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Voluntary Auditing: A Synthesis of the Literature

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ABSTRACT Voluntary auditing has received increased attention from researchers in recent decades. Empirical studies that have examined demand for voluntary audits have suggested that regulatory intervention may not always be necessary, though some argue that regulators protect society from market failure by demanding statutory audits [Barton, J., & Waymire, G. (2004). Investor protection under unregulated financial reporting. *Journal of Accounting and Economics*, 38, 65–116]. To date, there has been no review of the literature on determinants of voluntary audits. I provide a research framework to categorize the attributes that affect demand for voluntary audits and identify areas that need further examination. While the given compact body of literature has served different purposes, two major reasons for voluntary auditing are apparent: the importance of audited financial statements to lenders and the intention to further deregulate audits for smaller companies to relieve cost burdens. However, I contribute to the auditing literature by identifying the main attributes associated with the demand for voluntary audit. In doing so, I develop a framework consisting of firm attributes, separation of ownership and control attributes, agency relationship attributes, management attributes, and signalling attributes.

Keywords: voluntary auditing, auditing practices, audit demand

1. Introduction

Voluntary auditing has received increased attention from researchers in recent decades. Empirical studies examining the demand for voluntary audits suggest that regulatory intervention might not be necessary, though some argue that regulators protect society from market failure by demanding statutory audits (Barton & Waymire, 2004).

To date, there has been no review of the studies on the attributes of voluntary audits. This research area would benefit greatly from a framework to categorize the attributes that affect demand for voluntary audits and identify areas that need further examination. This review develops such a framework and analyses what we know from extant research within this framework, suggesting that the many drivers of voluntary audit have consistent results across studies. In addition, this study also points out some areas where previous findings were not expected or were inconsistent.

This literature synthesis has three main objectives. The first objective is to provide a comprehensive overview of the current academic knowledge about voluntary audits. The second objective is to identify key attributes and issues that appear to affect demand for voluntary audits. Finally, the third

aim is to suggest fruitful future research opportunities. This literature analysis has significant implications for audit research and practice. For instance, this synthesis details the benefits of the verification of financial statements for firms that are not required by law to be audited.

The remainder of the paper is organized as follows. Section 2 presents the relevant background information on the topic. Section 3 defines voluntary audit and explains the method used to conceptualize this synthesis. Section 4 presents the examination of theoretical and empirical literature and provides a comprehensive list of attributes of the demand for voluntary audits examined in prior studies. In Section 5, the conclusions are summarized, and in Section 6, future research topics are discussed.

2. Background

Why study voluntary audit? The traditional role of the audit is to provide the independent third-party verification of a company's accounts and financial reports. Though the audit is prepared on behalf of the members of the company, it provides valuable assurance to external users of financial reports, such as investors and other providers of finance. In addition, this assurance has been found to provide direct benefits to companies; in some cases, these benefits are considered so valuable that companies voluntarily engage audits, even though there is no requirement by law (e.g. Dedman & Kausar, 2012; Seow, 2001; Watts & Zimmerman, 1983).

There has been very active discussion around voluntary auditing and audit exemption in Europe over the last decade (e.g. European Commission, 2013a; Niemi, Kinnunen, Ojala, & Troberg, 2012; Ojala, Collis, Kinnunen, Niemi, & Troberg, 2016). This is due to European Union (EU) policy for small- and medium-sized enterprises (SMEs), which aims to ensure that EU policies and actions are friendly to small-business and help make Europe a more attractive place to set up a company and do business (European Commission, 2014a, 2014b). Therefore, the main argument to release small firms from a mandatory audit requirement is that audits are argued to be costly and burdensome (European Commission, 2010, 2013b; Tabone & Baldacchino, 2003). However, even though external audits are argued to be beneficial for companies, it is suggested to be beneficial also for regulators and society (Mustapha & Yaen, 2013). Thus, external voluntary audit may be a major contributor to the efficient management of a company, a significant deterrent to fraud and money laundering, a stimulus to openness and transparency, and a highly effective driver of the promotion of good corporate governance. Due to these benefits, it is extremely important for small companies to consider whether to undertake a voluntary audit (Niemi et al., 2012).

In prior research, an agency cost framework has been used to analyse the attributes of the voluntary demand for audit services (e.g. Barefield, Gaver, & O'Keefe, 1993; Carey, Simnett, & Tanewski, 2000; Chow, 1982). The extant literature identifies three classes of agency conflicts: owner–manager, manager–employee, and owner–creditor. The agency problems introduced by the separation of ownership and control may be resolved to some extent by an independent, external audit. This is now a general requirement for listed firms all over the world. However, researchers have been interested in what happens when an audit is not an obligation but a choice. Understanding the attributes and consequences of voluntary audits is vital to auditing profession, as well as regulators, governments, lenders, and other users of financial statements.

Why should one examine what affects demand for voluntary audit? While the compact body of existing literature on this topic has served different purposes, two major reasons are apparent; the importance of audited financial statements to lenders and the purpose of further deregulation of audits for smaller companies to relieve cost burdens (e.g. Rennie et al. 2003). However, the costs of audits cannot be considered without regard to context. Naturally, there will be savings of audit fees if audit requirements are removed. On the other hand, the savings might not be significant (e.g. Collis et al., 2004). Savings from not having an audit in one year may lead to higher

audit fees for the following year when an audit is requested, e.g. by business partners or lenders. This greater expense directly follows from the lack of audit history, which increases the costs of an audit. Because of these arguments, it is vital to examine the attributes affecting demand for voluntary audits.

When reviewing archival studies, a common methodology has been developed for examining attributes that are related to demand for voluntary audits. Typically, researchers test the relationship between variables of interest and the voluntary demand for auditing by estimating a probit model (e.g. Barefield et al., 1993; Carey et al., 2000; Chow, 1982; Collis, 2012; Collis, Jarvis, & Skerratt, 2004; Haw, Qi, & Wu, 2008; Ojala et al., 2016; Tauringana & Clarke, 2000). The estimated model is developed by regressing the voluntary choice for an audit against a variety of measures as surrogate attributes that are hypothesized to relate to demand for voluntary audits, either negatively or positively. The dependent variable takes a value of 1 if the company is audited voluntarily and 0 otherwise. If the coefficients for the independent variables are significant, the hypothesized relationship with demand for voluntary audits is deemed to exist. In this way, the population of explanatory variables included in the empirical specification of demand for voluntary audits can be identified.

