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# The Frontiers of Auditing Research

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# The Frontiers of Auditing Research

## *Structured abstract*

**Purpose:** In this paper I examine issues at the frontiers of auditing research. After the global financial crisis and the earlier round of reforms, there are many opportunities for research, some driven by current proposals for reforms and some by fundamental research issues. Research can contribute to the development of policy in response to current issues. Research can also be valuable in exploring issues raised in past research.

**Approach:** Issues that are currently of concern to regulators and for which research would be of value are reviewed, together with fundamental issues arising from previous research.

**Findings:** The introduction of independent regulation, increasing levels of globalisation and increased attention to research by regulatory bodies have drawn attention to some research issues, especially auditors providing non-audit services; rotation of audit firms; joint audits; and ways to provide increased competition. In addition, there are a number of areas in which there seems to be an obvious need for auditing research, but surprisingly little research is being done. These topics include the impact of higher-quality auditing in developing economies, and assurance for other entities such as charities and small companies. As more attention is now being given to auditing research, there are opportunities in established areas of research as well.

**Originality/value:** Research is starting to make a contribution in policy making with relation to auditing, but there is still a need for much more research. The paper provides guidance on areas where further research will be valuable.

**Classification:** General review

Key words: Auditing; Audit research; Audit expectation gap; Auditing standards; Auditing research opportunities.

JEL codes: J44; L84; M41.

# The Frontiers of Auditing Research

## Introduction

Frontiers are the edge of our territory, and the frontiers of auditing research are where we start to get into unknown territory – a very exciting place for auditing researchers to be. It can be an uncomfortable place for regulators and practitioners, however. It is the area where further exploration can be of benefit to society. Frontiers are also boundaries where two sides meet, and the frontiers of auditing research are where the academic auditing and professional auditing groups meet. Again, this ought to be a productive place where new ideas can be generated and tested.

In this paper I am examining the frontiers, but I am trying not to go too far into unknown territory.<sup>1</sup> I concentrate on issues for current research. I am also aiming not to spend too much time in the paper on well-explored areas of auditing research. There are other reference sources that do that. This paper aims to examine the narrow areas that surround the frontier at present, with only limited straying into the past or the future. The perspective I bring to this area includes my publications and my experience in editing and reviewing. The publications include meta-analyses and review articles that have covered a wide range of auditing research (e.g., Hay *et al.*, 2006; Causholli *et al.*, 2010) and being one of the editors of the recently-published *Routledge Companion to Auditing* (Hay *et al.*, 2014). The editing and reviewing includes being editor-in-chief of the *International Journal of Auditing*, and an editor of *Auditing: a Journal of Practice and Theory*, as well as extensive reviewing of articles for leading journals.

The issues at the frontier include two kinds of research questions, those that emerge from current practical problems or issues, and those that develop from previous research. Auditing is relatively unusual compared to other accounting disciplines because of the high proportion of research that is linked to professional concerns. The reason that many issues are important is because they are

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<sup>1</sup> For a speculative paper about the more distant future, see Hay (2013).

both current topics for concern, and research issues in the longer-term. The practical problems are the source of research ideas, and the longer term research is fundamentally based on practical concerns. In the following section I include research in the discussion of practical issues, and then include practical implications in the discussion of research. The key issues in both areas are those surrounding current and potential reforms to auditing, arising from a recent crisis.

The overall objective of the paper is to provide a guide to opportunities for auditing research in the turbulent contemporary auditing setting. It explores research dimensions of both current practical problems and more fundamental research-based issues. Auditing is always a controversial and changing area, due to successive crises, the expectation gap, and the incentives of regulators to demonstrate that they are active and responding to current needs. Although there is always change, there are bigger changes taking effect now. Research about auditing in the current environment is different from what it has been in the past because of the change from self-regulation to independent regulation in most countries, and much greater use of global auditing standards. Regulators are now focusing on audit quality, what it is and how it can be measured; and they are working on developing more informative audit reports. Research can help with these projects, and is doing so. I also argue that there are a number of areas in which there seems to be a strong need for auditing research, but surprisingly little research is being done. These topics include the impact of higher-quality auditing in developing economies, and assurance for other entities such as charities and small companies. There is also demand for assurance on other issues, such as reports on sustainability or on privacy. While there is research on some of these new areas, such as sustainability reporting, there is not very much of it. Having reviewed these opportunities where there is not enough research being done, the article also points out that, now that auditing research is being taking more notice of by standard setters, there are opportunities in the established areas of auditing research, informed by prior research. Research in these areas is driven by fundamental issues from disciplines such as economics and management, such

as the supply of auditing and the demand for auditing, or corporate governance. There are many new opportunities for further work at the frontiers of auditing research.

