that this is hindering the implementation of XBRL. Whereas the US XBRL Consortium acknowledged that there might be incremental cost and effort associated with full integration of XBRL, and suggested that it may take several years before the reported benefits are fully realised, the SEC's Advisory Committee on Financial Reporting (2008) found that an initial tagging exercise took an average of 80–100 hours, but that this time investment reduced dramatically in subsequent periods. Despite these professional pronouncements based on early implementation exercises, the present survey finds that one-third of the business users did not see any need for XBRL at all. It would appear that the business case as currently argued is not reaching the target XBRL community, and more consideration of appropriate education of business professionals is needed if the regulatory bodies intend to promulgate the technology.

Table 4.6: Assurance over the XBRL tagging of documents

	Business (n=86)		Auditors (n=13)		Users (n=21)		Total (n=153)	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
No certification by company and no independent review	6	27	23	39	5	5	8	24
Certification by company, no independent review	12	12	54	15	10	5	16	11
Independent review	23	5	46	15	5	10	23	7
Review by external auditor	24	6	46	31	10	5	24	8

Note: This table reports the percentage of respondents agreeing and disagreeing to the certification of XBRL tagging. Most respondents answered 'do not know'.

ASSURANCE OVER THE XBRL TAGGING OF DOCUMENTS

One of the most important factors in the successful implementation of XBRL is the correct tagging of the items in XBRL documents. Three of the four questionnaires (the tax practitioners were not asked this) asked whether the XBRL tagging of documents should be certified or audited as being correct. As the tagging of documents is so vital to the successful implementation of XBRL, it was thought that there would be widespread agreement that there should be some audit or certification process. Table 4.6 shows the replies of the business community, auditors and users. The users are clearly not very knowledgeable about XBRL tagging as very few replied to this question, and even the business respondents were not overly responsive. Of those that answered, however, most wanted some form of assurance about the tagging process, as the majority disagreed that there should be no checking at all. Non-auditors preferred some form of independent review, but auditors were ambivalent about whether the tagging should be certified by the company, another independent body or by themselves. This is surprising, as auditors normally need to ensure the accuracy of any financial statements that are made publicly available. Nevertheless, some assurance is required that the tagging process has been checked. The IAASB's planned programme of work that has listed XBRL as a key priority may help to improve the awareness of auditors and the business community in this direction.

Tax practitioners were asked about taxonomies rather than the tagging process, as HMRC-specific taxonomies may be of particular interest to tax practitioners. Over half the respondents claimed that they did not know whether taxonomies should be checked by either auditors or tax practitioners, perhaps demonstrating a lack of understanding of the nature or importance of taxonomies in XBRL. Of those that answered this question, one-third of tax practitioners stated that auditors should be involved in checking XBRL taxonomies, either organisational ones or HMRC-specific taxonomies, and just over one-third that tax practitioners themselves should check these documents. There seems to be a need for the taxonomies, as well as the tagging process, to be subject to some independent scrutiny and certification.

REGULATION OF XBRL

The four groups of respondents were asked about what involvement the government should have in the adoption of XBRL, and this question was also asked about five categories of reports and filings that can be made by companies: financial reports; non-financial reports; stock exchange listing pronouncements; tax filing and Companies House filing. Table 4.7 shows the respondents' thoughts on whether, for each of these five categories of reports, there should be:

• voluntary filing

• the government/regulators should not advance the use of XBRL for filing at all

• mandatory filing within two years

• mandatory filing in two to five years

• mandatory filing in five to ten years.

A sizeable proportion of all the respondents in the study did not know what to recommend for all five categories of reports, especially the user respondents.

For financial reports (Table 4.7, Panel A), the majority of all respondents said that there should be voluntary adoption of XBRL or that the government and regulators should not advance XBRL at all. Auditors clearly have a different view; 50% of the auditors who provided a response to this question said that the government should make XBRL mandatory within two years.

With respect to Companies House filing (Table 4.7, Panel B), the respondents again indicated a preference for voluntary adoption and no interference by the government or regulators (even though this is already occurring).

Interestingly, the auditors' view of the timescale involved for Company House filing (see Panel B) was longer than that for financial reports (see Panel A), suggesting that these professionals consider mandated filing via XBRL to be more than two years away, although there was less agreement between the four groups on precisely when this should occur than there was for financial reports per se. This result is interesting in the light of the pronouncements of Companies House in the UK and the SEC in the US. Companies House has been accepting online filing using XBRL since the end of 2005, but this message does not appear to have reached key stakeholders, who are neither expecting to file their accounts using XBRL nor expressing a desire to do so. In December 2008, the SEC approved a rule change requiring US GAAP preparers to submit accounts in XBRL, adopting a phased approach that required larger companies to file using XBRL in June 2009.

In the case of non-financial reports and stock exchange listing pronouncements (Table 4.7, Panels C and D) there was a much stronger view that XBRL should not become mandatory, with most respondents selecting the 'voluntary adoption' and the 'non-involvement of government and regulators' boxes on the questionnaire. There was a stronger view that the government and regulators should not be involved (see Panel C).

On tax filing (Table 4.7, Panel E) the major expressions of support were for the non-involvement of regulators and for voluntary filing using XBRL. The tax practitioners were strongest in their view that XBRL should not be imposed on them; this finding is interesting given that this is essentially what the Carter Review implementation is aiming to do in mandating the use of XBRL for corporate tax filings from 2011. The auditors also moved their timescale on this issue from being mandatory within two to five years to within five to ten years.

Table 4.7: The role of regulation in the adoption of XBRL

Panel A – Financial reports					
XBRL should be:	**Business (n=86)**	**Auditors (n=13)**	**Tax (n=33)**	**Users (n=21)**	**Total (n=153)**
Voluntary	23	8	9	14	18
Government/regulators should not advance XBRL	15	15	15	10	14
Mandated within 2 years	4	31	3	10	7
Mandated in 2–5 years	11	8	12	–	5
Mandated in 5–10 years	13	–	12	–	10

Panel B – Companies House filing					
XBRL should be:	**Business (n=86)**	**Auditors (n=13)**	**Tax (n=33)**	**Users (n=21)**	**Total (n=153)**
Voluntary	21	15	15	24	20
Government/regulators should not advance XBRL	13	15	18	10	14
Mandated within 2 years	12	8	6	–	8
Mandated in 2–5 years	10	15	12	–	10
Mandated in 5–10 years	7	8	3	–	5

Panel C – Non-financial reports					
XBRL should be:	**Business (n=86)**	**Auditors (n=13)**	**Tax (n=33)**	**Users (n=21)**	**Total (n=153)**
Voluntary	22	15	18	14	20
Government/regulators should not advance XBRL	15	31	24	15	18
Mandated within 2 years	5	8	–	–	3
Mandated in 2–5 years	11	23	6	5	10
Mandated in 5–10 years	7	–	6	–	5

Panel D – Stock exchange listing pronouncements					
XBRL should be:	**Business (n=86)**	**Auditors (n=13)**	**Tax (n=33)**	**Users (n=21)**	**Total (n=153)**
Voluntary	16	23	15	19	17
Government/regulators should not advance XBRL	14	15	15	10	14
Mandated within 2 years	7	15	18	5	10
Mandated in 2–5 years	12	15	6	–	9
Mandated in 5–10 years	11	–	–	–	6

Panel E – Tax filing					
XBRL should be:	**Business (n=86)**	**Auditors (n=13)**	**Tax (n=33)**	**Users (n=21)**	**Total (n=153)**
Voluntary	16	15	9	14	14
Government/regulators should not advance XBRL	16	15	24	15	18
Mandated within 2 years	6	8	6	5	6
Mandated in 2–5 years	19	8	12	–	14
Mandated in 5–10 years	8	31	3	–	8

Note: Most respondents answered 'do not know'.

Table 4.8: Implementing XBRL within organisations

To implement XBRL within organisations:	Business (n=86)		Auditors (n=13)		Tax (n=33)		Users (n=21)		Total (n=153)	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
Have the IT expertise	19	26	31	54	12	15	5	10	16	24
IT staff have enough technical knowledge of XBRL	12	19	23	31	15	12	5	5	12	16
Have the accounting/tax expertise	16	13	31	23	21	12	19	–	20	12
Should have formal policies	19	26	31	54	12	15	5	10	39	2
Should have clearly written policy manuals	12	19	23	31	15	12	5	5	29	5

Note: Most respondents answered 'do not know'.

IMPLEMENTING XBRL WITHIN ORGANISATIONS

If organisations are required, or wish, to implement XBRL there is some doubt both as to whether businesses have enough IT expertise to implement XBRL in the short term, and whether individual IT personnel have enough knowledge of XBRL (Table 4.8). Over half the auditors thought that companies did not have enough IT knowledge to be able to implement XBRL. There was some agreement that organisations had the accounting knowledge and that companies should have formal policies about electronic system-related matters, and that there should be a clearly written policy manual for XBRL.

