AUDITQUAL:
DIMENSIONS OF AUDIT QUALITY

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FOREWORD

Following on from the scandals over Enron and WorldCom in the US two years ago, and the more recent, developing scandal over Parmalat in Europe, interest in audit quality from the world of business, the auditing profession and indeed the general public has never been higher. The audit profession has for many years now been subject to increasing competition and a stagnating market for audit services resulting in downward pressure on audit fees and margins. At the same time, audit firms have been affected by the trends of globalisation in business and the commercialisation of public practice. This is forcing auditors to concentrate on improving the quality of service they offer while maintaining or increasing the technical effectiveness of their work in order to restore profitability.

This research report considers service quality and technical quality as components of overall audit quality, and explores their importance to audit firms as a means to help attract and retain high calibre staff as well as to generate sufficient income. It considers the audit expectations gap and service quality and from this develops a model of audit quality based on the existing research literature on the topic. Finally, it examines the external communication and brochures provided for clients by the country’s largest audit firms. The research report reflects a combination of documentary research and analysis together with interviews of a sample of auditors, finance directors and fund managers.

The report identifies a number of issues that will be of interest to auditors interested in service and technical quality issues. It concludes by making a number of recommendations which could be adopted by audit firms wishing to improve their level of audit quality. The recommendations cover such matters as firm’s reputations and capabilities, learning from client’s perceptions of the firm’s strengths
and weaknesses and implications for the recruitment, development and retention of staff.

The Research Committee of The Institute of Chartered Accountants of Scotland has been happy to sponsor this project and is pleased that the research is becoming available at a time when the subject matter is so topical. As such, the Research Committee hopes that this project will be seen as a valuable contribution to current thinking about audit quality.

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Convener
Research Committee

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Executive Summary

Interest in audit quality is at an all-time high. The sudden collapse of Enron in the United States in 2001, followed by a number of other high-profile US companies reporting financial difficulties, created a crisis of public confidence concerning the corporate governance and auditing of publicly-quoted companies in the US. The deep concern about the quality of reported earnings led to the Sarbanes-Oxley Act, imposing new requirements on directors and audit committees and effectively ending the self-regulation of the auditing profession in the US. Although there exist significant differences in the regulatory framework, corporate governance regime, and accounting and auditing standards between the UK and the US, the financial regulation of the publicly-quoted companies in the UK has come under scrutiny.

Within the UK, significant competition and slow growth in the market for audit services over the past two decades have created downward pressure on audit fees. At the same time the audit profession has been affected by the globalisation of business, commercialisation of practice and stakeholder dissatisfaction with the level of audit quality. These issues are focusing auditors’ minds on improving the quality of service they offer to their clients, while maintaining the technical effectiveness of the audit. Despite a widespread recognition within the audit industry of the need to maintain effective relationships with clients, whilst recognising who the ‘real’ customer is (ie the stakeholder), relatively little academic research considers the relationship between service quality and technical issues. The corporate strategy literature indicates service quality can be a source of competitive advantage, ie a sustainable means of providing clients (and stakeholders) with what they want or need, better and more effectively. A premise of this monograph is that service quality and technical quality are both
necessary components of audit quality, if audit firms are to generate sufficient fee income to attract and retain high calibre staff.

This investigation was conducted in the period 2001 to 2002. The report develops a broad-based model of audit quality on the basis of prior literature concerning the audit expectations gap and service quality. A second element of the investigation consisted of an analysis of the external communications of the 20 largest audit firms in the UK. External communications refers to the publicly available annual reports, annual reviews, marketing literature and websites of the accounting firms. Finally, a questionnaire, largely based on prior literature, was developed. The questionnaire was administered to three groups: partners in the 16 largest audit firms in the UK (representing auditors); finance directors of UK listed companies (representing financial statement preparers); and fund managers in the UK (representing external users).

The audit quality model

The service quality and audit quality literature is synthesised to develop a model of audit quality. The model identifies discrepancies between client and stakeholder expectations as the key to identifying where audit quality failure may occur. Specifically eight gaps (discrepancies) are identified – see figure 1.
Gaps 1 to 4 represent quality discrepancies which occur within the audit firm. Gap 5 represents the difference between client expectations of the audit quality they expect and the audit quality they perceive they receive. Gaps 6 to 8 represent so-called audit expectations gaps,
discrepancies between stakeholder expectations and perceptions of the quality of the audit.

Gaps 1 to 4 are specific to service quality factors within the accounting firm. Gap 1 represents the difference between client expectations and the audit firm’s perception of client expectations. Gap 2 is the discrepancy between client expectations and the audit firm’s quality standards. The difference between the audit firm’s quality standards and the observed quality of the audit creates gap 3. Gap 4 is the difference between promises (both explicit and implicit) made about audit quality in the firm’s external communications literature and the quality of the audit.

Gap 5 is the difference between a client’s and stakeholders’ perceptions of the quality of the audit they expect and their perceptions of the audit quality delivered. Furthermore, gap 5 results in the four gaps created within the accounting firm.

Gaps 6 to 8 collectively represent the audit expectations gap. The difference between what stakeholders expect the auditor to accomplish and what they can reasonably be expected to accomplish is labelled gap 6. Gap 7 represents a discrepancy between what an auditor can reasonably be expected to attain and the responsibilities the auditor has as laid down by law and professional promulgations. The difference between auditors’ responsibilities enshrined in law, and other regulations and actual auditor performance is labelled gap 8. Gaps 7 and 8 represent ‘performance’ gaps, between what an auditor can reasonably be expected to achieve and what they are perceived to accomplish. By contrast, gap 6 is a reasonableness gap representing a lack of stakeholder awareness of what an auditor can be expected to achieve.
AUDITQUAL survey findings

The AUDITQUAL instrument consisted of 56 questions (items) relating to audit firm factors, engagement partner factors and audit team factors. These 56 items were reduced to create nine distinct dimensions which were labelled Reputation, Capability, Responsiveness, Independence, Non-audit services, Empathy, Client service, Expertise, and Experience. The statistical analyses indicated these nine dimensions could be reduced to create two distinct factors relating to technical quality and service quality. However, it is important to note that important correlations exist between the nine dimensions, meaning they cannot simply be interpreted as independent variables. The AUDITQUAL model is shown in Figure 2.
Figure 2: The AUDITQUAL model

The questionnaire also elicited information about the background of the respondents, including their age, and gender, and some specific questions relating to their employment as an auditor, finance director or fund manager.

All three groups rated the technical quality dimensions of reputation and capability the highest. The dimension considered the least important by all three groups in the ability to provide non-audit services. Accounting firm partners' and finance directors' responses
were broadly similar, with finance directors tending to rate service quality attributes higher than accounting firm partners. Accounting firm partners generally rated technical quality dimensions higher than finance directors. As expected, fund managers, as stakeholders, rated technical quality issues as being more important than accounting firm partners or finance directors. Fund managers also rated service quality issues as being less important than the other two groups. The latter finding probably reflects the fact that stakeholder groups are not involved in the audit process, and are unable to directly observe service quality issues.

**Recommendations**

The research identified a number of issues that are relevant to audit practitioners interested in service and technical quality issues and the potential dichotomy between serving stakeholder and client needs. Based on the findings of the empirical study and the development of the theoretical model of audit quality several recommendations are proposed for those wishing to improve the level of audit quality.

**The nature of audit quality**

- *Participants in the audit market should recognise audit quality is a multi-dimensional construct.* Audit quality is made up of both service quality issues and the need to deliver technical quality. Service quality in the present investigation is described by four factors, Responsiveness, Provision of Non-audit services, Empathy and Client Service. Technical quality, usually conceptualised as the competence and the objectivity of the auditor, is described by five factors, Reputation, Capability, Independence, Expertise and Experience. Although technical quality and service quality
are distinct constructs, important relationships exist between the factors which describe the two facets of audit quality.

Client and stakeholder perceptions of audit quality

- Auditors, finance directors (clients) and fund managers (stakeholders) rated the two technical quality dimensions of Reputation and Capability the highest. Consequently, audit firms and accounting educators should be mindful of the importance the firm’s reputation and the capability of its staff and partners have in client and stakeholder perceptions of audit quality. The service quality literature emphasises the significance of identifying those aspects of quality most important to client and stakeholder groups. The loss of reputation threatens the additional remuneration (fees) that auditors with a good commercial reputation (ie larger firm size) can charge for their audit services.

Systems to monitor and improve audit quality

- Audit firms can improve audit quality by monitoring clients’ perception of audit quality, and identifying the causes of audit quality shortfalls. The AUDITQUAL instrument developed in this research provides a means of measuring and understanding clients’ perceptions of audit quality. The conceptual (‘extended gaps’) model shown in Figure 1 provides a way of linking client-perceived deficiencies in audit quality to deficiencies that occur within the firm.

Implications for accounting educators

- Firms need to attract high quality individuals with the necessary technical and interpersonal skills. The study has emphasised that if firms are to provide audit of the requisite quality there is a
need for firms to recruit staff of the highest calibre. Recruitment of the ‘high-flyers’ and ‘good quality people’ emphasised by respondents in audit firms, and highlighted in the firms’ marketing literature needs to identify two aspects of performance. First, their technical skills. Second, auditors and trainee auditors should possess the social skills necessary to maintain and develop long-term relationships with audit clients. Although it may be desirable for auditors to see themselves as ‘relationship managers’ selling a relatively complex mix of professional services, there is a danger that an over-emphasis of client-centeredness could lead to accommodating behaviours. Educators and staff development partners need to be mindful that audit trainees are fully aware of who the real client is (the end-user of financial statements).
CHAPTER ONE

APPROACH TO THE PROJECT

Audit quality is an important issue for an accounting profession facing criticism from regulators and stakeholder groups. The quality of auditing has been the topic of ongoing recent debate between these groups and accountants. A higher quality audit should reduce stakeholder groups’ uncertainty associated with financial statements prepared by managers (Wallace, 1980). However, no one definition of audit quality exists. Traditionally, academic accountants have thought of audit quality as:

...the market assessed joint probability that a given auditor will both (a) discover a breach in the client’s accounting system, and (b) report the breach. (DeAngelo, 1981, p.186)

Using this definition, there are two aspects to audit quality. First, the ability of the accounting firm to either: discover a problem in the client’s accounting system, or make a correct judgement while in possession of the relevant knowledge (i.e. their competence). Second, the willingness of the auditor to disclose the problem (i.e. their independence).

The relationship between auditor independence and audit quality has also been the subject of much debate. Factors that are said to drive auditor dependence include auditors holding shares or having some other financial interest in audit clients, key audit client personnel having a close relationship with the auditor, auditors forming alliances with audit clients, and the provision by auditors of non-audit services to audit clients (Windmoller, 2000).
An increased interest in audit quality has evolved from indicators in the United States (US) audit market reflecting a lack of confidence in current quality levels. These include reports that litigation against auditors has increased both in the frequency and severity of claims (Cloyd, Frederickson & Hill, 1996; Krishnan & Krishnan, 1997) and a mismatch of society’s expectations of auditors and auditors’ performance (the expectations gap).

A difficulty with the DeAngelo definition provided earlier is that it does not fully capture the potentially conflicting roles of the various audit market participants. Audit market participants can be grouped into three categories: first, external statement users, second, audit clients, and third, auditors (Sutton, 1993). Another feature of the audit market is a significant source of demand for audit services which comes from external users, who pay only indirectly for the audit services. The audit client is potentially a forced participant in the market, required by law and regulation to engage the services of an auditor to obtain an opinion on its financial statements.

Moreover, the DeAngelo definition limits itself to a technical definition of quality – an ability to identify and report problems in a client’s accounting system. More recent research has considered the nature of the auditor-client relationship. For example, Craswell, Francis & Taylor (1995) argue the auditor has an incentive to provide the client with superior quality of service in the first few years of the auditor-client relationship. Other research investigates auditors’ willingness to reduce fees to win new clients (introductory pricing or ‘low-balling’). However, evidence of introductory pricing is mixed with studies in the US reporting evidence of low-balling (Francis & Simon, 1987; Simon & Francis, 1988; Turpen, 1990), but a study in Australia finding initial prices which exceed cost (Francis, 1984). Assuming introductory pricing is used to some extent within auditing services, the combination of reduced fees and extra attention leads to client perceptions in the US they are receiving high levels of value for
money, increasing overall satisfaction levels (Behn, Carcello, Hermanson & Hermanson, 1997).

Outside the field of accounting, a significant body of knowledge has developed to evaluate service quality. Interest in evaluating service quality has been motivated by recognition of the significance of service quality in business success. High levels of service are seen as a means for an organisation or firm to achieve competitive advantage by positioning itself more effectively in the market. Achieving sustainable competitive advantage lies at the core of strategy development (Lynch, 2000). Sustainable competitive advantage is as important for accounting firms as for corporations, as they need to compete to attract and retain clients. Research demonstrates that high levels of customer service can lead to customer loyalty, attraction of new customers, positive word-of-mouth, employee satisfaction and commitment, enhanced corporate image, reduced costs and increased business performance (Berry, Bennett, & Brown, 1989). Consequently, a commitment to service quality has clear benefits for accounting firms.

Despite an extensive service quality literature, the quality of professional services provided to business clients has received little research attention (Dart & Freeman, 1994). A number of studies have considered the determinants of audit quality in North America (Behn et al, 1997; Carcello, Hermanson & McGrath, 1992; Mock & Samet, 1982; Schroeder, Solomon & Vickery, 1986; Sutton & Lampe, 1990; Sutton, 1993). However, only limited work - Moizer (1998), Beattie & Fearnley (1995) – has considered UK audit firms or their clients.

The distinction between technical quality and service quality is an important one for the present investigation. Technical quality focuses on the constructs of competence (eg technical skills, rigour, judgement and integrity) and independence (an ability to be objective and express opinions independently of the auditee). Service quality addresses issues pertinent to audit clients such as responsiveness to client needs, providing added-value services beyond the statutory audit, having
systems in place to provide high levels of client service, and having the ability to empathise with challenges facing the client. Clearly, in certain situations, technical and service quality might be at odds. For example, it may be problematic for an auditor to empathise with an audit client, in danger of breaching loan covenants, who engages in aggressive earnings management.

Despite an academic focus on technical aspects of audit quality, professional journals have recently published articles explaining the benefits non-technical service quality and related issues such as client management may have for accounting firms. Research considering audit quality focuses on matters of competence and independence: issues of direct relevance to external users of accounting information. An emphasis on (non-technical) service quality aspects is likely to benefit the auditor (through increased fees, levels of business, and a more profitable relationship) and the audit client (through better service levels). However, the benefits of service quality to external users of accounting information are much more intangible.

For example, Andersen (1999) identified that few accounting firms have sufficient understanding of themselves, or their clients, to improve their quality of service. Walker (2001) describes a framework for improving client management based on four factors. These factors include client service review meetings, added value provided to clients, service penetration and the number of key staff within the client’s organisation with whom the auditor has a relationship. Gurton (1999 p.44) explained how a client relationship programme can achieve “positive customer retention” and that implementing a customer management relationship system “should be a first priority after the accounting system”.

Aims of the research project

The focus of the project is audit quality and the principal aims of the project are to:

(i) identify the determinants of audit quality, using a broad definition of audit quality, embracing technical and service aspects of quality;
(ii) determine the robustness of this audit quality model using samples of auditors, financial directors and external user groups; and
(iii) identify differences in perceptions of the determinants of audit quality between auditors, financial directors and external user groups, to determine if an ‘audit (service) quality expectations gap’ exists.

The project is novel for two reasons. First, it assesses the feasibility of a model of audit quality which includes both elements of technical and service quality. Second, it provides empirical evidence of the quality of auditing provided by UK auditors.

The project examines audit quality from two perspectives: first, a desire to provide superior levels of service to client management; and second, the need to undertake a thorough examination of the client’s accounts, detect possible anomalies (competence) and be willing to provide an objective opinion in relation to them (independence). Some commentators suggest auditors have emphasised growth and the ability of individuals to generate fee income, at the possible expense of audit quality. As audit quality is difficult to observe, and the short-term consequences of poor quality may be limited, critics of the audit profession may feel a tension exists between client service and the willingness to challenge a management team employing aggressive earnings management: a tension which compromises the quality of audit work and the informational content of the accounts.
Therefore, the present investigation is a topical one, seeking to identify the elements of audit quality, their relationship and how different participants in the audit market perceive audit quality.

The investigation was undertaken in the period 2001-2002 and consisted of three stages. Stage one develops a theoretical model of audit quality, encompassing service quality, technical quality and issues relating to the so-called audit expectations gap. As a significant proportion of the audit relationship relates to the interaction between the audit partner and the finance director, it is possible some auditors may not completely distinguish between technical audit quality issues and non-technical service issues. Recent research in the UK considering the relationship between audit engagement partners and financial directors (Beattie, Fearnley, & Brandt, 2001), has identified the behaviour of some audit partners to attempt to accommodate clients’ views of certain accounting practices. The second stage consisted of an analysis of the external communications of the 20 largest accounting firms in the UK. Finally, stage three was a postal survey to a sample of audit partners, financial directors and a mixed group of external users of financial information.

The project makes a distinction between technical audit quality and non-technical service quality. To keep the project within a manageable size, it was decided to restrict the research to the determinants of audit quality, rather than investigate related issues such as client satisfaction, or to investigate the relationship between audit quality and client retention.

Chapter two, describes and discusses the external audit environment, along with a review of the relevant prior literature. It also attempts to synthesise work that has considered technical audit quality with the service quality literature in marketing and quality management. Chapter three describes a theoretical model of audit quality encompassing the extant service quality and audit expectations literatures. Chapter four considers accounting firms’ external communications. External
communications such as annual reports and marketing literature influence client and stakeholder expectations of audit quality. In chapter five the development of AUDITQUAL – the research instrument developed for the purposes of the study – is described. Chapter six describes the responses of auditors, financial directors and other external users groups to the AUDITQUAL instrument. Finally, chapter seven draws conclusions and makes recommendations for accounting firms to consider when assessing audit quality and developing ways of improving client service levels. Implications for educators and those responsible for the continuing professional development of practising accountants are also considered.
CHAPTER TWO

THE NATURE OF AUDIT QUALITY AND RELATED LITERATURE

This chapter considers the nature of the external audit environment and reviews the work of other researchers considering audit quality, service quality and related topics. The ideas and evidence from this body of work is used to construct the AUDITQUAL model, the development of which is described in chapter six. This chapter consists of six sections. These consider the audit environment, demand for auditing services, audit quality, the audit expectations gap, service quality and the SERVQUAL model, and personal attributes of the auditor.

Audit environment

The audit environment is characterised by intense competition (Martinov & Roebuck, 1998), pressure on fees and slow growth (Behn et al, 1997). Although some commentators describe the audit market as being characterised by oligopolistic competition, auditors claim the profession has experienced increased competition as the industry has shifted from a growth stage to a mature stage (Elliott & Pallais, 1997). Furthermore, despite the 1989 Big 8 mergers, empirical evidence indicates that audit fees remained flat in the 1990s (Menon & Williams, 1991). Auditing has also been affected by the globalisation of business (Fogarty, Heian & Knutson, 1991), the commercialisation of practice (Hanlon, 1994), improvements in audit technology making it less labour intensive (Elliott, 1998) and stakeholder pressure expressing dissatisfaction with the level of audit quality (Higson, 1997).
In the UK, auditors have typically enjoyed long periods of stability (tenure) with their auditors, with the average rotation period estimated at between 30 and 40 years (Ridyard & DeBolle, 1992). This finding is also true of other European countries, Australia and the US. Despite the long-term (or ‘cosy’) relationship between auditors and the client’s finance director which has been sometimes been described in the financial press and by politicians, the audit environment has been subject to a number of significant changes within the past ten years.

A commonly used framework in strategic management to recognise environmental changes involves the identification of four categories of key environmental influences, which are in effect drivers of change. This is sometimes known as a PEST analysis, indicating the importance of political, economic, social and technological influences on organisations (or professions).

