Public Sector Auditing and Corruption: A Literature Review

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Abstract
The notion that auditing could reduce corruption has received considerable attention in both business and academia. The purpose of the current study is to explore the latest trends and gaps in the literature that investigate the link between corruption and public sector auditing. It is based on reviews of the academic literature and draws general conclusions on the status of the latest findings. The previous literature on corruption focused on economic and political perspectives. Although evidence suggests that public sector auditing helps to combat corruption, there is still a huge gap in the knowledge of this area, especially concerning the functional role of public sector auditing in corruption detection and deterrence in developing countries. Moreover, there is a scarcity of literature that explains in depth how audit types conducted by the Supreme Audit Institution (SAI) may contribute to a reduction in corruption, and which types of audit are more effective. There is also minimal in-depth sharing on the challenges that public sector auditing faces in detecting and preventing corruption.

Keywords: corruption effects, corruption, public sector auditing, SAI
Introduction

The increasing attention of the media over the last two decades to corruption suggests that developing countries in particular are at a fragile stage. The Corruption Perception Index (CPI) has shown that developing countries are in need of effective mechanisms to combat corruption. In fact, more than 66% of the nations experience the ill effects of corruption, including a large proportion of the G20 countries (Enste & Heldman, 2017).

It is important to note that corruption is not a new social phenomenon; indeed, it is as old as government itself (Klitgaard, 1988; Othman, Shafie, & Zakimi, 2014). The United Nations recognizes corruption as a major global issue, listing fighting corruption as one of its seventeen sustainability development goals. It is necessary because of the devastating effects of corruption, which pose challenges to a country’s development, distorting public expenditure and markets, reducing economic growth, undermining the rule of law and democracy, and eroding the quality of life (Enste & Heldman, 2017; United Nations, 2004). According to the World Bank (1997), its roots lie deep in political and bureaucratic institutions, and its effect on development varies according to the national situation. While the negative effects of corruption can also be found in developed nations, they are felt most severely in developing countries (Enste & Heldman, 2017; Rady, 2016; United Nations, 2004), and there is much concern over how to solve the menace of this epidemic in developing countries (Othman et al., 2014).

In recent decades, a number of large institutional actors have become actively involved in fighting corruption (Everett, Neu, & Rahaman, 2007); these trends can be seen through the International Convention Against Corruption, which came into force on 31 October 2003 (Transparency International, 2005; United Nations, 2004). As early as 1953, international interests in fighting corruption and improving accountability in the public sector led to the establishment of an important institution, the International Organization of Supreme Audit Institutions (INTOSAI). This body has 190 full members and operates as a parent organization that sees to the affairs of the government audit community. Over many decades, the institution has provided a sound framework for government auditing, ensuring that knowledge is shared, auditing exercised and professional capacities improved. Development among the membership of Supreme Audit Institutions (SAIs) in their respective countries is promoted (INTOSAI, 2015).

The literature indicates that good public sector auditing has a significant impact on domestic levels of corruption (Gustavson & Sundström, 2016), as it is a cornerstone and an essential element in fighting corruption in the public sector. The people also expect the auditors to play an efficient role in reducing, if not eradicating, corruption (Khan, 2006; Otalor & Eiya, 2013). This expectation arises from the assumption that the audited information is reasonably accurate, complete and unbiased. Auditing represents a crucial component of accountability as it legitimizes the information on which financial and formal accountability relies (Power, 1997). Hence, the audit profession helps organizations in the public sector to achieve accountability and integrity, improve operations, and instill confidence among citizens. One of the public sector auditor’s roles is to function as a body overseeing the conduct of public
sector entities, especially with regard to public funds, serving to prevent and detect public corruption (Goodson, Mory, & Lapointe, 2012). For this, the population expects auditors to play an essential role in fighting corruption in the public sector.