The Association of Government Accountants (AGA) has emphasised the role of education and training. It recommends that XBRL projects should include a 'bi-directional educational overview' (AGA 2008) whereby both accountants and IT specialists are involved in implementing XBRL, so that all the challenges involved in the process can be taken into account in order to ensure a successful outcome.

XBRL TRAINING

As XBRL knowledge appears to be very limited, some questions were asked about training in XBRL. Only one of the 86 business respondents had had any XBRL training and this was acquired in-house. One auditor and two tax practitioners had also had some XBRL training, one in-house and one as part of CPD requirements. Reassuringly, these four indicated that their training had been adequate for their current needs. Nevertheless, even these four were not actively using XBRL, despite having had training. It is even more worrying that so few people have had any XBRL training at all. This confirms the 2006 findings of ACCA, which notes that XBRL was not then a high priority on their members' list of training needs, with only 2% of those based in the UK indicating that XBRL was likely to have a considerable impact on their training needs. Again, the business case does not seem to have been made to organisations that XBRL could be of major benefit to them and that training would be a worthwhile investment. In its 2008 white paper, AICPA stressed the importance of professional bodies and regulators in advancing the agenda, and emphasised the role of training in helping individual accountants to develop their knowledge of XBRL.

RESPONDENTS' VIEWS ON XBRL

The questionnaires contained a few open questions, such as 'how would you summarise your experience with XBRL to date?' where respondents were afforded the opportunity to express any views they wished to on XBRL. These were quite illuminating in revealing further details behind the respondents' answers to the other questions asked of them, with some of them holding quite positive views about XBRL.

We have had a number of discussions with HMRC and our clients about XBRL and are currently working with HMRC to implement XBRL filing of tax computations within our software. (Tax practitioner)

Very useful and efficient. (Tax practitioner)

XBRL can be a useful tool. (Tax practitioner)

Yes, there is a need [for XBRL] *with detailed returns, depending on company size, listing, etc.* (Business)

For some respondents the receipt of the questionnaire motivated them to go and find out something about XBRL.

Though [we have] *no experience with XBRL, we would like to try the product, as given in the questionnaire, with sufficient training.* (Business)

No experience. Getting this questionnaire prompted me to find out more by reading an article on it...our exposure to this as an accounting technology has been limited/non existent. (Business)

No known experience of XBRL until receiving this mailing (Triggered background research on Internet). (Business)

Other respondents also admitted to a lack of knowledge of XBRL.

Had not heard about it until I saw your questionnaire. (Tax practitioner)

Never heard of it before your questionnaire arrived. The company has no experience of it at all. (User)

No experience of XBRL. Aware of it. Five year[s] *of experience with XML technologies, especially XSLT.* (Business)

I don't have a clue about it. (Tax practitioner)

I do not understand what XBRL is. (Tax practitioner)

Others were fairly negative about the adoption of XBRL.

I have no experience in XBRL and it has had no detrimental effect on my business to date. (Business)

None, though I have looked into it. Development seems entirely driven by big accounting firms and government bodies. No one else is much interested. The likely benefits are unlikely to justify the efforts required. (User)

Overblown. Vast hidden costs and time consuming. (Business)

Clearly, as noted above, these comments demonstrate that the business case for adopting XBRL has generally not been made. The low response rate to the survey is probably also an indication that very few practitioners know anything about XBRL and hence had no incentive to reply to this study or spend time filling in something which they knew nothing about.

SUMMARY

This chapter has highlighted the results of four questionnaire surveys that were sent to businesses, auditors, tax practitioners and users about the adoption of XBRL in organisations. The findings for stakeholders in the UK accord with those reported in 2008 by *Compliance Week* (Accounting Web 2008) and *BPM Express* (Waters 2008) in the US. Both studies found very little knowledge of XBRL among US businesses. The findings suggest that XBRL does not seem to have permeated the business environment, with very few stakeholders embracing the technology. Nonetheless, the moves afoot by the SEC in the US, and by the HMRC and Companies House in the UK, are likely to necessitate that stakeholders at least recognise, and potentially embrace, the technology. In order for such a mission to succeed, stakeholders need to receive training appropriate to their individual needs.

The next chapter summarises the study and its key findings and outlines some policy recommendations.

5. Conclusion

INTRODUCTION

This report explores the perceptions and knowledge of a sample of corporate stakeholders regarding XBRL. Chapter 1 outlines the motivations for undertaking this study. The professional and academic literature reviewing the use of Internet reporting in general, and XBRL in particular, is provided in Chapter 2. The research approach adopted in this study is discussed in Chapter 3, while the results are reported in Chapter 4. This chapter concludes the report by summarising the key findings emerging from the research, outlining the limitations of the study, presenting avenues for future research and offering some useful policy implications for the profession and regulators to consider.

SUMMARY OF THE FINDINGS AND COMMENTARY

The study notes that the purported benefits of XBRL cited in the academic and professional literature appear to be largely endorsed by the relatively few respondents who are aware of XBRL. These benefits can be summarised as follows.

- No need to re-key data.

- Reduction of processing errors.

- Assurance over the integrity of data.

- Knowledge that the data are reliable with no errors.

- Inter-operability and can be used in conjunction with any system.

- Easy to integrate with other systems.

- Speeds up the gathering of data.

- Enhances analytical processes.

- Enables better data comparability.

The major obstacles to widespread take-up of the technology cited in the literature are also noted, namely:

- the time and effort required to learn XBRL

- the cost of buying the software

- implementing new procedures and processes

- little software available for displaying and analysing XBRL data, and

- proliferation of taxonomy elements.

Further, respondents apparently considered that the process for the verification of taxonomies and provision of assurance over the tagging of data remained inherently uncertain. There appears to be little evidence that they believed that there are any clearly developed plans for what verification and assurance procedures should be put in place within organisations that are adopting XBRL. This presents a key limitation to the ability of producers of financial reports to use XBRL, even if these respondents wished to do so.

Despite the fact that the respondents who were informed about XBRL endorsed the apparent theoretical benefits and limitations of this technology, this research demonstrates a significant lack of general and specific knowledge about XBRL among the surveyed communities in the UK at the time of the study (mid 2008). This is perhaps surprising given both the length of time that XBRL has been in active development in the UK, and the significant publicity that it has received, after both the publication of the Carter Review in the UK in 2006 and the SEC's projects (both the initial voluntary filing project in 2006/7 and the Interactive Data project throughout 2008) in the US. None of the four stakeholder groups questioned in this study appeared to have much knowledge of XBRL, although they represented key groups to which any realised benefits of XBRL should apply directly and positively.

AUDITORS' RESPONSES

Often auditors are at the forefront of new developments in financial reporting, such as in the adoption of International Financial Reporting Standards, but that does not appear to be the case with XBRL. Auditors, typically, will advise their clients on new accounting and reporting-related developments, and the big accountancy firms generate revenue from advising non-audit clients on new systems and IT implementations. From this study it appears that even auditors are not yet generally conversant with XBRL, and it seems very unlikely, therefore, that they will be actively advising their clients to adopt the technology in the near future.

Where such advice is available in the largest firms, perhaps within specialist groups addressing IT developments, there are significant pockets of expertise, but this does not appear to be permeating the general population of auditors beyond these specialist groups. This suggests that, to date, there has been little encouragement from this source for businesses more generally to adopt XBRL – even though the Big 4 accounting firms are among the most significant supporters of XBRL. This suggests, in turn, that the support for XBRL is only held in particular areas within these firms.

It may, however, also be owing to the general level of change occurring elsewhere in the industry in the last decade, not least to the significant changes both in the regulatory environment faced, and in the very nature of the underlying GAAP principles that are being applied. It may be the case that novel and potentially exciting new developments have lost out to the necessary and required changes that auditors have had to implement – the *necessary* dominating practitioners' attention to the exclusion of the *desirable but not required*. If this is true, it is to be hoped that there will be a slowdown in the pace of change of accounting and auditing standards and other regulatory requirements, which will result in increased resources being directed at these wider changes. The current economic adaptations being proposed in response to the credit crisis globally, however, suggest that the rapid pace of development in accounting regulation is unlikely to slow in the immediate future, and that, therefore, there is unlikely to be a window of opportunity for developments such as XBRL to succeed – unless XBRL itself becomes part of the regulatory solution.

