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Opportunities for auditing research: Back to our interdisciplinary roots

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Opportunities for auditing research: Back to our interdisciplinary roots

Abstract

Purpose: This paper reviews potential areas for interdisciplinary research in auditing.

Approach: The paper reflects on the relevance of the findings from auditing research, and discusses an example from medical research. The medical example highlights how unexpected results can lead to surprising research findings. The paper then examines the areas in which further auditing research should be most valuable.

Findings: Auditing research is generally based on practical problems. It can be qualitative, quantitative, use mixed methods, or be interdisciplinary. There are examples of each of these, including interdisciplinary research that have contributed to the auditing literature. The paper describes areas in which future research in auditing is likely to be valuable. These include research in developing countries, smaller entities and other settings that have not been widely researched; research in the public sector, including the impact of armchair auditors; research about the place of auditing in corporate governance; and research about the function of auditing in confirming earlier unaudited announcements.

Practical implications: Standard setters are becoming more aware of research and more likely to make evidence-based decisions about auditing standards.

Originality/value: The paper evaluates existing research and provides suggestions for future research.

Paper type: General review.

Keywords: auditing; auditing standards; auditing research; interdisciplinary research; audit fees; corporate governance.

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Opportunities for auditing research: Back to our interdisciplinary roots

Introduction

Auditing research has always been about practical issues, and so it is inherently interdisciplinary. It is relevant to consider how researchers can return to our interdisciplinary roots in auditing research. Auditing research is also problem-solving research, and the most effective way to investigate and resolve those problems often uses interdisciplinary research, or uses, or uses mixed methods incorporating both quantitative and qualitative research. This paper shows some examples. The paper is illustrated by an interdisciplinary example from medical history, as well as by auditing research, and it ends with some suggestions.

Auditing research is about problems in the practical field of auditing. This is apparent in the way that auditing research papers often start by justifying their research question with a practical issue. They might investigate a current practical auditing issue such as a threat to auditor independence, or the role of the auditor in corporate governance, or proposed changes to the regulation of auditors. Published articles in the *International Journal of Auditing* or *Auditing: A Journal of Practice and Theory* often start with a reference to a news item, or to a statement by a regulatory body such as the Public Company Accounting Oversight Board in the United States (e.g., Gunny & Zhang 2013), the International Auditing and Assurance Standards Board internationally (e.g., Gullkvist & Jokipii 2013), or the Financial Markets Authority in New Zealand (e.g., Rainsbury et al. 2015). These references are presented by the authors of research articles as evidence that the issue is an important one that should be investigated. This approach has been an effective way for auditing (and accounting) research to proceed, although other approaches are valid. [¹]

Starting from these practical issues, any research approach will appeal to auditing researchers as long as it has potential to solve the problems at hand. This is unlike the situation in some more methodologically pure disciplines. Auditing has made progress with a variety of research approaches including positive and interpretive research that uses quantitative and qualitative methods, mixed methods research and interdisciplinary research. Interdisciplinary research “integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge” (Committee on Facilitating Interdisciplinary Research 2004). Auditing research has incorporated that approach and other diverse research approaches for many years (e.g., Ashton & Ashton 1995, p.129; Humphrey 2008; Power & Gendron 2015; Malsch & Salterio 2016). In particular, Broadbent & Unerman (2011, p.7) comment that “many of the issues and research questions that can be addressed by positivist [sic] methods cannot be addressed by interpretive research methods, but the inverse also applies.”^[2] They identify “positivist” approaches to research with quantitative research methods and interpretive approaches with qualitative methods.

In this paper I discuss the influence of auditing research compared to the influence of practical research in another discipline (medicine) and use that discussion to consider the different ways that quantitative and qualitative research can contribute. I then review the interdisciplinary roots of auditing research. The article then discusses how auditing research using interdisciplinary research, mixed methods, and other innovative approaches or questions can develop. This discussion is used to suggest specific opportunities for future auditing research.