### *Practical issues*

#### The auditing crisis

Auditing is in a state of crisis. There is concern that auditors were not effective in preventing recent financial scandals in the global financial crisis. Radical proposals for change are in the air. However, this is not new. There have been continuing cycles of reform of auditing, after each crisis in auditing (or in business) takes place, and these cycles have been frequent. Thus, there are continuing crises, since perhaps the 1929 stock market crash, and after each cycle the extent of regulation has become tighter. It sometimes appears that the regulators are aiming to punish auditors for past failures by imposing more onerous requirements. Nevertheless, in most cases the result is increased audit work, perhaps to the inconvenience of auditors, but that result also means greater revenue for auditors as well. Like an arranged marriage, these forced reforms often seem to work out satisfactorily, without later demands for them to be undone. While there have been occasional moves to deregulate auditing, such as removal of restrictions on advertising and competition in many countries in the 1980s and 1990s, the general trend has been strongly in the direction of more regulation. The changes in regulation since the turn of the millennium are different in nature, as they include the removal of self-regulation by auditors, and to reduce the ability of auditors to restrain future reforms.

After so many rounds of reform, it might be expected that auditing would have reached an extremely high standard by now, but nevertheless there is continual criticism of it. The continuation of the cycle of crisis and reform suggests that there must be reasons why auditing is always undergoing change. These include the inherently difficult nature of auditing; the changing expectations under which auditing functions; and the demands on those responsible for regulation to be seen to be in control of

the situation. The changing expectations are part of the expectation gap, which has been an issue discussed in auditing since the 1970s. There is a gap between the level of performance expected by auditors and that expected by the users of financial statements. In a recent two-part paper, Porter *et al.* (2012) examine the three components of the gap, namely deficient performance by auditors, deficient standards under which auditors work and unreasonable expectations by the users of financial reports. They compare the extent of the expectation gap to the situation twenty years earlier. The research shows that the expectation gap is continually changing. In the UK, where there had been extensive reforms to auditing, the gap stayed about the same; while in New Zealand, where changes had been minimal, it had become much wider. It appears from those studies that continuing cycles of reform may in fact be necessary. Porter (2014, p. 50) argues that society expects new responsibilities to be imposed upon auditors, especially after a crisis. Reinforcing that driver of change, there are explanations from public choice economics, applying the self-interest of regulators. These explanations propose that frequent cycles of reforms take place for another reason, i.e., because policy makers have an incentive to regulate. Ball (2009) depicts the Sarbanes-Oxley Act as a “rushed attempt” by Congress and President Bush to avoid being held responsible for the audit failures of the early 21st century. The continuing cycle of crisis and reform in auditing is likely to be influenced by both society’s demand for reform and the incentives of regulators.

It is also the case that reforms in the twenty-first century are different from those in the past, and that they suggest a different kind of change will occur in the future. The reforms are more stringent. They include the end of self-regulation by the auditing profession (Meuwissen, 2014, p. 16), something that was once seen as a fundamental element of the professional status of auditors and accountants. Self-regulation had persisted for a long period, and during that time the vast majority of audits were not catastrophic failures. On the other hand, there were enough catastrophic failures that self-regulation was removed. It is not yet clear whether independent regulation is more successful, and that issue is

discussed later. After regulators made this dramatic change, and weakened the position of auditors in the regulatory process, the profession is open to more dramatic changes in the future, because auditors themselves are now less able to restrict any future reforms. An example of a dramatic change introduced after the end of self-regulation is the more explanatory audit reports that are now being developed.

The driver for the current round of reforms was the Global Financial Crisis of 2007-08. Auditors may not have appeared as major participants in the crisis, but they attracted sufficient attention that there were responses by regulators around the world (reviewed by Hodge and Murray, 2012). The crisis, and more recent events, have led a greater public concern, shown by a more despairing response than usual from the media. For example, the *Economist* (2014) described auditors as “dozy watchdogs” and stated that only regulation can control them. A *Guardian* (2014) editorial stated that “corporate auditing is too often a well-paid fiction under the control of a small cartel”.