3. Terminology and Methodology

3.1. Definition of Voluntary Audit

Even without any specific obligation required by the law, many entities have the necessity, or have the opportunity, to demand a qualified and independent professional judgment on their own financial reporting.

3.2. Method

To summarize and analyse the extent of research on demand for voluntary audits, a list of published voluntary audit studies was identified from a number of sources. The electronic search was made using ABI/Inform and EBSCO host, with keywords to relate to audit exemption, voluntary auditing, and small firms. The search included publications up to 28 February 2017. In total, this study reviews 27 studies related to the attributes of demand for voluntary audits and published over 30 years; the majority of the studies were published in prominent peer-reviewed accounting and auditing journals from 1982 to 2016. Table 1 provides a count of the studies reviewed, grouped by source journal. In addition, Table 2 presents the key research findings of the papers included in the synthesis.

4. Previous Theoretical and Empirical Literature

This section concentrates on the main attributes that affect demand for voluntary audit discussed in prior research, and it provides a useful framework of the attributes that are most frequently used to examine demand for voluntary audits. Table 3 summarizes the main attributes that are related to demand for voluntary audit.

4.1. Firm Attributes

4.1.1. Size

The most dominant determinant of demand for voluntary audits across all published studies is size, which is expected to have a positive relationship with demand for voluntary audits (e.g.

Table 1. Breakdown of studies reviewed.

Accounting and Business Research	4
Accounting and Management Information Systems	1
Auditing: A Journal of Practice and Theory	4
Contemporary Accounting Research	1
European Accounting Review	1
International Journal of Auditing	2
International Small Business Journal	1
Journal of Accounting, Auditing and Finance	2
Journal of Accounting and Economics	1
Journal of Accounting Research	2
Journal of Accounting and Public Policy	1
Managerial Auditing Journal	1
Malaysian Accounting Review	1
Research in Accounting Regulation	1
The Accounting Review	3
The Journal of Small Business Finance	1

Abdel-Khalik, 1993; Carey & Tanewski, 2013; Collis, 2010; Collis et al., 2004; Dedman, Kausar, & Lennox, 2014; Tauringana & Clarke, 2000). Size is typically measured as total assets, with some studies using turnover. The literature suggests a number of theoretical explanations. First, a firm's size is most often hypothesized to affect demand for voluntary audits, because when companies grow, the volume of their transactions also increases and errors are more likely to occur in financial statements. This leads to the need for financial statements to be examined voluntarily by an independent external auditor. Second, with increased size, it becomes more difficult for owners to oversee and be cognizant of the firm's entire financial operation. Hence there is a greater demand for voluntary auditing to compensate for the loss of control. Third, on the cost side, the marginal costs of having external audits decrease with firm size. Consequently, the association between firm size and the use of voluntary audits is in general positive and significant. Although these results are not a surprise, taken together they indicate that size is an extremely critical explanatory variable for any model of demand for voluntary audits.

4.1.2. *Leverage*

Theoretical discussions tend to support a positive association between level of debt and demand for voluntary external auditing (e.g. Carey et al., 2000; Carey & Tanewski, 2013; Chow, 1982; Dharan, 1992; Hay & Davis, 2004; Tauringana & Clarke, 2000). It is suggested that as the proportion of debt in a firm's capital structure increases, shareholders may have greater incentive to transfer wealth from the bondholder, and this increases the likelihood that the organization will demand a voluntary audit. Consequently, researchers generally expect to find a positive association between the leverage of a company and a demand for voluntary audits. The most common proxy for leverage is the ratio of debt to total assets.

4.1.3. *Presence of Debt Covenants*

It has been argued that owner–creditor agency costs are expected to increase with the financial leverage of a firm (Barefield et al., 1993). Therefore, debt covenants designed by creditors to constrain managerial behaviour are often based on accounting numbers, and accounting numbers play a central role in many such debt covenants. For example, a firm's ability to pay dividends is usually tied to its accounting earnings. Therefore, for firms using more accounting-based covenants, one would expect a more important role for external auditors. Barefield et al. (1993) found

Table 2. Studies on voluntary auditing.

Author(s)	Research question	Sample and findings
Chow (1982)	What incentives influence voluntary demand for external auditing?	US firms. 1926. Chow (1982) suggested that leverage, firm size, and number of accounting-based debt covenants are predicted to increase the probability that a firm will voluntarily hire external auditing. Thus, the results supported the hypothesized effects of leverage and accounting-based debt covenants and moderately supported the predicted role of firm size
Dharan (1992)	How does voluntary auditing affect the borrowing decision of small firms seeking a bank loan?	US firms. Dharan (1992) examined the borrowing decisions of small firms when they can optionally hire, at a cost, an independent external auditor to convey their risk characteristics to lenders. The analyses show that a necessary condition for a potential borrower to prefer having an audit to not having an audit is that the borrower's debt to equity ratio must be above a certain minimum cut-off value. Hence, Dharan (1992) predicts that high-quality small firms purchase audits to signal quality to debt market.
Barefield et al. (1993)	What factors affect voluntary demand for attest services?	US firms. 1983, 1988–1989. Barefield et al. (1993) examined the demand for attest services. Their results suggest that client size and the presence of debt covenants based on accounting results are positively related to the demand for attest services. In addition, the percentage ownership of the firm by officers and directors is significantly negatively related to the demand for attest services.
Abdel-Khalik (1993)	Why do private companies voluntarily demand auditing?	US firms. Abdel-Khalik (1993) hypothesized that, in the absence of regulatory demand for audits, owners would voluntarily demand assurance for one or both of the following reasons: i) to compensate for the loss of control induced by organizational design, ii) to comply with constraints placed on the organization by creditors. Thus, Abdel-Khalik (1993) used a 'structure of organization approach' to examine the impact of the level of hierarchy (firm size) and debt. He found a correlation between voluntary demand for auditing and the extent of hierarchy (a measure of firm size), and only weak support for the impact of debt.