Significantly, there is little literature studying the effect of public sector auditing on corruption (Gustavson & Sundström, 2016). In addition, many of these limited studies do not explain why corruption is still increasing in some developing countries that have SAIs, which are supposed to be responsible for auditing the public sector. Few have explored the challenges and obstacles faced by public sector auditing in fighting corruption, or the contribution of each type of public sector auditing.

This paper is based on the analysis of three areas of literature: scientific or academic literature on corruption; scientific or academic literature on public sector auditing; and literature linking public sector auditing and corruption. This method of analysis method will identify the gaps in the literature and suggest future research questions (Everett et al., 2007; Guthrie, Petty, & Johanson, 2001).

Defining Corruption

Corruption, although long in existence (Klitgaard, 1988; Othman et al., 2014), has become a global issue, spreading across borders and resulting in poverty through its social, economic and political presence (Enste & Heldman, 2017; Otalor & Eiya, 2013). It has become an epidemic, damaging to society in addition to undermining the rule of law and democracy, distorting markets, and reducing the quality of life (United Nations, 2004).

There is an inverse relationship between corruption and growth and development (Atuilik, 2013; Lambsdorff, 2005; Mauro, 1998; Papaconstantinou, Tsagkanos, & Siriopoulos, 2013; Rady, 2016; Tanzi, 1998). Corruption also contributes to reducing domestic and foreign investment, due to the higher costs of entry and the uncertainties of operating in a corrupt environment (Ahmadi & Homauni, 2011; Mauro, 1998; Myint, 2000).

Jetter, Agudelo and Hassan (2015) found that although democracy in richer countries may lead to a decrease in corruption, in poor countries it leads to increased corruption, as a result of differences in income levels. Corruption also leads to a lower level of public trust in democratic government institutions, as well as posing a threat to the legitimacy of government (Nwabuzor, 2005), resulting in political destabilization (Lambsdorff, 2005). Gounev, Dzhekova and Bezlov (2012) suggested that a high level of corruption leads to the poor quality of bureaucratic systems, encouraging the spread of nepotism and bribery in the provision of public services. Employment in public service institutions might itself be based on nepotism or bribery, without regard to the efficiency and capacity or qualifications of the individual being employed.

Alarmingy, corruption may also distort government budgets with respect to revenue generation and expenditure. For instance, it affects the collection of customs duties, taxes, dues and fees for public utilities such as electricity and water supply (Myint, 2000). Corruption lingers and can be deceptive, for example in purchasing weapons of an excessive amount under the pretext of safeguarding national security (Myint, 2000; Shleifer & Vishny,
Investment in public infrastructure, needing extra funding, may be sidelined, resulting in poorer quality output (Everett et al., 2007; Tanzi & Davoodi, 1998). Spending on infrastructure is often preferred by officials to avoid spending on health or education projects, as they assume that there is less opportunity for embezzlement in projects for rural development, textbooks, payment of teachers’ salaries, training and development and preventive healthcare (Ahmadi & Homauni, 2011; Myint, 2000; Shleifer & Vishny, 1993).

Public sector auditing and corruption

It has already been established that auditing is an essential element in combatting corruption (Khan, 2006; Otalor & Eiya, 2013). Khan (2006) claimed that auditing has an important role in fighting corruption in the public sector, and that auditors and the audit profession in general are significant elements in reducing fraud and corruption (Borge, 1999; Everett et al., 2007). This is also consistent with the assumption that higher quality auditing in the public sector seems to have a pronounced effect on reducing national corruption (Dipietro, 2011). Ionescu (2014) similarly argues that government should design auditing as a proficient scheme that can be used for checks and balances and for detecting fraud; such schemes should help government auditors to detect corrupt practices and so avoid serious potential economic deficiencies.