The responses include the European Commission’s *Green Paper on Audit Policy* (2010) and legislation which eventually emerged in 2014; an enquiry by the House of Lords (2010) in the UK, and other changes including expanded audit reports, with the name of the senior statutory auditor now being disclosed in the UK; and in the United States, the Public Company Accounting Oversight Board (PCAOB) concept releases on issues including rotation of audit firms, and expanding the audit report.<sup>2</sup> The International Auditing and Assurance Standards Board (IAASB) works with the other bodies, and has issued papers on the issue of the audit report, and on the definition of audit quality. None of these issues are entirely new, and they have all been considered from time to time by various regulators over the decades. That being so, in many cases there was a body of research on what effect they might have.

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<sup>2</sup> In a later response, in New Zealand a major round of reforms took place from 2009 to 2014; this was partly precipitated by the collapse of a large number of finance companies, but also represented a delayed implementation of the types of reforms from the earlier round, prompted by the European Union (Power, 2009).



Globalization itself has always been an issue for auditors, and is the source of its own set of issues. Auditing involves international audit firm networks carrying out the audits of multinational corporations, and the process is not well-suited to regulation by any one of the countries involved. Carson (2009, p. 380) comments that, as a result, the current system of regulation and enforcement is likely to be inadequate. An example is in the currently ongoing crisis between China and the US. In that situation, the irresistible force of the SEC's demands for inspection of audit work papers came up against the immovable object of China's sovereignty. After several years of 'making progress', that issue is unlikely to be resolved until sometime in 2015 (Rapoport 2014). And while New Zealand was initially content to refrain from making reforms to its auditing profession in the early twenty-first century, it eventually felt threatened that the country might be excluded from international recognition of its auditors and found it necessary to impose reforms (Power 2009).

Major moves towards globalization have already taken place. International Standards on Auditing are used almost universally, with the exception of the United States. There is some coordination of standards development between the IAASB as setter of the ISAs and the PCAOB which is responsible for standards that apply to audits of US public companies. However, despite international harmonization, national issues and sovereignty intervene, and then further reforms in separate jurisdictions mean that globalisation becomes an issue again. For example, in the United States, the Sarbanes Oxley Act requiring auditors to report on internal control has now become well-accepted, and Japan and China have implemented similar requirements. But Europe has not. More recently, the European countries have started to impose regular rotation of audit firms, something that the US rejected.

To summarise, there is a crisis in auditing that is regularly reignited. It is driven by an interaction of business collapses that are blamed on auditors; high public expectations of auditors, some of them

unrealistic; and political forces that lead to demands that something must be done. While there is some coordination between countries, there is also still considerable development that pulls in different directions. There are many opportunities for research to contribute to understanding and evaluating reforms.

## Auditing reforms

Current and recent auditing reforms can be classified into those that aim to improve independence, and those intended to increase competence. The recent European Union legislation concentrates on improving independence. Those European reforms include revised versions of the changes proposed in a Green Paper in 2010 (Meuwissen, 2014, p. 10). They include rotation of audit firms after a fixed period of 20 years; a cap on the amount of fees for non-audit services at 70% of the audit fee; and encouragement for companies to adopt joint audits. The European legislation is required to be adopted by individual member states, which can introduce more stringent measures.<sup>3</sup> Another underlying intention of the reforms is to open up the market for auditor services to non-Big 4 audit firms, because of concerns that the Big 4 firms are too large and dominant, and that this is risky (Meuwissen, 2014, p. 18). If one firm withdrew from the market for some reason, competition and choice would be too restricted.

Whether these policies will have a beneficial impact is an issue that can be researched. The level of research available varies considerably. Rotation of audit firms is a difficult area to research, because there are so few practical situations where it has been enforced. As a result, there is no clear evidence about whether it is effective. Lennox (2014, p. 104) concludes that “academic research has been unable to provide clear answers about the consequences of mandatory audit firm rotation.” Lennox (2014, p.