The influence of auditing research

Auditing research is directed at solving the practical problems of auditing. There was a time, very recently, when auditing researchers made efforts to resolve practical problems, but they

did not appear to have any substantial impact on those problems. Auditors, legislators and standard setters were not particularly aware of auditing research, and made significant changes (such as the end of self-regulation) with little reference to auditing research. For example, when the Sarbanes-Oxley Act was considered by the US Congress, only one research paper was cited in extensive hearings and debates (Romano 2004, p.48).^[3] That paper showed results contrary to most findings in auditing research. The paper was subsequently published in *The Accounting Review* (Frankel et al. 2002) but later papers have challenged it (e.g., Ashbaugh et al. 2003). Now, some time later, the relevance of auditing research is changing. There is increasing use of auditing research by standard setting bodies or professional bodies of accountants and auditors. This trend was noted in 2015 (e.g., Free 2015; Hay 2015) and has increased since then.

There are several recent examples where auditing research has been considered relevant to standard setters. Recent evidence-based investigations include the United States Public Company Accounting Oversight Board's (PCAOB) synthesis projects (Cohen & Knechel 2013); CPA Australia's auditing research synthesis programme (see for example Carson, Botica Redmayne, and Liao 2014); the International Auditing and Assurance Board (IAASB)'s research projects conducted before introducing new audit reports; and a recent initiative by the International Ethics Standards Board for Accountants (IESBA). I discuss each of these in turn.

The PCAOB commissioned a set of papers that synthesize the body of research on about a dozen themes. The papers have been published in a special issue of *Auditing: A Journal of Practice and Theory* (Cohen & Knechel 2013). Subsequently the PCAOB established a research group, the Center for Economic Analysis. Board members of the PCAOB can be observed attending auditing research conferences (such as the American Accounting

Association Auditing Section Midyear Meeting) and taking part in discussion when research papers that are relevant to their current projects are presented.

The CPA Australia projects include an annual synthesis on a selected topic, and the resulting papers usually lead to a review article published in the *Australian Accounting Review* (for example, Carson et al. 2014; Hay et al. 2017). These synthesis papers do not directly inform regulation or standard setting, but they provide useful background to current issue debates in Australia and New Zealand.

The IAASB used research in a recent initiative about audit reports. The recent changes include the requirement for a much more extensive report, in which the auditor discusses Key Audit Matters that arose during the audit, so that stakeholders can be much more informed. The IAASB made these changes after commissioning several research studies, which themselves used a mixture of methods from different disciplines. [⁴] The studies examined what users want from audit reports. They included surveys, experiments, focus groups and verbal protocol analysis in the US, UK, Germany and New Zealand.

More recently, the IESBA conducted a project examining research that relates to ethical issues and that is concerned with audit fees. The study examined research on four issues: fee level, dependence, non-audit fees and firms that provide non-audit services. The ethical issues arise from the IESBA Code of Ethics. [⁵] The paper based on the study concluded that although audit fee research does not convey a message that there are widespread ethical problems, there are some risk areas. There is evidence that audit fees for new engagements are lower and that non-audit services affect independence in appearance. A few studies show that non-audit services provided by an auditor are associated with a loss of independence indicated by lower audit quality. There is concern about growth in non-audit services to non-

audit clients and is some evidence that audit quality is lower when firms have more extensive non-audit services businesses.

Another project is a set of studies for The Office of the Auditor-General of New Zealand, which commissioned research on “The Value of Public Auditing” in New Zealand. The papers from this project have been disseminated to public audiences and conferences (e.g., Cordery & Hay 2016). In brief, the studies show that public sector auditing does provide value, and that in New Zealand there are innovative ways in which public sector audit demonstrates its value.

The recent reference book the *Routledge Companion to Auditing* reviews research on a wide range of topics.^[6] Its target audience includes the profession, investors, and regulators (Hay et al. 2014, back cover).

Despite these initiatives, auditing research is not yet as influential as it could be. Auditing researchers can look with envy at other disciplines such as medical science, which address their practical problems with a massive body of research. In studying the history of medicine, graphs like Figure 1 are often examined.