Important political and legal influences in the UK include changes in the supervision of auditors, with the creation of the Auditing Practices Board (APB) in 1991, being described as a committee “with a measure of independence from the accounting bodies” (Hatherly, 1999 p.51). The APB has been supplanted with a new APB in 2002, under the umbrella of the Accountancy Foundation (AF), which seeks to maintain and enhance the standards of work and of conduct of accountants working in the UK. The AF is funded by the professional accountancy bodies in the UK and appoints the board members of the APB. The new APB comprises membership of 40% audit practitioners and 60% accountants who are not partners in any audit firm. The APB and its predecessor have published a number of reports, notably the ‘McFarlane Report’ (APB, 1992), the ‘Audit Agenda’ (APB, 1994), the ‘Audit Research Agenda’ (APB, 1996a) and the ‘Auditors Code’ (APB, 1996b). Each of these publications has a change agenda, querying: the independence of auditors from directors and the need for improved communication between auditors and primary stakeholder groups (the McFarlane Report); audit (professional) judgement (the Audit
drivers of audit quality (the Audit Research Agenda) and auditor conduct, including ethics (the Auditors Code). Other political influences include the (very real) threat of litigation; deregulated financial markets, the privatisation of key industries; and finally, the development and expansion of the European Community along with the single European currency.

Economic influences include the globalisation of supplier, consumer and capital markets. Global businesses require service providers which offer global services to match the client’s global coverage. An allied trend is change in the nature of suppliers of capital. Increasingly, individuals invest directly or indirectly in stock markets as part of their pension planning, rather than rely on defined-benefit, final-salary schemes as part of an occupational pension. Globalisation and the changing profile of investors lead to developments in the market for audit.

Socio-cultural changes also influence audit markets. The past decade has seen a growing need for accountability, or the responsibility owed and provided by one party to another regarding some past or future action. As organisations form new ventures, there is an increasing need for accountability among contracting parties. This creates an ‘audit explosion’ (Power, 1994), where tensions between auditors and shareholders create demands for regulation of auditors, greater access to litigation, and in turn, demands for more accountability.

Arguably, the greatest technological change to the market for audit is the development of the Internet. The Internet has accelerated the complexity of systems installed for running business processes in all sorts of business. In related developments, the Internet creates unlimited networking possibilities between organisations. Such e-commerce developments have created demand for new audit services considering the security and controls on such systems (APB, 2001). A summary of these change drivers for audit firms is shown in Figure 2.1.
Figure 2.1  Environmental influences on providers of audit services

In response, auditors have introduced new audit methodologies, focusing on a risk-based strategic audit. Such approaches and methodologies have been classified as a strategic or investigative audit (Lemon, Tatum & Turley, 2001). Auditing itself has been re-branded as an ‘assurance service’. The AICPA define assurance services as:

“independent professional services that improve the quality or context of information for decision makers.”

(AICPA, 2001)
Assurance services are a broad set of services, which include the traditional audit, designed to improve the quality of information (AICPA, 1997). In the US, the changing nature of audit services has been the subject of healthy debate. The Elliott Committee (AICPA, 1997) suggested that some of the ways that providers of assurance services (‘assurers’) change, will change the ways firms do business with their clients. These include:

- the need for firms to adopt a customer (user) focus as assurance services are intended to benefit decision makers by improving the information used in their decision processes;
- the need for firms to produce higher value-added information, providing greater value to clients and users;
- the need for firms to embrace IT, understand how IT is changing business, how to use new IT developments in delivering assurance services and understand the risks involved in electronic commerce;
- the ability of firms to respond to an environment of rapid change and increasing complexity by maintaining up-to-date knowledge and skills; and
- the need for competition within the audit market, ensuring growth in assurance services will depend less on regulation and more on market forces, while providers of assurance services will need to develop their marketing skills.

The demand for auditing services

Theoretically, the demand for audit services originates from a need to facilitate contractual relations between the audit client and stakeholder groups, eg shareholders, employees and creditors. The preparation of accounts is typically controlled by the board of directors
of the company who are separate from the company’s stakeholders. This separation of ownership and control creates a contractual conflict between the parties leading to so-called agency costs. Agency theory suggests the provision of auditing services reduces agency costs and consequently contractual conflict.

Moreover, by buying auditing services, the informational value of the accounts will be increased. Having purchased auditing services, the accounts of the audit client signal credibility and demonstrate willingness to perform to the various stakeholder groups (Jensen & Meckling, 1976). Beyond this explanation of agency theory, four other reasons have been suggested as creating demand for audit services:

(i) An auditor’s review of the accounts, as an independent exercise, enhances stakeholders’ perceptions of the reliability of the accounts. The selection of credible auditors signals management’s quality and integrity (Dopuch & Simunic, 1980; 1982).

(ii) Auditing also provides an insurance dimension, whereby shareholders and creditors are indemnified against financial loss by the auditor’s professional liability (Wallace, 1980).

(iii) For listed companies, the audit provides a form of comfort, where “the auditor can provide board members with the assurances they need to sleep soundly at night” (Beattie & Fearnley, 1998, p.44).

(iv) Audit firms can provide resources over and beyond the company audit, such as technical services (accounting, tax, corporate finance and due diligence) and advice on financial reporting, and proactive involvement relating to the future development of the company (Beattie & Fearnley, 1998).
Audit quality

DeAngelo’s (1981) seminal work considers the quality of an audit to be dependent on two factors. First, the auditor’s ability to examine the accounts and identify errors or anomalies, ie their technical competence, and second, their objectivity, ie their independence. Auditing quality is the combined probability that the auditor will detect and report on defects in accounts (Watts & Zimmerman, 1986 p.8). DeAngelo’s definition of audit quality is useful for analysis as competence and independence are quite distinct constructs. However, these two dimensions are not completely separate: for example, the audit firm could decide not to make an effort to uncover problems (competence) which they have no desire to report on (independence). Technical competence is relatively easy to conceptualise. However, independence is more problematic, being “difficult to prove and easy to challenge” (Mednick, 1990 p.6). The concept of independence described by DeAngelo (an auditor’s willingness to report on defects in audited financial statements) can be thought of as independence in fact, which in itself is not directly observable - “the state of mind which has regard to all considerations relevant to the task in hand but no other” (Federation of European Accounting Experts, FEE, 1996, p.24). Independence in appearance, by contrast is defined by signals or other directly observable indications. Regulators pay considerable importance to this dual definition of independence. When independence is mentioned in laws or professional rules, it is ‘independence in appearance’ that is being referred to.

The economics of audit quality

Auditing can be thought of as an economic exchange between a supplier, the auditor, and direct users, the audit client who purchases the services, and indirect users, financial statement users, for whom the
audited accounts are destined. In any economic exchange, sufficient resources need to be employed to prevent the parties from maximising their own interests at the expense of the other parties to the exchange. This is achieved essentially by a market mechanism. If the auditor is deemed not to have complied with the contract of the exchange by behaving opportunistically, they will attract criticism from others in the marketplace. Put more simply, the auditor will suffer damage to their commercial reputation. An auditor with a good commercial reputation can charge higher fees than an auditor who contracts without such a reputation. This additional remuneration available is termed by economists as a ‘quasi-rent’. A quasi-rent is defined as “the difference between the remuneration for any productive resource in its current use and the maximum remuneration which would be received for its alternative use” (Arruñada, 1999a, p.21).

Audit quality is protected by both explicit and implicit contracting safeguards. In an explicit contract, if the auditor has undertaken a defective audit, this may result in litigation against the auditor. If the work is found defective by third parties, then the auditor may be required to pay compensation to those injured parties.

In an implicit contract, the auditor may be punished by existing or potential clients withdrawing their trust in the auditor. This loss of reputation will result in existing or potential clients either withdrawing their business, or demanding more onerous terms to the engagement. The collapse of the major firm Andersen, could be attributed to the breach of an implicit contract safeguard.

For the reputation (quasi-rent) incentive mechanism to operate, a number of conditions have to exist (Arruñada, 1999a). First, the sale price (audit fee) must exceed the marginal or opportunity cost, so the quasi-rent is created. Second, the expected value of the quasi-rents must be sufficient to discourage non-compliance. Third, customers (audit clients and users) must be aware of the supplier’s (Auditor’s) incentives
so they may trust them. In summary, quasi-rents, manifested as the firm’s reputation, play an important role in protecting audit quality.

Marketing investments and the expense created by the development of commercial brands play a role in safeguarding commercial relationships (Arruñada, 1999a p.32). In the UK (as in most EU countries) the unsolicited offering of audit services is prohibited, and marketing activities are restricted. The creation of a brand provides a guarantee. The marketing investment provides an incentive to provide a service of sufficient quality which meets expectations. Consequently the marketing investment provides an intangible asset whose value rapidly erodes if the firm delivers defective work. Therefore, marketing activity has the ability to act as a quality safeguard. Only limited work has considered the relationship between firms’ commercial activity and audit quality. Jeter & Erickson Shaw (1995) report that defective audits are less common in US states which permit the unsolicited offering of audit services. The present study examines firms’ marketing literature within this monograph in chapter four, in part to assess the expectations firms create of the quality of the work they deliver.

Empirical work considering audit quality

Research considering audit quality largely ignores the extant service quality literature. In the area of accounting research, the quality of audit services has been viewed from different perspectives. Schroeder et al, (1986) note:

Audit quality was not defined in the questionnaire nor was it identified in any other component of the research materials. Since there is no general understanding of what constitutes audit quality, the provisions of such a definition could have serious demand effects. (p.89)
Sutton (1993) identifies the absence of a single definition of audit quality; this is not surprising given the often conflicting roles of the various market participants. Audit market participants can be grouped into three categories: external users, including current and potential investors and creditors; the client, including senior management, accounting staff and the audit committee; and the auditors, including the engagement audit team and audit firm management (Sutton, 1993).

Accounting researchers have examined the issue of audit quality from three approaches. The first group of researchers have examined a number of issues related to audit quality by reference to pricing differentials (Francis & Simon, 1987; Palmrose, 1986, 1989; Simon, 1985; Simon & Francis, 1988; Simunic, 1980; Turpen, 1990).

A second group of scholars have considered audit differences between different types of firms and between individual firms using various surrogate measures of quality performance. These include variables such as: litigation against audit firms (eg St Pierre & Anderson, 1984; Palmrose, 1987; Stice, 1991; Carcello & Palmrose, 1994), the nature of audit opinions (eg DeAngelo, 1981; Hopwood, McKeown & Mutchler, 1994; Carcello, Hermanson & Huss, 1995), and auditor selection, auditor changes and firm size (eg Beattie & Fearnley, 1995; Menon & Williams, 1991; Nichols & Smith, 1983; Simunic & Stein, 1996).

The third group of researchers have examined the issue of audit quality from a behavioural perspective, (Behn et al, 1997; Carcello et al, 1992; Mock & Samet, 1982; Moizer, 1998; Schroeder et al, 1986; Sutton, 1993; Sutton & Lampe, 1990) typically identifying attributes that are perceived by financial statement preparers, auditors and users that are related to audit quality. The present investigation can be categorised into this third behavioural perspective. An overview of related (behavioural) research is shown in Table 2.1.
Table 2.1: Results of behavioural audit quality research

<table>
<thead>
<tr>
<th>Authors</th>
<th>Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mock &amp; Samet (1982)</td>
<td>Survey of auditors in US to develop 32-item questionnaire to evaluate audit quality</td>
<td>Identified five audit quality dimensions: planning, administration, procedures, evaluation and conduct.</td>
</tr>
<tr>
<td>Schroeder et al, (1986)</td>
<td>Survey of audit committee chairs and auditors in US to determine effect of 15 factors on audit quality</td>
<td>Audit team factors more important than audit firm factors</td>
</tr>
<tr>
<td>Sutton &amp; Lampe (1990)</td>
<td>Group exercise with Practising auditors in the US to develop an audit quality evaluation model</td>
<td>Model used 19 attributes that were classified into three categories: planning, fieldwork and administration</td>
</tr>
<tr>
<td>Carcello et al, (1992)</td>
<td>Survey of financial statement preparers, auditors and users in US to reduce 41 audit quality items from literature to 12 audit quality factors</td>
<td>Most important factors identified were: experience with the client, industry expertise, responsiveness to client needs, and adherence to general standards of GAAS.</td>
</tr>
<tr>
<td>Sutton (1993)</td>
<td>Nominal group technique on experienced auditors to develop and validate a set of audit quality factors and measures</td>
<td>Identified 19 quality factors which could be categorised into three groups: planning, fieldwork and administration</td>
</tr>
<tr>
<td>Beattie &amp; Fearnley (1995)</td>
<td>Survey of finance directors of 210 listed UK companies to identify the importance of 29 desirable auditor characteristics</td>
<td>Identified five key characteristics focusing on the importance of the audit engagement partner’s technical skills and people skills</td>
</tr>
<tr>
<td>Authors</td>
<td>Method</td>
<td>Results</td>
</tr>
<tr>
<td>--------------------------</td>
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<tr>
<td>Behn et al, (1997)</td>
<td>Survey of controllers in US to evaluate existing auditor using 12-item questionnaire derived from Carcello et al's (1992) work to identify determinants of audit client satisfaction</td>
<td>Responsiveness to client needs, executive involvement, effective and ongoing interaction with audit committee, conduct of fieldwork, industry expertise, and prior experience of client all positively associated with client satisfaction</td>
</tr>
<tr>
<td>Moizer (1998)</td>
<td>Surveys of company directors in 1987 and 1996 of the then Big 8 and Big 6 accounting firms. Multivariate regression analysis with composite measure of audit performance used as dependent variable, 11 independent variables</td>
<td>Both 1987 and 1996 samples “well satisfied with the quality of service provided by main audit firm”. Older financial directors more satisfied with their audit firm than their younger colleagues</td>
</tr>
<tr>
<td>Warming-Rasmussen &amp; Jensen (2001)</td>
<td>Survey of shareholders, financial journalists, auditors and managing directors perceptions of audit quality</td>
<td>External users tend to perceive audit quality attributes as attributes that inspire confidence in the auditor; six main quality dimensions identified (moral and ethical aspects); four groups rate quality dimensions differently</td>
</tr>
</tbody>
</table>
Table 2.1 lists and summarises those empirical studies that examine attributes of audit quality. Mock & Samet (1982) drafted a list of 110 factors derived from Statements on Auditing Standards, Statements on Quality Control Standards, peer review manuals, and firm quality control standards. The list of factors was reviewed by a small group of auditors, a process which reduced the 110 factors to a 32-item questionnaire, scored on a dichotomous scale (ie yes/no). Mock & Samet’s investigation was the first attempt by scholars attempting to measure audit quality.

Schroeder, Solomon & Vickery (1986) extended Mock & Samet’s (1982) investigation by focusing on the perceptions of various audit quality factors by sampling Fortune 500 audit committee chairpersons and (the then) Big Eight accounting firm partners. The Schroeder et al, (1986) investigation required respondents to rate the importance of each of 15 factors to overall audit quality. They report that audit committee chairpersons rated audit team factors as more important than audit firm factors (eg level of partner/manager attention to the audit was rated more highly than the overall reputation of the firm).

Sutton & Lampe (1990) used a group exercise with practising auditors to develop an evaluative model of audit quality. Their model included 19 attributes of audit quality which they classified into three categories: planning, fieldwork, and administration. Each of the 19 factors included one measure (or item).

Carcello et al, (1992) created a questionnaire based on 41 audit quality attributes based on a literature review. This questionnaire was administered to the three groups of financial statement preparers, financial statement users and audit partners in the US. Exploratory factor analysis (EFA) – a statistical data reduction technique explained in greater detail in chapter five – reduced these 41 audit quality attributes to 12 audit quality factors. The five most important quality factors were: (i) team experience with client; (ii) industry expertise; (iii) an audit team that operates to high ethical standards; (iv) a partner knowledgeable
about the client’s industry; and (v) frequent communication between
auditors and management. Overall, team characteristics were rated as
more important than firm characteristics.

Extending Sutton & Lampe’s work, Sutton (1993) applied nominal
group techniques to establish the key factors that relate to audit quality.
Nominal group techniques are based on the premise that people
involved in the day-to-day operation of a process (ie auditing) can
provide insights into the weaknesses and problems associated with
that area. Using groups of experienced auditors from two accounting
firms, 66 factors were identified by Sutton (1993) categorised into
planning, fieldwork and administration, which were reduced to
19 factors. Sutton’s (1993) key finding was the particular focus of the
client environment rather than accounting issues (eg client competence,
client preparedness, client rapport and client reaction).

The first UK study to examine audit quality attributes was
undertaken by Beattie and Fearnley (1995). They surveyed finance
directors of 210 listed UK companies to identify the importance of
29 ‘desirable’ auditor characteristics. An exploratory factor analysis
– a statistical data reduction technique described in greater detail
within chapter five – identified five main factors: (i) integrity of the
firm; (ii) the technical competence of the firm; (iii) the quality of the
working relationship with audit partner; (iv) the reputation of the firm;
and (v) the technical competence of the audit partner.

As a development of Carcello et al’s (1992) investigation, Behn et
al, (1997) considered the relationship between audit quality attributes
and client satisfaction. Controllers of Fortune 1000 companies in the
US were asked to rate their current auditor on the 12 audit quality
attributes identified by Carcello et al, (1992). The marketing literature
identifies that product quality and client satisfaction are related but
unique characteristics (Cronin & Taylor, 1994; Taylor & Baker, 1994),
therefore audit quality and client satisfaction are likely to be separate
constructs that share a close relationship (Behn et al, 1997 p.8). Six (of
the 12) audit quality variables had a positive relationship with client satisfaction with the audit team: (i) responsiveness to client needs; (ii) audit firm executives actively involved in the audit; (iii) effective interaction with the audit committee; (iv) appropriate conduct of audit field work; (v) industry expertise; and (vi) team and firm experience with client. Only one of the audit quality variables was negatively associated with client satisfaction (“the audit team members maintained a skeptical attitude throughout the audit engagement”, Behn et al, 1997 p.23). However, this finding is perhaps indicative of the balancing act an auditor has to perform between satisfying the client and fulfilling professional and stakeholder expectations. Suggestions provided by respondents to improve client satisfaction included the auditor being more proactively involved in the client’s business, providing service beyond statutory compliance and making value-added suggestions. Behn et al, (1997) also report that client satisfaction is higher during the first few years after a change in auditors and some evidence that satisfaction is higher when the controller has previous work experience with the auditor.

Moizer (1998) surveyed UK company directors included within the Times 1000 in 1987 and again in 1996, to assess respondents view of the performance of their auditors. The sample consisted largely of organisations audited by the (then) 1987 Big Eight (79%) and 1996 Big Six (92%), reflecting the market concentration of large audit firms. An analysis of the Big Eight and Big Six firms alone in each of the two periods showed that respondents were equally satisfied with the quality of service provided by their audit firms. The variables which were rated by respondents as being most influential in their view of the audit firm in 1987 and 1996 were: (i) personal contacts with the audit partner; (ii) personal contacts with the audit manager; (iii) personal contacts with the advisors from the firm (eg tax, management consultancy); and (iv) the attitude and appearance of the audit team. Interestingly, a large age effect was observed, with older finance directors being
more likely to be satisfied with the performance of their auditor than their younger colleagues. This finding suggests a cohort effect exists, reflecting the period when an individual was trained.

Warming-Rasmussen & Jensen (2001) studying perceptions of audit quality in Denmark, sampled two groups of external users (shareholders and financial journalists), managing directors (preparers) and public accountants (auditors), to create an audit quality scale. Their research was unusual in the sense it sampled external users’ perceptions of audit quality, rather than the simple auditor/auditee samples used by previous researchers. The investigation identified six audit quality dimensions, focusing largely on moral and ethical issues, using EFA. These they labelled: (i) personal credibility; (ii) the auditor’s independence of company management; (iii) openness in the report about matters of interest to creditors and shareholders; (iv) knowledge of the industry; (v) loyalty about minority shareholders; (vi) auditors sceptical attitude to the auditee. The two groups of external users tended to rate all six of the audit quality dimensions higher than the auditors and managing directors.