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<sup>3</sup> For example, at the time of writing, the Spanish legislature was debating a shorter period before rotation is required and stricter limits on non-audit services.  
<http://www.theaccountant-online.com/news/eu-audit-implementation-spanish-regulator-gives-10-days-to-comment-on-tough-audit-rules-4421512/> Accessed 5 November 2014.

104) comments that any benefits are dubious, but suggests that countries should impose a natural experiment, requiring rotation for some companies but not others, so that the consequences can be examined. For example, the requirement could be imposed on companies greater than a certain size.

In contrast, there is very extensive research on the effects of non-audit services by auditors, reviewed by Sharma (2014, p. 85). Sharma (2014) analyses 45 research studies on this topic. Sharma (2014) finds that there is a lack of evidence that auditors lose their independence, but that policy makers often feel an urge to regulate anyway, despite criticism from the accounting profession and corporate executives. There are occasional cases that show evidence of auditors losing their independence. DeFond and Francis (2005, p. 14) note that one study (Frankel *et al.*, 2002) was cited and relied by Congress on in drafting SOX. But subsequent studies challenge the results in Frankel *et al.* (2002) and show that they are sensitive to the choices made in research design, sample selection and model specification. Francis (2004, p. 357) comments that “the accounting establishment was upset by the Frankel *et al.* study, and I believe there was some sympathy within the academic community to publish papers refuting their findings”.

Conducting research on such a problem as non-audit services is complex. In a practical setting, some auditors provide non-audit services, while some do not. Errors, frauds, increased earnings management or even failures occur in some of the companies. Researchers can examine whether there are more of these problems in the companies receiving non-audit services than those that do not. But errors and frauds are rare, earnings management is hard to measure, and failures have many causes. It may be that some kinds of non-audit service have beneficial effects, and some are harmful. It might be that a small amount of non-audit services is good but too much is bad; or that non-audit services is good for some companies not others. For example the effects might be more helpful to new organizations , or smaller companies. Company-specific factors such as governance are likely to intervene. Given all these

imponderables, it is not surprising that as yet, researchers have not produced a clear answer to the question of the good or bad effects of auditors providing non-audit services. Sharma (2014) shows that, despite the many difficulties, there are advances being made in the research literature, and that future advances in the research literature may clarify the costs and benefits of non-audit services.

The evidence about the effectiveness of joint audits is scarce. Joint audits are required in France, and were required until recently in Denmark.<sup>4</sup> There is only limited evidence that joint audits lead to higher quality, while there is more evidence that it leads to higher costs (Ratzinger-Sakel *et al.*, 2012). Nevertheless they remain an issue, especially in Europe.

Another category of improvements being considered in auditing is reforms that aim to enhance the competence of auditors. Recent developments have included the application of something close to global auditing standards, with the significant exceptions of the United States and of audit reporting on internal control. With those substantial exceptions, International Standards on Auditing are widely accepted. Also widely accepted are independent regulatory bodies in place of self-regulation, and oversight and inspection of audit work. Offermans and Vanstraelen (2014, p. 185) argue that public oversight is still under development and that little is known about its impact. There are questions about the expertise of inspectors and about whether the work of inspectors tends to make auditors more rules-oriented and less able to use their judgment. In New Zealand, the first *Audit Quality Review Report* by the Financial Markets Authority (2013, p. 5) observed that the majority of audit firms reviewed require significant improvements, but observed that this was to be expected, since they had not been subject to independent regulation for a number of years and were thus not like other jurisdictions. This conclusion implies that independent regulation makes a difference, or at least that independent regulators would like to think so. There are opposing views. Lennox and Pittman (2010) argue that the

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<sup>4</sup> They were phased out because they were considered too costly (Holm and Thinggaard, 2014).

PCAOB's oversight is less valuable and less informative than the system which preceded it. In either event, independent regulation might make a difference for better or for worse, and the issue is worthy of investigation by further research.