Practical research in another discipline: medicine

The chart in Figure 1 shows impressive progress in reducing the death rate from respiratory tuberculosis in the 19th century. It is very dramatic, and similar charts can be shown for whooping cough, measles, scarlet fever, diphtheria, cholera, typhoid, typhus and syphilis (McKeown & Record 1962; McKeown 1976; Colgrove 2002). There is a surprising aspect to these declining death rates, but nevertheless, the trend shows substantial progress.

INSERT FIGURE 1

Imagine how researchers would illustrate a history of auditing – what measure would they show in a chart to indicate whether auditing is achieving its objective? Is the measure improving over time? It might be possible to list the number or size of audit failures, or the frequency of qualified opinions, the extent of the expectation gap, the rate of corporate failures, the number of people who lose their life savings due to decisions made on the basis of unreliable financial information, the level of audit fees, or the deficiencies found in inspections of audit work.

It is difficult to find reliable long-term measures for any of these matters. What is more, it is not entirely clear that the trend would be downwards for any of the problems that auditors are trying to prevent. The problems that auditors are able to resolve are not as measurable as deaths from disease.

Despite the impressive decline in the death rate, Figure 1 shows a surprising aspect to the trend. It had been generally believed that the declining trend in death rates reflected the progress being made in medicine. That was not the case. The surprising and controversial findings in McKeown's research are that, for almost all of the causes of death that he examines (all except smallpox), the death rates start to fall, and continue to fall *before* the medical breakthroughs take place. In the case of death rates from respiratory tuberculosis in England and Wales, as shown in the chart, the fall is particularly dramatic in the nineteenth century, even before the tuberculosis bacillus was identified, and after that, before the development of effective treatments for tuberculosis. While it had been accepted that declining death rates were due to medical advances, McKeown's research showed that was not possible. McKeown and Record (1962) attribute the declining death rates to socio-economic changes, especially improved nutrition. They argue that improved agricultural production, and greater availability of food made a greater contribution than medical advances did. Other social advances may also have had an effect. The McKeown thesis was

challenging to the medical establishment. It has been controversial, and there continue to be counter-arguments (Szreter 2002; Link and Phelan 2002). Nevertheless, McKeown's work has been illuminating and it has implications for auditors and researchers in accounting or auditing.

Medical research played a role in reducing death rates, but so did other unexpected variables, which in this case were broader social changes. One implication is that researchers need to be aware of other factors that could be influencing the results, in the way that availability of food influenced death rates. Socio-economic factors could be important in accounting and auditing too, for example the general level of education or wealth in the community, or more specific financial literacy.

Another message from medical history is that both quantitative and qualitative evidence can be very valuable. Hard evidence, like McKeown's data on death rates, is capable of providing surprising results that challenge existing wisdom. If qualitative evidence had been available to McKeown, it might have helped to confirm what the mechanism was that led to reduced death rates.

The relevance of the medical example

The illustration from medical history may help to understand what researchers should do in auditing (and accounting) in order to understand our problems and how to resolve them. [7]

The interaction between qualitative research, quantitative research, accepted knowledge, and surprising results, as in the medical examples, can be important. That combination of qualitative and quantitative evidence is not quite the same as interdisciplinary research in accounting and auditing. More strictly defined, interdisciplinary research involves people and techniques from more than one discipline to examine a problem, although this type of research is less common in practice.

Qualitative research can find out what is known in the community. Useful information could be obtained by interviews with nineteenth century doctors, or twenty-first century auditors. In some cases, that approach might not have discovered some important results. McKeown's results were not obvious, and came as a surprise to the medical profession. Quantitative research can surprise practitioners with answers that are contrary to the accepted wisdom. Auditing researchers need to take advantage of both quantitative and qualitative research. Going forward in research might be best done using interdisciplinary research as well as quantitative, qualitative and mixed methods research in order to allow for both finding out what is generally understood, and testing it against quantitative evidence.