TAX PRACTITIONER RESPONSES

Surprisingly, tax practitioners were also lacking in detailed knowledge of XBRL, despite the stipulations of both HMRC and the Carter Review that XBRL is the way forward for tax filing – and mandating it as such within a relatively short period of time. To date, therefore, efforts to draw this community into further engagement with XBRL appear largely to have failed – at least if the respondents of this survey are considered to be representative of those in the wider tax practitioner community likely to be heavily engaged with Corporation Tax filing.

It is noted, however, that the fairly recent growth of the 'Working Together' groups initiative by HMRC is beginning to have an effect on this community as the proposed deadline for wider use of XBRL draws nearer. Also, as the vendors of software filing products begin to address the necessary changes to their products that XBRL-based filing will entail, tax practitioners will be further encouraged to engage with the practical implications of the changes that XBRL will bring.[15] It is expected that the most dramatic changes will occur in the next 12 months or so leading up to the mandating deadline, as tax practitioners typically do not set their horizons more than one reporting cycle ahead.

BUSINESS COMMUNITY RESPONDENTS

Companies House has also invested heavily in XBRL, but again this does not appear to have filtered through to any visible benefits in the corporate environment. In part, however, this is a direct result of the way in which these developments have been undertaken in this case – where direct engagement between Companies House and software vendors has resulted in XBRL-enabled solutions being developed without users actually needing to engage with XBRL directly, as it is hidden within Companies House system filing processes. It seems that the decision by Companies House to work in this way has proved effective in making XBRL a workable solution to the data-management issue it faces, given the significant use it is now making of XBRL as probably the largest user of this technology in the UK. Even so, this approach has not resulted in wider appreciation of the technology itself in the general business community – or at least not beyond the software vendors who supply products in this particular market. It is unlikely, therefore, that the Companies House project will be the catalyst for change – although given its success as a project in its own right, it is certain to play a significant supportive role if momentum gathers behind XBRL more generally.

The biggest benefits of XBRL in the short term (until perhaps wider use of XBRL GL is made) are undoubtedly to the various **recipients** of data rather than the producers, and this explains, to some extent, why data **preparers** are so far largely unengaged with the process. The consumers of business reporting data include regulatory filing recipients, such as HMRC and Companies House, and this has undoubtedly motivated them to push forward these developments in the UK. This process has occurred far more quickly than for business reporting to a more general stakeholder community. To date, XBRL development has been demand-pulled only by these regulators in order to obtain the data they need – not by a demand from a wider user community. This is probably explained by the fact that these government bodies, as coherent and focused consumers of specific types of business data, have not only the commercial imperative (for example, to look constantly for ways of reducing their cost base) but also the regulatory power to influence developments in this area – two things not possessed by either the more general investor, or the other non-regulator user communities. These groups have neither the political voice, nor an appreciation of the clear business case, to make demands of preparers of accounts in this area for changes that will be seen to outweigh the increased costs the preparers themselves will then incur by having to make yet further changes to their own reporting processes. Coupled with the probably even lower level of knowledge than that of those surveyed, who were the more professional community users, this suggests that non-regulator organisations and individuals are poorly placed to make

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15. See http://www.hmrc.gov.uk/carter/get-ready.htm

effective demands in this area. Nonetheless, as the regulatory filing user processes are developed, and perhaps as these are enhanced by a visibly successful general business reporting filing system in the US, a wider desire to engage with XBRL may well arise among all user communities in the UK.

ANALYST RESPONDENTS

Professional users of financial information, such as analysts and institutional shareholders, comprise a different market for data than general stakeholders of business data as their business models rely on the most effective access to data. Even so, the survey suggests that, as a community, they do not appear to have a clear idea how they will benefit from XBRL. Given that they are already likely to be using fairly sophisticated analytic tools that they create 'in house', some benefits of XBRL are likely to be of less value to them than may be the case for other consumers. Hence, their desire to engage with these developments is less acute. This may be the reason for their watchful, but not aggressively demanding, approach to XBRL developments. It seems unlikely, therefore, that the catalyst for further developments of XBRL in Europe will come from this community either.

In summary, it seems that the best hope for the future realisation of the claimed benefits of second generation reporting technologies is the mandated route being used in the US by the SEC. Without such a mandate, XBRL faces a continuing but only gradually developing future, slowly evolving through an increasing number of small projects rather than making radical changes to the reporting environment.

LIMITATIONS OF THE STUDY

Questionnaire surveys have been used to question a large number of people on particular aspects of XBRL, but as with all investigative methods, this approach has its limitations. One of these is particularly relevant in the present investigation, where the topic is new and is not necessarily that familiar to those being surveyed. Although the covering letter that accompanied the questionnaire provided a brief overview of the technology, face-to-face interviews might have helped as this would have allowed the research team to explain the technology more fully, thus facilitating a more informed discussion of its implications.

A further major limitation of this study has been the lack of response to the four survey questionnaires. Overall, almost 4,000 questionnaires were distributed over two mailings, but the bright red, glossy cover was not enough to entice people to open the survey and complete it, and only a limited number were returned. This probably reflects the lack of interest and knowledge within organisations about the use of XBRL and its benefits.

A further limitation is that this study was restricted to ascertaining the perspectives of those operating in the UK. The findings in the UK may be different from those of other countries, although the US studies have also reported limited knowledge of XBRL.

AVENUES FOR FUTURE RESEARCH

The limitations of this study also point to areas for future research. First, a study should be conducted of awareness and take-up of XBRL in other countries. The SEC has been extolling the virtues of XBRL, and companies that need to register and file in the US may be ahead of their UK counterparts.

Second, a more in-depth study is required of companies that have adopted XBRL in some form, rather than of those that have made a conscious decision not to adopt it, and of those that are currently implementing it. This would give more texture to the generalised findings of this study, and provide further information on best practice in this area that could benefit the wider community.

Finally, and related to the second area suggested above, an interview-based study would be invaluable in expanding upon, and deepening the analysis of, the issues touched on in the questionnaire survey. The use of a semi-structured format would allow researchers to explore more fully the particular concerns and issues that stakeholders might have with regard to XBRL, thereby highlighting any impediments to widespread adoption that the regulatory and professional bodies could act on.

POLICY IMPLICATIONS

From the findings of this study the following policy implications arise.

- The business case for organisations to adopt XBRL needs to be highlighted more effectively. HMRC, Companies House, professional bodies such as ACCA, and IT specialists should publicise the business case for XBRL more widely.

- The provision of 'hands-on' user-focused sessions that highlight the inter-operability and flexibility of XBRL should be provided by key constituencies such as ACCA. Much of the current publicity is oriented towards technical and IT matters rather than business needs.

- Accountancy practices should set up XBRL specialist teams to advise clients about adopting XBRL.

- The XBRL Consortium in the UK should be more proactive in working with key stakeholders to exploit the benefits of XBRL.

- Companies should formally review their policies on digital reporting disclosures, and engage actively with stakeholders about their information requirements.

- The IAASB should complete its XBRL project and issue an ISA as soon as is feasible, to provide guidance on what auditors should be required to do for XBRL filings to give users confidence in the data.

- The FRC should introduce guidelines for the verification of taxonomies and the tagging of data, in conjunction with XBRL-UK consortium and with XII, as the international overseer of XBRL developments.

- The XBRL Consortium should seek wider engagement with the user community.

- Analysts, fund managers and other institutional investors should be made aware of XBRL through their professional bodies, such as the Securities and Investment Institute, National Association of Pension Funds and the Association of Investment Trust Companies.

- Individuals should assess their CPD requirements and, where necessary, attend courses and keep up to date with XBRL developments.

- IT specialists should develop better rendering tools to make XBRL more useful to businesses and external users of financial information.

Overall, the benefits of XBRL need to be made far more transparent so that the 'business case' for XBRL becomes well known. Hopefully, a similar study in the future will find that XBRL use is far more widespread and has been adopted by many more organisations within the global economy.

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Appendix 1: Business questionnaire

Internet and Digital Reporting Questionnaire

We thank you in advance for completing this questionnaire on behalf of the ACCA and the research team. We would be grateful if you could complete as much as possible of this questionnaire to ensure we have a full picture of your use of Internet and Digital reporting technologies at present.

Estimated time to complete – 15 minutes

A: GENERAL QUESTIONS
This section reviews your current Internet reporting practices and your opinions on the use of the Internet for corporate communications.

1- Please tick all the formats that your company uses to publish its financial/non-financial data:	Hardcopy	HTML	PDF	XBRL
a. Balance Sheet:	☐	☐	☐	☐
b. Income Statement:	☐	☐	☐	☐
c. Cash Flow Statement:	☐	☐	☐	☐
d. Notes to Accounts:	☐	☐	☐	☐
e. Interim Reports:	☐	☐	☐	☐
f. Quarterly Earnings Releases:	☐	☐	☐	☐
g. Chairman & Directors' Reports:	☐	☐	☐	☐
h. Corporate Governance Disclosures:	☐	☐	☐	☐

2- Please, indicate which of the following best describes your current accounting and reporting tool(s):

☐ Integrated customised accounting software packages (please specify which ones)
....
....