There is scope for research on issues such as the implementation of reforms, or the effects of differences in the regulatory environment. Research studies into the level of investor protection (La Porta *et al.* 2006) or the extent of auditor liability (Wingate 1997) exist. These studies are valuable, but difficult, especially in a changing environment like the present one. Some recent studies examine the effects of Big 4 firm audits in environments with strong versus weak governance. Choi and Wong (2007) discuss two alternative views, the strong governance and weak governance views. The strong governance view suggests that auditors play a stronger governance role in environments with weak investor protection. Companies that are issuing debt or equity in weak environments appoint Big 4 firms (consistent with the results of Choi and Wong 2007). The Big 4 firm premium is less in stronger environments (Choi *et al.*, 2008). Francis and Wang (2008) suggest the opposite — Big 4 firms will play a stronger role when there is strong governance. Big 4 firms enforce higher earnings quality as investor protection regimes become stronger. This is supported by the results in Francis and Wang (2008). Choi *et al.* (2008) and Francis and Wang (2008) both observe that this inconsistency exists. Further research is needed.

The International Auditing and Assurance Standards Board (IAASB) has been working on two major projects to improve audit quality and the usefulness of audit reports. The first of these is the Framework for Audit Quality (IAASB 2014). Many researchers apply a well-established definition by DeAngelo (1981), that audit quality consists of competence and independence. However, that definition is not of much practical value in determining what a good auditor should do. Newer, more inclusive definitions are now increasingly used (Knechel and Shefchik, 2014, p. 131). These include a broad range

of characteristics classified as antecedents (inputs and the audit process) and consequences (outcomes of the audit). The IAASB chose to provide a framework (not a definition) because audit quality is difficult to define. The framework groups a number of factors under the headings of inputs, outputs, interactions, and contextual factors, that are believed to contribute to increasing the likelihood of quality audits being consistently performed. In the background of this issue are the difficulties of providing quality in auditing. Quality is not usually visible, and the process of auditing is fraught with incentives for auditors to provide the minimum level of quality that is acceptable rather than to try to excel. Knechel and Shefchik (2014, p. 141) highlight that there is a great amount of research left to be done to fully understand audit quality and the links and interactions among the various factors.

Another project, and currently the IAASB's number one priority<sup>5</sup>, is its project on reporting on audited financial statements. The project included commissioned research studies by teams of academic researchers on the understanding of audit reports by financial statement users.<sup>6</sup> Controversial aspects of the proposals include the requirement for auditors to discuss key audit matters; reporting on the going concern status of auditees; and disclosing the name of the audit partner responsible (Coram, 2014, p. 291). Revised new standards are likely to be released in 2015. Similar developments are already taking place in the UK, and are being watched with interest by researchers (Lennox, 2014, p. 104). Similar proposals are being publicly consulted on by the PCAOB in the US.

International agencies, especially the World Bank and UNCTAD (United Nations Commission of Trade and Development) have been quite active in the area of globalization of the auditing profession and standards. They have concentrated on improving accounting and auditing in developing countries. This is seen as part of the fight against poverty. The World Bank supports the development and implementation of international accounting and auditing standards, as a contribution to the

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<sup>5</sup> <https://www.ifac.org/auditing-assurance/auditor-reporting-iaasbs-1-priority> Accessed 14 November 2014.

<sup>6</sup> Available here: <http://www.ifac.org/auditing-assurance/projects/auditor-reporting> Accessed 14 November 2014.

development of these countries (Hegarty *et al.*, 2004). Auditing in developing countries is not an area where academic researchers have been particularly active, however, even though it might be expected to be a major focus for research given the emphasis by international agencies.

Other practical reforms include developing ways of making auditing, and assurance services in general, valuable in a wider range of settings. These settings include environmental reporting, where auditing or assurance of environmental reports are becoming more widespread. Ackers (2009) and Marx and van Dyk (2011) examine the extent of independent assurance on sustainability reports. They show that while the extent of CSR assurance is limited, it is growing. Integrated reporting is an area where ideas about assurance are yet to be fully developed (Simnett and Huggins, 2015). Assurance services can also be applied to other settings, such as reports on the privacy of personal data, and some reports, such as one issued by PwC on Google are an application of the principles of auditing to provide assurance on other information (Toy and Hay, 2015).

Another potential area for the development of auditing is applying different levels of assurance. A full-scale audit is not always worthwhile for smaller entities, so perhaps something less might be appropriate. Review engagements are an alternative that could be considered. For example, medium-sized charities in New Zealand will now be required to have a review engagement. The general area of appropriate ways of providing assurance for small and medium enterprises is also something being considered by standard setters.<sup>7</sup> In areas like these, more exploratory research is needed, not necessarily large-scale statistical studies. Rather, qualitative research could investigate the information needs of financial report users, the information that they get and whether improvements can be made.