Using quantitative evidence to challenge the accepted wisdom has already been used to obtain surprising results in accounting and finance. An early finding relates to the performance of investment managers. Until the 1960s, it was widely believed that some fund managers had particular skills in picking investments that would outperform the market (Samuelson 1965). Books about the share market in the 1960s feature these "gunslingers" (Brooks 1973). Now, investors are more likely to believe that particular individuals cannot do better than average on a continuing basis, and index funds are widely preferred (Ball & Brown 1968; Fama 1970; Chen et al. 1986). In the auditing area, it is still widely believed that some auditors discount their audit work as a "loss-leader" – they are reputed to quote a low audit fee in order to attract more lucrative non-audit work. Despite opinions and anecdotes about this practice, the quantitative evidence is quite to the contrary – in nearly every study, there is a positive relationship between audit fees and fees for non-audit services from the auditor (e.g., Hay et al. 2006). There are higher audit fees when there are non-audit services, not lower fees.⁸ Either loss leading does not happen (itself surprising) or the research design in a large number of papers lack the specification to identify this relationship. There can be surprising quantitative auditing research too (and maybe in the case of auditors

and non-audit services we need interdisciplinary research to find out why this happens despite what observers believe).

The interdisciplinary roots

Some classic quantitative studies in auditing have interdisciplinary roots (for example, Simunic 1980; Abdel-khalik 1993; Hay et al. 2007). Dan Simunic (1980) started an extensive stream of auditing research concerning audit fees. A question of interest was whether the Big N audit firms practice monopolistic pricing. Simunic applied a variety of methods, including interviews with audit firm partners, mathematical modelling using calculus and statistical analysis of audit fees. Simunic found that the Big N firms charge a premium in markets where there are a lot of small-firm competitors, as well as in markets where the Big N firms were dominant. It appears that the Big N firm premium occurs because clients will pay a premium for an auditor with a more substantial reputation. Nevertheless, Simunic's (1980) results were not entirely clear-cut, and audit fee research continues to be an untidy area where researchers find mixed results (Choi et al. 2008; Lawrence et al. 2011; Hay & Knechel 2017). In this case auditing researchers may be able to make progress by more studies synthesizing the existing extensive body of research.

Another question that is important to auditors was examined by Rashad Abdel-khalik (1993), namely why some privately-owned companies choose voluntarily to have an audit. His research was interdisciplinary to the extent that it triangulated between research findings from interviews with the owners of companies and analysis of data about the size and structure of the companies. A number of company owners stated that having an auditor helped them with their management of the company – in contrast to the usual explanations that audits are intended to provide assurance to external stakeholders. The statistical evidence showed that larger companies and those with more levels of hierarchy were more likely to choose to be

audited voluntarily. That result was surprising, and it helps to understand why auditing provides value.

A third example of research that used interdisciplinary methods is Hay et al. (2007). That paper included qualitative information from interviews by Rachel Baskerville with former audit firm partners, followed by quantitative analysis of their portfolios of clients. The different major firms shared their income differently – some sharing with a pool of the local partners in each city, others nationally and some internationally. The firms in which partners shared the potential gains and losses more widely also took more risks. Their firms had portfolios of clients that were more financially risky. That project more closely meets the definition of interdisciplinary research. It involved collaboration between a researcher with a PhD in anthropology using the methods of oral history, and an auditing researcher applying statistical methods of analysis.

As in the medical example, the message from interdisciplinary research in auditing is that we should consider a wide range of other possible explanatory factors. Interdisciplinary research (history/interviews and quantitative analysis) is valuable.

Growing from the roots

Auditing research may be able to grow from these interdisciplinary roots. Interdisciplinary research could look at some of these issues:

- Anomalies in the existing research;
- Interdisciplinary research about auditors but outside auditing;
- New explanations for auditing;
- New auditing practices;
- New settings, including developing countries.