The role of public sector auditing is represented by SAIs through the objectives of the International Standards of Supreme Audit Institutions (ISSAI). ISSAI’s Fundamental Principles of Public-Sector Auditing indicate that audits in the public sector stem from the same objectives, although specific objectives and output may differ depending on the type of audit that is being carried out. However, all public sector auditing has four common principles. First, public sector auditing provides all the potential users with objective, independent and reliable information based on sufficient and appropriate evidence relating to public entities. Secondly, it encourages accountability and transparency, promoting continuous improvement and sustained confidence in the appropriate use of public funds and assets and the performance of public administration. Thirdly, it reinforces the effectiveness of those bodies within the constitutional arrangement. Finally, it creates incentives for change by providing knowledge, comprehensive analysis and well-founded recommendations for improvement (ISSAI 100, 2013).

According to Goodson et al. (2012), auditing is a fundamental element of efficient government as it supports the governance roles of insight, foresight and oversight, to which they added detection and prevention. Since the success of the public sector is measured primarily through its capacity to successfully deliver services to the people and execute its programmes in an equitable manner, it is essential for the activities of public sector audit to be directed at evaluating the level of compliance with financial programmes and to equally measure the efficiency, effectiveness and economy of those activities. It is essential for the auditors to protect the core values of the public sector, which serve all citizens.

Much of the literature indicates that auditing has an important role in fighting corruption in the public sector (Borge, 1999; Khan, 2006), and especially that higher quality auditing in the public sector has a pronounced effect on reducing national corruption (Dipietro, 2011). Tara,
Gherai, Droj and Matica (2016) found that SAIs increase the efficiency of government entities and reduce the perceived level of corruption. In another study, Gherai, Tara and Matica, (2016) concluded that when SAIs extend their work, this leads to a decrease in corruption. Ionescu (2014) argued that through proficient auditing in the scheme of checks and balances and fraud detection, government auditors should detect corrupt bureaucracies.

Liu and Lin (2012) used panel data in their analysis to find the amount of abnormality uncovered in government records by auditing, and established that it is positively and directly associated with the corruption level. This implies that the more cases of corruption in the bodies of government, the greater the likelihood that abnormality would continue to be detected by local audit agencies. These findings indicate that audit in the public sector has an essential role in detecting corruption there. Otalor and Eiya (2013) also state that audit in the public sector is one of the mechanisms for fighting corruption and that it plays an effective role in reducing, if not eliminating, corruption. Auditors should therefore be at the forefront of the fight against both domestic and international corruption (Everett et al., 2007; Kassem & Higson, 2016).

Albrecht et al. (2012) suggest that opportunities to perpetrate fraud should be eliminated and this suggestion can be adopted as a preventive measure of corruption in the public sector. Such opportunities can be eliminated through the institution of sound internal controls; reduction of collusion between members of the public and civil servants; and clearly informing vendors and other contractors about the government’s policies concerning fraud. Employees are to be monitored through hotlines (whistle-blowing systems) for anonymous tips, and made to establish an expectation of penalty. Khan (2006) indicates that implementation of a performance audit can also help to reduce corruption by creating a deterrent to such acts. Performance audits can thus be a special and powerful instrument to help prevent corruption (Otalor & Eiya, 2013).

Khan (2006) argues that although auditors can point out where opportunities for corruption exist, they cannot play a role in detecting corruption because its perpetrators normally conceal any trace in the official records. Albrecht et al. (2012) state that in detecting fraud, auditors must help in identifying indicators or symptoms of fraud (otherwise known as red flags) and investigate such indicators in order to find out whether those symptoms originate from actual fraud or were caused by other factors. However, it is unfortunate that several fraud symptoms often go unnoticed, while those that are identified are not always pursued vigorously. It is important to state that many frauds would have been detected earlier if their symptoms were investigated earlier. These fraud indicators or red flags can be in the form of accounting anomalies, internal control weaknesses, analytical anomalies, extravagant lifestyle, unusual behaviour, and tips and complaints (Albrecht et al., 2012).