☐ Integrated customised accounting software packages and spreadsheets (please specify which ones)
....
....

☐ Basic off-the-shelf accounting software packages and spreadsheets (please specify which ones)
....
....

☐ Other (please specify) ....

3- To what extent do you agree that the following are the main users of your Internet published information?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a. Investors	☐	☐	☐	☐	☐
b. Analysts	☐	☐	☐	☐	☐
c. HMRC	☐	☐	☐	☐	☐
d. Companies House	☐	☐	☐	☐	☐
e. Suppliers	☐	☐	☐	☐	☐
f. Customers	☐	☐	☐	☐	☐
g. Employees	☐	☐	☐	☐	☐
h. Charity/Non-Governmental Organisations	☐	☐	☐	☐	☐
i. Lenders	☐	☐	☐	☐	☐
j. Others (Please specify)...........................	☐	☐	☐	☐	☐

4- Who is involved in the production of your Internet Reporting output? (please tick all that apply)

- ☐ External Web designer
- ☐ General designer
- ☐ PR outsourced company
- ☐ Financial Reporting Team
- ☐ Investor Relations Team
- ☐ Management/Board/Senior Executives
- ☐ Internal Audit
- ☐ IT Dept.
- ☐ Others (please specify:……………………………………….)

	Yes	No	Not sure
5- Does your company review your Internet Reporting (either formally or informally)?			
If yes, please can you briefly describe the process currently used:	☐	☐	☐

…………………………………………………………………..
…………………………………………………………………..
…………………………………………………………………..

6- Who is responsible for your company's Internet Reporting strategy? (Please tick all that apply)
- ☐ Financial Reporting Team
- ☐ Board of Directors
- ☐ Investor Relations Team
- ☐ IT Dept.
- ☐ Others (please specify ....)

7- What uses do you currently make of the Internet in your work? (please tick all the relevant columns that apply to a typical working week)

	Never	1-2 times per week	Daily	Multiple times daily	Constant use
Email	☐	☐	☐	☐	☐
News (general e.g. BBC)	☐	☐	☐	☐	☐
News (business/industry-specific)	☐	☐	☐	☐	☐
FRC/IASB website	☐	☐	☐	☐	☐
Other accounting websites	☐	☐	☐	☐	☐
Professional body websites	☐	☐	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
8- Having a corporate website allows organisations to make more information available for accountability purposes.	☐	☐	☐	☐	☐	☐
9- Confidentiality is guaranteed when documents are transmitted via the Internet.	☐	☐	☐	☐	☐	☐
10- When documents are transmitted via the Internet, recipients can be sure that the documents have not been changed and the data has not been altered.	☐	☐	☐	☐	☐	☐

B: SECOND-GENERATION DIGITAL REPORTING AND XBRL

This section explores your experience of more recent developments in Internet reporting, in particular, focusing upon your knowledge of XBRL. XBRL.org define XBRL as 'a language for the electronic communication of business and financial data'.

11- Please choose one answer from the following statements that best applies to your company's current position:
- ☐ In our company, XBRL is used for internal reporting purposes.
- ☐ In our company, XBRL is used for external reporting purposes.
- ☐ In our company, XBRL is used for <u>both</u> internal and external reporting purposes.
- ☐ A system that is XBRL compatible is being installed but is not yet operational.
- ☐ There has been discussion about XBRL, but no decision has been made.
- ☐ XBRL has not been discussed in our company.

12- Is your company a member of the XBRL consortium?
(if yes, which one - if you know)

	Yes	No	I Do Not Know
	☐	☐	☐

....

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
13- XBRL can reduce the re-keying of financial data.	☐	☐	☐	☐	☐	☐
14- XBRL-based reports can be re-used with no loss in data integrity.	☐	☐	☐	☐	☐	☐
15- Use of XBRL can provide interoperability with other existing applications/systems.	☐	☐	☐	☐	☐	☐
16- XBRL can contribute to speeding up the reporting cycle.	☐	☐	☐	☐	☐	☐
17- XBRL fosters data comparability.	☐	☐	☐	☐	☐	☐
18- XBRL can be used to produce more analytical tools.	☐	☐	☐	☐	☐	☐
19- XBRL can help reduce processing errors.	☐	☐	☐	☐	☐	☐
20- XBRL-enabled information can be a reliable source for the preparation of financial/non-financial reports.	☐	☐	☐	☐	☐	☐

21- To what extent do you agree that the following are significant obstacles to the adoption of XBRL by potential users:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. Cost of XBRL software	☐	☐	☐	☐	☐	☐
b. Time and effort needed to learn about XBRL	☐	☐	☐	☐	☐	☐
c. Lack of need for using XBRL (i.e. no demand)	☐	☐	☐	☐	☐	☐
d. Implementing new reporting procedures to create XBRL documents	☐	☐	☐	☐	☐	☐
e. Lack of available software for displaying XBRL documents and analysing them	☐	☐	☐	☐	☐	☐

22- To what extent do you agree that assurance is needed regarding the assignment of correct XBRL tags to reported items in accounts in accordance with GAAP?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. No certification by the company and no independent audit/review is necessary	☐	☐	☐	☐	☐	☐
b. Certification by the company of the appropriateness of the XBRL tagging of reported amounts (no audit and/or review by an independent party).	☐	☐	☐	☐	☐	☐
c. Separate review by an independent examiner as to the appropriateness of the XBRL tagging of the reported amounts.	☐	☐	☐	☐	☐	☐
d. Separate audit or review by the external auditor as to the appropriateness of the XBRL tagging of reported amounts.	☐	☐	☐	☐	☐	☐

23- Do you think that the pace of development of XBRL will increase if digital filing of company returns becomes mandatory?	Yes	No	I do not know
	☐	☐	☐

24- What role should the Government/ regulators play in advancing and developing XBRL? Please, choose one option for each column:	Financial Reports	Non-Financial Reports	Stock Exchange Listing Pronouncements	Tax Filings	Companies House Filings
a. Introduce a voluntary XBRL filing programme	☐	☐	☐	☐	☐
b. Mandate XBRL filings within the next two years	☐	☐	☐	☐	☐
c. Mandate XBRL filings in 2 – 5 years	☐	☐	☐	☐	☐
d. Mandate XBRL filings in 5 – 10 years	☐	☐	☐	☐	☐
e. The Government/regulators should not advance XBRL	☐	☐	☐	☐	☐

C: XBRL IMPLEMENTATION IN ORGANISATIONS

This section explores your impressions of the extent to which use and knowledge of XBRL is growing in the corporate reporting and analyst/user communities.

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
25- Companies possess the IT expertise necessary to implement XBRL.	☐	☐	☐	☐	☐	☐
26- Accounting qualifications/experience assist in understanding different XBRL taxonomy elements.	☐	☐	☐	☐	☐	☐
27- IT personnel in companies possess the relevant technical knowledge necessary to understand XBRL.	☐	☐	☐	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
28- Alternative software systems/packages exist in the market that perform the same functions as XBRL.	☐	☐	☐	☐	☐	☐
29- XBRL output can be easily integrated with existing user applications.	☐	☐	☐	☐	☐	☐
30- The proliferation of XBRL taxonomy elements could make XBRL implementation a very complex task.	☐	☐	☐	☐	☐	☐
31- Companies should have formal policies on electronic system-related matters.	☐	☐	☐	☐	☐	☐
32- Companies should have a clearly written policy manual for using XBRL.	☐	☐	☐	☐	☐	☐

	Yes	No	I do not know
33- **Is there a need for further technical advances in XBRL** (e.g. version controlling). Please elaborate on your answer: **...**	☐	☐	☐

D: XBRL TRAINING
This section explores any training you may have received on XBRL

	Yes	No		
34- **Have you personally received any XBRL training?**	☐	☐		

	College Training	Vendor Training	In-house Training	CPD	Other (please state)
35- **If Yes, what type of training on XBRL have you received?**	☐	☐	☐	☐	☐ ....

	Yes	No	I do not know
36- **My company has a written policy manual for XBRL use (if yes, please also answer Q37)**	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
37- **[If answer to Q36 is Yes], I find this written manual very useful.**	☐	☐	☐	☐	☐
38- **The XBRL training you have received is sufficient to provide the needed technical knowledge and skills at the current time.**	☐	☐	☐	☐	☐

39- **How would you summarise your experience with XBRL to date?**

....

....