Audit expectations gap

De Angelo’s classic dual definition of technical quality (ie of competence and independence) is necessarily a subjective one. As the demand for audit services comes from a variety of sources (ie insurance, credibility, comfort for board members, access to other professional services) so do expectations of what auditors can reasonably be asked to perform. Major financial scandals have fuelled doubts and uncertainties about the role of auditing and what auditors can reasonably be expected to do. Such concerns are not new. Chandler & Edwards (1996, p.12) identify in the late nineteenth century that the accounting profession had to deal with similar levels of public concern about the value of audits as exist today.
Much criticism of the audit profession is as a consequence of well-publicised corporate failures (Porter, 1993). This mismatch between stakeholder expectations of auditors and auditors’ performance is referred to as the “audit expectations gap”, a term first coined by Liggio (1974). The audit expectations gap has been defined as the difference between expected levels of performance as viewed by the independent accountant and the user of financial statements (Liggio, 1974 p.27). In the US, The AICPA’s Commission on Auditors’ Responsibilities (Cohen Commission, 1978) was established to consider whether a gap existed between what the public expects or needs and what auditors can reasonably be expected to accomplish. A more sophisticated definition of the audit expectations gap was attempted by Porter (1993, p.50) being: “the gap that exists between society’s expectations of auditors and auditors’ performance, as perceived by society. This gap is made up of two components:

1. The ‘reasonableness gap’ – the gap between what society expects auditors to achieve and what they can reasonably be expected to accomplish (similar to the definition provided by the Cohen Commission).

2. The ‘performance gap’ – the gap between what society can reasonably expect auditors to accomplish and what they are perceived to achieve. This dimension consists of two components:

   • a ‘deficient standards gap’ – the gap between the responsibilities that can be reasonably expected of auditors and auditors’ existing responsibilities as defined by the law, regulations and professional guidelines; and

   • a ‘deficient performance gap’ – the gap between the expected standard of performance of auditors’ existing responsibilities and auditor’s performance as expected and perceived by society”.


Identifying performance gaps is commonplace in the marketing and service quality literature, and is seen as a means of understanding perceptions and expectations of quality. The next part of this chapter considers the development of the service quality literature and its application to audit services.

Service quality

Interest in evaluating service quality has been motivated by recognition of the significance of service quality in business success. High levels of service are seen as a means for an organisation or firm to achieve a competitive advantage and position itself more effectively in the market place (Lewis, 1993). Research demonstrates that high levels of service quality can lead to: customer loyalty, attraction of new customers, positive word-of-mouth, employee satisfaction and commitment, enhanced corporate image, reduced costs and increased business performance (Berry, Bennett & Brown, 1989).

The concept of client satisfaction is less well-rooted in the accounting literature. Walker (2001) suggests the effectiveness of maintaining good relationships with clients is often overlooked by auditors. Other writers, primarily in the US, have encouraged accounting firms to cultivate a marketing culture (Ahmed & Hopson, 1990), to consider developing a marketing positioning strategy (Ellis & Mosher, 1995), and to extend their portfolio of services (Diamantopoulos, O'Donahue, & Petersen, 1995). Andersen (1999) claims few accounting firms have sufficient understanding of themselves, or their clients, to improve the quality of service they provide to those clients. In conclusion, little is known of the determinants of service quality provided by UK accounting firms.
SERVQUAL Model

The seminal work of Zeithaml, Parasuraman and Berry (1990) identifies three fundamental ways in which services differ from manufactured goods in terms of the way they are produced, consumed and evaluated. These differences relate to:

1. Intangibility, relating to performances and experiences, rather than objects. As such precise specifications can rarely be set. The nature of accounting relies to a degree on subjective judgements. Although audit firms adopt procedures such as peer review and have developed internal quality control procedures, these quality tools relate more to technical audit quality rather than considerations of client satisfaction.

2. Heterogeneity. Service performance – especially those services with a high labour content – varies from day to day, from producer to producer. Importantly the interaction between the service provider and customer can rarely be standardised. Considering the audit function, Beattie, Fearnley & Brandt (2001) identify that the integrity of the audit process is critically dependent on the outcomes of interactions between the audit engagement partner and company finance director.

3. The inseparability of production and consumption of many products and services. Service customers are often in the service factory, observing and evaluating the production process as it takes place. Like other financial services, the company audit is not consumed in the process. Also, the audit process takes place largely on company premises and audit staff can create considerable disruption (Beattie & Fearnley, 1998, p.23).

The most widely known and discussed scale for measuring service quality is SERVQUAL (Parasuraman et al, 1988; 1991). Since the scale
was developed, various researchers have applied it across such different fields as securities brokerage, banks, utility companies, retail stores, healthcare, and repair and maintenance shops.

Service quality is an exclusive and abstract concept reflecting its “intangibility” as well as the “inseparability of production and consumption” (Parasuraman, Zeithaml & Berry, 1985). Different approaches have been proposed to define and measure service quality. The services marketing literature typically defines service quality in terms of what service recipients receive in their interaction with service providers (functional, interactive, or outcome quality) (Berry, Zeithaml & Parasuraman, 1985), and how this technical quality is provided to the recipients (functional, interactive, or process quality). Parasuraman et al, (1985) assert that customers perceive service quality in terms of the gap between received service and expected service. In their development of SERVQUAL they identified ten dimensions of service quality: access, communication, competence, courtesy, security, tangibles, reliability, responsiveness, credibility, and understanding. These ten dimensions were then classified into three categories: search properties (credibility, and tangibles - dimensions customers can evaluate before purchase), experience properties (reliability, responsiveness, accessibility, courtesy, communication, and understanding - dimensions that can be judged during or after consumption of the service), and credence properties (competence, and security - dimensions customers find hard to evaluate even after the service has been delivered). The ten dimensions discussed in the 1985 study were reduced to five in SERVQUAL following empirical testing. SERVQUAL’s five dimensions are: assurance, empathy, reliability, responsiveness, and tangibles (Zeithaml et al, 1990 p.26). These five generic service quality dimensions are outlined in Table 2.2.
Table 2.2: The five generic service quality dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assurance</td>
<td>Knowledge and courtesy of employees and their ability to convey trust and confidence</td>
</tr>
<tr>
<td>Empathy</td>
<td>Caring, individualised attention</td>
</tr>
<tr>
<td>Reliability</td>
<td>Ability to perform the promised service dependably and accurately</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness to help customers and provide prompt service</td>
</tr>
<tr>
<td>Tangibles</td>
<td>Appearance of physical facilities, equipment, personnel and communication materials</td>
</tr>
</tbody>
</table>

The SERVQUAL instrument consists of two 22-item inventories, along with five items that respondents are required to rank. The first inventory requires the respondent to consider their expectations of the service performance of a type of company (e.g., accounting firms). The second inventory requires respondents to consider their perceptions of the service quality of a specific service company (e.g., XYZ & Partners – Chartered Accountants). Finally, respondents are required to rank descriptions of the five generic service quality dimensions.

The SERVQUAL model defines service quality as “the extent of discrepancy between customers’ expectations or desires and their perceptions” (Zeithaml et al., 1990 p.19). That is, quality is attained or exceeded when perceptions of service quality meet or exceed expectations. Conversely, quality is deemed unsatisfactory when perceptions of performance fail to meet expectations. The
SERVQUAL definition of quality assumes consumers (or clients) expect high quality services. A potential flaw in the definition occurs in that if consumers/clients expect poor quality services and receive them, then no discrepancy will arise. Zeithaml et al.’s exploratory research suggested four factors shaped customer expectations: word-of-mouth communications, personal needs, past experience and external communications. These factors are described in Table 2.3.

**Table 2.3: Factors shaping customer expectations**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word-of-mouth communications</td>
<td>What customers hear from other customers</td>
</tr>
<tr>
<td>Personal needs</td>
<td>Expectations vary depending on respondents’ individual characteristics and circumstances</td>
</tr>
<tr>
<td>Past experiences</td>
<td>Previous dealings with similar types of organisations can increase or decrease expectations in specific quality dimensions</td>
</tr>
<tr>
<td>External communications</td>
<td>Direct and indirect messages conveyed by the service provider to customers (including price)</td>
</tr>
</tbody>
</table>

**Extension to accounting firms**

Extending this work to accounting firms suggests expectations of audit quality could be driven by:

- informal discussions between finance directors of their relationship with and the service provided by their current auditor,
buyers of audit services require different things from the company audit. Beattie & Fearnley (1998) identify four audit buyer types. The first group (‘the grudger’) resents and sees little value in the company audit. The second group (‘the status-seeker’) seeks to enhance their standing in the financial market by employing an auditor of high repute. A third group, labelled ‘the comfort-seeker’, sees the audit exercise as an assurance exercise for the benefit of the directors and the company itself. ‘Resource-seekers’ by contrast, perceive and value the audit firm as a source of expertise on a range of accounting, financial and business matters,

clients’ previous experiences of dealing with auditors is conceivably likely to lower their expectations regarding behavioural attributes such as empathy, but be more demanding with respect to auditors’ technical competence and reliability,

external communications include a variety of direct and indirect messages conveyed by the audit firm to customers. These might include: annual reviews or reports published by firms, sponsorship of charitable events implying social responsibility, an audit manager promising technical advice by a certain time, or marketing brochures that suggest a superior level of client service. Zeithaml et al, (1990) also include price as being under the influence of external communications. Significant pressure on audit fees and related issues such as low balling and auctions for the provision of audit services have been part of the audit environment for over a decade, as identified in chapter one. External communication has become more sophisticated for accounting firms over the past five to six years with KPMG being the first audit firm to publish an annual report with many other firms following suit in subsequent years. Firms’ marketing communications are considered in the present study in chapter four.
Previous studies have indicated that SERVQUAL must be modified for each unique service sector (Babakus & Boller, 1992; Carman, 1990). For example in the tourism industry, Frochot & Hughes (2000) developed HISTOQUAL to understand the elements of service delivery of historic houses. Similarly, heritage attractions, hotel and motel services have received attention with the development of LODGQUAL (Getty & Thompson, 1994) and LODGSERV (Suh, Lee, Park, & Shin, 1997) respectively, and the holiday industry with HOLSAT (Tribe & Snaith, 1998). A similarly developed literature exists across different service sectors. Intriguingly, despite the extensive service quality literature, the quality of professional services provided to business clients has received little research attention (Dart & Freeman, 1994). A literature search reveals only one investigation to utilise the SERVQUAL model in considering clients’ evaluation of their audit firm (De Ruyter & Wetzel, 1999), who measured perceptions of service quality using 213 clients of a large audit firm in the Netherlands using eight items adapted from the reliability, responsiveness and assurance dimensions of SERVQUAL. De Ruyter and Wetzel’s work examines commitment in auditor client relationships, conceptualising commitment in two forms. These two aspects of commitment are calculative commitment (an instrumental reasoning that evaluates the costs and benefits of developing and maintaining a relationship, eg Kumar, Scheer, & Steenkamp, 1995) and affective commitment (an attitudinal dimension representing the affective orientation towards, and value congruence with, the business partner, eg Gundlach, Achrol, & Mentzer, 1995). Perceived service quality was shown to be positively related to affective commitment, in line with previous findings (Geyskens & Steenkamp, 1995; Kumar et al, 1995). Unexpectedly however, a negative relationship between perceived service quality and calculative commitment was reported. De Ruyter and Wetzel suggest this finding is likely to be due to respondents perception there is little variation in the quality of service delivered by audit firms in general.
The extended gaps model

The SERVQUAL approach is based on identifying differences between client expectations and perceptions for the service they receive. These differences are labelled ‘gaps’. Five gaps are identified by the SERVQUAL model. Gaps 1 to 4 denote shortfalls within the service provider’s organisation and gap 5 as the service-quality shortfall perceived by clients. Zeithaml et al, (1990) have identified the antecedents of each of these five gaps and strategies to ‘close’ in some considerable detail. The five gaps are described in Table 2.4.
Table 2.4: The five gaps – potential causes of service quality shortfalls

<table>
<thead>
<tr>
<th>Gap</th>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gap 1</td>
<td>Customers’ expectations – Management perceptions gap</td>
<td>Discrepancies between customers expectations and managers’ understanding of those expectations</td>
</tr>
<tr>
<td>Gap 2</td>
<td>Management’s perceptions – Service-quality specifications gap</td>
<td>Discrepancies between service quality standards and management perceptions of customer expectations</td>
</tr>
<tr>
<td>Gap 3</td>
<td>Service-quality specifications – Service-delivery gap</td>
<td>Discrepancies between service quality standards and actual service delivery</td>
</tr>
<tr>
<td>Gap 4</td>
<td>Service delivery – External communications gap</td>
<td>Discrepancies between the promises made by the service provider via external communications (promised service) and actual service</td>
</tr>
<tr>
<td>Gap 5</td>
<td>Expected service – Perceived service</td>
<td>Discrepancies between the service expected by the customer and the service they have perceived to have received</td>
</tr>
</tbody>
</table>

Figure 2.2 presents a conceptual model of service quality. The model is a graphical representation of the five gaps of service quality.
Figure 2.2: Conceptual model of service quality

Gap 1 identifies differences between customers’ expectations of quality service and executives’ understanding of those expectations.
For example, partners of smaller accounting firms could view their service quality as exemplary, when compared to larger international firms, because they believe their firm to be more reliable and responsive to clients’ concerns. By contrast, partners of those larger firms might believe their firm size and international network signals strength from a quality standpoint. This view is supported by some academic researchers who have used firm size as a proxy for audit quality (eg Chan, Ezzamel, & Gwilla, 1993; O’Sullivan, 2000; Palmrose, 1986). The argument that firm size is indicative of audit quality relies on an economic argument that larger firms have fewer incentives to reduce audit quality to retain any one client, as a larger firms financial dependence on an individual client is lower than that of a smaller firm. The existence of gap 1 suggests such proxies provide a rather narrow technical definition of audit quality.

Quality management theory suggests a pre-requisite for providing high quality service is the presence of performance standards which mirror managements’ perceptions of customers’ expectations. However, as Zeithaml et al, (1990) identify, the task of translating managements’ understanding into service-quality specifications is not straightforward. Gap 2 identifies differences between customers’ expectations (in terms of expected service) and management perceptions of customer expectations, often expressed formally by performance standards. In an accounting context, an audit firm may have set procedures for how the audit is conducted to minimise the disruption to the client. However, the firm’s perception of disruption is quite different to that of the client.

Gap 3 identifies differences between the service-quality specifications and the service delivered to the customer. Such gaps are usually created by an unwillingness or inability of the individual delivering the service to meet the service performance standards (Zeithaml et al, 1990 p.42).
An important determinant of customer expectations are the firm’s external communications (ie marketing literature, web-site, sponsorship arrangements, promises made by audit partners). These communications set standards against which the firm is judged. Gap 4, being the difference between the actual service and promised service, will have an adverse affect on customers’ perceptions of service quality. The quality message signalled by accounting firms’ marketing literature is examined within this monograph in chapter four.

The service-quality shortfall perceived by customers is represented by gap 5. Gaps 1 to 4 are shortfalls which occur within the service provider’s organisation. Gap 5 is simply the difference between the service a customer expects to receive and the service they perceive they have received. Gap 5 can be closed by keeping gaps 1 to 4 closed.

**Auditor attributes**

A number of researchers have considered the influence of the auditor’s personal attributes (ie their personality and their moral reasoning). Other scholars have emphasised the importance of the relationship between the audit engagement partner and the client’s finance director (eg Beattie & Fearnley, 1995; Beattie et al, 2001).

**Personality profiles of accountants**

Previous investigations have considered the personality profiles (ie a description of their behaviour) of practising accountants. The majority of these studies have utilised the Myers-Briggs Type Indicator (MBTI). The MBTI assesses four bi-polar dimensions of personality: introversion-extroversion; perceiving-judging; sensing-intuition; thinking-feeling. According to Jung, individuals may be categorised at the extremes of these bipolar dimensions. This gives 16 possible personality types, which are referred to a four-letter designation (eg ISTJ or ENFP).
However, the strength of preference on each dimension may vary within each personality type. The stereotypical profile for practising accountants is conceived as an ISTJ (introverted-sensing-thinking-judging) type, which is supported by empirical investigation in Australia (Booth & Winzar, 1993), the US (Descouzis, 1989; Jacoby, 1981; Wolk & Nikolai, 1994) and UK (Shackleton, 1980). The characteristics of an ISTJ profile are shown in Table 2.5. Table 2.5 frames descriptions of the typical accounting profile in terms of the Big Five factor model, a competing personality model, widely accepted by personality and individual difference scholars. MBTI by contrast is more widely used by practitioners, although the nature of its measurement model makes it difficult for the types of correlational studies employed by academic researchers. Both however, are conceptually and empirically similar, McCrae & Costa (1989) report correlation coefficients ranging from .46 to -.69 when the four of the Big Five dimensions are correlated with the four bi-polar scales of MBTI.
Table 2.5: MBTI and Big Five Personality domains and representative traits

<table>
<thead>
<tr>
<th>MBTI</th>
<th>Corresponding Big Five label</th>
<th>Typical Accounting profile</th>
<th>Accounting profile in terms of Big Five</th>
<th>Description of typical accounting profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI</td>
<td>Extraversion</td>
<td>I</td>
<td>– Extraversion</td>
<td>Introverted, reserved and serious. Prefers to be alone or with a few close friends.</td>
</tr>
<tr>
<td>SN</td>
<td>Openness</td>
<td>S</td>
<td>– Openness</td>
<td>Down to earth, practical, traditional and set in their ways</td>
</tr>
<tr>
<td>TF</td>
<td>Agreeableness</td>
<td>T</td>
<td>– Agreeableness</td>
<td>Hardheaded, practical sceptical, proud and competitive. Tend to express anger directly.</td>
</tr>
<tr>
<td>JP</td>
<td>Conscientiousness</td>
<td>J</td>
<td>+ Conscientiousness</td>
<td>Conscientious and well organised, have high standards and always strive to achieve goals.</td>
</tr>
<tr>
<td>-</td>
<td>Neuroticism</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
An individual with an ISTJ profile is likely to develop the necessary technical skills, (based on their high score on the conscientiousness dimension and low score on agreeableness). However, they are also likely to be perceived by others as introverted, reserved, passive and cold. Such an individual may lack the personal qualities necessary to establish rapport and maintain a long-term relationship with a client. However, a more ‘agreeable’ individual might be seen as compassionate and good natured, but their eagerness to cooperate and tendency to avoid conflict could lead to accommodating behaviours, clearly undesirable in an audit engagement partner.

**Ethical reasoning of auditors**

Other researchers have considered the ethical reasoning of accountants. Ponemon & Gabhart (1990) use Kohlberg’s stage model of moral development and ethical cognition to examine an auditor’s reasoning in a hypothetical audit independence conflict scenario. Sampling 119 audit partners and managers report a systematic relationship exists between auditors’ ethical cognition and their resolution of an independence conflict. This work was developed further by Windsor & Ashkansay (1995) to identify three styles of auditor decision making: autonomous, responsive to personal beliefs and likely to resist client pressure; accommodating, where the auditor is responsive to both personal beliefs and client management power; and pragmatic, where auditors were responsive to client management power, regardless of their own personal beliefs. Beattie, Fearnley & Brandt (2001) developed six case studies describing the interaction between the finance director and the audit engagement partners to establish the factors that influence the nature and outcome of key audit interactions involving significant accounting issues. Using grounded theory, a process of building theory inductively by means of the qualitative analysis of interview data, they develop a hierarchy of audit engagement partner (AEP) types, shown in figure 2.3.
**Figure 2.3: A hierarchy of AEP (seller) types and their characteristics**

<table>
<thead>
<tr>
<th>Type</th>
<th>AEP Quality</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crusader</td>
<td></td>
<td>Extremely high professional and personal integrity; prepared to escalate</td>
</tr>
<tr>
<td>Safe hands</td>
<td></td>
<td>High professional integrity; identifies closely with client; prepared to escalate</td>
</tr>
<tr>
<td>Accommodator</td>
<td></td>
<td>Moderate professional integrity; will knowingly bend the rules under pressure</td>
</tr>
<tr>
<td>Truster</td>
<td></td>
<td>Moderate professional integrity; may unknowingly permit rules to be bent</td>
</tr>
</tbody>
</table>

(Source: Beattie et al, 2001, p.276)

**Key points**

This chapter has reviewed the literature considering the conceptual framework that surrounds audit quality. Audit quality is generally conceived as a function of the auditor’s ability to identify a breach in the client’s financial reporting system (*ie* their competence) and their willingness to disclose such an error (*ie* their independence).