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<sup>7</sup> <http://www.ifac.org/global-knowledge-gateway/audit-assurance/what-future-assurance-and-small-business>  
Accessed 14 November 2014,

A recent change is the increased level of attention given by standard setters to auditing research. Standard setters are becoming more aware that research on current issues could be relevant to their work. An issue for them is the complexity of research results and the variety of inconsistent results in the published literature. This is known as the “ambiguity problem” in meta-analysis: that is, the potential users of research such as politicians cannot make use of a collection of research that has a mixture of significant and insignificant, positive and negative results. Standard setters require a synthesis of the state of play. Systematic research reviews including meta-analyses are increasingly using in many disciplines to meet this need. In the case of auditing, the PCAOB approached the accounting academic community to develop research projects that would amalgamate existing research in order to provide useful information for future regulatory action, the synthesis projects (Cohen and Knechel 2013). CPA Australia has also supported synthesis projects on Australian research.

Research on the issues that are of current concern is a good area for researchers to work on, and to extend the frontiers of auditing knowledge. However, there are limitations to issues-based research. Sometimes the issues themselves are continually changing. Issues such as joint audits, or audit firm rotation are very topical now, because of the EU reforms, but only a few years ago they appeared to be off the agenda for regulatory bodies. In other cases, such as research on non-audit services, the extensive research has produced uncertain or conflicting results. Nevertheless, research can contribute.

### *Research-based issues*

Research that is based on earlier research is the other source of issues that auditing researchers examine. There are established research issues that have been examined for some time, and which have foundations in other disciplines, especially economics and management. Now that the environment of auditing has changed – including independent regulators and greater use of research by those regulators – there are also opportunities to return to investigating these issues.



The most fundamental question that can be asked, is why do we have auditors? In terms of the economics of auditing, that is the question of demand for auditing. The question of when and why audits are voluntarily demanded is an old-established one, examined in papers like Chow (1982), Abdelkhalik (1993) and Hay and Davis (2004). Hay *et al.* (2014b, pp. 2-4) list five explanations for benefits of auditing (the information role of auditing; agency theory; insurance; organizational control; as confirmation of previously released information; and risk management). The question of “why audit?” is still important in understanding the function of auditing. When issues such as regulation of auditing, or what type of assurance should be provided for a smaller entity, it is useful to consider that circumstances in which audits or similar forms of assurance will be demanded voluntarily anyway, and then whether there is a need to impose regulation. This issue, the fundamental question of auditing research, is still far from being resolved, and there are many more settings in which it could be investigated.

Ball and Brown (1968), one of the earliest papers to apply quantitative empirical archival research to accounting and auditing issues found a result that was surprising at the time – audited financial statements make very little difference to share prices, as most of the information contained in the financial statements is already known to participants in the market. This study implies there is little place for auditing. But other explanations for the importance of auditing and audited financial reports still stand – financial reports are significant in determining bonus payments to top management, and relevant to debt covenants (Watts and Zimmerman, 1986). And more recently, Ball *et al.* (2012) restore auditors to an important position in the financial markets, although indirectly. They provide evidence on the confirmation hypothesis – the argument that the role of the audited financial reports is to provide confirmation to the financial markets of information previously disclosed by management. Companies make announcements, and these are accepted by the market, but only because they are later confirmed in the audited financial statements. The evidence presented is consistent with this explanation. More

announcements, higher fees. However, there could be other explanations for the results (perhaps more announcements and higher fees are both driven by greater risk), and the confirmation hypothesis is an issue that needs to be further investigated.

Economics is also drawn upon to explain the nature of the service provided by auditing. It is argued in recent papers (e.g., Causholli and Knechel 2012) that auditing is of the nature of a credence good, for which the buyer cannot assess the quality. Credence goods stand in contrast to search goods, the buyer of which knows in advance what quality they are getting, and experience goods, which the buyer can determine the quality of, but not until afterwards. The credibility of an audit to outsiders, for example an audit by a Big 4 firm, might have aspects of a search good. The experience of an audit, and whether the audit team provide some useful advice while not unduly disrupting the client's business, is like an experience good. Credence goods are equivalent to the service of detecting errors in an audit. The buyer of the audit services will never know if the auditor has been effective in detecting errors or whether there are undetected errors lurking below the surface. Craswell and Francis (1999) analyse audits as experience goods, while Causholli and Knechel (2012) concentrate on their aspects as credence goods. If they are credence goods, then in some circumstances under-charging, over-charging and under-auditing could occur. This is an area for potential further investigation.