E: DEMOGRAPHICAL INFORMATION

40- Please indicate your job title:

☐ Accounting Manager
☐ Financial Accountant
☐ Finance Director
☐ IT/Systems Manager
☐ Management Accountant
☐ Treasurer/Group Treasurer
☐ Other (please specify)..

41- Please indicate your primary area of work:

☐ Financial Reporting
☐ Investor Relations
☐ IT
☐ Management Accounting
☐ Operations, Finance, Business
☐ Treasury
☐ Other (please specify)..

42- Which professional bodies are you a member of? (please tick all that apply)**:**
☐ ACCA
☐ CFA
☐ CIMA
☐ CIOT
☐ CIPFA
☐ ICAEW
☐ ICAS
☐ ICAI
☐ IIA
☐ Other (please list: …………………………………………………………..)

43- How long have you been an accountant?
☐ 0 – 4 years
☐ 5 - 9 years
☐ 10 – 14 years
☐ > 15 years

44- Gender:
☐ Male
☐ Female

45- Age:
☐ < 30 years
☐ 30 – 40 years
☐ 41 – 50 years
☐ 51 – 60 years
☐ > 60 years

46- Company size by turnover
☐ Less than £10million
☐ £10million to £100million
☐ £101million to £1billion
☐ More than £1billion

47- Where is your firm located?
- ☐ London & South East England
- ☐ Rest of England
- ☐ Scotland
- ☐ Wales
- ☐ Northern Ireland

The research team appreciate your cooperation. Thank you.

Please return your questionnaire in the freepost envelope provided to:

Dr. Theresa Dunne
School of Accounting & Finance
University of Dundee
Dundee DD1 4HN

Would you like a summary of the results of this research?	Y / N
If Yes, please include your email address for this to be sent to you …………………………………………………….	
Would you be willing to be contacted to potentially assist further with this research?	Y / N

Appendix 2: Auditors' questionnaire

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Internet and Digital Reporting Questionnaire

We thank you in advance for completing this questionnaire on behalf of the ACCA and the research team. We would be grateful if you could complete as much as possible of this questionnaire to ensure that we have a full picture of your use of Internet and Digital reporting technologies at present.

Estimated time to complete – 15 minutes

A: GENERAL QUESTIONS
This section reviews your audit clients' practices of, and your personal opinions on, the use of the Internet for corporate communications.

1- **When were any of your clients' financial reports first displayed on the Internet?**

☐ Pre 1995
☐ 1995 - 2000
☐ 2001 - 2003
☐ 2004 – 2007
☐ No clients have their financial statements on the Internet

2- **What percentage of your clients that have Web-based financial reports currently use the following:**
(please tick the relevant box**):**

PDF Only	HTML Only	PDF& HTML	XBRL (please note different scale)	Other (please specify) ....
☐ 0%	☐ 0%	☐ 0%	☐ 0%	☐ 0%
☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 10%	☐ 1 – 20%
☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 11 – 20%	☐ 21 – 40%
☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 21 – 30%	☐ 41 – 60%
☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 31 – 40%	☐ 61 – 80%
☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 41 – 100%	☐ 81 – 100%

3- **Within What percentage of the following have the primary responsibility for <u>preparing</u> the digitisation of hard copy reports (i.e. PDF or HTML versions)?** (please indicate the typical mix you find in your clients)

IT Dept.	Internal Audit	3rd parties (web designers, outsourced PR)	Management (board/senior executives)	Financial Reporting team	Investor Relations team	Other (please specify) ....
☐ 0 %	☐ 0%	☐ 0%	☐ 0%	☐ 0%	☐ 0%	☐ 0%
☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%
☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%
☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%
☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%
☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%

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4- What percentage of the following have the primary responsibility for <u>checking</u> the digitisation of hard copy reports once prepared (i.e. PDF or HTML versions)? (please indicate the typical mix you find in your clients)

IT Dept.	Internal Audit Dept.	3rd parties (web designers, outsourced PR)	Management (board/senior executives)	Financial Reporting Dept.	Investor Relations Dept.	Other (please, specify) ....
☐ 0 %	☐ 0%	☐ 0%	☐ 0%	☐ 0%	☐ 0%	☐ 0%
☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%	☐ 1 – 20%
☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%	☐ 21 – 40%
☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%	☐ 41 – 60%
☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%	☐ 61 – 80%
☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%	☐ 81 – 100%

5- To what extent do you agree that the following are the main users of your clients' Internet published information?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
a. Investors	☐	☐	☐	☐	☐
b. Analysts	☐	☐	☐	☐	☐
c. HMRC	☐	☐	☐	☐	☐
d. Companies House	☐	☐	☐	☐	☐
e. Suppliers	☐	☐	☐	☐	☐
f. Customers	☐	☐	☐	☐	☐
g. Employees	☐	☐	☐	☐	☐
h. Charity/Non-Governmental Organisations	☐	☐	☐	☐	☐
i. Lenders	☐	☐	☐	☐	☐
j. Others (Please specify)	☐	☐	☐	☐	☐

6- To what extent do you agree that the following will help <u>users</u> to employ XBRL:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. Standardising financial/non-financial information by providing standard terminology	☐	☐	☐	☐	☐	☐
b. Increasing user's access to information	☐	☐	☐	☐	☐	☐
c. Allowing users to analyse data more easily and not having to re-key data	☐	☐	☐	☐	☐	☐
d. Better quality disclosures	☐	☐	☐	☐	☐	☐
e. Others (Please specify)	☐	☐	☐	☐	☐	☐

7-	Do you access your clients' websites? If yes, please describe briefly the way you use them?	Yes – more than once a month	Yes – but less than once a month	No

7- **Do you access your clients' websites?**
If yes, please describe briefly the way you use them?
....
....

	Yes – more than once a month	**Yes –** but less than once a month	**No**
	☐	☐	☐

8- **What uses do you currently make of the Internet for your audit and related work?** (please tick all the relevant columns that apply to a typical working week)

	Never	**1-2 times per week**	**Daily**	**Multiple times daily**	**Constant use**
Email	☐	☐	☐	☐	☐
News (general e.g. BBC)	☐	☐	☐	☐	☐
News (audit industry)	☐	☐	☐	☐	☐
FRC/IASB website	☐	☐	☐	☐	☐
Other country audit authorities websites	☐	☐	☐	☐	☐
Other Audit websites	☐	☐	☐	☐	☐
Professional body websites	☐	☐	☐	☐	☐

To what extent do you agree with the following statements:	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**I Do Not Know**
9- **Having a corporate website allows organisations to make more information available for accountability purposes.**	☐	☐	☐	☐	☐	☐
10- **Confidentiality is guaranteed when documents are transmitted via the Internet.**	☐	☐	☐	☐	☐	☐
11- **When documents are transmitted via the Internet, recipients need to be sure that the documents have not been changed, and data has not been altered.**	☐	☐	☐	☐	☐	☐
12- **The search facilities on corporate websites are effective in directing you to the information that you are seeking.**	☐	☐	☐	☐	☐	☐

B: SECOND-GENERATION DIGITAL REPORTING AND XBRL

This section explores your experience of more recent developments in Internet reporting, in particular, focusing upon your knowledge of XBRL. XBRL.org define XBRL as 'a language for the electronic communication of business and financial data'.

13- **Who audits XBRL documents in your firm?**
(Please tick all that apply)

Specialist IT staff	**Specialist auditors**	**Generalist auditors**	**No one audits XBRL**
☐	☐	☐	☐

14- **Have you audited any of the following reports that were prepared in an XBRL format?** (Please tick all that apply)
- ☐ Balance Sheet
- ☐ Income Statement
- ☐ Cash Flow Statement
- ☐ Notes to Accounts
- ☐ Interim Reports
- ☐ Quarterly Earnings Releases
- ☐ Chairman & Directors' Reports
- ☐ Corporate Governance Disclosures

15- Is your firm a member of the XBRL consortium? (if yes, which one - if you know)	Yes ☐	No ☐	I do not know ☐
16- Do you think that the pace of development of XBRL will increase if digital filing of company returns becomes mandatory?	Yes ☐	No ☐	I do not know ☐

17- What role should the Government/ regulators play in advancing and developing XBRL? Please, choose <u>one option</u> for each column:	Financial Reports	Non-Financial Reports	Stock Exchange Listing Pronounce ments	Tax Filings	Companies House Filings
a. Introduce a voluntary XBRL filing programme	☐	☐	☐	☐	☐
b. Mandate XBRL filings within the next two years	☐	☐	☐	☐	☐
c. Mandate XBRL filings in 2 – 5 years	☐	☐	☐	☐	☐
d. Mandate XBRL filings in 5 – 10 years	☐	☐	☐	☐	☐
e. The Government/regulators should not advance XBRL	☐	☐	☐	☐	☐