A number of studies have attempted to identify auditor characteristics which contribute to audit quality. Such studies have typically sampled the views of auditors, company directors and financial statement users.

A distinct yet related literature considers the audit expectations gap: differences between expected levels of performance as viewed between the independent accountant and the user of financial
statements. This gap has been sub-categorised into a performance gap and a reasonableness gap.

The concept of service quality and the related SERVQUAL model have been identified by marketing and operations management scholars. SERVQUAL identifies five potential ‘gaps’ between the expectations and perceptions of the service provider and consumer. The SERVQUAL model is driven by discrepancies between customer expectations of service quality and perceptions of the service they have received (gap 5). This gap is driven by four discrete service quality gaps that exist within the customers’ business.

No auditing research appears to have considered the applicability of the SERVQUAL model. This is perhaps surprising given societal interest in the audit expectations gap, and auditor interest in client satisfaction in a competitive audit environment, characterised by low growth and downward pressure on fees (eg Elliott & Jacobson, 1995).

A related literature considers the attributes of auditors including their personality, ethical reasoning, and attitudes and beliefs. A range of personality studies applying the MBTI conclude a typical accounting profile exists that lends itself to the development of high technical skills, but rather less to the development of social skills desirable in relationship marketing. A hierarchy of AEP types has been developed by Beattie et al, (2001) on the basis of the personal and professional integrity of the auditor and their ability to take their professional responsibilities to and beyond the level of their statutory duties where necessary.
CHAPTER THREE

DEVELOPING AN ALTERNATIVE APPROACH TO AUDIT QUALITY USING OTHER LITERATURES

Audit quality is not a unitary concept. It should be divided into
1. quality of service: ie factors which affect the client’s experience of the audit process

2. quality of opinion: ie factors which contribute to a process which is likely to reach the right answer

The two aspects can sometimes be in conflict, but the key to success is delivering the highest “quality of service” without compromising on the “quality of opinion”.

(Big 4/5 Partner)

Introduction

The purpose of this chapter is to propose a broad model of audit quality, which provides a conceptual foundation for understanding quality from the perspective of auditor, audit client and other stakeholders. The conceptual framework integrates the service quality and audit expectations literatures. Eight gaps are identified. Gaps 1 to 4 are associated with shortfalls occurring within the auditor’s firm. Gap 5 represents the audit quality shortfall perceived by clients and stakeholders. Gaps 6 to 8 denote the shortfalls perceived by stakeholder groups, the audit expectations gap. This chapter identifies potential antecedents of each of these hypothesised eight gaps, and how they might be closed.
Understanding client expectations

Service and technical quality gaps

Figure 3.1 describes a conceptual model illustrating differences between an individual client’s expectations of audit quality and the quality of audit they actually receive. Four factors (or ‘gaps’) contribute to this problem. This analysis of these four gaps is adapted from Zeithaml et al’s (1990) seminal work and modified for accounting firms and their clients.
**Figure 3.1 Gaps 1 to 4 – between client expectations and audit quality**

A gap 1 problem exists where the firm has an insufficient understanding of its client’s needs. Zeithaml *et al*, (1990) identify three factors which are likely to create gap 1 problems:
1. A lack of marketing research, preventing an understanding of clients’ needs and expectations, using formal and informal information gathering exercises;

2. Poor upward communication from employees at lower levels to senior management;

3. Too many levels of management, separating senior management from those dealing with clients on a day-to-day basis.

Gap 1 problems are quite likely in accounting firms as relatively few firms undertake marketing research (Andersen, 1999) and the structure of accounting firms, with partners being quite distinct and elevated people within the organisation (see for example Johnson, 2002 p.1014). The key to closing gap 1 marketing research should focus on service quality issues that are most important to clients and what clients think the firm can (and should) do when problems occur (Zeithaml et al, 1990).

Gap 2 exists where differences occur between management perceptions of client expectations and the quality specifications of the audit firm (ie the formal procedures the firm adopts for the company audit). A wide gap 2 could exist when the firm lacks commitment to audit service quality, for example where it places emphasis on cost reduction or short-term profit. Four factors underlie gap 2 problems:

1. A lack of management commitment to service quality, where service quality is not seen as a strategic goal. For example, does the firm place greater emphasis on fee growth rather than improving service quality or developing staff to improve the quality of the audit process? An accounting firm which believes it is committed to quality may be committed to technical quality (competence and independence, in the traditional definition) or automation and productivity activities which compare equally (or favourably)
with other audit firms but have few systems in place to manage service quality.

2. The extent to which managers believe it is feasible to provide high quality service, the extent to which client expectations can be met. Encouraging innovation is said to be the key to developing perceptions of feasibility. For example, Ernst & Young’s Online service, allowing clients access to their knowledge management database, could be described as an example of such an innovation.

3. The degree to which automation, and formal and informal operating procedures are standardised to ensure consistent levels of service. Audit automation provides an opportunity for firms to standardise tasks. Changes in work processes, for example establishing a culture of openness and proactive share of knowledge also contribute to the development of service quality.

4. The level to which service quality goals are based on clients’ standards and expectations rather than firm standards. Adapting Zeithaml et al’s (1990) analysis to accounting firms, suggests effective service-quality goals will have five features:

   - They are designed to meet client expectations
   - They are specific
   - They are accepted by audit staff
   - They identify the most important job dimensions
   - They are measured and reviewed with appropriate feedback

Gap 3 is the difference between the audit service specifications (as drawn up by the firm) and the actual quality of the audit service delivered: a service-performance gap. The causes of a service-performance gap are identified as:
1. Role ambiguity, reflecting uncertainties audit staff may have about what the firm or the audit engagement partner expects from them. As professional service organisations, accounting firms traditionally spend a high proportion of their fee income on training. It is likely audit staff are well-equipped to deal with the technical aspects of their job and cope with changes that affect their work. However, communications and feedback between partners and staff are not seen as strong in accounting firms (eg KPMG’s Leadership Project described in Johnson (2002 and Accountancy Age, February 1995).

2. Role conflict, the extent to which an employee may perceive that they cannot satisfy all the demands of all individuals (both clients, groups internal to the audit firm and stakeholder groups). Role conflict is a central issue in the study of audit quality. For example, being client-centred may be seen as desirable to service quality, but as potentially accommodating behaviour from an independence standpoint. ‘Accomodators’ (a term coined by Beattie et al, 2001 p.276) are described as having “moderate professional integrity, but will knowingly bend the rules under pressure”, and possessing a desire to be helpful to the company where possible. Role conflict can be reduced by defining job roles in terms of client and societal expectations. Employee-job fit, is the fit between the auditor’s skills and their job. Accounting firms invest considerable sums in recruiting and selecting appropriate people, a process which is supported by professional training, appraisal of auditing trainees and a relatively large attrition rate of trainees. De Ruyter & Wetzel (1999) suggest when hiring personnel audit firms should screen for the social abilities that facilitate establishing and maintaining long-term relationships based on affective commitment.

3. Technology-job fit, that is, the appropriateness of the tools and technology that auditors use to perform their work. Manson, McCartney & Sherer (1997) found firms making use of IT
in planning, controlling and recording of audit work (audit automation) and reported a perceived improvement in the quality of audit work. Although no evidence of de-skilling was evident from the audit automation, it had supplanted some of the menial work previously undertaken by clerical and secretarial workers, requiring the re-deployment of these workers.

4. Supervisory control systems, how the audit firm evaluates and rewards employees. For example, KPMG’s human resource strategy identifies six behavioural characteristics which are important for its future success (client responsiveness, business skills, management, personal effectiveness, social skills and thinking skills). Promotion is said to be on the basis of performance in terms of these competencies.

5. Perceived control, being the extent to which employees are able to act flexibly in difficult situations. Accounting firms have a tradition of valuing individualism (eg Thornbury, 1999) where mavericks are “lionised” (eg Johnson, 2002 p.1014). Increasing audit staffs’ perceived control (ie their ability to influence difficult situations and their ability to choose outcomes) will improve service quality.

6. Teamwork, the degree to which partners and employees function as a team. Prior investigations into the dimensions of audit quality have reported audit team factors as being more important than audit firm factors (Behn et al, 1997; Carcello et al, 1992; Schroeder et al, 1986). When employees identify with the norms and values of an organisation, service quality is likely to be improved (Schneider & Bowen, 1985).

Differences between what a firm promises about audit services and what it delivers is gap 4 of the SERVQUAL model. The factors that contribute to such a gap are shown in Figure 3.2.
Figure 3.2: Key features contributing to gap 4 (adapted from Zeithaml et al, 1990, p.116)

Key contributing factors:

1. Inadequate horizontal communication
   - inadequate communication between marketing and audit staff
   - differences in policies and procedures across offices and locations

2. Propensity to over-promise

Discrepancies between service delivery and external communications, in the form of exaggerated promises, or an absence of information about service quality can powerfully influence client
expectations of service quality (Zeithaml et al, 1990 p.116). Accounting firms’ external communications are examined in chapter four of this monograph.

Zeithaml et al, (1990) suggest the key to developing appropriate and effective communications about service quality is to:

1. Emphasise primary quality determinants. That is, identify the features of audit quality that are most important to clients and stakeholders.

2. Managing clients’ expectations. A client’s expectation is likely to be a product of experience with other audit firms (possibly as a result of working as an external auditor). Also, experience with providers of other professional services (eg lawyers, bankers) are likely to affect their perception of an accounting firm’s quality of service.

3. Manage controllable sources of clients’ and stakeholders’ expectations such as external communications literature, and price. A key question might be how an accounting firm can lower clients’ and stakeholders’ expectations when competing firms may be promoting inflating promises. Zeithaml et al, (1990 p.126) identify this problem is particularly acute when an industry is suffering from a poor image. Recent accounting scandals have undoubtedly damaged the reputation of the accounting profession and particularly its audit function. Zeithaml et al, (1990 p.126) cite the example of American Airlines (AA) who ran an advertising campaign informing airline customers of the uncontrollable factors that make airlines unreliable (the dimension of service quality airline customers rated most important). As AA’s reliability was the highest of its peers, the advertisement was credible. As clients and stakeholder groups rate Reputation and Credibility as the most important factors influencing audit quality, an accounting firm could attempt to identify with client
and stakeholder groups’ frustrations (e.g., the reasonableness gap between society’s expectations and what an audit can reasonably provide), explaining how some matters are uncontrollable by the accounting firm.

Gap 5 is the audit quality shortfall perceived by clients, as distinct from shortfalls which exist within the accounting firm itself. Gap 5 is illustrated in Figure 3.3. Key determinants of the service expected by clients include word-of-mouth communications, personal needs, past experience, and external communications from the accounting firm (Zeithaml et al., 1990). Gaps 1 to 4 are the four service-provider gaps that contribute to gap 5.
Figure 3.3: Gap 5 - between client expectations and perceived audit service

The relationship between gaps 1 to 4 and gap 5 is illustrated in Figure 3.4, which illustrates the various factors which relate to the accounting firm and their relationship to service-provider gaps (ie gaps 1 to 4).
Figure 3.4: Extended gaps model of audit quality
Audit expectations gap

Figure 3.5 illustrates the components of the audit expectations gap, gaps 6 to 8 and gap 4. The audit expectations gap represents the audit quality shortfall perceived by stakeholders. Gaps 6 to 8 are an adaptation of Porter’s (1993) conceptualisation of the audit expectations gap’s structure and composition. Porter’s work is in turn an extension of Liggio (1974) and the Cohen Commision (Commission on Auditors’ Responsibilities, 1978), described in chapter two.
**Figure 3.5** Gaps 4 and 6 to 8 - between stakeholder expectations and audit quality
Gap 6 is labelled the ‘reasonableness gap’, representing the gap between what society expects auditors to accomplish and what they can reasonably be expected to accomplish (Porter, 1993). The reasonableness gap is analogous to gap 1, where an accounting firm has insufficient awareness of its client’s needs. Gap 6 by contrast represents a lack of awareness on the part of stakeholders of what an auditor can reasonably be expected to achieve. Porter (1991, 2000) identifies the antecedent of these unreasonable expectations (ie gap 6) is a lack of education of non-auditor interest groups. An accounting firm’s external communications will also influence societal expectations of what can reasonably be expected of an auditor. Although many firms produce an annual review, as identified in chapter six, no firm attempts to address within these documents what an audit can reasonably be expected to achieve (or not achieve). If auditors are to close gap 6, then the audit profession might consider ways in which direct (eg financial statement users) and indirect (eg non-financial community) stakeholders are informed about the audit process.

Gaps 7 and 8 represent performance gaps, between what society can reasonably expect auditors to achieve and what they are perceived to accomplish. Specifically, gap 7 is labelled a deficient standards gap, a gap between those responsibilities an auditor can reasonably be expected to perform, and those responsibilities as enshrined in law and professional regulations. Corporate governance debates (eg the Cadbury Report, 1992; the Greenbury Report, 1995; the Hampel Report 1998; the Turnbull Report, ICAEW, 1999; and ICAEW, 2000) create an expectation of what an auditor should be doing leading to a deficient standards gap.

Gap 8 is a ‘deficient performance gap’ (Porter, 1993), the gap between auditors’ responsibilities as defined by laws and professional regulations and actual auditor performance (or audit quality). The antecedents of gap 8 are, first, a lack of knowledge on the part of auditors under statute and case law, quasi-governmental regulations
and professional promulgations (Porter, 2000), second, a simple lack of competence, and third, the lack of quality controls procedures within the firm. Porter (2000) suggests the key to closing this gap is further education for practising as well as trainee accountants. The development of further quality control procedures eg second partner review, an internal monitoring mechanism introduced by audit firms to improve auditor independence (AICPA, 1986) or subjecting an ongoing audit to a random hot review would also contribute to closing gap 8.

**Key points**

The chapter has developed an alternative model of audit quality, illustrated in Figure 3.6. Audit quality consists of both technical and service quality aspects.
The model identifies eight gaps. Gaps 1 to 4 relate to service quality deficiencies within the accounting firm.
Gap 5 is the difference between client’s and stakeholders’ expectations of the quality of the audit and their perceptions of the quality of the audit service provided by the audit firm. The four gaps created by quality deficiencies within the accounting firm make up gap 5. Gaps 6 to 8 represent the audit expectations gap, representing a reasonableness gap and two performance gaps.

Each gap has a number of potential antecedents. Identifying these antecedents provide the key to understanding how the gap may be closed.
CHAPTER FOUR

ANALYSIS OF AUDITORS’ EXTERNAL COMMUNICATIONS

The importance of external communications to service quality

Chapter two introduced the SERVQUAL model, developed to assist executives identify differences between customer expectations and perceptions of service quality performance. This chapter will examine the external communications provided by audit firms. Differences between what a firm promises – implicitly or explicitly – about the quality of audit services it provides, and what it is perceived to deliver is gap 4 discrepancy, described in chapter three. The three major contributing factors to gap 4 are: first, inadequate communication between marketing and audit staff; second, differences in policies and procedures across offices and locations; and third, a simple propensity to over-promise. The objective of this chapter is therefore to identify how firms promote the services auditors deliver.

As described in chapter two, the audit environment is characterised by increasing competition and downward pressures on fees. These environmental pressures mean auditors feel the need to acquire new business and to meet or beat the competition. The greater the extent to which a service organisation feels pressured to generate new clients, and perceives the industry norm is to over-promise, the greater is the firm’s propensity to over-promise (Zeithaml et al, 1990 p.123). The creation of the audit tender (a ‘beauty parade’ where the client chooses the most attractive tender often on the basis of price), and ‘low-balling’
(a low introductory price, in the hope of costs decreasing in subsequent years, or the expectation of fees rising, or gaining additional non-audit business in the future) have also become characteristics of the audit environment in the past decade. Price is said to be an indicator of service quality (Berry, Bennett, & Brown, 1989 p.122–3). Price also sets expectations for the quality of service, particularly when other indicators are not available. That is, when service outcomes are difficult to assess (eg a company audit), clients may use price as a surrogate for quality. A similar approach has been adopted by a number of investigations into financial reporting and earnings quality, where the audit fee serves as a proxy for audit quality – see chapter two.

The next part of this chapter examines external communications literature of the 20 largest accounting firms in the UK (as reported by Accountancy Age, April 2002). Each of the 20 firms was contacted by telephone in April 2002 to request the following: their annual report (if one was produced), any marketing literature which promotes auditing and assurance services. Each of the 20 firms has a website which promotes the firm and its services. The dataset includes annual reports, firm’s websites and other marketing literature. Using this dataset the following issues were examined:

- How audit services are described within the literature
- Explicit (and implicit) references to audit quality (both technical and service aspects)
- How firms convey an image of quality to potential and existing clients and stakeholders

**Annual reports and marketing literature**

The concept of accounting firms producing an annual report is relatively recent, with the first being produced by KPMG in 1996. At the time KPMG, claimed its decision to open its books was to present
an image of a transparent business to clients and stakeholders. Other firms quickly followed suit. In April 2002, the largest 20 accounting firms in the UK (as reported by *Accountancy Age*) were contacted to establish whether they produced an annual report or other literature which provided information on the scope of the firm’s services. This information is summarised in Table 4.1:
Table 4.1: Top 20 firms (as reported in Accountancy Age 18 April 2002) external communications.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Annual Review</th>
<th>Marketing Literature</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricewaterhouse Coopers</td>
<td>√</td>
<td>√</td>
<td>Employee annual review</td>
</tr>
<tr>
<td>2. KPMG</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Deloitte &amp; Touche</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>4. Ernst &amp; Young</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>5. BDO Stoy Hayward</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Grant Thornton</td>
<td>√</td>
<td></td>
<td>No annual review</td>
</tr>
<tr>
<td>7. PKF</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>8. Baker Tilly</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>9. Howarth Clark Whitehill</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>10. HLB Kidsons</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>(Numerica)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Smith &amp; Williamson</td>
<td>√</td>
<td>√</td>
<td>No financial information</td>
</tr>
<tr>
<td>12. Moore Stephens</td>
<td></td>
<td>√</td>
<td>Website</td>
</tr>
<tr>
<td>13. Mazars Neville Russell</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>14. Tenon</td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. RSM Robson Rhodes</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>16. BKR Haines Watts</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>17. Levy Gee (now Numerica)</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>18. Saffery Champness</td>
<td>√</td>
<td>√</td>
<td>Abbreviated annual review</td>
</tr>
<tr>
<td>19. MacIntyre Hudson</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
<tr>
<td>20. Chantrey Vellacott DFK</td>
<td></td>
<td>√</td>
<td>No annual review</td>
</tr>
</tbody>
</table>
Of the 20 firms contacted, nine produced some form of annual review usually with some summary financial information. All firms produced marketing literature whether in the form of hard-copy material or via their website. Website details accessed are shown in Table 4.2. Nineteen of the 20 firms undertook some form of audit and assurance activity, the exception being Tenon. The four largest firms made little reference to audit services, labelling these activities as assurance services. For example, KPMG describe the development of their assurance service:

*Evolution of our risk-based approach to audit attracts more and more adherents. By helping organisations and individuals achieve their objectives and succeed in the new economy, through measuring performance, managing risks and leveraging knowledge, we increased Assurance revenue last year by 21% to £413 million.*
Table 4.2 Top 20 UK firms website details

<table>
<thead>
<tr>
<th>Firm name</th>
<th>Website address</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. KPMG</td>
<td><a href="http://www.deloitte.co.uk">www.deloitte.co.uk</a></td>
</tr>
<tr>
<td>3. Deloitte &amp; Touche</td>
<td><a href="http://www.kpmg.co.uk/uk/index">www.kpmg.co.uk/uk/index</a>.</td>
</tr>
<tr>
<td>4. Ernst &amp; Young</td>
<td><a href="http://www.ey.com/uk">www.ey.com/uk</a></td>
</tr>
<tr>
<td>5. BDO Stoy Hayward</td>
<td><a href="http://www.bdo.co.uk">www.bdo.co.uk</a></td>
</tr>
<tr>
<td>6. Grant Thornton</td>
<td><a href="http://www.grant-thornton.co.uk">www.grant-thornton.co.uk</a></td>
</tr>
<tr>
<td>7. PKF</td>
<td><a href="http://www.pkf.co.uk">www.pkf.co.uk</a></td>
</tr>
<tr>
<td>8. Baker Tilly</td>
<td><a href="http://www.bakertilly.co.uk">www.bakertilly.co.uk</a></td>
</tr>
<tr>
<td>9. Howath Clark Whitehill</td>
<td><a href="http://www.howathcw.co.uk">www.howathcw.co.uk</a></td>
</tr>
<tr>
<td>10. HLB Kidsons (Numerica)</td>
<td><a href="http://www.numerica.com">www.numerica.com</a></td>
</tr>
<tr>
<td>11. Smith &amp; Williamson</td>
<td><a href="http://www.smith.williamson.co.uk">www.smith.williamson.co.uk</a></td>
</tr>
<tr>
<td>12. Moore Stephens</td>
<td><a href="http://www.moorstephens.co.uk">www.moorstephens.co.uk</a></td>
</tr>
<tr>
<td>13. Mazars Neville Russell</td>
<td><a href="http://www.mazars.co.uk">www.mazars.co.uk</a></td>
</tr>
<tr>
<td>14. Tenon</td>
<td><a href="http://www.tenongroup.com/home">www.tenongroup.com/home</a></td>
</tr>
<tr>
<td>15. RSM Robson Rhodes</td>
<td><a href="http://www.rsmi.co.uk">www.rsmi.co.uk</a></td>
</tr>
<tr>
<td>16. BKR Haines Watts</td>
<td><a href="http://www.hwca.com">www.hwca.com</a></td>
</tr>
<tr>
<td>17. Levy Gee (now Numerica)</td>
<td><a href="http://www.levygee.co.uk">www.levygee.co.uk</a></td>
</tr>
<tr>
<td>18. Saffery Champness</td>
<td><a href="http://www.saffery.com">www.saffery.com</a></td>
</tr>
<tr>
<td>19. MacIntyre Hudson</td>
<td><a href="http://www.hughesallen.com">www.hughesallen.com</a></td>
</tr>
<tr>
<td>20. Chantrey Vellacott DFK</td>
<td><a href="http://www.cvdfk.com">www.cvdfk.com</a></td>
</tr>
</tbody>
</table>

Each of the remaining 15 firms made reference to audit services, perhaps reflecting conservatism in audit methodology or how these services are marketed to clients.