(Continued)

Table 2. Continued

Author(s)	Research question	Sample and findings
Blackwell, Noland, and Winters (1998)	What is the economic value of auditor assurance?	US firms. 1988. Blackwell et al. (1998) provided evidence on the economic value of services provided by independent auditors by analysing whether auditor association leads to reduced interest rates on revolving credit agreements. They analyse the relation between interest rates on revolving bank loans to small, private firms and the degree of auditor association with financial statements provided to the lender. They found that audited firms pay significantly lower interest rates than non-audited firms, and this benefit decreases nonlinearly as firm size increases
Carey et al. (2000)	What factors affect demand for internal and external auditing by family businesses?	Australian family firms. The results of Carey et al. (2000) support the hypothesized impact of the two agency proxies and firm debt on demand for external auditing. In an unregulated family-business environment, demand for external auditing is positively correlated with the proxies of agency conflict, the proportion of nonfamily management, and the proportion of nonfamily directors. They find also that demand for external auditing is positively correlated with the level of firm debt. This finding is consistent with the findings of prior studies (e.g. Abdel-Khalik, 1993; Blackwell et al., 1998; Chow, 1982). However, no empirical evidence was found that in an unregulated family-business environment, demand for auditing is positively correlated with firm size. This finding is not consistent with prior studies and is explained in part by the data set used
Tauringana and Clarke (2000)	What company characteristics affect demand for voluntary external auditing?	UK firms. 1996. Tauringana and Clarke (2000) examined, based on agency theory, four company characteristics and the probability that a company will be audited voluntarily. These company characteristics are managerial share ownership, company size (measured by turnover and total assets), gearing ratio, and liquidity ratio. According to the results, the smaller the manager's share ownership in the company, the higher is the probability that the company voluntarily engages external auditing. Their results also suggest that the higher the proportion of debt in a firm's capital structure, the higher is the probability that the firm voluntarily hires external auditing

Senkow, Rennie, Rennie, and Wong (2001)	What factors affect the audit retention decision?	Canadian firms. Senkow et al. (2001) suggested that the strongest predictors of audit retention are the prior existence of a lender agreement requiring an audit and the level of audit fees. It was found that a factor traditionally viewed as reducing shareholder demand for audits a high level of share ownership by management may be influential in increasing lender demand for audited financial statements. In particular, owner-managed companies were more likely to have such an agreement with lenders than were companies that were not owner managed. It was also found that the debt-to-asset ratio was not directly related to the retention decision, while it was related to the existence of a lender agreement requiring audited financial statements
Seow (2001)	What factors affect the demand for voluntary audit in the UK?	UK firms. Seow's (2001) findings reveal some support for the agency hypothesis for the demand for voluntary audits. However, it was found that companies that had non-director shareholders, remote from the day-to-day operations of the company, were more inclined to choose to engage audits. While the mere presence of debt in a company's capital structure was not found to affect this choice, there was evidence to suggest that managers chose to engage audits when lenders had a specific requirement or request for one. In addition, the results indicate that the cost of preparing an audit, both in monetary terms and in terms of management time, is a factor evaluated by small-company management when deciding whether to engage auditing
Rennie, Senkow, Rennie, and Wong (2003)	What are the consequences of deregulation in terms of audit retention or discontinuance?	Canadian firms. Rennie et al.'s (2003) respondents were asked to provide the most important reason for their company's decision to voluntarily continue the audit. The most cited explanations for audit continuance were lender and owner requirements for an audit. Other respondents wished to provide assurance or comfort about the credibility of the financial statements to users and/or management. Thus, a substantial majority of the companies responding to the survey did retain a financial statement audit. The most prevalent explanations for this choice were that lenders and/or owners needed audited financial statements

(Continued)

Table 2. Continued

Author(s)	Research question	Sample and findings
Hay and Davis (2004)	What factors are associated with voluntary appointment of an auditor?	Incorporated societies in New Zealand. Hay and Davis (2004) investigated the voluntary choice of an auditor of ‘any level of quality’. They tested whether certain factors (size of the entity, salaries paid, debt, and source of income) were associated with voluntary appointment of an auditor. Their findings suggest that size, proportion of debt, and proportion of salaries are associated with voluntary appointment of an auditor. Thus, their results indicate that larger entities and entities with higher salaries as a proportion of revenues and higher debt as a proportion of assets are more likely to be voluntarily audited
Collis et al. (2004)	What factors affect the demand for audits in small companies in the UK?	UK firms. 1999. Collis et al. (2004) hypothesized that the likelihood of the directors choosing a non-mandatory audit increases with the size of the company, as measured by turnover, balance sheet total, and number of employees. For each measure of size, there was a significant association with the demand for a non-mandatory audit. The results suggest that the desire for a non-mandatory audit is associated with companies with agency relationships with lenders. This suggests that the cost of the audit in terms of time, money, and disruption is an agency cost accepted by directors to maintain good relations with lenders. In addition, the demand for the audit is associated with companies that are not wholly family owned. Finally, the analysis reveals that the demand for an external audit is driven by management-related factors.
Haw et al. (2008)	What is the economic consequence of voluntary auditing?	Chinese firms. 1996–1999. Haw et al. (2008) found that the choice of voluntary auditing is positively associated with percentage of tradable shares, profitability, and company size. In addition, the results suggest that the earnings-response coefficients of audited firms are higher than those of unaudited firms, especially when the audit is voluntary. Their findings are consistent with the theoretical propositions that managers voluntarily purchase external auditing to enhance the credibility of accounting numbers and that ‘certified’ information reduces information risk when investors assess the future cash flows of firms

Allee and Yohn (2009)	What are the potential benefits of voluntary auditing?	US firms. 2003–2004. Allee and Yohn (2009) examined the financial reporting practices of small privately held businesses that were not subject to SEC regulation. They examined the potential benefits afforded firms producing financial statements, having audited financial statements, and having accrual-based financial statements. Their results suggest that firms with audited financial statements benefit in the form of greater access to credit. Thus, they argue that firms with audited financial statements are significantly more likely to be granted credit than those without audited financial statements
Collis (2010)	What factors affect the demand for the audit in small companies in the UK and Denmark?	UK and Danish firms. Collis (2010) examined size, management, and agency factors and their associations with demand for voluntary audits in Denmark and the UK. The findings suggest that turnover alone can predict audit demand; however, it is not a full and sufficient surrogate for the motivation of the directors to opt for voluntary audit. The management factors determining voluntary audit are that cost is not considered a substantial expense and audit provides the benefit of improving the quality of the financial information. Moreover, the study suggests some support for the hypothesized effects of agency relationships. For instance, the benefit of audits in supporting agency relationships with the bank/lenders was a factor in Denmark, but was not significant in the case of suppliers/creditors. However, these two results were reversed for the UK companies
Kim, Simunic, Stein, and Yi (2011)	What is the economic value of voluntary auditing?	Korean firms. 1987–2002. Kim et al. (2011) find that private companies with voluntary audits pay significantly lower interest rates on their debt than do private companies with no audit. Thus, they provide evidence that voluntary audit is associated with interest cost savings. Moreover, their results suggest that voluntary audits play an important role helping credit stakeholders overcome uncertainty about the borrower