The paper discusses each of these areas in turn. Anomalies in the existing research include the Big N audit firm fee premium, and the industry specialist premium. The Big N firm premium is the supposed additional charge by major audit firms because their audits are more highly valued. This is the area of research that Simunic (1980) founded. The industry specialist premium is the further additional premium earned by being the leading audit firm in a particular category of industry (Craswell et al. 1995). Not all auditing researchers think of the findings in these areas as anomalies and there are researchers who regard these issues as fully resolved. However, there have recently been a number of studies that cast doubt on (a) whether Big N audit firms really do provide higher quality audits that are more valuable (Lawrence et al. 2011) and (b) whether there really is a premium (Choi et al. 2008; Hay & Knechel 2017). Some studies appear to suggest the premium may be a result of choices made by clients, i.e., self-selection effects (Chaney et al. 2004). In the area of auditor specialisation, some studies report a premium for industry specialisation, and some do not; some find the premium at a city level, and others at a national level.^[9] The auditor industry-specialisation premium has become a contentious area. In both of these areas there are a mixture of inconsistent results. This area of auditing research might benefit from qualitative or interdisciplinary investigation of underlying issues.

Another area where research results are anomalous because they are not very conclusive is the impact of corporate governance mechanisms. What good corporate governance is (audit committees, independent directors, financial experts) seems to be well-accepted, but the evidence that these mechanisms make any difference is surprisingly mixed. In fact, the results are so mixed that several recent review articles come to conflicting conclusions. Carcello et al. (2011) review 12 previous literature reviews and meta-analyses, and based on that information they argue that evidence consistently suggests “good governance is associated with good outcomes”. Bédard and Gendron (2010, 200) examine 103 previous studies and

report that the studies provide evidence that that existence and expertise make a difference, but number of meetings and size of committee do not. In contrast, Ghafran and O’Sullivan (2012) review about 90 studies, and come to differing conclusions, that size and meeting frequency do make a difference. A synthesis project for the PCAOB (Bame-Aldred et al. 2013) concentrated on one issue, external auditors evaluating the quality of internal auditors, and concluded that while progress is being made through research, very little is known as yet. In a synthesis project for CPA Australia, Hay et al. (2017) conclude that “despite fairly extensive research, there is still considerable uncertainty about the effects of corporate governance mechanisms on auditing and the effects of auditing on corporate governance.” Corporate governance and firm performance are known to be endogenous (Wintoki et al. 2012). In this area research that takes account of the endogenous nature of corporate governance, perhaps using a mixture of quantitative and qualitative evidence, is likely to add greater clarity.

There is interdisciplinary research that is outside auditing the auditing area (since it is not published in accounting research journals) but that is still highly relevant to auditing and auditors. Most auditing researchers are not as aware of this kind of work as they should be. Two outstanding areas are Hammond’s work on black African-American CPAs in the US (Hammond 2002) and Sheridan’s research on audit firm culture (Sheridan 1992).

Theresa Hammond shows how the profession of accounting in the United States aspired to elite status, and aimed to achieve this through restricting its membership to middle class white males. To become a CPA, practical experience was needed, but accounting firms refused to hire black people – even extremely able and well-qualified people. They claimed that their clients would not accept black accountants. As a result, black accountants could not get the experience needed to qualify as CPAs. Most of the accounting work concerned related to auditing. In the late 1970s, a Congressional hearing found that the Big 8 firms had only

two black partners among all eight firms in the whole of the United States. The firms defended themselves by saying they would like to hire black people, but not enough of them had studied accounting. Hammond (2002) perceives this as extremely hypocritical. This is not the worst indignity delivered to African-Americans, but it is an interesting side of professional accounting including auditing. Her later work on black accountants in South Africa is published in accounting research journals (Hammond et al. 2009; Hammond et al. 2012).

Sheridan (1992), a management researcher, explored an issue of considerable interest to audit firms. He examined retention rates of graduate employees in the then Big 6 accounting firms. Keeping young graduates is a major issue that concerns the partners of those firms. Auditing was the predominant service provided by the firms. Sheridan (1992) found that organizational culture varied significantly among the firms, and that it was related to retention rates. Firms with an organizational culture of interpersonal relationships were much better at retaining new staff than those with a culture of work task values. The match between firms and employees was also important. Sheridan (1992) is an influential paper in management literature. It has 786 citations, but less than 8% of those are in auditing research. Perhaps accounting educators should discuss it with students; but there are likely to be opportunities for auditing researchers to understand auditing better by examining issues related to organizational culture.