Larger firms emphasised their global networks and their provision of some form of professional service to FTSE 100 companies. Medium sized firms typically placed greater emphasis on particular sectors.
(eg PKF emphasise charities, BDO Stoy Hayward the growing business and Mazars Neville Russell insurance).

The majority of firms made either implicit or explicit reference to aspects of technical and service audit quality within their literature. Without exception, each attempts to differentiate itself from its competitors to achieve competitive advantage. Firms try to differentiate themselves by emphasising:

- The uniqueness of their firm (eg Ernst & Young produces a series of images to promote the idea that their employees are from diverse backgrounds and have diverse interests; each of the largest four firms tend to photograph partners casually dressed, far removed from a stereotypical image of the Chartered Accountant, eg Bougen, 1994),

- the uniqueness of their services (eg Ernst & Young Online – an interactive online connection with clients, described as “putting large amounts of our knowledge at our clients’ disposal in formats designed to be useable and searchable, but also allows us to share privileged information, to collaborate online and in a secure environment, and to supply rapid answers to clients’ questions” claiming 80% market-penetration amongst FTSE-100 companies. By comparison, PwC offer a service labelled MindLink™),

- the scope of their services (eg Smith & Williamson’s assertion they offer an unparalleled range of services for a firm of their size),

- the technologies they use to undertake the audit (eg Deloitte’s AuditSystem/2™),

- the processes associated with the activities (eg service quality processes, measured by feedback from clients).

Two themes are apparent in firms’ literature: the notion of “adding value” to the client and the importance of the calibre of the firm’s employees/partners (usually collectively referred to as the
“firm’s people”). All firms identify in some way the success of their organisation is dependent on attracting and retain the best staff. How firms achieve this is done in a number of different ways. For example, in a headline article on their website, labelled “The Promise of Quality: doing the best work requires the best people”, Deloitte Touche state:

*Deloitte’s business strategy is built on principles of quality, integrity and efficiency of delivery. Our commitment to servicing business is made even stronger by the enhanced strength of our professionals who deliver quality service every day*

(John P. Connolly, CEO, Deloitte Touche, 2002)

Perhaps referred directly to the expectations/perceptions dichotomy that characterises the concept of service quality that underlies the SERVQUAL model, Ernst & Young (2001) state:

*Expect a lot from Ernst & Young*

KPMG emphasise communication between staff, including open meetings, feedback via the firm’s intranet site, and an independent employee survey to establish how the firm’s values affect how staff go about their work. Ernst & Young highlight the “skills, diversity and passion” (Ernst & Young, 2001 p.5) of their employees, of providing value added.

Two medium-sized firms make specific reference to service quality, and implicit reference to the concepts underlying the SERVQUAL model:

*We are prepared to define our standards of service and adhere to them, recognising that each client has a unique set of requirements. We accept that each client, uniquely, is a judge of the standards we have achieved in our service. At least once a year a senior partner of the firm, usually a member of the management board unconnected with service delivery, will carry out a service and quality review to*
establish whether we are meeting your expectations and to agree on any areas where our service can be improved.

(RSM Robson Rhodes)

Today’s businesses demand value for money – and are sophisticated judges of good service. It is reassuring that our clients value the responsiveness and quality of our service. For them, our enthusiasm and innovative flair or experience and commercial expertise make us stand out from the crowd. Our client care programme and service reviews ensure our clients continue receiving our very best, professional service. If a client is ever less than satisfied, we will remedy the situation immediately. We identify, prioritise and regularly exceed their expectations, delivering that bit extra in an entrepreneurial way.

(Baker Tilly)

Other firms communicate ideas of service quality less directly. Saffery Champness identify simply they “are committed to a proactive and personal approach that is responsive to your needs”. However, the sections of their report bear labels such as personal approach, expertise, independence, integrity, approachability, responsiveness, knowledge and dependability. Each of these labels are the key characteristics of quality and form part of the AUDITQUAL model developed in chapter five.

Of the four largest firms, KPMG is the only one which describes how the clients’ views on the services provided and the quality of relationships developed. KPMG use a system of independent client reviews to “ensure that client comments can be both candid and open” (KPMG, 2001 p.18) and a Client Service Board reporting to the KPMG main board. The three key performance indicators used in client feedback are: quality of overall relationship, proactivity, and value for money.
Rather less emphasis is given within firms’ annual reviews to societal expectations of their performance. Arguably, annual reviews may have more a client focus than a stakeholder focus, perhaps being produced for existing and potential clients, rather than financial statement users, analysts, investors and employees. When stakeholders are mentioned it is usually in the context of the firm’s charitable activities, sponsorship activities are a form of marketing communication. For example:

> We are also committed to supporting our communities through volunteering and partnership, especially to help those who are disadvantaged. Our stakeholder report illustrates the breadth of these activities.

(Mike Rake, UK Senior Partner, KPMG, 2001)

**Key points**

A firm’s external communications has a bearing on client’s and stakeholders’ expectations of audit quality (both technical and service dimensions). Poor horizontal communications between the firm’s marketing function and operational staff and any tendency to over-promise will create a gap (SERVQUAL gap 4) leading to a negative evaluation of the firm’s performance.

Accounting firms are keen to project an image of providing a high quality of service, of adding value to clients. Firms attempt to achieve this by the employment of imaginative, high-calibre staff, the development of new assurance methodologies and technologies, and of the development of a global firm.

Quality is usually described in relation to service quality, with some firms explicitly describing how they measure and monitor service quality. Less emphasis is given within their literature to technical audit quality attributes.
CHAPTER FIVE

DEVELOPMENT OF AUDITQUAL

The development of a questionnaire (measure) to be used successfully in academic or practitioner research is a difficult and time-consuming process (Schmitt & Klimoski, 1991). Prudent scholarship suggests an instrument should demonstrate satisfactory measurement (ie psychometric) qualities before it is used in applied research, which may influence policy (see Duff, 2001 for a recent review).

As Schwab (1980) points out, measures are often used before adequate data exist regarding their reliability and validity. Many researchers have drawn seemingly significant conclusions from the application of new measures, only to have subsequent studies contradict their findings (Cook et al, 1981). Often scholars are left with an uncomfortable and embarrassing realization that results are inconclusive and that very little may be known about a particular topic.

(Hinkin, 1995 p.967)

It is therefore essential that measurement instruments (ie questionnaires) are constructed using sound development procedures. Without such evidence, a researcher’s questionnaire may be no more valid or reliable than those appearing in popular magazines such as Cosmopolitan. The development of a new measure can be broken down into three stages (Hinkin, 1995; Schwab, 1980). The first stage is item development, where the individual questions (items) are created or generated. The second stage is scale development, or the manner in which items are combined to form new scales. The third stage is scale evaluation, where the new measure undergoes systematic
psychometric examination. This chapter will be presented in the order of these stages and further broken down into steps of the scale development process.

**Stage 1: Item generation**

In item generation the primary concern is content validity (Schreisheim, Powers, Scandura, Gardiner, & Lankau, 1993). For a measure to possess content validity the measure should be capable of capturing the domain of interest, yet exclude extraneous items. That is, the measure should contain a range of items which are representative of the behaviour the test was designed to sample (Cohen, Swerdlik & Phillips, 1996). For example, an auditing examination would possess content validity if the proportion and type of auditing questions in the examination were similar to the proportion and type of problems taught during the course.

Item development in the present study was undertaken in two stages. First, using the literature review of chapter two, the constructs of audit quality were assessed. A construct can be thought of as “an informed, scientific idea developed or ‘constructed’ to describe or explain behavior” (Cohen *et al*, 1996, p.193). Second, having identified the constructs to be examined, items were developed on the basis of the literature review, other researcher’s efforts to study audit quality and service quality, and the author’s understanding of the audit profession. The origin of items is shown within Appendix 1.

The constructs to be examined were as follows:

**Constructs relating to prior work considering audit quality**

- Auditor reputation
- Capability of the auditor
- Auditor independence
• Auditor experience with the client
• Auditor expertise
• Provision of non-audit services

Constructs relating to prior work considering service quality

• Empathy
• Assurance (later relabelled Client Service)
• Responsiveness

As well as making use of the prior literature described in chapter two of this monograph, the questionnaire also utilises the analysis of auditors’ external communications, reported in chapter four. The research reported in chapter four is included in two ways. First, the theme of the firms’ employees/partners “adding value”, forms part of the client service dimension. Second, the quality of the firms’ staff/partners within the proposed dimensions of Reputation, Capability, Expertise and Experience.

Stage 2: Scale development

Design of the developmental study

The instrument consisted of 56 items, with a number of additional questions relating to background variables such as the respondents age, gender and experience of auditing (see appendix). Participants were asked to respond on the basis of their general views about auditing (rather than their experiences of a single audit firm). Items were scored on a five-point Likert scale. An item rated “5” was regarded as “very important for audit quality”, while an item rated “1” was rated “not important for audit quality” – see Appendix 1 for the directions given to respondents. To make the questionnaire easier for respondents to
complete, items were categorised and numerically ordered into three types: audit firm factors, engagement partner factors and audit team factors.

The questionnaire consisted of three sections:

**Section A:** The AUDITQUAL scale, subdivided into four categories of items:

- Audit firm factors
- Engagement partner factors
- Audit team factors
- Other factors

**Section B:** An open-ended question inviting respondents to comment on any aspect of the questionnaire or add comments pertaining to audit quality

**Section C:** Background details, including the respondent’s job title, age group, gender and work experience. See Appendix for further details.

**Scale validation**

To assess the psychometric qualities of the scales, an analytic technique called exploratory factor analysis (EFA) was employed. EFA is essentially a data reduction technique which seeks to represent a set of inter-related observed variables (i.e. in the present study the 56 items) in terms of a smaller number of latent variables (or factors). This makes the task of interpreting the results more straightforward. In the context of the present study, EFA can be thought of as a statistical technique which groups together characteristics of audit quality and service quality where there are similar patterns of response.
Researchers frequently use EFA methods when they have no clear idea of how many underlying factors may exist. There are dangers however, with such an approach, as EFA will simply find the best linear combination of variables, based on their statistical inter-relationship (ie their correlations). Therefore, the factors identified by EFA may bear no reference to any underlying theory. The results of the EFA are reported in Table A2 in Appendix three.

Another approach is to compare the factor solutions to the hypothesised internal structure of the instrument (ie the nine constructs or dimensions of audit quality and service quality identified in the literature) and use the results of the EFA to refine the constructs. That is, theory develops the hypothesised constructs; empirical testing refines these theories. This ‘refinement’ approach was the one employed in the present study.

In the present study, EFA identified six factors, removing three items from the overall analysis that failed to correlate as expected – see Table A2. Three of the six factors each consisted of related dimensions (reputation and capability; empathy and client service; expertise and experience). In conclusion, the EFA results provide some evidence that the internal structure of the instrument (ie its construct validity) is as hypothesised.

To test the appropriateness of the six audit quality/service quality constructs that did not appear as single unidimensional constructs on the basis of the EFA, internal consistency reliability coefficients were calculated. Internal consistency reliability refers to the homogeneity of items within the scale (ie the extent to which item responses correlate with the total test score). Coefficient alpha is the most commonly used measure of internal consistency reliability, with a minimum value of 0.70 recommended for scales which are suitable for applied research (Nunnally, 1978). Alpha coefficients for each of the nine scales ranged from 0.70 to 0.80, indicating each dimension yields scores of
satisfactory internal consistency reliability – see table A.1 in appendix three for further details.

As identified earlier in this chapter, EFA methods are essentially ‘atheoretical’, and create a factor structure based on participants’ responses to individual items. An important concept in scientific research is Popper’s (1959) concept of falsification. The concept of falsification is that a theory cannot be regarded as credible until it has survived serious disconfirmation efforts. In EFA, an expected structure either emerges or does not (Thompson & Daniel, 1996 p.204). An alternative to EFA is confirmatory factor analysis (CFA). CFA allows the researcher to test plausible rival models and to quantify the fit of each model to the data: “testing rival models is usually essential because multiple models may fit the same data” (Thompson & Daniel, 1996 p.204). In the present study, the need for testing multiple models is apparent. For example, are the nine hypothesised audit quality/service quality dimensions unidimensional (i.e. independent of each other) or are they better represented by only six factors (as suggested by the EFA)? Furthermore, CFA provides the means to assess model fit across the three samples of auditors, companies and external financial statement users, and assess differences in the patterns of response across the three samples. Appendix three provides further details of the multiple models tested and the choice of goodness-of-fit statistics. The results of the competing CFA tests are shown in Table A.3 within Appendix three. The final model is shown in Figure 5.1:
Figure 5.1: The AUDITQUAL model
The two factors labelled “Technical Quality” and “Service Quality” are the two so-called ‘higher-order’ factors that determine audit quality as defined by the AUDITQUAL model. Technical Quality is defined by five lower-order factors (Reputation, Capability, Independence, Expertise and Experience). Service Quality is described by four lower-order factors (Responsiveness, Empathy and Client Service, Non-audit Services). The AUDITQUAL model is a nested model, i.e., audit quality is most adequately described by a hierarchical structure. The composition of the AUDITQUAL model is described in Table 5.1.

**Table 5.1: Nine first-order factors of AUDITQUAL scale**

<table>
<thead>
<tr>
<th>First-order factor</th>
<th>No. items</th>
<th>Typical item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reputation</td>
<td>8</td>
<td>“The audit firm is objective”</td>
</tr>
<tr>
<td>2. Capability</td>
<td>7</td>
<td>“The audit team staff are highly competent”</td>
</tr>
<tr>
<td>3. Responsiveness</td>
<td>9</td>
<td>“The audit firm is willing to provide detailed cost information”</td>
</tr>
<tr>
<td>4. Independence</td>
<td>5</td>
<td>“The audit fee controlled by the engagement partner does not represent more than 10% of the total fees controlled by the engagement partner”</td>
</tr>
<tr>
<td>5. Non-audit services</td>
<td>4</td>
<td>“The audit firm is able to supply tax services”</td>
</tr>
<tr>
<td>6. Empathy</td>
<td>4</td>
<td>“The engagement partner is pro-active and contributory”</td>
</tr>
<tr>
<td>7. Client service</td>
<td>7</td>
<td>“The audit firm conducts client service reviews”</td>
</tr>
<tr>
<td>8. Expertise</td>
<td>6</td>
<td>“The audit firm has clients in the same industry”</td>
</tr>
<tr>
<td>9. Experience</td>
<td>3</td>
<td>“The manager of the audit firm has been performing the audit for at least two years”</td>
</tr>
</tbody>
</table>
Table 5.2 reports the correlation coefficients between the nine AUDITQUAL dimensions. Although the results of the CFA support the existence of two groupings of Technical Quality and Service Quality, notable relationships exist between the nine AUDITQUAL dimensions that make up these scales. Within the Technical Quality factor, the dimensions of Reputation, Capability and Expertise are all found to be highly related to each other ($r$ ranging from .38 to .63). However, Reputation, Capability and Expertise are all positively associated with the Client Service dimension from the Service Quality grouping. Similarly, Responsiveness and Empathy from the Service Quality grouping are both positively related to the Provision of Non-audit Services. Therefore, although Technical Quality and Service Quality emerge as distinct constructs, it is important to understand significant relationships exist between those dimensions that make up these constructs.
Table 5.2: Correlation coefficients between nine AUDITQUAL dimensions

<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical Quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Reputation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Capability</td>
<td></td>
<td></td>
<td></td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. Independence</td>
<td></td>
<td>.13</td>
<td>.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV. Expertise</td>
<td></td>
<td></td>
<td></td>
<td>.38</td>
<td>.41</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V. Experience</td>
<td></td>
<td>.23</td>
<td>.19</td>
<td>.26</td>
<td>.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Service Quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. Non-audit services</td>
<td></td>
<td></td>
<td></td>
<td>.08</td>
<td>.08</td>
<td>.03</td>
<td>.05</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td>VIII. Empathy</td>
<td>.15</td>
<td>.20</td>
<td>.02</td>
<td>.26</td>
<td>.19</td>
<td>.29</td>
<td>.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IX. Client service</td>
<td>.44</td>
<td>.54</td>
<td>.07</td>
<td>.58</td>
<td>.31</td>
<td>.15</td>
<td>.32</td>
<td>.61</td>
<td></td>
</tr>
</tbody>
</table>

Figures in *italics*, statistically significant at p<0.01

**Stage 3: Scale evaluation**

The first two stages of developing a new measure focuses on the reliability (internal consistency) and validity (content and construct) of scores produced by the new measure. Model fit statistics are presented in appendix three, table A.3.

Construct validity can be further demonstrated by relating scores on the new measure to some other existing measure with known psychometric qualities. This is said to provide evidence of criterion validity and is demonstrated by correlating scores on the two measures. A second method is assessing the patterns of responses to the instrument across two or more groups who could be expected to differ on the measure (eg auditors, finance directors, and external financial statement users). The present study uses the second approach, which is described in the following chapter.
Key points

This chapter has described the methods (internal consistency reliability analysis, EFA and CFA) used to construct and validate the AUDITQUAL instrument. The importance of scale development methods has been emphasised. Before the results of the administration of any questionnaire can be taken seriously the instrument must yield scores of adequate measurement properties. The resulting measure – shown in Figure 5.1 - produces scores with satisfactory psychometric qualities when applied to samples of auditors, finance directors and external financial statement users. As such, it is possible to be confident that the AUDITQUAL instrument is suitable for applied research and correlational studies that may influence policy development within the accounting profession. The final AUDITQUAL scale identifies two constructs that describe this conception of audit quality: technical quality and service quality. Technical quality is defined by first-order factors of Reputation, Capability, Independence, Non-audit Services, Expertise and Experience. Service quality is described by the first-order factors of Responsiveness, Empathy and Client Service.
CHAPTER SIX

CONDUCT AND ANALYSIS OF SURVEY

The purpose of this chapter is to first, describe the administration of the survey; second, describe the demographics of respondents by sample; and third, report how the three groups of auditors, finance directors and fund managers responded to the AUDITQUAL instrument. Each of these two elements is examined in turn.