(Continued)

Table 2. Continued

Author(s)	Research question	Sample and findings
Minnis (2011)	What is the value of financial verification in debt financing?	US firms. 2001–2008. Minnis (2011) finds that voluntarily audited firms have a significant lower cost of debt and that lenders place more weight on audited financial information in setting interest rates. Moreover, Minnis (2011) provides evidence of a mechanism for this increased usefulness of financial statements: accruals from audited financial statements are better predictors of future cash flows
Lennox and Pittman (2011)	Does switching to voluntary auditing yield incrementally valuable information about the company's type beyond what could be already surmised during a mandatory regime?	Lennox and Pittman (2011) exploited a natural experiment in which voluntary audits replaced mandatory audits, and they analysed whether imposing audits suppresses valuable information about the types of companies that would voluntarily choose to be audited. Thus, to gauge whether voluntary audits reveal new information about the borrower's type, they examined the changes in credit ratings after the transition from mandatory audits to voluntary audits. They argued that when a company voluntarily chooses to remain audited, there is no change in audit assurance; such a company transmits a positive signal when it chooses to be audited voluntarily. Their results suggest that credit ratings rise for companies that continue being audited. They interpret this evidence as implying that these companies enjoy ratings upgrades because their decision to remain audited conveys an incrementally positive signal about their credit risk
Collis (2012)	What are the determinants of voluntary audit in micro- and non-micro small companies in the UK?	UK firms. 2006–2007. The findings of Collis (2012) suggest that the most powerful determinant of voluntary audit in non-micro small companies is turnover. The greater the company's sales revenue, the more likely it is to have a non-mandatory audit. This is followed by perceived demand for audited accounts from investors and perceptions that the cost of audit is not a major burden. However, the most powerful determinant of voluntary audits in micro-companies is taking the accountant's advice, followed by the perception that the cost of audit is not a major burden; perceived demand from investors; turnover; perceived demand from the bank/lenders; and the view that audit provides a check on accounting systems and records. Thus, the audit decision in micro-companies is driven by a wider range of benefits that include both management and agency factors

Dedman and Kausar (2012)	What is the impact of voluntary audit on credit ratings?	UK firms. 2005–2006. Dedman and Kausar (2012) examined the credit scores and financial reporting quality of UK private firms that qualified for audit exemptions. They find that, even though firms report lower average profits, companies that retain voluntary audits enjoy significantly higher credit scores than those that opt out of audits. The results of both conservatism and accrual-based tests indicate that opting out of audit is associated with less conservative financial reporting, and these findings also provide an explanation for why opt-out firms report higher profits but receive lower credit scores. Hence, their study contributes to an important policy debate by providing evidence that the voluntary audit does confer benefits to private firms in terms of financial reporting quality, assurance, and credit scores generated from the financial reports
Niemi et al. (2012)	To be or not be audited? What are the drivers of voluntary audit in Finland?	Finnish firms. Niemi et al. (2012) findings are in line with the view that factors relating to firm size, outside (bank) financing, the need to provide a check on internal controls, and the need to improve the quality of financial statement information are drivers of demand for voluntary audits. Their results are consistent with the view that outsourcing accounting functions to an external accountant creates an agency-type contracting relationship between the owner-manager and the accountant, thereby increasing the need for an audit. By contrast, companies that consider tax advisory services from an external accountant are less likely to hire an auditor if the audit is non-mandatory. Moreover, they find evidence indicating that prior conflicts attributable to qualified audit reports may reduce the willingness to hire an auditor. Finally, they find evidence indicating that financially distressed companies are more likely to hire auditors

(Continued)

Table 2. Continued

Author(s)	Research question	Sample and findings
Carey and Tanewski (2013)	What is the economic value of voluntary auditing?	Australian firms. Carey and Tanewski (2013) focused on incentives to audit arising from internal sources (owner–manager), controlling for traditional incentives arising from contractual constraints (i.e., debt), organizational characteristics (i.e., size) and agency conflict. The findings support the predicted impact of both size and debt on audit and further support the hypothesized impact of budgeting. Thus, they proposed that an owner–manager might demand an external audit to complement profit planning and control (budgeting). Hence, audits enhance the credibility of financial information used in the budgeting process, and auditors’ expertise provides owner–managers with the opportunity to learn and improve processes
Clatworthy and Peel (2013)	What is the impact of voluntary audit and governance characteristics on accounting errors in private companies?	UK firms. Clatworthy and Peel (2013) examined the effects of voluntary external audit and found strong support for its great importance in determining accounting accuracy. They found that audited accounts are approximately half as likely as unaudited accounts to contain errors. Their results are likely to be of interest to policy makers considering removing mandatory audits for larger private companies. They directly tested whether private firms benefit from appointing an auditor through improved financial reporting reliability and examined whether the extra credibility given to audited financial statements by outside investors and/or credit rating agencies is warranted by the improved accuracy of accounting information. The evidence indicates that small private firms filing unaudited accounts are approximately twice as likely to file defective annual accounts as their counterparts opting to have their accounting audited
Mustapha and Yaen (2013)	What are the determinants of voluntary audit demand in small companies in Malaysia?	Malaysian firms. Mustapha and Yaen (2013) examined demand for voluntary audit by small companies in Malaysia. The results indicate that owners perceived that the voluntary audit would be able to improve the quality of their financial statements. Their findings are consistent with prior research, showing that the managerial ownership, perceptions of the managers, and total number of employees significantly influence the demand for voluntary audit.