18- Do you think that auditors should be involved in the conversion of a company's financial reports to XBRL format (i.e. tagging the reports)	Yes	No	I do not know
a. if production by your client was voluntary:	☐	☐	☐
b. if production by your client was mandated:	☐	☐	☐

19- What types of information should auditors be involved in converting to XBRL format (i.e. tagging the reports)	Statutory information	Non-statutory information	Both statutory and non-statutory information	None of these
a. if production by your client was voluntary:	☐	☐	☐	☐
b. if production by your client was mandated:	☐	☐	☐	☐

20- To what extent do you agree that the following are significant obstacles to the adoption of XBRL by potential <u>users</u>:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. Cost of XBRL software	☐	☐	☐	☐	☐	☐
b. Time and effort needed to learn about XBRL	☐	☐	☐	☐	☐	☐
c. Lack of need for using XBRL (i.e. no demand)	☐	☐	☐	☐	☐	☐
d. Implementing new reporting procedures to create XBRL documents	☐	☐	☐	☐	☐	☐
e. Lack of available software for displaying XBRL documents and analysing them	☐	☐	☐	☐	☐	☐

21- To what extent do you agree that assurance is needed regarding the assignment of correct XBRL tags to reported items in accounts?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. No certification by the company and no independent audit/review is necessary	☐	☐	☐	☐	☐	☐
b. Certification by the company of the appropriateness of the XBRL tagging of reported amounts (no audit and/or review by an independent party).	☐	☐	☐	☐	☐	☐
c. Separate review by an independent examiner as to the appropriateness of the XBRL tagging of the reported amounts	☐	☐	☐	☐	☐	☐
d. Separate audit or review by the external auditor as to the appropriateness of the XBRL tagging of reported amounts.	☐	☐	☐	☐	☐	☐
22- To what extent do you agree that your clients will require auditors to be more knowledgeable about XBRL in the next 5 years?	☐	☐	☐	☐	☐	

C: XBRL IMPLEMENTATION IN ORGANISATIONS

This section explores your impressions of the extent to which use and knowledge of XBRL is growing in the corporate reporting production and user communities.

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
23- Companies possess the IT expertise necessary to implement XBRL.	☐	☐	☐	☐	☐	☐
24- Auditing qualifications/experience assist in understanding different XBRL taxonomy elements.	☐	☐	☐	☐	☐	☐
25- IT personnel in companies possess the relevant technical knowledge necessary to understand XBRL.	☐	☐	☐	☐	☐	☐
26- Alternative software systems/packages exist in the market that perform the same functions as XBRL.	☐	☐	☐	☐	☐	☐
27- XBRL output can be easily integrated with existing user applications.	☐	☐	☐	☐	☐	☐
28- The proliferation of XBRL taxonomy elements could make XBRL implementation a very complex task.	☐	☐	☐	☐	☐	☐

D: XBRL TRAINING
This section explores any training you may have received on XBRL

	Yes	No
29- Have you personally received any XBRL training?	☐	☐

	College Training	Vendor Training	In-house Training	CPD	Other (please state)
30- If Yes, what type of training on XBRL have you received?	☐	☐	☐	☐	☐
					....

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
31- To what extent do you agree that the XBRL training you have received is sufficient to provide the needed technical knowledge and skills at the current time:	☐	☐	☐	☐	☐	☐

32- How would you summarise your experience with XBRL to date?

....

....

E: DEMOGRAPHICAL INFORMATION

33- Please indicate your job title:

- ☐ Auditor
- ☐ Assistant Manager/Manager
- ☐ Associate Director
- ☐ Director
- ☐ Partner
- ☐ Other...

34- Please indicate your primary area of work:

- ☐ Actuarial
- ☐ Audit & Assurance
- ☐ Consultancy Services
- ☐ Corporate Finance
- ☐ Corporate Tax
- ☐ Forensic Services
- ☐ Transaction Services
- ☐ Risk
- ☐ Other...

35- Which professional bodies are you a member of? (please tick all that apply)**:**
- ☐ ACCA
- ☐ CFA
- ☐ CIMA
- ☐ CIOT
- ☐ CIPFA
- ☐ ICAEW
- ☐ ICAS
- ☐ ICAI
- ☐ IIA
- ☐ Other (please list: …………………………………………………..)

36- How long have you been an auditor?
- ☐ 0 – 4 years
- ☐ 5 – 9 years
- ☐ 10 – 14 years
- ☐ > 15 years

37- Gender:
- ☐ Male
- ☐ Female

38- Age:
- ☐ < 30 years
- ☐ 30 – 40 years
- ☐ 41 – 50 years
- ☐ 51 – 60 years
- ☐ > 60 years

39- How large is the firm that you currently work for?
- ☐ 1 partner/sole-trader
- ☐ 2-5 partners/directors
- ☐ 6-10 partners/directors
- ☐ 11-30 partners/directors
- ☐ More than 30 partners/directors

40- Where is your firm located?
- ☐ London & South East England
- ☐ Rest of England
- ☐ Scotland
- ☐ Wales
- ☐ Northern Ireland

The research team appreciate your cooperation. Thank you.

Please return your questionnaire in the freepost envelope provided to:

Dr. Theresa Dunne
School of Accounting & Finance
University of Dundee
Dundee DD1 4HN

Would you like a summary of the results of this research?	Y / N
If Yes, please include your email address for this to be sent to you …………………………………………………….	
Would you be willing to be contacted to potentially assist further with this research?	Y / N

Appendix 3: Tax practitioners' questionnaire

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Internet and Digital Reporting Questionnaire

We thank you in advance for completing this questionnaire on behalf of the ACCA and the research team. We would be grateful if you could complete as much as possible of this questionnaire to ensure that we have a full picture of your use of Internet and Digital reporting technologies at present.

Estimated time to complete – 15 minutes

A: GENERAL QUESTIONS

This section explores your clients' practices of, and your personal opinions on, the use of the Internet for corporate tax filings and other communications.

1- Please, indicate which of the following best describes your current tax software:

☐ Integrated customised tax preparation software packages (please specify which ones)

....

☐ Integrated customised tax preparation software packages and spreadsheets (please specify which ones)

....

☐ Basic off-the-shelf tax preparation software packages and spreadsheets (please specify which ones)

....

☐ Other (please specify) ....

2- Which of the following types of tax filing do you currently deal with? (please tick all that apply)

☐ PAYE
☐ Personal Self Assessment
☐ VAT
☐ Corporation Tax
☐ International Tax
☐ Others.................

	Yes	No	I Do Not Know
3- Does your firm currently file tax returns for clients online?	☐	☐	☐

If yes, when did your firm commence using online filing? (please tick the applicable period)

☐ Pre-1997
☐ 1997-1999
☐ 2000-2002
☐ 2003-2005
☐ Post 2005

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4- **For what percentage of your clients do you currently file tax returns in:** (please indicate the approximate % of your clients in each category)

	% of clients
1 country only (UK)	
1 country only (non-UK)	
2 – 4 countries	
5 – 6 countries	
7+ countries	

5- **What uses do you currently make of the Internet for your tax and related work?** (please tick all the relevant columns that apply to a typical working week)

	Never	1-2 times per week	Daily	Multiple times daily	Constant use
Email	☐	☐	☐	☐	☐
News (general e.g. BBC)	☐	☐	☐	☐	☐
News (tax industry)	☐	☐	☐	☐	☐
HMRC/Treasury website	☐	☐	☐	☐	☐
Other country tax authorities websites (e.g. IRS)	☐	☐	☐	☐	☐
Other Tax websites (e.g. Tax-zone.co.uk, taxationweb.co.uk etc)	☐	☐	☐	☐	☐
Professional body websites	☐	☐	☐	☐	☐

To what extent do you agree with the following statements:	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
6- **The search facilities on corporate websites are easy to use.**	☐	☐	☐	☐	☐	☐
7- **Confidentiality is guaranteed when documents are transmitted via the Internet.**	☐	☐	☐	☐	☐	☐
8- **When documents are transmitted via the Internet, recipients can be sure that the documents have not been changed, and data has not been altered.**	☐	☐	☐	☐	☐	☐

B: SECOND-GENERATION DIGITAL REPORTING AND XBRL

This section explores your experience of more recent developments in Internet reporting, in particular, focusing upon your knowledge of XBRL. XBRL.org define XBRL as 'a language for the electronic communication of business and financial data'.

9- **Please choose one answer from the following:**
☐ In our client companies, XBRL is used for internal reporting purposes.
☐ In our client companies, XBRL is used for external reporting purposes.
☐ In our client companies, XBRL is used for <u>both</u> internal and external purposes.
☐ There have been discussions regarding the use of XBRL in our client companies, but no final adoption decisions have been taken.
☐ XBRL system is being installed in some of our client companies.
☐ XBRL has not been adopted in any of our client companies.