Conduct of survey and demographics of respondents by sample

Accounting firm partners

The questionnaire was mailed to 500 partners from the 20 largest firms in the UK, as defined by the Accountancy Age 2001 survey. The partners were drawn at random from the Institute of Chartered Accountants in England and Wales Member Firms’ Directory 2001. All questionnaires were completed anonymously. 109 useable responses were returned, resulting in a response rate of 21.8%. Five individuals indicated they did not wish to participate due to a lack of management time, and two said the addressee had retired. Although the response rate may appear relatively low, when the questionnaire length, the somewhat unorthodox nature of the subject within the accounting field and the fact that marketing-related studies usually achieve a response rate of between 10 and 30% (Green, Tull, & Albaum, 1988), the response rate is acceptable for a postal survey of this nature. 59 respondents were employed in Big 4/5 firms, 44 respondents were employed in medium-
sized firms, six declined to respond. A summary of the AUDITQUAL responses by age and gender is set out in Table 6.1:

**Table 6.1: Demographics of AEP sample**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 35 years</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>35 – 45 years</td>
<td>4</td>
<td>37</td>
<td>41</td>
</tr>
<tr>
<td>Over 45 years</td>
<td>1</td>
<td>56</td>
<td>57</td>
</tr>
<tr>
<td>Not known</td>
<td></td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>96</td>
<td>109</td>
</tr>
</tbody>
</table>

Table 6.2 profiles the work experience of the participants. Participants have significant amounts of work experience (post-qualification experience mean 21.8 years). The majority of this experience has been gained within the same firm.

**Table 6.2: Work experience of accounting firm sample**

<table>
<thead>
<tr>
<th></th>
<th>Mean (years)</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service with present firm</td>
<td>20.2</td>
<td>10.0</td>
</tr>
<tr>
<td>No. years post-qualification experience</td>
<td>21.8</td>
<td>8.42</td>
</tr>
</tbody>
</table>

To test for response bias the sample was divided into early (first 36) and late (last 36) respondents. This assumes late respondents are similar to non-respondents (Oppenheim, 1966). Early and later respondents were compared in their response to the nine AUDITQUAL dimensions using the Mann-Whitney non-parametric test. No statistically significant differences were found across the nine dimensions between the two groups ($\alpha = .05$).
Finance directors

The questionnaire was mailed to 500 finance directors (FDs) chosen at random from 1831 listed UK companies, as reported in the Thompson Financial Global Access company database (December 2001). All questionnaires were completed anonymously. 75 useable responses were returned, resulting in a response rate of 15.0%. Seven companies indicated it was company policy not to respond to surveys, seven said the addressee had left the company.

To test for response bias the sample was divided into early (first 25) and late (last 25) respondents. Early and later respondents were compared in their response to the nine AUDITQUAL dimensions using the Mann–Whitney non-parametric test. No statistically significant differences across the nine dimensions were found between the two groups (α = .05).

Twenty-five respondents were employed in large companies (assets >£100 million), 19 respondents were employed in medium-sized companies (assets £30 million - £100 million), 30 respondents were employed in small companies (assets <£30 million), one declined to respond. A summary of the AUDITQUAL responses by age and gender is set out in Table 6.3:

<table>
<thead>
<tr>
<th>Age group</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 35 years</td>
<td>1</td>
<td>12</td>
<td>13 (17.3%)</td>
</tr>
<tr>
<td>35 – 45 years</td>
<td>2</td>
<td>24</td>
<td>26 (34.7%)</td>
</tr>
<tr>
<td>Over 45 years</td>
<td>2</td>
<td>34</td>
<td>36 (48.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>70</td>
<td>75 (100.0%)</td>
</tr>
</tbody>
</table>

Table 6.3: Demographics of finance director sample
Similar to the sample of accounting firm partners, the FD sample is largely male. An analysis of the FD sample suggests they are rather younger than their colleagues in accounting firms with 17.3% of the sample being under 35 years of age (compared to 3.7% of the accounting firm sample). The majority of respondents (84.0%) had previously worked as external auditor.

Other descriptive information concerning the companies of the FD sample is shown in Table 6.4. It can be seen the sample comes from a range of industries, and an even mix of company size, as assessed by asset size. A large majority of companies (92.0%) sampled had an audit committee. Furthermore, 41.3% of respondents indicated their company held a recognised quality assurance standard (eg ISO9000, EFQM). Company’s which hold quality assurance standards are likely to see quality as a source of competitive advantage. Therefore, FDs of companies holding quality assurance standards may have different perceptions of the dimensions of audit quality to those in companies not holding such awards.
Table 6.4: Information relating to the company

<table>
<thead>
<tr>
<th>Industry</th>
<th>N= (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital goods</td>
<td>4 (5.3%)</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>14 (18.7%)</td>
</tr>
<tr>
<td>Financial</td>
<td>15 (20.0%)</td>
</tr>
<tr>
<td>Other</td>
<td>42 (56.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>75 (100.0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company size</th>
<th>N= (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (assets &lt;£30 million)</td>
<td>30 (40.0%)</td>
</tr>
<tr>
<td>Medium (assets £30-£100 million)</td>
<td>19 (25.3%)</td>
</tr>
<tr>
<td>Large (assets &gt;£100 million)</td>
<td>26 (34.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>75 (100.0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of an audit committee?</td>
<td>69 (92.0%)</td>
<td>6 (8%)</td>
<td>75 (100.0%)</td>
</tr>
<tr>
<td>Possession of a recognised quality assurance standard?</td>
<td>31 (41.3%)</td>
<td>44 (58.7%)</td>
<td>75 (100.0%)</td>
</tr>
</tbody>
</table>

Table 6.5 reports information concerning the characteristics of the auditor’s employed by the sample of company FDs. Big 4/5 audit firms represent the majority of audit firms employed by the sample (81.3%), reflecting the market concentration of Big 4/5 audit firms amongst listed companies. Interestingly, a large number of companies have employed their current auditors for a period of less than five years (37.3%). Only 25.3% of respondents’ companies had employed
their current auditors for a period in excess of ten years. Finally, a significant proportion of the sample report making use of non-audit services from their current auditor with 37.4% reporting non-audit services accounted for over 50% of the total fees paid to the firm during the year.

**Table 6.5: Information relating to the auditors employed by the company**

<table>
<thead>
<tr>
<th>The size of current auditor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Big 4/5</td>
<td>61 (81.3%)</td>
</tr>
<tr>
<td>Non-Big 4/5</td>
<td>14 (18.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>75 (100.0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Auditor tenure</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 years</td>
<td>28 (37.3%)</td>
</tr>
<tr>
<td>5 – 10 years</td>
<td>26 (34.7%)</td>
</tr>
<tr>
<td>&gt; 10 years</td>
<td>19 (25.3%)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>2 (2.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>75 (100.0%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proportion of total audit fees paid to audit firm in respect of non-audit services</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>3 (4.0%)</td>
</tr>
<tr>
<td>&lt; 25%</td>
<td>22 (29.3%)</td>
</tr>
<tr>
<td>25-50%</td>
<td>22 (29.3%)</td>
</tr>
<tr>
<td>&gt; 50%</td>
<td>28 (37.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>75 (100.0%)</td>
</tr>
</tbody>
</table>
UK fund managers

The questionnaire was mailed to 500 fund managers (FMs) chosen at random from 1550 fund managers based in the UK, as reported in the Caritas Data European Fund Managers 2002 database. All questionnaires were completed anonymously. 76 useable responses were returned, resulting in a response rate of 15.2%. Two fund managers indicated it was policy not to respond to surveys. To test for response bias the sample was divided into early (first 25) and late (last 25) respondents. Early and later respondents were compared in their response to the nine AUDITQUAL dimensions using the Mann-Whitney non-parametric test. No statistically significant differences across any of the nine dimensions were found across the two groups ($\alpha = .05$). A summary of the AUDITQUAL responses by age and gender is set out in Table 6.6.

**Table 6.6: Demographics of Fund Manager sample**

<table>
<thead>
<tr>
<th>Age group</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 35 years</td>
<td>6</td>
<td>8</td>
<td>14 (18.4%)</td>
</tr>
<tr>
<td>35 – 45 years</td>
<td>0</td>
<td>26</td>
<td>26 (34.2%)</td>
</tr>
<tr>
<td>Over 45 years</td>
<td>0</td>
<td>30</td>
<td>30 (39.5%)</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>64</td>
<td>70 (92.1%)</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td>6 (7.9%)</td>
</tr>
</tbody>
</table>

Similar to the sample of accounting firm partners and finance directors, the sample is largely male. 18.4% of the FM sample are aged under 35 years of age, as opposed to 17.3% of the FD sample, and only 3.7% of the accounting firm sample. The majority of respondents (51.0%) reported they had significant experience of the audit profession, having previously worked as an auditor, with a further 37.0% considering they possessed “an understanding of the audit process”. Only 12.0% reported having minimal or no experience of
the audit profession. The majority of FMs spend little time on audit activities. 39.5% of the FM sample reported spending no time on audit-related activities, with a further 47.4% reporting spending under 25% of their time on audit-related activities. In summary, the FM sample can be considered as relatively sophisticated users of financial information, possessing either experience of working as an auditor or an understanding of the audit process. However, relatively little of their work time is spent on audit activities suggesting their current day-to-day contact with the profession is slight.

**Responses to survey by sample group**

**Accounting firm partners**

Responses to the AUDITQUAL section of the questionnaire from the sample employed in accounting firms are shown in Table 6.7. The highest mean scores are for the two factors representing Reputation and Capability, which are combined within the AUDITQUAL model shown in Figure 5.1 to create a higher-order factor labelled ‘Status’. There is a high level of consensus of the relative importance of both Reputation and Capability characteristics. The four remaining technical quality dimensions (Independence, Non-audit services, Expertise and Experience) were regarded as less important than Reputation and Capability and at a similar level to the three service quality dimensions. The relatively low mean score and lack of consensus for the Independence dimension is perhaps surprising, as independence represents one test of audit quality (the other being competence) from positive accounting theory. Much of this result can be explained by responses to items concerning the audit fee paid by the client, with a sizeable proportion of auditors considering the proportion of fees controlled by an engagement partner as being relatively unimportant.
Table 6.7: Auditors’ response to AUDITQUAL section of questionnaire

<table>
<thead>
<tr>
<th></th>
<th>Big 4/5 partners</th>
<th>Non-Big 4/5 partners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean score¹</td>
<td>Level of consensus²</td>
</tr>
<tr>
<td><strong>Technical quality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Reputation</td>
<td>4.53</td>
<td>Medium</td>
</tr>
<tr>
<td>2. Capability</td>
<td>4.65</td>
<td>High</td>
</tr>
<tr>
<td>3. Independence</td>
<td>2.64</td>
<td>Low</td>
</tr>
<tr>
<td>4. Expertise</td>
<td>3.90</td>
<td>Medium</td>
</tr>
<tr>
<td>5. Experience</td>
<td>3.08</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Service quality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Non-audit services</td>
<td>2.55</td>
<td>Low</td>
</tr>
<tr>
<td>7. Responsiveness</td>
<td>2.95</td>
<td>Medium</td>
</tr>
<tr>
<td>8. Empathy</td>
<td>3.61</td>
<td>Medium</td>
</tr>
<tr>
<td>9. Client service</td>
<td>3.98</td>
<td>Medium</td>
</tr>
</tbody>
</table>

Notes to table:

1. Response scale is 5 (very important), 4 (important), 3 (fairly important), 2 (little importance), 1 (not important at all).
2. Level of consensus is classified based upon the standard deviation (SD) of responses: SD ≤ 0.50 (high); 0.50 < SD ≤ 0.8 (medium); SD > 0.8 (low).

Some scholars have argued audit quality is related to firm size (e.g. DeAngelo, 1981) as outlined in chapters two and three. Consequently, it is worth comparing scores on the nine AUDITQUAL dimensions
across the two groups of Big 4/5 partners and Non-Big 4/5 partners. Examining the mean scores across the two samples finds both groups rate Reputation and Capability as the most important determinants of audit quality. However a number of differences in mean scores can be observed across the two groups. To determine whether the responses of the two groups are different, the statistical technique of discriminant analysis is employed. Discriminant analysis is a means of distinguishing between two or more groups, based on a collection of variables (in this case, AUDITQUAL dimensions). The concept underlying discriminant analysis is straightforward: linear combinations of the independent variables (the AUDITQUAL dimensions) are formed and serve as the basis for classifying cases into one of the groups (ie Big 4/5 firm or Non-Big 4/5 firm). Discriminant analysis is a multi-variate statistical technique, which provides a simple means of differentiating between the two groups. This is preferable to other (uni-variate) analytic techniques which would test for differences between the two groups across all the dimensions individually. Such multiple testing creates the possibility of statistically significant differences arising by chance alone. Table 6.8 displays the discriminant function coefficients along with the Wilks’ lambda statistic. Wilks’ lambda can take on values between 0 and 1. Large values of lambda (ie close to 1) indicate the groups are not different, whilst small values indicate the group means do appear to be different. Wilks’ lambda is a measure of effect size, ie the magnitude of the difference between the two groups. Furthermore, the statistical significance of the result (p) can also be computed, to provide an indication of whether the difference calculated for the samples, as compared to the populations from which it is drawn can be attributed to mere chance. Thus the interpretation of these two results necessarily goes hand in hand. That is, the research is concerned with an assessment of practical significance, as well as statistical significance (see for example, Kirk, 1996). The Wilks’ lambda value of 0.767 suggests that the groups are different in some respects.
**Table 6.8: Discriminant function coefficients – Big 4/5 versus Non-Big 4/5 sample**

<table>
<thead>
<tr>
<th>Technical quality</th>
<th>Standardised discriminant function coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation</td>
<td>.298</td>
</tr>
<tr>
<td>Capability</td>
<td>.043</td>
</tr>
<tr>
<td>Expertise</td>
<td>-.611</td>
</tr>
<tr>
<td>Experience</td>
<td>.018</td>
</tr>
<tr>
<td>Independence</td>
<td>.530</td>
</tr>
</tbody>
</table>

**Service quality**

| Non-audit services      | -.094                                           |
| Responsiveness          | .651                                            |
| Empathy                 | -.176                                           |
| Client Service          | -.313                                           |

Wilks’ lambda = 0.751; $\chi^2 = 27.309; p < .001$

Interpreting discriminant coefficients requires some explanation. First, the coefficients are standardised so the magnitude of the coefficients are comparable. For example, scores of the Responsiveness dimension with nine items (and hence a maximum score of 45) are standardised to make them comparable with scores on the Empathy dimension with only four items (and hence a maximum score of only 20). However, the values of the standardised discriminant function coefficients are also affected by the correlations of other independent variables – a problem known as collinearity. Therefore, the coefficients do not in any absolute sense reflect the importance of the various independent variables.
An analysis of the standardised discriminant function coefficients suggests that responses to the AUDITQUAL dimensions of Expertise, Responsiveness and Independence explain most of this difference. Table 5.2 in the preceding chapter, identifies Expertise, Responsiveness and Independence are relatively uncorrelated ($r$ ranging from .06 to .16) and are consequently less likely to suffer from the previously described problems of collinearity. Non-Big 4/5 partners rate Independence and Responsiveness higher than Big 4/5 partners. Big 4/5 partners rate Expertise higher than Non-Big 4/5 partners. It is likely Non-Big 4/5 partners are likely to perceive Responsiveness to clients’ needs as a means of gaining competitive advantage. Big 4/5 partners, working in firms with considerable technical resources are likely to value Expertise higher than their colleagues in Non-Big 4/5 firms. The difference across the two groups in mean scores on the Independence dimension is less easy to explain. However, the low level of consensus particularly in the Big 4/5 partner group may explain the result. An analysis at item level, reveals a wide distribution of responses to questions relating to an appropriate upper limit for a specific client’s audit fee in relation to the overall level of fees controlled by the audit engagement partner responsible. As one respondent noted:

*(The) audit fee relationship to firm’s income (say 10%) is more important than individuals in the firm*

(Big 4/5 audit engagement partner)

Another respondent perceived independence as rather less an issue:

*Independence is an issue as it relates to other services is overplayed. There is not one instance in the UK where audit failure can be put down to a lack of objectivity caused by the lack of independence as opposed to rank bad work or negligence.*

(Big 4/5 audit engagement partner)
Accounting firm partners are not alone in struggling with the concept of independence. Van Der Plaats (2000, p.625) suggests “auditor independence is one of the most thorny and political issues for a regulator to deal with”. When auditors’ responses are considered in the light of the discussion concerning independence in fact in chapter two, it is unsurprising there is marked variation amongst auditors on the concept of independence.

**Finance directors**

The pattern of responses of the FD sample reported in Table 6.9 is broadly similar to that of the accounting firm partner sample. Reputation and Capability receive the highest ratings and achieve a high level of consensus amongst participants. Again, similar to the accounting firm partner sample, three of the four service quality dimensions receive a similar ratings with mean scores varying from 3.49 to 3.61, with the exception of Non-audit services which is regarded as less important (mean = 2.44) and achieves only a low level of consensus.
Table 6.9: Finance directors’ response to AUDITQUAL section of questionnaire

<table>
<thead>
<tr>
<th></th>
<th>Summary statistics from AUDITQUAL analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean score¹</td>
</tr>
<tr>
<td><strong>Technical quality</strong></td>
<td></td>
</tr>
<tr>
<td>1. Reputation</td>
<td>4.39</td>
</tr>
<tr>
<td>2. Capability</td>
<td>4.35</td>
</tr>
<tr>
<td>3. Independence</td>
<td>2.92</td>
</tr>
<tr>
<td>4. Expertise</td>
<td>3.53</td>
</tr>
<tr>
<td>5. Experience</td>
<td>3.05</td>
</tr>
<tr>
<td><strong>Service quality</strong></td>
<td></td>
</tr>
<tr>
<td>6. Non-audit services</td>
<td>2.44</td>
</tr>
<tr>
<td>7. Responsiveness</td>
<td>3.49</td>
</tr>
<tr>
<td>8. Empathy</td>
<td>3.57</td>
</tr>
<tr>
<td>9. Client service</td>
<td>3.61</td>
</tr>
</tbody>
</table>

**Notes to table:**

1. Response scale is 5 (very important), 4 (important), 3 (fairly important), 2 (little importance), 1 (not important at all).
2. Level of consensus is classified based upon the standard deviation (SD) of responses: $SD \leq 0.50$ (high); $0.50 < SD \leq 0.8$ (medium); $SD > 0.8$ (low).

It is also of interest to examine the relationship between some of the background and demographic variables of the FD respondents. Table 6.10 reports the correlation coefficients (i.e., degree of association or relationship) between the variables of company size, auditor size, auditor tenure, the length of service of the FD, and the age group of
the FD. A number of large relationships are observed. Some large and statistically significant relationships are observed and yet trivial (e.g., the age of an FD is positively related to their length of service). Similarly, auditor size is positively associated with company size. However, two relationships are observed which are not intuitive. First, auditor tenure is positively related to company size (r = .35, implying 12% of auditor tenure can be explained by company size). Second, auditor tenure is positively associated with the age group of the FD, implying the relationship between the FD and the auditor is a personal one. The importance of the FD-AEP relationship has been stressed in a number of previous investigations (e.g., Beattie & Fearnley, 1995; Beattie et al., 1998, 2001; Fellingham & Newman, 1985; Fisher, Schatzberg & Shapiro, 1996).