Dedman et al. (2014)	What are the determinants of voluntary audit demand in private firms in the UK?	UK firms. Dedman et al. (2014) used agency theory and prior literature in the development of their hypotheses, which predict that companies are more likely to purchase a voluntary audit if they have higher agency costs, they are riskier, they will shortly require new capital, they purchase nonaudit services from the auditor, and they demonstrate a greater demand for audit assurance in the mandatory audit regime. Their empirical results provide support for each of their hypotheses. Thus, their results indicate that companies are more likely to purchase voluntary audits if they have greater agency costs, are riskier, wish to raise capital, purchase non-audit services from their auditor, and exhibit greater demand for audit assurance in the mandatory audit regime
Kausar, Shroff, and White (2016)	What are the real effects of the audit choice?	Using a natural experiment, Kausar et al. (2016) show that when external financiers observe a firm's choice to voluntarily obtain an audit, the firm obtaining an audit significantly increases its debt, investment, and operating performance and become more responsive to investment opportunities. Further, they found that these effects are stronger for firms that are financially constrained and weaker for firms with other means to reduce financing frictions. Overall, their evidence suggests that the audit choice conveys information to capital providers, which reduces financing friction and improves performance
Ojala et al. (2016)	What are the additional determinants of voluntary audit demand in micro-companies?	Finnish firms. Ojala et al. (2016) examined additional determinants of the demand for voluntary audit in micro-companies by investigating internal management factors. Their study contributes to the literature by extending theory on the demand for voluntary audit in micro companies and identifying new management drivers. Thus, the authors show that the drivers of voluntary audit are that the company is not in financial distress, management has a need for tax-reporting credibility, there is dispersed ownership, the company is growing, and management needs to ensure security of supply from trade creditors

Table 3. The main attributes related to demand for voluntary audits.

Firm attributes	Separation of ownership and control attributes	Agency relationship attributes	Management attributes	Signalling attributes
Size	Managerial share ownership	Lenders' demand or requirement for auditing	Voluntary audit is a beneficial check on internal books/ records	To signal quality to debt market
Leverage	Percentage ownership of the firm by officers and directors	Agency relationship with lenders	Agreement that voluntary audit improves quality of the financial information	To signal improved quality of the financial information (conservative reporting)
Presence of debt covenants	Family ownership	Agency relationship with suppliers and creditors		
Complexity		Greater access to credit		
Board size		Credit ratings		
Company risk		Non-audit services		
Capital raising				
Growth and profitability				
Qualified audit report and financial distress				

that the effect of presence of debt covenants on accounting results is significantly and positively related to demand for voluntary audits.

4.1.4. Complexity

Prior research suggests that companies that voluntarily purchase a financial statement audit are complex. For instance, Dedman et al. (2014) examined this issue and measured a company's complexity using the presence of subsidiaries to indicate a diversified company. Moreover, earlier studies also found that complexity increases demand for voluntary audits. For instance, Abdel-Khalik (1993) suggested that with a longer chain of command and decreased observability of subordinates' actions, there is more complexity, as well as a corresponding loss of control from the top, for which external audits can be demanded as a compensatory device. Hay and Davis (2004) determined that higher expenditures on salary relative to revenue by the entity indicate more staff and, therefore, more complexity. This indicates more levels of hierarchy, more levels of management, and thus greater possibility of loss of control.

4.1.5. Board Size

It has been hypothesized that companies that voluntarily purchase an audit have large boards (Dedman et al., 2014). This is due to the fact that large boards suffer problems of communication and coordination, which could be mitigated by a financial statement audit. Dedman et al. (2014)

measured board size as the total number of directors at the year's end. They found a positive and significant association between board size and demand for voluntary audits.

4.1.6. Company Risk

In addition, researchers have examined whether measures of company risk (financial performance, ability to service debts, proportion of balance sheet assets classed as 'risky', and age of the company) are associated with the voluntary audit purchase decision (Dedman et al., 2014). The results obtained by Dedman et al. (2014) suggest that company performance is negatively associated with voluntary audit, and their findings support the view that riskier companies have a greater demand for voluntary audit.

4.1.7. Capital Raising

It has also been hypothesized that companies are more likely to voluntarily purchase audits if they intend to raise equity capital in the future (Dedman et al., 2014). This is because external auditing can credibly certify the quality of a company's financial statements. This kind of certification can lessen uncertainty about future growth and/or company value, and investors will be relatively more confident in investing in the business. The results in Dedman et al. (2014) supported the stated hypothesis.

4.1.8. Profitability and Growth

Prior research suggests that firms that anticipate growth are more likely to have a voluntary audit. Ojala et al. (2016) suggested a positive association, and their results showed that the company's growth is a driver of voluntary audit. Moreover, Haw et al. (2008) hypothesized and found evidence for the fact that profitability is an important factor in the demand for voluntary audits. They suggested that voluntary external audits can credibly communicate firms' commitment to disclose accurate financial information to investors and regulators.

4.1.9. Qualified Audit Report and Financial Distress

Niemi et al. (2012) hypothesized, and found evidence suggesting, that prior conflicts attributable to qualified audit reports may reduce willingness to voluntarily hire an auditor. In addition, Ojala et al. (2016) hypothesized that voluntary audits are more likely for companies in financial distress. However, their findings indicate that micro-companies in financial distress are less likely to choose a voluntary audit. This is because financially distressed micro-companies cannot afford an audit.

4.2. Separation of Ownership and Control Attributes

Several studies have examined the separation of ownership and control and demand for voluntary audits (e.g. Carey et al., 2000; Senkow et al., 2001; Seow, 2001; Tauringana & Clarke, 2000). This reflects an agency perspective (Jensen & Meckling, 1976), in that the demand for audited financial statements arises from information asymmetry. The agency rationale is classically used for large firms where there are external shareholders and audited financial statements play an agency role in the relationship between shareholder (the principal) and director (the agent). Prior studies have used several proxies for separation of ownership and control.

4.2.1. Managerial Share Ownership

Managerial share ownership has been found to influence firms' decision to voluntarily engage an auditor, since the extent of such ownership gives the manager an incentive to allocate a firm's resources in a way that may not be consistent with the needs of non-managing shareholders

(Tauringana & Clarke, 2000). Therefore, managerial share ownership is commonly hypothesized to influence whether a company is voluntarily audited or not (Mustapha & Yaen, 2013). In general, the hypothesis is stated that the smaller the managers' share ownership in the company, the higher the probability that the company voluntarily engages in external auditing.