Finally, Khan (2006) stated that the SAI is one of the most important institutions that can help in reducing corruption in the public sector. For this purpose, the SAI itself needs to be credible and well-resourced. For that, he recommends eight actions for strengthening the SAI so that it can play its role in the fight against corruption effectively: promoting the independence of the SAI, strengthening the powers of the SAI, introducing participatory
auditing, implementation of audit recommendations, reviewing of procedures and training of auditors, establishing and adhering to code of ethics, boosting the performance of the SAI, and cooperation and coordination with other parties.

Discussion

A review of the literature shows that the majority of the studies describe the relationship between corruption and the economy. Some found that corruption hinders or dampens economic growth and national development (Ahmadi & Homauni, 2011; Al-Sadig, 2009; Assakaf, Shamsiah, & Othman, 2018; Ata & Arvas, 2011; Atuilik, 2013; Borlea, Achim, & Miron, 2017; Enste & Heldman, 2017; Ksenia, 2008; Lambsdorff, 1998; Maiyaki, 2010; Mauro, 1998; Nwabuzor, 2005; Rady, 2016; Tanzi, 1998), as well as affecting domestic and foreign investment (Ahmadi & Homauni, 2011; Amundsen, 1999; Atuilik, 2013; Enste & Heldman, 2017; Lambsdorff, 2005; Mauro, 1998; Myint, 2000; Tanzi, 1998). It may also distort the composition of the government’s spending (Atuilik, 2013; Lambsdorff, 2005; Myint, 2000) and reduce the tax revenues (Friedman, Johnson, Kaufmann, & Zoido-Lobaton, 2000; Johnson, Kaufmann, & Zoido-Lobatou, 1998; Tanzi & Davoodi, 1998). An increase in the rate of corruption also has a negative influence on political system and trust in government (Anderson & Tverdova, 2003; Assiotis & Sylwester, 2014; Bowler & Karp, 2004; Chang & Chu, 2006; Krumlin & Esaisssson, 2012; Solé-ollé & Sorribas-navarro, 2014) and democracy (Amundsen, 1999; Baber, 1983; Jetter et al., 2015). Such influences may result in political instability (Assiotis & Sylwester, 2014; Nwabuzor, 2005; Treisman, 2000).

Some solutions as to how corruption may be minimized were discussed. Ionescu (2016), for example, examined the association between information and communications technology (ICT) and e-government and corruption. Utilizing data from a survey of the top 20 countries according to the UN’s 2012 E-Government Readiness Index, Ionescu’s findings are indicative of the impact of ICT-related e-government as an anti-corruption policy. Kim, Kim and Lee (2009) similarly found that e-government anti-corruption systems have a positive impact on the reduction of corruption.

Murphy (2004) explained that corruption exists where there is ample opportunity for it to take place. Hence, anti-corruption entities must take a multi-pronged approach that aims to reduce the opportunities and incentives for corruption, while increasing the expected cost of corrupt behaviour. Shleifer and Vishny (1993) were of the opinion that political and economic competition can reduce the degree of corruption and its negative influences. Olken (2009) concluded that ordinary people currently lack the power to identify corruption and to monitor local officials effectively without any form of external assistance. This shows that transparency is essential as it helps to increase the capacity of citizens to detect and recognize corruption at any level.

Numerous studies have been conducted on the public sector auditing out of corruption cases (Baber, 1983; Dana, 2011; Dragija, Vašiček, & Hladika, 2011; Dwiputrianti, 2011; Everett, 2001; Gendron, Cooper, & Townley, 2001; Gendron, Cooper, & Townley, 2007; Goe & Singh, 2012; Hay & Corderoy, 2018; Ma, 2007; Neu, 2006; Saito & McIntosh, 2010; Santiso, 2007; Schelker, 2012; Schelker & Eichenberger, 2010; Waring & Morgan, 2007; Yoshimi,
2003; Zhao, 2005). For example, Zhao (2005, cited by Liu & Lin, 2012) proposed a relatively complete framework of the characteristics that divide the factors related to the quality of government audit into three categories: technical factors (professional competence, auditor size and audit hours), independence factors (audit fee, auditor reputation and the organizational design of audit institutions) and administrative factors (determining the nature of irregularities, making the right decisions and checking on rectification results). In empirical studies, researchers often use only one aspect of these characteristics as a proxy measurement of government audit quality. For example, Saito and McIntosh (2010) employed time spent in auditing as a direct measure of auditing effort. Ma (2007, cited by Liu & Lin, 2012) on the other hand reported that educational background, experience and professional competence are significantly related to the financial efficiency of government auditing.