Similarly, the supply of auditing is a source of established research questions that are still topical, and that have been part of the literature since Simunic (1980) and Francis (1984). The market for auditing in most developed economies is dominated by the Big 4 firms. Early research in this area was concerned about oligopolistic pricing by the small number of major firms, but more recently their domination is seen by researchers as a form of product differentiation. While it is quite widely accepted that the Big 4 firms provide audits of higher quality, and charge higher fees, the evidence is still not clear cut (Choi *et al.*, 2008; Hay 2014). The argument that larger firms provide higher quality audits was

explored in an early paper by DeAngelo (1981). Since it is not possible for users of an audit to assess the quality of an audit, they must rely on proxy measures. One proxy is the size of the audit firm, as an audit firm with a lot of clients has a lot to lose if it damages its reputation, and this is an explanation for the existence of big audit firms. Despite the long history of research in this area, there is still doubt whether the Big 4 firms provide audits of higher quality (Lawrence *et al.*, 2011).

The issues of supply of auditing, and the association of large size and audit quality are also examined in research concerned with auditor specialization. Many studies find some kind of audit fee premium exists for industry-specialist auditors at national or city level, but the evidence is very mixed. Hay and Jeter (2011) provide a list of 32 specialisation studies, 15 of which report a premium; five report a discount; nine find no significant association; and three find mixed results depending on other factors. In addition, there is some concern by researchers about whether the audit specialist fee premiums that are found are a good indicator of a premium for audit quality (Carson and Fargher, 2003; Minutti-Meza, 2013). Jeter (2014, p. 197) sums up that the benefits of specialization are not clear from the research, but nevertheless auditing firms still see it as beneficial.

An area of research that is of considerable interest in many disciplinary areas is corporate governance. The general questions of what constitutes good corporate governance, and how that affects performance, are interesting to auditors as well as to managers. It is not clear whether good governance is associated with good performance, but the question is bedevilled by causality issues. Perhaps the companies with the best governance will be those that are overcoming performance problems by bringing in better governance mechanisms. That is a plausible scenario, but in that case, tests of statistical relationships will find that good governance is associated with bad performance. It is not surprising that there is no strong evidence of the effectiveness of good governance. In this area

there are opportunities for research that builds on work from other disciplines, and opportunities for qualitative research.

From a more specific auditing point of view, corporate governance and internal control are issues of interest. Auditors have taken account of a company's internal procedures for decades, and good corporate governance allows for effective controls to be in place. Auditing researchers examining this issue initially found themselves faced with the problem of whether the effects of better corporate governance are evident through substitution or through complementary controls. Bédard and Compennolle (2014) show that management still has some influence over the auditor, even when the audit committee is formally responsible.

There are also issues of how to examine corporate governance. There are external measures – independence of board members, frequency of audit committee meetings, for example, that can be examined in large scale studies, e.g., Naiker and Sharma (2009); Carcello *et al.* (2011). However, there are many aspects of corporate governance that cannot be observed externally. Other approaches to this research can find out more information, such as the study using interviews conducted by Turley and Zaman (2007), but are difficult and costly to do.

What we know about internal control has expanded considerably in the last decade while US companies and their auditors are required to disclose internal control weaknesses. Research studies have shown that weaknesses are associated with company failure, and that there is a share price reaction (Doyle *et al.*, 2007). SOX itself is an interesting issue. In the US, it appears to be well-accepted. Other countries, namely Japan, China are adopting some equivalent of SOX. This is not the case in Europe, Australia, New Zealand or South Africa, however. As a result, there are many opportunities to examine the costs and benefits of auditors reporting on internal control.

### *Research opportunities*

Given the changing nature of auditing, and the growing impact of auditing research on policy decisions, this is a good time for further research. There are still research opportunities regarding new problems as well as on fundamental issues, and using data from published databases as well as data carefully collected by researchers.