A relatively new explanation for why auditing is valuable is the confirmation hypothesis. Announcements by companies, such as profit announcements, often have little impact on share prices. This finding was reported in a well-known paper (Ball & Brown 1968) and has been well-documented since. The share market reacts to earnings “surprises” but not to historical data. As a result, announcements of past profits, and the release of detailed audited financial information, are sometimes regarded as less important than announcements of new,

price-sensitive information. The confirmation hypothesis suggests that announcements about past financial performance and position are important because they verify all of the earlier unaudited announcements (Ball et al. 2012). Ball et al. suggest that “audited financial reporting and voluntary disclosure of managers’ private information are complementary mechanisms for communicating with investors, not substitutes” and that “Managers are encouraged to be more truthful when they are aware their disclosures of private information subsequently will be confirmed” (Ball et al. 2012, p.136). This is the confirmation hypothesis. It suggests that while unaudited announcements have more market impact, it is still necessary for announcements to be independently verified at a later stage. This is done by the issuing of an audited financial report covering the results for the year.

Ball et al. (2012) found evidence to support the confirmation hypothesis by showing that companies which make more frequent and more specific management forecast announcements also commit to greater auditing. Nevertheless, very little evidence to support the confirmation hypothesis has been provided as yet, and such evidence as exists is ambiguous. The confirmation hypothesis is plausible in understanding why auditing is important even when unaudited announcements are widely used and unaudited information often has more impact. It would be very useful to have more evidence about it. Perhaps interdisciplinary research would be a way to find out more about how analysts use unaudited and audited information, but any form of evidence would be valuable.

New practices in auditing include auditing of reports about sustainability. This practice is not entirely new, but despite recent papers such as Green et al. (2017), research about it is still underdeveloped. Some of the early quantitative studies used very coarse measures, and there is room to improve upon them.

Privacy audits are another growing area, but there is very little known about them. An example that is in the public domain is the privacy audit that PwC conducted for Google (Toy & Hay 2015). That audit report is available (PwC 2012) and has striking similarities to a financial audit report. It describes the assertions made by Google management about privacy, and then gives the auditor's opinion on the assertions. Other privacy audit reports that are in the public domain vary widely. Privacy auditing appears to be an area where a greater quantity of research is needed.

Combined assurance is a South African innovation which is another innovation in auditing and which is becoming more widely known. It is a practical innovation and also an area with potential for more research. There is at least one academic study (Zhou et al. 2017). They report that the use of combined assurance is beneficial in reducing analysts' forecast errors and reducing bid-ask spreads. There are opportunities for further research of various kinds.

When UK Prime Minister David Cameron announced the abolition of the Audit Commission in 2009, he also called for more open data. His aim was that auditing of expenditure in the public sector could be crowdsourced to any individual who wishes to examine it (O'Leary 2015). Cameron called these people "armchair auditors". He said, "Just imagine the effect that an army of armchair auditors is going to have on those expense claims." (O'Leary 2015, p.71). As yet, not much is known about whether there are armchair auditors and what effect these people are having on expenditure or any other issue, so more research is needed.

The government sector generally is an area where there is a lot of auditing taking place, and potential for research that could be useful in the private sector and the public sector. Cordery and Hay reviewed research in this area in the project commissioned by the Auditor-General of New Zealand (Hay & Cordery 2016). Their paper argues that the classic explanations for the value of auditing generally apply to the public sector as well as to the private sector. In

public sector accounting and auditing there is a divide between quantitative “mainstream” research and qualitative research, and a gap which can be filled by interdisciplinary or mixed methods research.

Around the world there are a lot of opportunities for more research about auditing in countries that are not widely researched yet. In 2012, the outgoing editor-in-chief of the *International Journal of Auditing*, Jenny Stewart wrote an editorial about this issue (Stewart 2014). The IJA tries to be international, and tries not to consider any country to be more or less interesting than others are. She showed that the journal published 95 manuscripts with authors from 26 nations during her term of office. The countries were very diverse, but tended to be from developed countries. There were very few papers from emerging economies. This trend has not changed substantially during the term of the subsequent editor-in-chief (2013 to the present). It is difficult for researchers in developing countries to produce high-quality research, and also to get reviewers to accept it. That particular journal makes an effort to include diverse countries, but not all of them do. There tends to be a bias towards auditing and accounting in highly developed economies, especially the United States.