**Table 6.10: Correlation coefficients between selected background variables**

<table>
<thead>
<tr>
<th></th>
<th>Company size</th>
<th>Auditor size</th>
<th>Tenure</th>
<th>FD length of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditor size</td>
<td>.32 *</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenure</td>
<td>.35 *</td>
<td>.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FD length of service</td>
<td>.39 *</td>
<td>.10</td>
<td>.47 *</td>
<td></td>
</tr>
<tr>
<td>Age of FD</td>
<td>.10</td>
<td>.01</td>
<td>.37 *</td>
<td>.45 *</td>
</tr>
</tbody>
</table>

* p<0.01

Table 6.11 reports correlation coefficients calculated between the nine AUDITQUAL dimensions and the background variables of company size, auditor size, auditor tenure, FD length of service with company, age group of the FD and the existence of an audit committee. Although the magnitude of the majority of correlation coefficients
are small, indicating scores on AUDITQUAL are largely unrelated
to the background variables, a number of important relationships are
observed. First, company size is related to scores on the Reputation
dimension. This reflects the concentration of Big Five firms within the
large company audit market and the association between company size
and auditor size ($r = .32$) in the present investigation. The background
variable which reports the greatest relationship with AUDITQUAL
dimension scores is the age of the FD. Age is positively related to
scores on Reputation ($r = .28$) and Experience ($r = .21$), and negatively
associated with Expertise ($r = -.22$). To establish whether practical
and statistically significant differences exist between different age
groups, discriminant analysis is performed. Because a relatively small
proportion of the FDs sampled in the study were aged under 35 years,
the under 35 years group were combined with the 35 to 45 years of
age group. This created two age groups of under 45 years and over
45 years, each of approximately similar sample size. The results of the
discriminant analysis are shown in Table 6.12.
Table 6.11: Correlation coefficients: AUDITQUAL dimensions and selected background variables – FD sample

<table>
<thead>
<tr>
<th></th>
<th>Company size</th>
<th>Auditor size</th>
<th>Tenure</th>
<th>FD length of service</th>
<th>Age of FD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Reputation</td>
<td>.32**</td>
<td>-.13</td>
<td>.02</td>
<td>.15</td>
<td>.28*</td>
</tr>
<tr>
<td>2. Capability</td>
<td>.16</td>
<td>-.08</td>
<td>-.05</td>
<td>.05</td>
<td>.14</td>
</tr>
<tr>
<td>3. Independence</td>
<td>.03</td>
<td>.01</td>
<td>.09</td>
<td>.20</td>
<td>.18</td>
</tr>
<tr>
<td>4. Expertise</td>
<td>.18</td>
<td>.03</td>
<td>-.04</td>
<td>-.04</td>
<td>-.22</td>
</tr>
<tr>
<td>5. Experience</td>
<td>.05</td>
<td>.07</td>
<td>-.05</td>
<td>.05</td>
<td>.21</td>
</tr>
<tr>
<td><strong>Service quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Non-audit services</td>
<td>.15</td>
<td>-.04</td>
<td>.05</td>
<td>.04</td>
<td>-.08</td>
</tr>
<tr>
<td>7. Responsiveness</td>
<td>-.02</td>
<td>.07</td>
<td>.01</td>
<td>-.10</td>
<td>.04</td>
</tr>
<tr>
<td>8. Empathy</td>
<td>.03</td>
<td>.11</td>
<td>-.10</td>
<td>-.07</td>
<td>.08</td>
</tr>
<tr>
<td>9. Client service</td>
<td>.10</td>
<td>.05</td>
<td>-.21</td>
<td>-.07</td>
<td>.01</td>
</tr>
</tbody>
</table>

* p < 0.05
** p < 0.01
Table 6.12: Discriminant function coefficients – FDs, under 45 years versus over 45 years

<table>
<thead>
<tr>
<th>Standardised Discriminant function coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical quality</td>
</tr>
<tr>
<td>Reputation</td>
</tr>
<tr>
<td>Capability</td>
</tr>
<tr>
<td>Expertise</td>
</tr>
<tr>
<td>Experience</td>
</tr>
<tr>
<td>Independence</td>
</tr>
<tr>
<td>Service quality</td>
</tr>
<tr>
<td>Non-audit services</td>
</tr>
<tr>
<td>Responsiveness</td>
</tr>
<tr>
<td>Empathy</td>
</tr>
<tr>
<td>Client Service</td>
</tr>
</tbody>
</table>

Wilks’ lambda = .754; $\chi^2 = 19.10, p = .02$.

The value of Wilks’ lambda calculated suggests the groups are different in some respects. The test of statistical significance of the observed Wilks’ lambda value indicates the means of the discriminant functions are not equal across the two populations of FDs aged under 45 years and aged over 45 years. Generally, older FDs rated AUDITQUAL dimensions higher than their younger colleagues, the exceptions being: Expertise, Non-audit services and Client Service, which were regarded as more important by those FDs aged under 45 years. The largest standardised discriminant function coefficients values occur for Experience, Expertise, Independence and Empathy.
The findings of the present investigation are comparable to those of Moizer (1998) who examined UK company directors’ views on the performance of the (then) Big Eight accounting firms in 1987 and Big Six accounting firms in 1996. Moizer (1998) measured perceptions of performance using a composite measure of performance, including aspects of technical and service quality relating the aggregate performance score to 11 independent variables in a multivariate regression equation. The multivariate regression procedure is mathematically similar to the discriminant analysis used in the present study. The major explanatory variable in Moizer’s (1998) analysis was age, with older company directors being more likely to be satisfied with the performance of their older firm than their younger colleagues. Moizer’s analysis draws on the work of Hunter & Sundel (1989) to identify men in their forties are more likely to visualise the so-called big picture, have enhanced judgement skills, and that men of middle age are most likely of all the age groups to be satisfied with their jobs (Tamir, 1989).

**UK fund managers**

The pattern of responses of the FM sample is broadly similar to that of both the accounting firm partner sample and the sample of FDs. Reputation and capability receive the highest ratings and achieve a high level of consensus amongst participants – see Table 6.13. The importance of the provision of non-audit services receives the lowest rating (2.14), a result similar to the analysis of results for the accounting firm partner and FD samples.
Table 6.13: Fund managers’ response to AUDITQUAL section of questionnaire

<table>
<thead>
<tr>
<th>Technical quality</th>
<th>Summary statistics from AUDITQUAL analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean score(^1)</td>
</tr>
<tr>
<td>1. Reputation</td>
<td>4.56</td>
</tr>
<tr>
<td>2. Capability</td>
<td>4.45</td>
</tr>
<tr>
<td>3. Independence</td>
<td>3.36</td>
</tr>
<tr>
<td>4. Expertise</td>
<td>3.82</td>
</tr>
<tr>
<td>5. Experience</td>
<td>3.21</td>
</tr>
<tr>
<td>Service quality</td>
<td></td>
</tr>
<tr>
<td>6. Non-audit services</td>
<td>2.14</td>
</tr>
<tr>
<td>7. Responsiveness</td>
<td>3.13</td>
</tr>
<tr>
<td>8. Empathy</td>
<td>3.35</td>
</tr>
<tr>
<td>9. Client service</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Notes to table:

1. Response scale is 5 (very important), 4 (important), 3 (fairly important), 2 (little importance), 1 (not important at all).
2. Level of consensus is classified based upon the standard deviation (SD) of responses: SD ≤ 0.50 (high); 0.50 < SD ≤ 0.8 (medium); SD > 0.8 (low).

Table 6.14 examines the association between the background variables of the proportion of time spent on audit activities, FMs experience of the audit process, the length of service of the FM with their current employer, the age group of the FM, and scores on the nine
AUDITQUAL dimensions. Although the majority of the correlation coefficients are of low magnitude, a number of interesting relationships are found. Those fund managers who spend proportionately more time on audit activities rate Expertise ($r = .20$), Empathy ($r = .29$) and Client Service ($r = .45$) as more important than FMs who spend less time on audit activities. This result may however be attributable to FMs assessment of their own auditor, rather than auditors of companies they consider for inclusion in their own portfolio.

Another unexpected finding is that experience of the audit process is negatively related to both Reputation ($r = - .29$) and Independence ($r = - .21$). This finding suggests that those FMs who have worked as auditors place less emphasis on the need for a company to be audited by a Big Four firm, and have a different view of the concept of independence to those with little audit experience.

Finally, the age group of the FM is related to scores on two AUDITQUAL dimensions: Expertise ($r = - .29$) and Experience ($r = - .40$), suggesting older FMs either place less emphasis on these dimensions or take them for granted.
Table 6.14: Correlation coefficients - AUDITQUAL dimensions and selected background variables

<table>
<thead>
<tr>
<th></th>
<th>% time spent on audit activities(^1)</th>
<th>Experience of audit process(^2)</th>
<th>FM length of service(^3)</th>
<th>Age group of FM(^4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Reputation</td>
<td>-0.06</td>
<td>-0.29 *</td>
<td>-0.01</td>
<td>-0.02</td>
</tr>
<tr>
<td>2. Capability</td>
<td>-0.14</td>
<td>-0.13</td>
<td>0.11</td>
<td>-0.02</td>
</tr>
<tr>
<td>3. Independence</td>
<td>-0.12</td>
<td>-0.21</td>
<td>0.15</td>
<td>0.01</td>
</tr>
<tr>
<td>4. Expertise</td>
<td>0.20</td>
<td>0.20</td>
<td>-0.29 *</td>
<td>-0.29 *</td>
</tr>
<tr>
<td>5. Experience</td>
<td>0.14</td>
<td>-0.05</td>
<td>0.00</td>
<td>-0.40 **</td>
</tr>
<tr>
<td>Service quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Non-audit services</td>
<td></td>
<td>0.04</td>
<td>0.01</td>
<td>-0.05</td>
</tr>
<tr>
<td>7. Responsiveness</td>
<td>0.09</td>
<td>0.19</td>
<td>-0.02</td>
<td>-0.09</td>
</tr>
<tr>
<td>8. Empathy</td>
<td>0.29 *</td>
<td>0.05</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>9. Client service</td>
<td>0.45 **</td>
<td>-0.12</td>
<td>-0.09</td>
<td>-0.16</td>
</tr>
</tbody>
</table>

Key:  
\(^1\) 1=0% to 4=75-100%.  
\(^2\) 1=Minimal to 3=Significant.  
\(^3\) Continuous.  
\(^4\) 1=<35 years to 3 >45 years.  
* \(p<0.05\)  
** \(p<0.01\)

Differences across the three sampled groups

An important research question is how do three sampled groups of auditors, FDs and FMs differ in their attitudes to audit quality. Mean scores across the three groups are shown in Table 6.15.
In general terms, auditor and FDs mean scores across the nine dimensions are broadly similar, with auditors tending to rate technical quality attributes higher than FDs, and FDs rating service quality attributes higher than auditors.

However, the most marked difference is the users group of FMs who rate technical qualities higher than service quality attributes, than either the FD or auditor sample. This is an expected finding, as external users of accounting information are less likely to be interested in service quality issues between the auditor and their client. This finding is similar to the results of Warming-Rasmussen & Jensen’s (2001) study conducted in Denmark, where Danish external users (shareholders and financial journalists) rated audit quality (ie technical
quality attributes in the present investigation) higher than auditors or managing directors.

To test whether these differences are practically and statistically significant across the three groups, discriminant analysis is used to distinguish between members of the three groups. This technique is similar to the two-group analysis performed earlier, with the difference that it computes two functions, which are uncorrelated with each other. The results of the three group discriminant analysis are shown in Table 6.16, and suggest the pattern of scores on the nine AUDITQUAL dimensions across the three samples are both practically and statistically significant.
Table 6.16: Discriminant function coefficients – Auditors, FDs and FMs

<table>
<thead>
<tr>
<th>Technical quality</th>
<th>Standardised Discriminant function coefficients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Function 1</td>
<td>Function 2</td>
<td></td>
</tr>
<tr>
<td>Reputation</td>
<td>- .266</td>
<td>.481</td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td>.522</td>
<td>- .623</td>
<td></td>
</tr>
<tr>
<td>Expertise</td>
<td>.006</td>
<td>.400</td>
<td></td>
</tr>
<tr>
<td>Experience</td>
<td>.088</td>
<td>.011</td>
<td></td>
</tr>
<tr>
<td>Independence</td>
<td>.047</td>
<td>.586</td>
<td></td>
</tr>
<tr>
<td>Service quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-audit services</td>
<td>.479</td>
<td>- .441</td>
<td></td>
</tr>
<tr>
<td>Responsiveness</td>
<td>- 1.015</td>
<td>- .218</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>.084</td>
<td>- .369</td>
<td></td>
</tr>
<tr>
<td>Client service</td>
<td>.513</td>
<td>.230</td>
<td></td>
</tr>
</tbody>
</table>

Function 1 through 2: Wilks’ lambda = .644; $\chi^2 = 95.138, p < .0005$
Function 2: Wilks’ lambda = .880; $\chi^2 = 27.539, p < .001$

Key points

All three groups rate the technical quality dimensions of Reputation and Capability the highest. The dimension rated least important is the service quality dimension considering the provision of Non-audit services. Auditors and FDs were broadly similar in their pattern of response to the inventory, with FDs tending to rate service quality attributes higher than the accounting firm partners, and accounting firm partners rating technical quality issues higher than FDs. FMs tending to rate technical issues higher than either auditors and FDs and service quality issues less than accounting firm partners or
FDs. These results were confirmed by a discriminant analysis applied across the three samples.

Big 4/5 partners rate Expertise higher than non-Big 4/5 partners. Non-Big 4/5 partners rate Responsiveness and Independence as being more important than their Big 4/5 colleagues.

Auditor tenure is positively associated with the age of the FD, reconfirming the importance of the personal relationship between the FD and audit engagement partner (eg Beattie et al, 2001; De Ruyter & Wetzels, 1999; Moizer, 1998). In general older (ie over 45 years of age) FDs tended to rate AUDITQUAL dimensions higher than their younger counterparts.

Model fit is also excellent for the three samples. That is, the questionnaire is equally applicable across the three populations of auditors, finance directors and fund managers.
CHAPTER SEVEN

DISCUSSION AND IMPLICATIONS

Introduction

Assurance services guru Robert Elliott (Elliott, 1995 p.119) argues that the real customers for audit services (eg stakeholder groups) have “quite a variety of unfulfilled needs in using information for decision making”. The AICPA’s Committee on Assurance Services (1997) recognised the necessity of the customer (ie stakeholder) comes first approach and the desirability of offering expanded services to decision makers. To conclude this monograph, this chapter considers how audit quality might influence firms’ strategic decision making in the future.

Earlier chapters have identified audit quality (both service and technical aspects) can be a source of competitive advantage for accounting firms. To achieve competitive advantage an organisation needs to pursue a strategy of differentiation or cost leadership. An important conclusion is that it’s not just OK to be different, it is essential to sustain competitive advantage. Doing the same things better achieves operational effectiveness, but as competitors are also trying to be better, competitive advantage does not occur (Bachmann, 2002 p.61).

Implications arising from the analysis of AUDITQUAL

Perceptions of audit quality (as measured by AUDITQUAL) across the three sampled groups of auditors, auditees and external users were relatively homogenous. This conclusion is also supported by the finding that the AUDITQUAL model fitted the data well for each of
the three samples. However, accounting firm partners tended to rate technical aspects of audit quality higher than the sample of finance directors, and the finance directors rate service quality higher than the accounting firm partners. While this finding may be reassuring for external users of accounting information and regulators, auditors may wish to consider the importance finance directors place on service aspects of the client relationship. Unsurprisingly, fund managers tended to rate technical quality higher than service quality, presumably as service quality represents an unobserved variable to external users of accounting information.

Technical quality consists of five scales: reputation, capability, expertise, experience, and independence. Service quality consists of the four scales labelled: non-audit services, responsiveness, empathy, and client service. Although the existence of these two higher-order factors is confirmed by the testing of multiple models, it is important to note that the scales labelled independence and non-audit services are relatively distinct from both technical quality and service quality, and from each other.

For each of the three samples, reputation and capability were the scales, which received the highest ratings. That the reputation of the firm and the capabilities of its partners and staff is unsurprising. However, the scale rated as least important by all three groups was the provision of non-audit services. This finding is at odds with the analysis of firms’ external communications, where firms tended to emphasise the range of non-audit services they could provide as means of differentiating themselves from competitors. Furthermore, firms have promoted value-adding auditing to assist the risk management profile of the client. As auditors also promote the importance of providing consulting services necessary to create the client specific knowledge (i.e. economies of scope) to audit complex international businesses, the low rating of non-audit services conflicts with both economic theory and professional practice. Perhaps rather than simply eulogise over the
scope, uniqueness and technologies of their non-audit services, firms might promote the role non-audit services play in audit quality.

**Implications for educators and those responsible for the professional development of accountants**

Audit quality is very much dependent on the quality of people. If auditors are not also permitted to provide non-audit services, the career of an auditor will be such that good quality people do not join the audit profession.

(Big 4/5 partner)

As the present study has stressed the role of both technical and service quality in audit quality, accounting firms will need to attract, retain and develop staff of the highest calibre. Firms’ external communications described in chapter six, emphasises the importance of staff in the provision of quality professional services. Perhaps then the most obvious finding of this work for educators is that the so-called ‘good quality people’ that firms wish to attract and retain should have the necessary skills, both technical and interpersonal, to deliver technical quality to stakeholders (and clients) whilst providing the best possible service to clients.

The personality profile exhibited by the majority of practising accountants (ie ISTJ using the MBTI framework) suggests they are individuals who are likely to possess high technical skills, but less likely to have the social skills necessary to establish and maintain long-term relationships. In particular, ISTJ may be perceived as being reserved, passive, cold, and even selfish individuals. Given the importance of individual and team skills in working with clients, accounting firms may wish to consider how they screen individuals prior to employment in their firm. De Ruyter & Wetzels (1999 p.72) suggest auditors should view themselves as “salespeople representing complex bundles
of services and view themselves as relationship managers”. Such a screening process, perhaps using psychometric testing and assessment centres, might identify people who possess warmer and more outgoing personality profiles.

A further consideration is whether a firm’s desire to maximise client satisfaction and encourage client centeredness (Thornbury, 1999) could encourage accommodating the client or doing what the client wishes without question. Educators and staff partners in accounting firms interested in developing systems to improve audit quality should ensure trainees, and more senior staff are fully aware of who the ‘real’ client is (ie the stakeholder) at all times.

**Recommendations**

1. **It is important that audit quality should be seen as a multi-dimensional construct**

   Studies which examine audit quality purely from the perception of technical competence and independence are missing other related variables from their analysis. Although the present research sees technical quality and service quality as distinct constructs, empirical relationships exist between the scales of these twin factors. Therefore, practitioners, researchers and educators should think of audit quality in broader terms, which should encompass service attributes (ie empathy, client service, responsiveness and provision of non-audit services), as well as technical ones (reputation, capability, independence, expertise and experience).

2. **Audit firms should emphasise those elements of audit quality most important to clients and stakeholders when promoting their services**

   The present investigation found all three groups of auditors, clients (finance directors) and stakeholders (fund managers) consistently rated
the two technical quality dimensions of Reputation and Capability the highest. The service quality literature stresses the importance of identifying the features of quality that are considered most important by users. Therefore, when promoting assurance services, accounting firms should emphasise their reputation and the capabilities of their audit partners and staff. Clients and external users of accounting information are likely to value the firm’s reputation and partner/staff capability much more than for example, their ability to offer non-audit services.

3. Auditors should put in place systems to monitor and improve audit quality

Audit firms trying to achieve a distinctive position and sustainable competitive advantage by delivering the highest levels of audit quality should put in place a continuous process to:

(i) monitor clients’ perceptions of audit quality;
(ii) identify the causes of audit quality shortfalls; and
(iii) take appropriate action to improve audit quality.

Auditors should use the AUDITQUAL instrument described in chapter five to assess and understand clients’ perceptions of audit quality. Applying the conceptual (‘extended gaps’) model described in chapter three provides the means to link client-perceived quality deficiencies to within-firm deficiencies (‘gaps’).

Avenues for future research

Part of the strength of any research project lies in the recognition of its limitations. This will in part identify potential issues that merit future work. First, this study uses samples of accounting firm
partners to proxy for auditors, finance directors as representatives of auditees and fund managers as external users (or customers) of audited financial information. Future work that reveals whether the results are generalisable across other groups of auditors, preparers of financial statements and external users would be interesting. Secondly, all attributes of quality were measured at one point in time, from a static perspective. Recent corporate accounting scandals (eg Enron, WorldCom) which have almost certainly damaged the accounting profession may have altered the dynamics of audit quality.