4.2.2. Percentage Ownership by Officers and Directors

Prior research has also used proxies for ownership dispersion. For instance, Barefield et al. (1993) hypothesized that percentage ownership of the firm by the officers and directors is significantly negatively related to demand for voluntary audits. Their empirical findings supported this view, suggesting that when the percentage ownership of the firm by officers and directors is high, the managers may behave as owners and thus no voluntary audit would be needed. By contrast, Senkow et al. (2001) and Seow (2001) found no statistically significant relationship between the percentage ownership of the firm by the officers and directors and the demand for voluntary audits.

4.2.3. Family Ownership

When the company is wholly family owned, prior studies suggest a negative association with demand for voluntary audits. Collis et al. (2004) and Collis (2010) found a negative relationship here, which seems logical, as the level of trust is likely to be higher among owners who are related and, therefore, know each other well. Collis (2010) and Collis (2012) hypothesized that voluntary auditing is positively associated with the company's having shareholders who are not involved in day-to-day management. In addition, these studies examined the hypothesis that voluntary auditing is positively associated with the perceived demand of existing investors. In both cases, the results supported these hypotheses, and the interpretation for the latter hypotheses implicates the demand of present investors, who may be minority shareholders exercising their statutory rights. Moreover, in an unregulated family-business environment, the demand for external auditing is positively correlated with the proxies of agency conflict, proportion of nonfamily management, and proportion of nonfamily directors (Carey et al., 2000). While Collis (2012) found an insignificant relationship between family ownership and demand for voluntary audits, other studies provide quite strong support for the association. Hence, it can be argued that when the company is wholly family owned, the likelihood to voluntarily hire an external auditor is moderate.

4.3. Agency Relationship Attributes

4.3.1. Lenders' Demand or Requirement of Auditing

Prior research suggests that firms voluntarily demand auditing to maintain agency relationship. For instance, accounts can be audited at the lenders' request (Abdel-Khalik, 1993; Rennie et al., 2003; Senkow et al., 2001). Therefore, evidence from the literature on lending shows that audited accounts are crucial in the bank lending decisions (e.g. Dharan, 1992). In addition, Seow (2001) concluded that the management of small firms chose to engage in audits when lenders made a request for one. Thus, voluntarily audited firms want to signal quality to the debt market.

4.3.2. Agency Relationship with Lenders

Collis et al. (2004) and Collis (2010, 2012) hypothesized that the likelihood of the directors voluntarily opting for an audit increases if the company has agency relationships with lenders. The results of these studies supported the hypotheses, and the results provide an important insight into the agency role played by the audited accounts, addressing information asymmetry

problems. These findings suggest that the cost of audit in terms of time, money, and disruption is an agency cost that is accepted by the directors in order to maintain good relations with lenders.

4.3.3. Agency Relationship with Suppliers and Creditors

Security of supply refers to a company's need to ensure that goods and services required for the company's operations are available (Ojala et al., 2016). It is hypothesized that firms may opt for voluntary audits to signal credibility of their financial position and secure the continuity of supply (e.g. Collis, 2010, 2012; Ojala et al., 2016). These studies examined the relationship between agency relationships between suppliers or creditors and voluntary audits. The studies of Collis (2010, 2012) moderately supported the hypothesis. However, Ojala et al. (2016) concluded that the likelihood of voluntary audit was greater in companies that have a need for supply security.

4.3.4. Greater Access to Credit

As stated earlier, prior research has found the importance of voluntarily audited financial statements to lenders. Blackwell et al. (1998) found, on average, that firms purchasing voluntary audits pay lower interest rates after controlling for firm-specific risk factors and relevant loan characteristics. In addition, Kim et al. (2011) and Minnis (2011) provided similar results, concluding that private firms with voluntary audits pay significantly lower interest rates on their debt than private companies without audits. Moreover, Allee and Yohn (2009) found that firms with voluntarily audited financial statements benefitted, in the form of greater access to credit.

4.3.5. Credit Ratings

Lennox and Pittman (2011) exploited a natural experiment in which voluntary audits replaced mandatory audits, and they analysed whether imposing audits suppressed valuable information about the types of companies in their sample that voluntarily chose to be audited. Thus, to gauge whether voluntary audits revealed new information about the borrower's type, they examined the changes in credit ratings after the transition from mandatory audits to voluntary audits. They argued that when a company voluntarily chose to remain audited, there was no change in audit assurance; such a company transmitted a positive signal when it chose to be audited voluntarily. Their results suggest that credit ratings rise for companies that continue to be audited. The authors interpreted this evidence as implying that these companies enjoyed ratings upgrades, because their decision to remain audited conveyed an incrementally positive signal about their credit risk.

Moreover, Minnis (2011) reported that the actual verification of the information is important to users of the financial statements. Verification thus hardens information in financial statements. Minnis (2011) suggested a mechanism through which this hardening occurs: audited financial statements are better predictors of future cash flows. The expertise (and independence) extended by third-party accountants appears to be particularly fruitful in the accrual-estimation process. Hence, Minnis (2011) found that accruals are better predictors of future cash flow for audited firms. According to Dedman and Kausar (2012), by allowing progressive size-based audit exemptions for private firms, the UK has been steadily moving towards a largely audit-exempt private sector. Both audit professionals and credit-rating agencies have expressed concern over the effects of this policy on the standards of financial reporting and on credit ratings for unaudited firms. Dedman and Kausar (2012) provided evidence for the benefit of audit assurance to private companies. Employing two measures of financial reporting quality, they found evidence that opt-out firms report less conservatively than audited firms in the voluntary audit period. Opt-out firms recognize income-increasing events more quickly and income-decreasing events more slowly than audited firms. Similarly, opt-out firms report lower levels of income-decreasing accruals

and higher levels of income-increasing accruals than those firms that retain audits. These findings provide a potential explanation for the superior credit scores of firms that retain audits compared to those that opt out. Credit-rating agencies seem to attach significant value to the assurances provided by audits. Dedman and Kausar (2012) contributed to the continuing voluntary audit policy debate and provided useful information to small-firm decision making, finding that when a company opts out of an audit, significant reductions occur both in the credit scores awarded by the external credit-rating agencies and in the quality of the financial reports upon which such agencies rely.