10- **Is your firm a member of the XBRL consortium:**

	Yes	No	I do not know
(if yes, which one - if you know)	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
11- XBRL can reduce the re-keying of financial data.	☐	☐	☐	☐	☐	☐
12- XBRL-based reports can be re-used with no loss in data integrity.	☐	☐	☐	☐	☐	☐
13- Use of XBRL can provide interoperability with other existing applications/systems.	☐	☐	☐	☐	☐	☐
14- XBRL can contribute to speeding up the reporting and filing cycle.	☐	☐	☐	☐	☐	☐
15- XBRL fosters data comparability.	☐	☐	☐	☐	☐	☐
16- XBRL can be used to produce more analytical tools.	☐	☐	☐	☐	☐	☐
17- XBRL can help reduce processing errors.	☐	☐	☐	☐	☐	☐
18- XBRL-enabled information can be a reliable resource for the preparation of tax returns.	☐	☐	☐	☐	☐	☐

19- To what extent do you agree that the following are significant obstacles to the adoption of XBRL by potential users:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. Cost of XBRL software	☐	☐	☐	☐	☐	☐
b. Time and effort needed to learn about XBRL	☐	☐	☐	☐	☐	☐
c. Lack of need for using XBRL (i.e. no demand)	☐	☐	☐	☐	☐	☐
d. Implementing new reporting procedures to create XBRL documents	☐	☐	☐	☐	☐	☐
e. Lack of available software for displaying XBRL documents and analysing them	☐	☐	☐	☐	☐	☐

	Yes	No	I Do Not Know
20- Should <u>auditors</u> be involved in checking the updates of new XBRL taxonomies (for example, organisation-specific or HMRC-specific taxonomies)?	☐	☐	☐
21- Should <u>tax professionals</u> (non-HMRC) be involved in checking the updates of new XBRL taxonomies (for example, organisation-specific or HMRC-specific taxonomies)?	☐	☐	☐

22- What role should the Government/ regulators play in advancing and developing XBRL? (Please choose one option for each column)	Financial Reports	Non-Financial Reports	Stock Exchange Listing Pronounce ments	Tax Filings	Companies House Filings
a. Introduce a voluntary XBRL filing programme	☐	☐	☐	☐	☐
b. Mandate XBRL filings within the next two years	☐	☐	☐	☐	☐
c. Mandate XBRL filings in 2 – 5 years	☐	☐	☐	☐	☐
d. Mandate XBRL filings in 5 – 10 years	☐	☐	☐	☐	☐
e. The Government/regulators should not advance XBRL	☐	☐	☐	☐	☐

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
23- To what extent do you agree that your clients will require tax professionals to be more knowledgeable about XBRL in the next 5 years?	☐	☐	☐	☐	☐

C: XBRL IMPLEMENTATION IN ORGANISATIONS

This section explores your impressions of the extent to which XBRL is growing in the tax, corporate reporting and analyst/user communities.

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
24- Companies possess the IT expertise necessary to implement XBRL.	☐	☐	☐	☐	☐	☐
25- A tax qualification/experience assists in understanding different XBRL taxonomy elements.	☐	☐	☐	☐	☐	☐
26- IT personnel in companies possess the relevant technical knowledge necessary to understand XBRL.	☐	☐	☐	☐	☐	☐
27- Alternative software systems/packages exist in the market that perform the same functions as XBRL.	☐	☐	☐	☐	☐	☐
28- XBRL output can be easily integrated with existing user applications.	☐	☐	☐	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
29- The proliferation of XBRL taxonomy elements could make XBRL implementation a very complex task.	☐	☐	☐	☐	☐	☐
30- Companies should have formal policies on electronic system-related matters.	☐	☐	☐	☐	☐	☐
31- Companies should have a clearly written policy manual for using XBRL.	☐	☐	☐	☐	☐	☐

	Yes	No	I do not know
32- Is there a need for further technical advances in XBRL (e.g. version controlling). Please elaborate on your answer:	☐	☐	☐

D: XBRL TRAINING

This section explores any training you may have received on XBRL

	Yes	No			
33- Have you personally received any XBRL training?	☐	☐			

	College Training	Vendor Training	In-house Training	CPD	Other (please state)
34- If Yes, what type of training on XBRL have you received?	☐	☐	☐	☐	☐ ....

	Yes	No	I do not know
35- My company has a written policy manual for XBRL use (if yes, please also answer Q36)	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
36- [If answer to Q35 is Yes], I find this written manual very useful.	☐	☐	☐	☐	☐
37- The XBRL training you have received is sufficient to provide the needed technical knowledge and skills at the current time.	☐	☐	☐	☐	☐

38- How would you summarise your experience with XBRL to date?

....

E: DEMOGRAPHICAL INFORMATION

39- Please indicate your job title:

....

40- If you work in any area apart from tax please state what areas these are:

....

41- Which professional bodies are you a member of? (please tick all that apply)**:**
- ☐ ACCA
- ☐ ATT
- ☐ CIMA
- ☐ CIOT
- ☐ CIPFA
- ☐ ICAEW
- ☐ ICAS
- ☐ ICAI
- ☐ Other (please list: ……………………………………………………..)

42- How long have you been a tax practitioner?
- ☐ 0 – 4 years
- ☐ 5 - 9 years
- ☐ 10 – 14 years
- ☐ > 15 years

43- Gender:
- ☐ Male
- ☐ Female

44- Age:
- ☐ < 30 years
- ☐ 30 – 40 years
- ☐ 41 – 50 years
- ☐ 51 – 60 years
- ☐ > 60 years

45- How large is the firm that you currently work for?
- ☐ 1 partner/sole-trader
- ☐ 2-5 partners/directors
- ☐ 6-10 partners/directors
- ☐ 11-30 partners/directors
- ☐ More than 30 partners/directors

46- Where is your firm located?
- ☐ London & South East England
- ☐ Rest of England
- ☐ Scotland
- ☐ Wales
- ☐ Northern Ireland

The research team appreciate your cooperation. Thank you.

Please return your questionnaire in the freepost envelope provided to:

Dr. Theresa Dunne
School of Accounting & Finance
University of Dundee
Dundee DD1 4HN

Would you like a summary of the results of this research?	Y / N
If Yes, please include your email address for this to be sent to you …………………………………………………….	
Would you be willing to be contacted to potentially assist further with this research?	Y / N

Appendix 4: Users' questionnaire

Internet and Digital Reporting Questionnaire

We thank you in advance for completing this questionnaire on behalf of the ACCA and the research team. We would be grateful if you could complete as much as possible of this questionnaire to ensure that we have a full picture of your use of Internet and Digital reporting technologies at present.

Estimated time to complete – 15 minutes

A: GENERAL QUESTIONS

This section reviews your current analytical practices and your opinions on the use of the Internet for corporate communications.

1- **Which of the following best describes your process for obtaining companies' financial data/information?**
(please choose one that best covers your current situation)
Note: Source documents can include any of the company's hard copy/online financial statements/reports and corporate releases.

☐ All data/information is extracted manually from source documents;
☐ Limited data/information is obtained from third party data providers (i.e. Bloomberg, Reuters) but most is extracted manually from source documents;
☐ Most of the data/information is obtained from third party data providers with some limited amount of data extracted manually from source documents;
☐ All data/information is obtained from third party data providers;
☐ Speaking to company management;
☐ Other (please state) ....

2- **What percentage of the time do you use the following investment approaches to analyse corporate data?**

	0%	1-25%	26-50%	51-75%	76-99%	100%
Fundamental approach	☐	☐	☐	☐	☐	☐
Technical approach	☐	☐	☐	☐	☐	☐
Other	☐	☐	☐	☐	☐	☐

If 'Other', please briefly describe the approach used…..

3- **Please indicate which best describes your current financial analysis tool(s):**

☐ Integrated customised software package (please specify which one or ones)

....

☐ Integrated customised software package and spreadsheets (please specify which one or ones)

....

☐ Off-the-shelf software package and spreadsheets (please specify which one or ones)

....

☐ Spreadsheets only

....

☐ Other (please specify)

....