The extended gaps model identifies eight potential audit quality gaps, their antecedents and means of closing these gaps. Work using specific audit firms, their clients and stakeholders has the ability to test these propositions empirically. Zeithaml et al, (1990) have developed generic questionnaires, one to be administered to the service providers’ managers and customers (to measure gaps 1 and 2), the second to employees (to measure gaps 3 and 4). Porter’s (1993, 2000) work uses a questionnaire approach to identify what has been categorised within the present investigation as gaps 6 to 8. The extended gaps model has the capacity to inform all parties (auditors, clients and external users) of the antecedents of audit quality and how these might be closed.

This analysis of audit quality has drawn from the extant audit quality literature (from the accounting research), service quality literature (derived from marketing and operations management research) and competitive rivalry and strategic positioning literature (from strategic management research). Given firms’ desire to extend the boundaries of the traditional audit to develop risk-based assurance services emphasising the advisory role (eg Elliott, 2002), auditors and auditing researchers might find some utility in the knowledge management literature.

Finally, this research project has identified the important role audit staff and audit teams play in delivering audit quality. In particular, staff with the necessary social skills who are capable of developing long-
term relationships with clients, whilst simultaneously possessing the high levels of professional and personal integrity. Future work may wish to conceptualise a personality profile that meets such a person-specification and subject it to empirical testing. The development of such a profile might assist audit firms to screen individuals seeking employment as an auditor using existing personality and individual difference inventories.

Conclusion

Quality is seen as one means of a business, or accounting firm as gaining competitive advantage. Although all accounting firms would claim to satisfy DeAngelo’s (1981) narrow definition of audit quality (competence and independence), larger firms might claim higher levels of competence, based on the provision of specialist services, ability to command higher fees and hence attract and retain higher calibre staff. This research project has developed an empirical model of the determinants of audit quality and developed an alternative model of audit quality using the extended gaps model of Zeithaml et al, (1990) and Porter (1993) to identify where discrepancies occur between client and stakeholder perceptions and expectations of audit quality. Chapter four described firms’ identification of the value they perceive to add to clients’ businesses by the provision of knowledge other quality related aspects.

Audit quality bears some direct parallels to corporate strategy. To quote Michael Porter in a recent interview (Argyres & McGahan, 2002 p.52).

*Everything is important. Choices matter, leadership matters, values matter, random events matter. It (corporate strategy) is an essentially integrative topic that needs to allow for complexity.*
It is hoped the audit quality model developed provides a framework to assist practitioners and academics in understanding what the dimensions of audit quality are, how discrepancies can arise and how these might be managed.
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APPENDIX ONE

ITEMS USED IN AUDITQUAL QUESTIONNAIRE AND THEIR ORIGIN

Directions: A list of statements is given below. On the basis of your general views about auditing (rather than your experiences of a single audit firm), please rate the importance of each statement to audit quality by circling the number on the scale on the right. If you feel such a factor is not important for high audit quality, please circle the number 1. If you feel a feature is very important for high audit quality, circle 5. If your feelings are less strong, please circle one of the numbers in the middle.

Audit firm factors
1 The audit firm is highly competent (Beattie & Fearnley, 1995)
2 The audit firm makes extensive use of statistical techniques when undertaking the audit (Carcello et al, 1992)
3 The audit firm operates to the highest standards of integrity (Beattie & Fearnley, 1995)
4 The audit firm is skilful in devising accounting treatments that generate results management wishes to obtain (Carcello et al, 1992)
5 The audit firm conducting the audit provides no non-audit services to the firm (adapted from Carcello et al, 1992)
6 The audit firm regularly conducts client service review meetings (new)
7 The audit firm has rarely been found negligent in litigation against it – alleging inadequate audit performance (Carcello et al, 1992)
8 The audit firm conducts a thorough study of the client’s system of internal control
9 The audit firm has other clients in the same industry (Carcello et al, 1992)
10 The audit firm is objective (Warming-Rasmussen & Jensen, 1998)
11 The audit firm is conscientious (Warming-Rasmussen & Jensen, 1998)
Audit firm factors (continued)

12 The audit firm is credible to third parties
13 The audit firm undertakes research into the client’s industry (new)
14 The audit firm employs individuals independent of the audit firm to conduct client service reviews (new)
15 The audit firm is able to supply additional tax services (Beattie & Fearnley, 1995)
16 The audit firm is able to provide additional consultancy services (Beattie & Fearnley, 1995)
17 The audit firm is able to provide additional accounting services (Beattie & Fearnley, 1995)
18 The audit firm is able to provide internal audit services (new)
19 The audit firm enjoys a good reputation (Beattie & Fearnley, 1995)
20 The audit firm is independent of the board of directors (DeAngelo, 1981)
21 The audit firm is willing to provide detailed cost information (Beattie & Fearnley, 1995)

Engagement partner factors

25 The engagement partner is pro-active and contributory (eg suggests potential acquisition targets)
26 The engagement partner arranges regular meetings with the client’s key staff to identify issues of concern (new)
27 The engagement partner has been performing the audit for the past three years (Carcello et al, 1992)
28 The engagement partner is subject to internal review during the audit by other partners of the audit firm (Beattie, Fearnley & Brandt, 2001)
29 The engagement partner and senior manager make frequent visits to the audit site for technical review purposes (Carcello et al, 1992)
30 The engagement partner provides the client’s finance director with individual attention (Parasuraman et al, 1991)
31 The engagement partner has the client’s best interests at heart (Parasuraman et al, 1991)
Engagement partner factors (continued)

32 The engagement partner is highly competent (Parasuraman et al, 1991)
33 The engagement partner has high ethical standards (Parasuraman et al, 1991)
34 The engagement partner regularly identifies examples of added value to the client (new)
35 The engagement partner is actively involved in the engagement beginning with the initial planning and throughout the audit process (Carcello et al, 1992)
36 The engagement partner has financial statement users’ best interests at heart (Parasuraman et al, 1991)
37 The engagement partner is keen to understand what is happening within the client’s organisation (new)
38 The engagement partner is very knowledgeable about the client’s industry (Carcello et al, 1992)
39 The engagement partner is easily contactable (eg by phone) (new)
40 There is a ‘good fit’ between the personality of the engagement partner and the finance director (new)
41 The relationship between the engagement partner and finance director is relatively informal (new)

Audit team factors

42 Audit team staff create the minimum of disruption so far as practically possible (new)
43 The audit team are willing to provide guidance on accounting principles Beattie & Fearnley, 1995)
44 The audit team staff are highly competent (Beattie & Fearnley, 1995)
45 The audit team staff operate to high ethical standards (Beattie & Fearnley, 1995)
46 The audit team provides the client with personal attention (Parasuraman et al, 1991)
47 The audit team develops stringent time budgets for each audit area and expects people to meet them (Carcello et al, 1992)
Audit team factors (continued)

48 The manager of the audit firm has been performing the audit for at least two years (Carcello et al, 1992)

49 The audit fee paid by the client does not represent more than 10% of the total audit fees controlled by the engagement partner (Carcello et al, 1992)

50 The audit fee paid by the client does not represent more than 25% of the total audit fees controlled by the engagement partner (Carcello et al, 1992)

51 The audit fee paid by the client does not represent more than 50% of the total audit fees controlled by the engagement partner (Carcello et al, 1992)

52 There is frequent communication between the audit team and the audit committee (Carcello et al, 1992)

53 The senior manager of the audit firm has been performing the audit for at least two years (Carcello et al, 1992)

54 The client has a knowledgeable and active audit committee (Carcello et al, 1992)

55 The senior manager and manager assigned to the audit are very knowledgeable about the client’s industry (Carcello et al, 1992)

56 There is frequent communication between the audit team and executive management (Carcello et al, 1992)
APPENDIX TWO

SCORING KEY

Each of the nine dimensions of the AUDITQUAL instrument are shown in italics. Those higher-order factors (ie composite dimensions) are shown in bold. The alpha coefficients calculated are for the composite sample of accounting firm partners, finance directors, and fund managers. Coefficient alpha is a measure of the internal consistency reliability of the dimension.

Items used in survey excluded from the analysis

Reputation & capability (alpha = .867)
Reputation (alpha = .798)
1  The audit firm is highly competent
3  The audit firm operates to the highest standards of integrity
7  The audit firm has rarely been found negligent in litigation against it
   – alleging inadequate audit performance
10 The audit firm is objective
11 The audit firm is conscientious
12 The audit firm is credible to third parties
19 The audit firm enjoys a good reputation
20 The audit firm is independent of the board of directors
Capability (alpha = .774)

32 The engagement partner is highly competent
33 The engagement partner has high ethical standards
35 The engagement partner is actively involved in the engagement beginning with the initial planning and throughout the audit process
36 The engagement partner has financial statement users’ best interests at heart
37 The engagement partner is keen to understand what is happening within the client’s organisation
44 The audit team staff are highly competent
45 The audit team staff operate to high ethical standards

Responsiveness (alpha = .802)

4 The audit firm is skilful in devising accounting treatments that generate results management wishes to obtain
21 The audit firm is willing to provide detailed cost information
23 The audit firm is willing to be flexible when scheduling the timing of audit visits
24 The audit firm’s offices are geographically close to the client
39 The engagement partner is easily contactable (eg by phone)
40 There is a ‘good fit’ between the personality of the engagement partner and the finance director
41 The relationship between the engagement partner and finance director is relatively informal
42 Audit team staff create the minimum of disruption so far as practically possible
47 The audit team develop stringent time budgets for each audit area and expects people to meet them
Independence (alpha = .768)

5 The audit firm conducting the audit provides no non-audit services to the firm
14 The audit firm employs individuals independent of the audit firm to conduct client service reviews
49 The audit fee paid by the client does not represent more than 10% of the total audit fees controlled by the engagement partner
50 The audit fee paid by the client does not represent more than 25% of the total audit fees controlled by the engagement partner
51 The audit fee paid by the client does not represent more than 50% of the total audit fees controlled by the engagement partner

Non-audit services (alpha = .786)

15 The audit firm is able to supply additional tax services
16 The audit firm is able to provide additional consultancy services
17 The audit firm is able to provide additional accounting services
18 The audit firm is able to provide internal audit services

Empathy & client service (alpha = .824)

Empathy (alpha = .708)

25 The engagement partner is pro-active and contributory
30 The engagement partner provides the client’s finance director with individual attention
31 The engagement partner has the client’s best interests at heart
47 The audit team provides the client with personal attention
Client service (alpha = .749)

6 The audit firm conducts client service reviews
26 The engagement partner arranges regular meetings with the client’s key staff to identify issues of concern
34 The engagement partner regularly identifies examples of added value to the client
29 The engagement partner and senior manager make regular visits to the audit site for technical review
43 The audit team are willing to provide guidance on accounting Principles
52 There is frequent communication between the audit team and audit committee
56 There is frequent communication between the audit team and executive management

Knowledge (alpha = .755)

Expertise (alpha = .70)

9 The audit firm has other clients in the same industry
13 The audit firm undertakes research into the client’s industry
28 The audit partner is subject to internal review during the audit by other partners of the firm
38 The engagement partner is very knowledgeable about the client’s industry
54 The client has a knowledgeable and active audit committee
55 The senior manager and manager assigned to the audit are very knowledgeable about the client’s industry

Experience (alpha = .81)

27 The engagement partner has been performing the audit for the past three years
48 The manager of the audit firm has been performing the audit for at least two years
53 The senior manager has been performing the audit for at least two years
Items used in survey excluded from the analysis

8 The audit firm conducts a thorough study of the client’s system of internal control
20 The audit firm is independent of the board of directors
27 The engagement partner has been performing the audit for the past three years
APPENDIX THREE

DEVELOPMENT OF AUDITQUAL MODEL

Methods and statistical analyses

EFA was used to refine the hypothesised structure of AUDITQUAL. The extraction method used was principal components analysis followed by oblique rotations to allow for the correlations among the scales. Principal components was chosen because this method yields component scores that have the same correlation coefficients as the rotated factors and because component analysis does not unduly capitalize on sampling error as the price for estimating measuring error (Thompson & Daniel, 1996). Factor pattern matrix coefficients with values less than 0.3 are excluded from this analysis.

The hypothesised constructs developed from the literature review identified nine dimensions of audit quality: Those specific to extant evidence considering audit quality included: (i) Auditor Reputation; (ii) Capability of the Auditor; (iii) Independence; (iv) Auditor Experience with the Client; (v) Auditor Expertise; and (vi) Provision of Non-audit Services. Those specific to the understanding of audit quality included: (vii) Empathy; (viii) Assurance; and (ix) Responsiveness. The internal reliability consistency estimates (alpha coefficients) are shown in Table A.1.
Table A.1: Alpha coefficients for AUDITQUAL scales

<table>
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<tr>
<th>Scale</th>
<th>No. Items</th>
<th>Alpha coefficient</th>
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<td><strong>Lower-order factors</strong></td>
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<td>III. Responsiveness</td>
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<td>V. Non-audit services</td>
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<tr>
<td>VIII. Expertise</td>
<td>6</td>
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<tr>
<td>IX. Experience</td>
<td>3</td>
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<td><strong>Higher-order factors</strong></td>
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<td>I+II Auditor reputation</td>
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<td>VI+VII Relationship with</td>
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<td>.824</td>
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<tr>
<td>VIII+IX Knowledge of client</td>
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<tr>
<td>I+II+IV+V+VIII+IX Audit quality</td>
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<tr>
<td>III+VI+VII Service quality</td>
<td>20</td>
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Goodness-of-fit and testing of multiple models

Testing multiple models is usually undertaken to establish which model fits the data best. Six models were fitted to the data, the results are shown in Table A.2. To establish model fit, goodness-of-fit indices are calculated using structural equation modelling (SEM) software, the AMOS v4.0 program (Arbuckle, 1999). Although various “rules-of-thumb” have developed over the past two decades of SEM development, a general consensus now exits, that using two different types of fit indices in combination yields the most reliable results (see MacCallum
& Austin, 2000). As the present dataset is relatively small (N=260), Hu & Bentler (1998, 1999) suggest using the Standardized Root Mean Squared Residual (SRMR) in combination with the Comparative Fit Index (CFI) will reject reasonable proportions of true-population and mis-specified models. Hu & Bentler (1998, 1999) suggest a CFI greater than 0.95 and an SRMR of close to 0.10 are indicative of satisfactory fit.

**Table A2: EFA of AUDITQUAL items**

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Factor pattern matrix coefficients shown greater than 0.3; after oblique rotation; principal components analysis.

Confirmatory factor analyses (CFAs) were conducted with the SPSS version of Amos v3.6 (Arbuckle, 1999). When undertaking CFA, there are “vague and sometimes contradictory guidelines about the desirable amount of data” (Marsh & Hau, 1999 p.252). Marsh, Balla,
& Hau (1997) using a Monte Carlo study investigated the effect of varying numbers of indicators (items) per factor (p/f ratio) on varying sample sizes. Their results support a “more is better” approach to both sample size and p/f ratio. For a p/f ratio as small as six, a sample size of 50 was adequate. Therefore the combined sample size of $N = 260$, is satisfactory for conducting CFAs at the item level of the LSQ, where the number of items per factor (p/f) equals 20 (Marsh et al, 1997).

Hoyle & Panter (1995) recommend when using multiple indicators of overall fit should be selected from “absolute-fit indexes” (such as $\chi^2$, and the AGFI) and “incremental fit indexes,” which should be selected from “type-2” and “type-3” indexes, such as the TLI (Tucker & Lewis, 1973) and RNI (McDonald & Marsh, 1990). A type-2 index compares the lack of fit of a target model to the lack of fit of a baseline model, usually the independence model. Value estimates the relative improvement per degrees of freedom of the target model over a baseline model (Hoyle & Panter, 1995). A type-3 index “indexes the relative reduction in lack of fit as estimated by the noncentral (2 of a target model versus a baseline model)” (Hoyle & Panter, 1995).

Therefore, evaluating goodness-of-fit, presents the $\chi^2$ statistic, the Relative Noncentrality Index (RNI), the Tucker–Lewis Index (TLI), the ratio of the discrepancy, $\chi^2$, divided by the degrees of freedom ($\chi^2$/df), the Adjusted-Goodness of Fit Index (AGFI) and an evaluation of parameter estimates to ensure the solution is proper (Marsh, Balla & Hau, 1996; McDonald & Marsh, 1990). Although no precise standards exist to indicate what value of indices are needed for a satisfactory fit, typical guidelines are that the RNI should exceed .9. Various rules-of-thumb ranging from 2 to 5 have been suggested as cut-offs for CMIN/df. The present study follows the recommendations of Byrne (1989) that a $\chi^2$/df ratio of greater than 2.0 represents an inadequate fit. Also computed is the expected cross validation index (ECVI), which is useful when comparing models (MacCallum & Austin, 2001). No
absolute cut-off value exists for ECVI, values are for model comparison purposes only.

Table A.3 reports the goodness-of-fit statistics for six competing models. The first is the simple nine-factor model of the nine AUDITQUAL dimensions. The second is a six-factor model, where six of the original nine factors are combined into three new dimensions. The third model is a nested model, i.e., a six-factor model, with two higher-order factors to represent technical quality and service quality. The fourth model is a hybrid of models one and two, testing nine first-order factors and three second-order factors (i.e., recognising the existence of nine dimensions, whilst combining six of these factors into three higher-order factors). The fifth model is also a nested model. Model five consists of nine first-order factors, three second-order factors and two third-order factors (representing technical quality and service quality). The final model tested is a one-factor model, which assumes there are no underlying factors in the data, and that all items combine to create one unitary audit quality factor. The final model is constructed for comparison purposes only as the literature review suggests audit quality is made up of a number of different factors.
Table A3  Scale correlations and goodness-of-fit statistics

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<th>VII</th>
<th>VIII</th>
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<tbody>
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<tr>
<td>$\chi^2$ (1239) = 2299.747; $\chi^2$/df = 1.856; CFI = .966; TLI = .962; ECVI = 14.816.</td>
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<td><strong>Six-factor model</strong></td>
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<td>I. Auditor reputation</td>
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<td>II. Responsiveness</td>
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<tr>
<td>III. Independence</td>
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<td>IV. Non-audit services</td>
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<td>V. Relationship with client</td>
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<td>VI. Knowledge of client</td>
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<tr>
<td>$\chi^2$ (1362) = 3054.683; $\chi^2$/df = 2.269; CFI = .958; TLI = .954; ECVI = 14.215.</td>
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<td><strong>Six first-order factors, two higher-order factors</strong></td>
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<td>$\chi^2$ (1269) = 2993.046; $\chi^2$/df = 2.359; CFI = .954; TLI = .950; ECVI = 14.734.</td>
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<td><strong>Nine first-order factors, three second-order factors</strong></td>
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<td>$\chi^2$ (1254) = 2601.50; $\chi^2$/df = 1.889; CFI = .963; TLI = .960; ECVI = 15.103.</td>
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<td><strong>Nine first-order factors, three second order factors, two third-order factors</strong></td>
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<td>$\chi^2$ (1261) = 2407.51; $\chi^2$/df = 1.908; CFI = .963; TLI = .959; ECVI = 15.160.</td>
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<td><strong>One-factor model</strong></td>
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<td>$\chi^2$ (1377) = 4554.45; $\chi^2$/df = 3.308; CFI = .918; TLI = .912, ECVI = 21.682.</td>
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Examination of the fit indices points to two models. The best-fit to the data is the nine-factor model, with all fit indices below recommended cut-off levels, and the second lowest ECVI statistic. However, the nine-factor, three second-order and two third-order model (shown in Figure 4.1) also provides a highly satisfactory fit to the data, with an ECVI statistic (15.160) only slightly greater than the simple nine-factor model (14.816). Therefore, the nested model (see figure 4.1) is preferred on grounds of parsimony. That is, the model with the higher order factors (in this case technical quality and service quality) provides a better description of the relationship between the components of the model.