That bias is surprising. Why are less well-known auditing settings, such as developing countries (or private companies, non-profit entities, charities, or the public sector), considered more interesting? Those are settings where there is considerable variation in auditing, and where in some cases auditing might not be functioning well. Those are the settings that should appeal to researchers. If medical researchers only concerned themselves with affluent, healthy people, then their work would be much less interesting and useful. It is surprising that the auditing and accounting research community concentrates so much of its attention on large listed companies in the largest and most developed economies.

That auditing researchers do not engage in much research about developing countries is surprising for another reason. International agencies, especially the World Bank and UNCTAD (United Nations Commission of Trade and Development) have been 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 development of these countries (Hegarty et al. 2004). Auditing in developing countries is not an area where academic researchers have been particularly curious, however, even though those settings might be expected to be a major focus for research given the emphasis by international agencies. These settings could also be important because of the implication from the medical example that unexplored social factors could be an important influence that has not been examined yet.

Reflections and summary

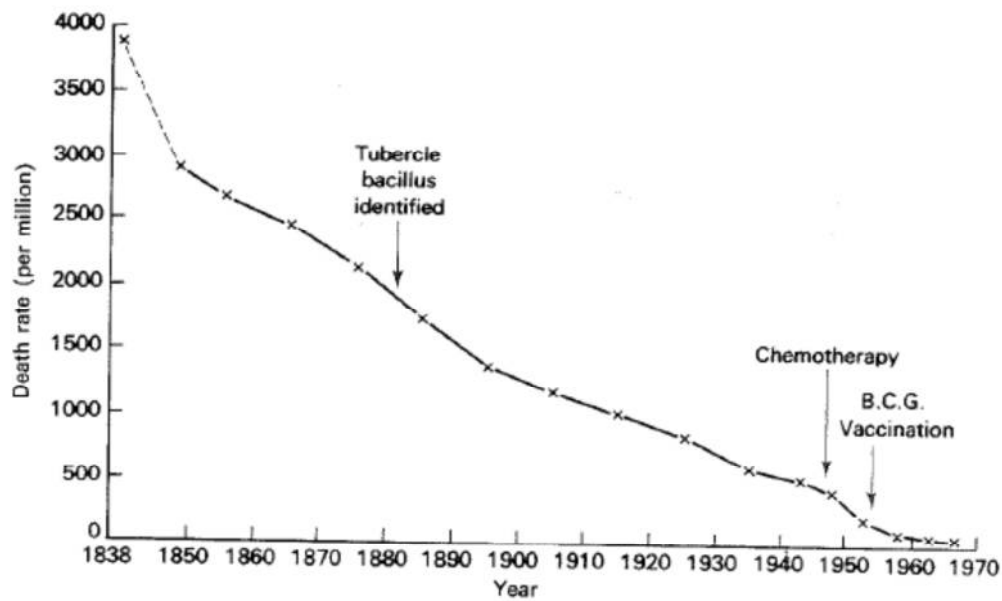
In auditing, there is a feeling of crisis and need for change. That is nothing new. It is often the case that auditors and researchers consider that they are in the throes of a crisis. Moreover, it seems that there is not a feeling that auditing is steadily overcoming its problems. Auditors and regulators are fixing problems as fast as they can, but more problems continue to appear. However, there is a change in the situation, in that regulators and standard-setter are now looking to make more use of auditing research. This paper uses an illustration that compares auditing research to medical research. It includes suggestions where further research will help to develop auditing and overcome existing problems.

Auditing research is like medical research because it deals with practical problems. It is not like medical research because we cannot necessarily show that we are progress in improving the auditing profession; and because we might not be looking in the right place when we

concentrate on the largest listed companies and not on less well-known settings where auditing might function in a different way. In medical research, exploring quantitative research results led to a surprising finding about the causes of declining death rates. In auditing, it may be that unexpected variables, especially social change or other social factors, are also important influences that have not been taken into account yet.