Baber (1983) used cross-sectional data from state governments and revealed positive correlations between state audit budgets and measures of political competition. These results are consistent with the argument that public officials’ incentives to provide auditing arise from contracts between the officials and their supporting interests. In a similar vein, Gendron et al. (2001) argued that the Office of Auditing in Canada increased its power to persuade politicians and public servants about the merits of its specific understanding of what accountability should be. However, as an Office becomes more powerful, it also becomes more vulnerable to complaints about lack of independence from the executives.

Santiso (2007) assessed the links between external auditing and fiscal governance to explain the role and performance of government external audit agencies in the governance of the budget and the oversight of public finances; he found a correlation between the credibility of audit agencies and the quality of governance. Also established was the fact that accountability gaps in public finances originate in wider dysfunctions in the systems of fiscal control. Schelker and Eichenberger (2010) argued that such auditors improve transparency and provide essential information on the impact of policy proposals on common pool resources, which leads to less wasteful spending. They also found that auditors who could evaluate and criticize policy proposals ex ante to policy decisions, significantly reduced the general tax burden and public expenditure. Finally, Hay and Corderly (2018) used a historical review to explain the value of financial statement auditing in the public sector. They concluded that the public sector auditing functions are consistent with explanations of agency theory and management control.

In the public sector auditing literature, there are studies relating auditing to corruption (Ahlenius, 2000; Atuiliik, 2013; Blume & Voigt, 2011; Borge, 1999; Dipietro, 2011; Dye, 2007; Dye & Stapenhurst, 1998; Everett et al., 2007; Fan, 2012; Ferraz & Finan, 2008; Ferraz & Finan, 2011; Flint, 2005; Gherai et al., 2016; Gustavson & Sundström, 2016; Ionescu, 2014; Kassem & Higson, 2016; Kayrak, 2008; Khan, 2006; Labuschagne & Els, 2006; Liu & Lin, 2012; Melo, Pereira, & Figueiredo, 2009; Morehead, 2007; Neu, Everett, & Rahaman, 2013a; Neu, Everett, & Rahaman, 2015; Neu, Everett, Rahaman, & Martinez, 2013b; Olken, 2007; Otolor & Eiya, 2013; Othman, Aris, Mardziyah, Zainan, & Amin, 2015; Suzuki, 2004; Tara et al., 2016; Tunley, Button, Shepherd, & Blackbourn, 2017; Vanasco, 1998). Several
studies have investigated empirically the importance of public sector auditing in fighting corruption. For example, Gherai et al., (2016) used a statistical method to examine relations between the existence and the activity of the Supreme Audit Institutions and the control of corruption. Their results indicate that the more extensive the work of the SAIs, the more it contributes to reducing corruption and positively associated with a better quality of life. That study did not explain the mechanisms that are used by SAI to detect and prevent corruption or how SAIs reducing public sector corruption. Othman et al., (2015) used structured questionnaires to examine the techniques of fraud and corruption detection and prevention in the public sector in Malaysia. The findings of that study indicated that the operational audits, implementation of Whistle-Blowing system, enhanced audit committees, staff rotation improved internal controls,, fraud hotlines and forensic accountants are among the most effective fraud detection and prevention techniques employed in the public sector. Othman et al., (2015) did not separate between the mechanisms that are used in detection and the mechanisms that are used in the prevention, also, they did not explain in-depth the state and how that mechanisms were conducted or revealed the challenges that face every mechanism.