4.3.6. Non-audit Services

The relationship between non-audit services and voluntary auditing has also received attention from researchers (e.g. Dedman et al., 2014; Senkow et al., 2001; Seow, 2001). It has been suggested that the joint production of non-audit and audit services generates efficiency gains in the form of cost savings and knowledge externalities. For instance, Senkow et al. (2001) suggested that there may be possible benefits to the quality of management advisory services or tax services. Therefore, Senkow et al. (2001) argued that the likelihood of retaining audit voluntarily is increased when the auditing firm also provides other services to the company. However, neither Senkow et al. (2001) nor Seow (2001) found statistically significant findings to support this view. However, Dedman et al. (2014) suggested that voluntarily audited companies make significantly higher non-audit purchases, and their results showed that such companies are more likely to retain audits if they purchase other services from their auditor. Thus, their results suggest a significant and positive association between non-audit services and demand for voluntary audits. However, these studies have not been able to disentangle the cause of this relationship.

4.4. Management Attributes

4.4.1. Voluntary Audit as Beneficial Check on Internal Books/Records

The demand for an external audit may be attributable to management's need for a check on internal controls to reduce the chance of material misstatement. For instance, in small firms, the likelihood of a material misstatement (inherent risk) and the likelihood of the accounting control detecting any material misstatement (control risk) may be high. Prior research suggests that the information provided by an audit is useful to the business itself, which in turn suggests that the directors in such companies have a general perception that there are net benefits to having accounts audited. Specified reasons for having a voluntary audit include, for example, efficiency in running the company. Thus, audits represent discipline, good practice, and continuity with the past (Collis et al., 2004). Collis et al. (2004) found that the demand for voluntary audits is positively associated with the benefits of having an annual check on internal systems and records, as well as with the improved quality of the information in the accounts.

4.4.2. Agreement that voluntary audits improve the quality of financial information

Improved quality of financial information resulting from voluntary audits reduces information risk. For instance, the demand for voluntary audits may be attributable to management's need for a check on internal controls to reduce the chance of material error. Prior research suggests that it is management's responsibility to consider the costs and benefits of the financial reporting options available to the company, and it is logical to assume that this decision is based on economic rationality (Collis, 2010). Moreover, the literature suggests that voluntary small-company audits give the directors 'increased confidence in the reported figures, the financial position for

making decisions, the reliability of the accounting system and the information it produces and the early identification of trends that could lead to failure' (Collis, 2010; Collis et al., 2004).

4.5. Signalling Attributes

4.5.1. To Signal Quality to Debt Market

Dharan (1992) examined auditing as a signal in small-business lending. This work followed a similar approach to that of Melumad and Thoman (1990), who analysed the choice within small businesses of having financial statements audited to signal the firm's characteristics to potential lenders. Dharan (1992) concluded that the signal can be used by firms above a certain debt-equity cut-off ratio.

4.5.2. To Signal Improved Quality of the Financial Information (Conservative Reporting)

Dedman and Kausar (2012) examined whether audits increase the quality of financial statements; if so, then the financial statements of firms retaining a voluntary audit will be of higher quality than those of firms that opt out of audit. Their results suggest that firms that withdraw from audit become less conservative in their accounting. Moreover, their tests of financial reporting quality consistently suggest that audit opt-out firms adopt different practices than firms that retain auditing. Thus, Dedman and Kausar (2012) suggest that once firms give up on audits, they appear to report income-increasing events sooner, and income-decreasing events later, than audited firms. In addition, opt-out firms also report fewer income-decreasing accruals and abnormal accruals.

In addition, Clatworthy and Peel (2013) examined the effects of voluntary external audits, finding strong support for their great importance in determining accounting accuracy. They find that audited accounts are approximately half as likely as unaudited accounts to contain errors. Their results are likely to be of interest to policy makers considering removing mandatory audits for larger private companies. Clatworthy and Peel (2013) directly tested whether private firms benefit from appointing an auditor through improved financial reporting reliability and examined whether the extra credibility given to audited financial statements by outside investors and/or credit-rating agencies is warranted in terms of the improved accuracy of accounting information. The evidence presented in their study indicates that small private firms filing unaudited accounts are approximately twice as likely to file defective annual accounts as their counterparts that opted to have their accounting audited. Thus, their findings suggest that proposals to relax mandatory audit requirements may lead to a doubling of accounting errors for those currently audited firms that take advantage of an extended audit exemption. Clatworthy and Peel's (2013) findings have relevance for policy makers as well as supporting the argument that voluntary audits are valuable in terms of measurable and observable benefits (higher quality information). Moreover, Dedman et al. (2014) concluded that companies will rationally select into audit when it is not a regulatory requirement.

Kausar et al. (2016) examined the real effects of the voluntary audit choice. They showed that when external financiers observe a firm's choice whether to voluntarily obtain an audit, the firms obtaining an audit significantly increase their debt, investment, and operating performance and become more responsive to investment opportunities. Furthermore, Kausar et al. (2016) found that firms that surpassed the audit exemption thresholds and were pushed back into the voluntary audit regime had reductions in debt and increases in cost of debt once their audit choice again became unobservable. Thus, their evidence suggests that voluntary audit choice conveys information to capital providers, which reduces financing friction and improves performance. Kausar et al.'s (2016) study contributes to the voluntary auditing

literature by showing that, aside from the verification-related benefits of an audit, simply observing a firm's decision whether to subject itself to the audit can be informative to external investors.

4.6. Miscellaneous Attributes

In addition to the factors examined in the extant literature, companies have other characteristics that impact the decision to voluntarily hire an auditor. For instance, Niemi et al. (2012) concluded that companies considering tax advisory services from an external accountant are less likely to hire an auditor if the audit is non-mandatory. They also found evidence that prior conflicts attributable to qualified audit reports may reduce the willingness to hire an auditor. The most interesting finding of their study is that financially distressed companies are more likely to hire an auditor. This falls in line with the view of professional advice, which is that audits are useful for financially distressed small clients. Moreover, Carey and Tanewski (2013) propose that an owner–manager might demand an external audit to complement profit planning and control (budgeting). Hence, an audit will enhance the credibility of the financial information used in the budgeting process, and the auditor's expertise provides the owner–manager with an opportunity to learn and improve processes.

In an environment where demand for auditing is not compulsory, small firms can respond to pressure for monitoring by choosing between internal and external audits. However, it is unclear whether internal and external audits are primarily viewed as complementary or as substitute monitoring mechanisms. The complementary nature of the existence of these monitoring mechanisms may be enhanced by their substitution effect in effort, as would be evidenced by reduced external audit work resulting from reliance on internal audit. Carey et al. (2000) suggested that when family businesses engage in internal audit they are less likely to engage in external audit, and vice versa.