Analysis of data available in machine-readable form on existing databases such as Audit Analytics or Compustat still has potential. Repeated examination of this kind of data, including replications, should be encouraged – but the challenge for researchers is to combine this approach to research with detailed examination of individual cases to ensure that the phenomenon being examined is properly understood. Replication of previous studies is not conducted frequently enough in auditing research. Replications and extensions of previous research studies should be conducted more often and should be accepted by journals. More repeated examinations of data through replications will allow more use of systematic reviews and meta-analyses and so lead to more robust conclusions. Nevertheless, this approach to research is crowded and highly competitive. Journal reviewers are showing resistance to quantitative data analyses that do not examine plausible research questions and appear to be done simply because the data are available. Research in this area needs to show careful examination of the setting, and explanation in detail, perhaps using case vignettes.

At the other extreme, there is also a need for research that closely examines auditing in innovative settings. Internationally, audit research is expanding, and in some cases there are settings or data that allow important questions to be examined. More international research on international issues is also needed. Other countries that are researched also provide opportunities, for example in New Zealand, South Africa, Australia, the UK, and European countries. New sources of data are becoming available, for example in China. Where there is change in auditing there is always opportunity.

Stewart (2014) observes that auditing research journals do not often publish research about emerging economies. This is surprising, considering the importance placed on enhancing the institutions for auditing in developing countries by entities like the World Bank and discussed earlier in this article. There are difficulties in conducting research in these settings. Researchers need to pay close attention to ensuring that their research questions are relevant to the international auditing community, preferably taking advantage of unique features of their setting, and maintain high quality. More research from emerging economies is an opportunity for auditing researchers both in those countries and around the world to make a difference in the world economy.

In exploring these issues, researchers should not neglect the opportunity to gain further insights using other forms of research. Getting insights into auditing issues and processes using qualitative research methods is difficult to do because of ethical and confidentiality issues, but it is well-established in the literature. Examples include the qualitative study of corporate governance conducted by Turley and Zaman (2007) referred to above; a study of the introduction of a new audit methodology by Eilifsen *et al.* (2001); and an award-winning book by Beattie and Fearnley (2001) based on in-depth interviews with the audit partner and then the finance director of each of six UK listed companies. Some of the new contemporary issues discussed in the first half of this paper, as well as the more established research issues, could be illuminated by careful interpretation of interview data and other non-traditional sources.

## *Review*

Auditing is going through turbulent times, but that is nothing new. However, the type of change, after the removal of self-regulation, and the extent of change, are both unprecedented. Auditing research is also concerned with research questions in a broader range of countries than ever before. There are many areas where researchers should, and can, contribute. We have reached a stage where

auditing research has a sufficiently substantial body of knowledge that it is capable of contributing to policy issues such as reform of auditing. While it is not being used as much as might be expected in setting regulations, there are encouraging signs that it will be. In future, if research is to develop as it should, we are likely to see more systematic reviews and meta-analyses; more replications; and more close and detailed examination of particular research questions. More studies of the impact of auditing on the development of an economy will be published. These approaches will make research more usable by policy makers.

Thirty years ago, auditing research was scarcely heard of. Since then it has burgeoned, especially in the current century. This has been promoted by recurring scandals and reforms to auditing, although the cycle of scandals and reforms is hardly new. Research has contributed to reforms, and is recognized by authorities as having the potential to contribute more. There are no areas where there is sufficient research as yet.

The paper provides a guide on what researchers can do in some under-researched areas, and highlights some issues to be aware of when carrying out auditing research. It explores research dimensions of both current practical problems and more fundamental research-based issues. The introduction of independent regulation, increasing levels of globalisation and increased attention to research by regulatory bodies are some of these issues. The topics that are being focused on extensively include auditors providing non-audit services; rotation of audit firms; joint audits; and ways to provide increased competition. There is a need for research about auditing and assurance services in a number of new developing areas, such as sustainability reporting and privacy auditing, and in established but neglected areas such as smaller entities and developing countries. Auditing research is now being taking more notice of by standard setters; and in addition, with the removal of self-regulation, the environment of auditing has changed. As a result there are also opportunities in the established areas of

auditing research, informed by prior research. This review has highlighted some areas that are opening up for researchers to push on to the frontiers and beyond.



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