Auditing researchers are at a stage where there is increasing use of research by auditing standard setters and regulators. Auditing research can meet a demand for solutions to practical problems and its importance is almost certain to increase in the next few years. There are promising areas for all of quantitative, qualitative, mixed methods and interdisciplinary research. There are large areas where auditing research could potentially resolve important practical problems.

Specific areas discussed in this paper include the issue of the Big N audit firm premium, where more synthesis of existing research may help. Where audit firm specialization is concerned, it may be that qualitative or interdisciplinary research is needed to disentangle a rather convoluted research area. Relationships concerned with governance are prone to endogeneity, so in this area a mixture of quantitative and qualitative research is likely to be useful. In public sector auditing, there is a gap between quantitative and qualitative research, and research approaches that can bring the two areas together are likely to be valuable. The areas of organizational culture, the confirmation hypothesis, privacy auditing, “armchair auditors” and developing countries all simply need more research, of any kind. Those areas with the greatest potential are: developing countries and other non-standard settings; the government sector, including armchair auditors; evidence about the confirmation hypothesis; and the culture of audit firms.



5.1 Respiratory tuberculosis: death rates, England and Wales.

Figure 1: Death rates from tuberculosis in England and Wales (McKeown 1976, p.93)

Endnotes

¹ For example research can test theory, or be designed to meet the needs of other groups outside the auditing community.

² Positive accounting research attempts to predict and explain accounting phenomena (e.g., Watts & Zimmerman 1990; Milne 2002). Some discussions refer to it as “positivist” research.

³ “This is the only study even mentioned by any member of Congress in the congressional debates over, and seventeen hearings leading up to, SOX” (Romano 2004, p.48).

⁴ The projects are available here: <http://www.iaasb.org/projects/auditor-reporting> (accessed 30 March 2017).

⁵ The paper is available at <http://www.ethicsboard.org/system/files/meetings/files/Agenda-Item-6A-Fees-Summary-of-Research-Final-Report.pdf> (accessed 16 March 2017)

⁶ No doubt, there are other initiatives that I have not mentioned.

⁷ Nevertheless, the contribution of accounting research is substantial. Recent publications in the field of historical research show the importance in national histories of strong public accounting systems. Ferguson in *The Cash Nexus* (2001) examines the argument that prosperity and democracy are linked to each other. Ferguson (2001) points out the strengths of the British system’s “square of power” (the tax-collecting bureaucracy, Parliament, the national debt and the central bank) was advantageous compared to other countries, for example because the need for a tax gathering bureaucracy “implied a need for a system of formal education, to ensure an adequate supply of civil servants who were both literate and numerate” ((Ferguson 2001, p.77 of 1729). This argument suggests that accounting and related activities have positive externalities. In addition, stronger financial arrangements could be decisive in war. Ferguson (2001) states: “In 1788, according to modern estimates, French GNP was more than double the British; the French population nearly three times larger; yet despite being economically inferior, Britain was able to mobilize more men and ships at lower relative cost than her rival.” (Ferguson 2001 p. 1291-2 of 1729). In *The Reckoning*, Soll (2014) argues that: “those societies that managed to harness accounting as part of their general cultures flourished.” He gives as examples Republican Italian city-states like Genoa and Florence, Golden Age Holland, and eighteenth- and nineteenth-century Britain and America, and argues that in such places accounting was included in education, religious and moral thought, art, philosophy, and political theory. “Among educated citizens, there was an expectation that those in power, from municipal administrators to educators to princes, knew accounting and had a sense of just how essential financial accountability was to their republic system” (Soll 2014, p.552–553 of 687).

⁸ However, non-audit services are associated a shorter audit report lag in subsequent years (Walker & Hay 2013).

⁹ Hay and Jeter (2011) observe that there are 15 studies reporting a premium, five reporting a discount, nine finding that there is no significant association and three in which the results are mixed depending on other factors.

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