5. Conclusions

Prior researchers have found that firms have incentives to purchase audits even in the absence of regulatory requirements to do so (e.g. Collis, 2012; Niemi et al., 2012; Ojala et al., 2016; Kausar et al., 2016). The aim of this synthesis was to identify and evaluate existing evidence on the attributes of voluntary audits. The conclusions of this synthesis provide insight into auditing practices, which are important, given the significance of auditing firms to the economy. The findings may also be beneficial to standard setters in assessing the impact of regulation on small businesses. Concerns over the cost of regulation on small businesses have grown in recent years (European Commission, 2010). Obtaining an understanding of the impacts of regulation on small businesses must begin with an understanding of the assurance or audit that would be purchased by firms in the absence of regulation. Therefore, the findings of this study yield insights into the various determinants that influence the demand for audit in the absence of regulation.

Prior research highlights the importance of audited financial statements to lenders. For instance, Kim et al. (2011) and Minnis (2011) find that private firms that undergo voluntary audits pay significantly lower interest rates on their debt than private companies without audits. This source of demand for external audits should be kept in mind by practitioners, standard setters, and policy makers. The present study suggests that lenders continue to rely on external auditors to serve a monitoring role. Voluntary auditing is closely related to audit exemption thresholds (Kamarudin, Zainal Abidin, & Smith, 2012; Lopéz Combarros, 2000). Therefore, from a policy perspective, the debate on whether to increase the audit exemption thresholds is never-ending. When considering the policy implications of deregulation of the small-company audit, the concern of the

accounting profession that increasing the thresholds will leave few businesses that need to be audited is actual (Seow, 2001). However, the underlying issue is the perceived usefulness of the small-company audit. Regulation should not give the impression that there is no benefit to micro-companies from filing full audited accounts (Collis, 2012). This issue transcends the debate on how and at what level to set audit exemption limits, which are necessarily arbitrary. In circumstances where external and internal users of audited financial statements recognize their benefits and require the assurance that an audit brings, the demand for audits will prevail, regardless of the size of the company, even in the absence of a regulatory requirement for them. Therefore, by giving small companies the freedom to choose whether to engage in auditing does not preclude the interests of shareholders, other users, or suppliers of the statutory audited financial statements from being served. This view is supported by Haw et al. (2008). Their results are consistent with the theoretical proposition that managers voluntarily acquire auditing services to enhance the credibility of accounting numbers and that certified information reduces information risk when investors assess firms' future cash flows. Moreover, Collis (2010) suggests that despite audit exemptions, the directors of a significant proportion of companies in Denmark and the UK predicted that the company would have a voluntary audit. Thus, the directors value voluntary audits and consider the benefits of external audits to outweigh the costs.

To summarize, this study contributes to the auditing literature by identifying the main attributes associated with the demand for voluntary audits. This framework consists of firm attributes, separation of ownership and control attributes, agency relationship attributes, management attributes, and signalling attributes.

6. Opportunities for Future Research

The limitations and practical challenges of voluntary audit indicated throughout this paper yield opportunities for future research, both quantitative and qualitative in nature. For example, it would be very interesting to determine the real consequences for small companies of abandoning audits after exemption. However, it is possible that, over time, 'audit inertia' may decline and more companies may eventually choose to discontinue audits. In contrast, other companies may find that it was a mistake to discontinue auditing and may re-engage their auditors (Senkow et al., 2001). Although these issues have been highlighted in some prior studies, there is still room for research. For instance, factors affecting the decision for audit retention still require more investigation.

Because voluntary audits are related to audit exemption thresholds,¹ more appropriate criteria for audit exemptions might be needed. For instance, policy makers may want to consider share ownership by directors as one of the criteria for audit exemptions (e.g. Seow, 2001, Tauringana & Clarke, 2000). More precisely, when examining shareholders in small companies that are not entirely family owned, there is a case for continuing to provide a statutory requirement for the audit if 10 per cent of shareholders require it (Collis et al. 2004). This is suggested to cover the needs of external shareholders in small companies, who are not involved in the day-to-day running of the business and require assurance for the same reasons as their counterparts in large companies (Collis et al., 2004). Collis et al. (2004) will also meet the needs of owner-managers of small companies that are not wholly family owned, where the independent assurance provided by the audit is also required if it is wanted. Surveys related to shareholder opinions about the audit requirement could be conducted to examine this research question.

In addition, Collis et al. (2004) suggested that a factor likely to influence the audit decision is the cost of the audit and its relation to the size of the company. It also seems likely that the directors' knowledge of the costs and benefits of the audit would be influenced by the accountant's view of the value of the audit to the business. Related to this is the question of eligibility for

exemption, which would also require an accountant's advice. If the directors believe that the costs outweigh the benefits, proximity to the threshold may lead them to review their audit policy on an annual basis (Collis et al. 2004). These aspects offer fruitful avenues for future research. Moreover, future researchers may wish to examine the consequences of companies choosing to retain or opt out of audit.

To conclude, the most fruitful area for future research would be an examination of the consequences of different kinds of assurance. Thus, instead of a statutory audit requirement, a 'limited audit', 'statutory review', or 'extended review' could be accompanied by proportionate rules on quality control and oversight by audit regulators. This would allow small firms to reduce their administrative costs (European Commission, 2010). Extended review could mean an audit having a narrower scope than a full audit; this is usually confined to certain accounts or operations. For instance, it is argued that an extended review by the auditor will not be an audit in the form we know today, where the auditor performs, for example, control of the inventory. It will instead be work that is tailored to the requirements of SMEs (FEE, 2016). The auditor will primarily ensure, by means of analyses and inquiries, that the financial statements are free from material misstatement. In other words, this extended review could thus be more beneficial and useful for SMEs than voluntary audits (e.g. Vanstraelen & Schelleman, 2017). Surveys of owners on the benefits of extended review could be conducted to examine this research question.

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Note

¹For example, in the EU Member States, limited liability companies are exempted from a statutory audit if for two consecutive years, two of three defined thresholds are not exceeded. In general, these thresholds are defined using balance sheet total, net turnover, and average number of employees during the financial year.

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