4- **What uses do you currently make of the Internet in your work?** (please tick all the relevant columns that apply to a typical working week)

	Never	1-2 times per week	Daily	Multiple times daily	Constant use
Email	☐	☐	☐	☐	☐
News (general e.g. BBC)	☐	☐	☐	☐	☐
News (business/industry-specific)	☐	☐	☐	☐	☐
Corporate websites	☐	☐	☐	☐	☐
News vendor websites (e.g. Reuters)	☐	☐	☐	☐	☐
Professional body websites	☐	☐	☐	☐	☐

To what extent do you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
5- The availability of data on the Internet has changed the way companies are analysed.	☐	☐	☐	☐	☐	☐
6- Having a corporate website allows organisations to make more information available for accountability purposes.	☐	☐	☐	☐	☐	☐
7- Confidentiality is guaranteed when documents are transmitted via the Internet.	☐	☐	☐	☐	☐	☐
8- When documents are transmitted via the Internet, recipients need to be sure that the documents have not been changed and data has not been altered.	☐	☐	☐	☐	☐	☐
9- The search facilities on corporate websites are easy to use.	☐	☐	☐	☐	☐	☐

B: SECOND-GENERATION DIGITAL REPORTING AND XBRL

This section explores your experience of more recent developments in Internet reporting, in particular, focusing upon your knowledge of XBRL. XBRL.org define XBRL as 'a language for the electronic communication of business and financial data'.

10- Is your company a member of the XBRL consortium: **Yes** **No** **I Do Not know**
(if yes, which one – if you know)? ☐ ☐ ☐

    ………………………………………………………………

11- Have you used XBRL information? **Yes** **No**
(If you answer No, please proceed to Q12) ☐ ☐

12- If Yes, for which of the following do you use XBRL software? (please tick all that apply)
    ☐ Balance Sheet
    ☐ Income Statement
    ☐ Cash Flow Statement
    ☐ Notes to Accounts
    ☐ Interim Reports
    ☐ Quarterly Earnings Releases
    ☐ Chairman & Directors' Reports
    ☐ Corporate Governance Disclosures

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
13- XBRL can reduce the re-keying of financial data.	☐	☐	☐	☐	☐	☐
14- XBRL-based reports can be re-used with no loss in data integrity.	☐	☐	☐	☐	☐	☐
15- XBRL can provide interoperability with other existing applications/systems.	☐	☐	☐	☐	☐	☐
16- XBRL can contribute to speeding up the reporting cycle.	☐	☐	☐	☐	☐	☐
17- XBRL fosters data comparability.	☐	☐	☐	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
18- XBRL can be used to produce more analytical tools.	☐	☐	☐	☐	☐	☐
19- XBRL can help reduce processing errors.	☐	☐	☐	☐	☐	☐
20- XBRL-generated reports are reliable resources in financial decision-making.	☐	☐	☐	☐	☐	☐
21- Making more detailed data available via XBRL will lead to greater transparency.	☐	☐	☐	☐	☐	☐

22- To what extent do you agree that the following are significant obstacles to the adoption of XBRL by potential users?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. Cost of XBRL software	☐	☐	☐	☐	☐	☐
b. Time and effort needed to learn about XBRL	☐	☐	☐	☐	☐	☐
c. Lack of need for using XBRL (i.e. no demand)	☐	☐	☐	☐	☐	☐
d. Implementing new procedures to analyse XBRL documents	☐	☐	☐	☐	☐	☐
e. Lack of available software for displaying XBRL documents and analysing them	☐	☐	☐	☐	☐	☐

23- To what extent do you agree that assurance is needed regarding the assignment of correct XBRL tags?	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
a. No certification by the company and no independent audit/review is necessary.	☐	☐	☐	☐	☐	☐
b. Certification by the company of the appropriateness of the XBRL tagging of reported amounts (no audit and/or review by an independent party).	☐	☐	☐	☐	☐	☐
c. Separate review by an independent examiner as to the appropriateness of the XBRL tagging of the reported amounts	☐	☐	☐	☐	☐	☐
d. Separate audit or review by the external auditor as to the appropriateness of the XBRL tagging of reported amounts.	☐	☐	☐	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
24- Preparers of annual reports should be involved in checking for XBRL taxonomy updates.	☐	☐	☐	☐	☐	☐
25- Auditors should be involved in checking for XBRL taxonomy updates.	☐	☐	☐	☐	☐	☐
26- The development of XBRL will increase if digital filing of company returns becomes mandatory	☐	☐	☐	☐	☐	☐

27- What role should the Government/ regulators play in advancing and developing XBRL? (Please choose <u>one option</u> for each column)	Financial Reports	Non-Financial Reports	Stock Exchange Listing Pronounce ments	Tax Filings	Companies House Filings
a. Introduce a voluntary XBRL filing programme	☐	☐	☐	☐	☐
b. Mandate XBRL filings within the next two years	☐	☐	☐	☐	☐
c. Mandate XBRL filings in 2 – 5 years	☐	☐	☐	☐	☐
d. Mandate XBRL filings in 5 – 10 years	☐	☐	☐	☐	☐
e. The Government should not advance XBRL	☐	☐	☐	☐	☐

C: XBRL IMPLEMENTATION IN ORGANISATIONS

This section explores your impressions of the extent to which use and knowledge of XBRL is growing in the corporate reporting and analyst/user communities.

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	I Do Not Know
28- Companies possess the IT expertise necessary to implement XBRL.	☐	☐	☐	☐	☐	☐
29- A finance/accounting background assists in understanding different XBRL taxonomy elements.	☐	☐	☐	☐	☐	☐
30- IT personnel in companies possess the relevant technical knowledge necessary to understand XBRL.	☐	☐	☐	☐	☐	☐
31- Alternative software systems/packages exist in the market that perform the same functions as XBRL.	☐	☐	☐	☐	☐	☐
32- XBRL output can be easily integrated with existing user applications.	☐	☐	☐	☐	☐	☐
33- The proliferation of XBRL taxonomy elements could make XBRL implementation a very complex task.	☐	☐	☐	☐	☐	☐
34- Companies should have formal policies regarding electronic system-related matters.	☐	☐	☐	☐	☐	☐
35- Companies should have a clearly written policy manual for using XBRL.	☐	☐	☐	☐	☐	☐

	Yes	No	I do not know
36- Is there a need for further technical advances in XBRL (e.g. version controlling). Please elaborate on your answer:	☐	☐	☐

D: XBRL TRAINING

This section explores any training you may have received on XBRL

	Yes	No
37- Have you personally received any XBRL training?	☐	☐

	College Training	Vendor Training	In-house Training	CPD	Other (please state)
38- If Yes, what type of training on XBRL have you received?	☐	☐	☐	☐	☐ ....

	Yes	No	I do not know
39- My company has a written policy manual for XBRL use (if yes, please also answer Q40)	☐	☐	☐

Please indicate the extent to which you agree with the following statements:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
40- [If answer to Q39 is Yes] **This written manual is very useful.**	☐	☐	☐	☐	☐
41- The XBRL training I have received is sufficient to provide the needed technical knowledge and skills at the current time.	☐	☐	☐	☐	☐

42- How would you summarise your experience with XBRL to date?

....

....

E: DEMOGRAPHICAL INFORMATION

43- Please indicate your job title:

- ☐ Asset Management Analyst
- ☐ Business Analyst
- ☐ Chief Financial Officer
- ☐ Chief Investment Officer
- ☐ Financial/Investment Analyst
- ☐ Financial/Investment Manager
- ☐ Hedge Fund Analyst
- ☐ Hedge Fund Manager
- ☐ Private Banking Analyst
- ☐ Risk Analyst
- ☐ Other (please specify) ....

44- Please indicate your primary area of work:

- ☐ Corporate Finance/Asset Management
- ☐ Investment Banking
- ☐ Investor Relations
- ☐ Operations, Finance and Business
- ☐ Portfolio Management
- ☐ Private Equity
- ☐ Risk
- ☐ Other...

45- How long have you been an analyst?
- ☐   0 – 4 years
- ☐   5 - 9 years
- ☐ 10 – 14 years
- ☐ > 15 years

46- Gender:
- ☐ Male
- ☐ Female

47- Age:
- ☐ < 30 years
- ☐ 30 – 40 years
- ☐ 41 – 50 years
- ☐ 51 – 60 years
- ☐ > 60 years

48- Indicate the number of employees in your firm:
- ☐ < 50
- ☐ 51- 1000
- ☐ 1,001 – 10,000
- ☐ > 10,001

49- Which sector(s) do you specialise in?

………………………………………………………

50- Where is your firm located?
- ☐ London & South East England
- ☐ Rest of England
- ☐ Scotland
- ☐ Wales
- ☐ Northern Ireland

The research team appreciate your cooperation. Thank you.

Please return your questionnaire in the freepost envelope provided to:

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School of Accounting & Finance
University of Dundee
Dundee DD1 4HN

Would you like a summary of the results of this research?	Y / N
If Yes, please include your email address for this to be sent to you …………………………………………………….	
Would you be willing to be contacted to potentially assist further with this research?	Y / N