Similarly, Gustavson and Sundström (2016) investigated the impact of auditing conducted in the public sector by SAIs on the level of corruption. Their findings suggest that good auditing conducted by SAIs has a positive effect on levels of corruption in the public sector. They also found several factors that have a positive impact in reducing corruption in the public sector, including the independent of SAIs from the government, the professionality of SAIs through acquiring staff with the appropriate skills and education, and SAIs communicating the audit results to the public.

Dipietro (2011) used cross-sectional research across different countries to prove that better auditing reduces corruption; in other words, higher quality auditing seems to have a pronounced effect on reducing national corruption. Liu and Lin (2012), on the other hand, focused on rectification, indicating that after an audit rectification is even more important than the fraud detection process itself. They argued that the discovery of irregularities without subsequent disposal cannot make government auditing a powerful accountability regime. Rectification, which according to them includes “asking for responsibility”, is effective in reducing corruption. Both Schelker and Eichenberger (2010) and Blume and Voigt (2011) indicated that government auditing can improve the transparency of public policies and also reduce wasteful spending. Earlier, Olken (2007) conducted a field experiment on the monitoring effect of government auditing in Indonesia, documenting that when the probability of village road projects was audited by government it increased from 4% to 100%, while corruption (over-spending) on these projects decreased by 8%. Similarly, Ferraz and Finan (2008, 2011) found that government auditing reports can reveal corrupt activities, which then affect political election results.

Several studies have also documented theoretically the importance of public sector auditing in fighting corruption. For instance, Ionescu (2014) found that exposure of misconduct while auditing government accounts is not enough for audit institutions to moderate corruption in government establishments. By sanctioning breaches and correcting mistakes, wrongdoers in government settings can be discouraged from corrupt practices in government settings.
Therefore, it was argued that the rate of corruption can be minimized successfully where such rectifications are undertaken, with the focus on efficiency. Otalor and Eiya (2013) further suggested that audit can be an instrument to prevent corruption, by indicating those areas where the opportunity for corruption exists. They also affirmed that the performance audit is a powerful instrument that can be used to prevent corruption. Murphy (2004) found that anti-corruption strategies in the public sector must be aimed at reducing or discouraging the incentives and opportunities for corruption, at the same time increasing its associated cost, and helping to change the expectations of the public.

**Conclusion and Recommendations**

It is clear that corruption and its determinants and motivation are discussed separately in many studies. However, most of the literature on corruption focused on the effects and consequences on an economic basis (e.g. Ata & Arvas, 2011; Ksenia, 2008; Lambsdorff, 2005; Nwabuzor, 2005). In general, studies on how to fight corruption seldom pay specific attention to the role of auditing. The literature on public sector auditing primarily focuses on the independence, standards, professionalism and auditing input of government auditing agencies and how these factors affect the reputation and efficiency of government departments (e.g., Baber, 1983; Raman & Wilson, 1994; Saito & McIntosh, 2010; Schelker, 2012). Only a few studies touched on the relationship between public sector auditing and corruption (e.g., Blume & Voigt, 2011; Liu & Lin, 2012; Neu et al., 2013a; Neu et al., 2015; Neu et al., 2013b). It was also found that most of the empirical studies on corruption were conducted in developed countries (e.g., Neu et al., 2013a; Neu et al., 2013b), rather than in developing countries that have to deal with real problems of corruption. Moreover, most of these studies are non-empirical (e.g., Dye & Stapenhurst, 1998; Dye, 2007; Ionescu, 2014; Khan, 2006; Otalor & Eiya, 2013). None made an in-depth attempt to answer the question of how public sector auditing prevents and detects corruption; few made a minimal effort to explore in depth the obstacles that public sector auditing faces in its role in preventing and detecting corruption, especially in developing countries. Therefore, future research should be made to fill this wide gap in the literature.

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