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Internal audit quality, punitive measures and accountability in Ugandan statutory corporations

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Abstract

Purpose – This study aims to (1) examine the contribution of internal audit quality, punitive measures to accountability in statutory corporations in developing countries such as Uganda and (2) test whether internal audit quality mediates the relationship between punitive measures and accountability in Uganda's statutory corporations.

Design/methodology/approach – This study is cross-sectional and correlational. Data were collected through a questionnaire survey conducted for 82 statutory corporations. The study's unit of analysis was a statutory corporation. Chief Internal Auditors and Chief Finance Officers were the study's unit of inquiry. Data were analyzed through correlation coefficients and linear regression using Statistical Package for Social Sciences.

Findings – The results suggest that internal audit quality and punitive measures independently predict accountability. However, punitive measures do not predict accountability in the presence of internal audit quality. Results further indicate that internal audit quality mediates the relationship between punitive measures and accountability in Uganda's statutory corporations.

Originality/value – This study confirms internal audit quality (a preventive measure) as a significant predictor of accountability in statutory corporations relative to punitive measures. To achieve accountability, more emphasis thus needs to be put on preventive mechanisms than on punitive mechanisms. This study also enhances our understanding of the relationship between punitive measures, internal audit quality and accountability. In this study, we arrive at new evidence on the mediating role of internal audit quality in the relationship between punitive measures and accountability in Uganda's statutory corporations.

Keywords Accountability, Punitive measures, Internal audit quality, Statutory corporation, Uganda

Paper type Research paper

1. Introduction

Accountability is important for governments, as a well-thought system of accountability encourages taxpayers and donors to develop trust in government. World over, accountability is perceived as a critical aspect in service delivery (Abdirisaq and Ali, 2014). The ACCA report (2010) on public sector financial management in developing countries highlights the importance of financial accountability to include fiscal sustainability as economies find it easy to mobilize tax revenue because of public trust; achieve value for money for undertaken projects and budget management. It is thus important for governments to get it right because accountability impacts a broad range of areas. Accountability of statutory corporations can be seen through physical output or visibility of activities such as the provision of social amenities, also, the preparation of financial statements whose external auditor's opinion is unqualified and possibly, proper record keeping such as receipts, invoices among others (Bananuka *et al.*, 2018).

All economies consider financial accountability to be very critical and thus put in place several institutions and laws to enable public officers to comply accordingly. For instance, in institutions of Uganda such as Parliament, Office of Auditor General (OAG) and the

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Executive are mandated to oversee financial accountability of public institutions (OAG, 2020). In addition to the above institutions, the old supreme law of 2003 governing financial management of public institutions was repealed in 2015, with several reforms included in the new law (Public Finance Management Act, 2015). Despite the existence of such institutions and reforms in the supreme accountability law, there are still challenges surrounding financial accountability by many statutory corporations in Uganda. The Auditor-General (AG) continues to lament about accountability failures year after year. In every annual audit report of the AG, many statutory corporations fail to account for releases from the Central Government (or revenues collected), for instance, there is no physical output but paper accountabilities present, or the physical output does not match the paper accountabilities or both paper accountabilities and output absent (OAG, 2018). Further, there are statutory corporations that have received qualified opinions habitually and the basis of the qualified opinion includes accountability challenges. Uganda Railways Corporation obtained a qualified opinion on its financial statements in 2019, 2018 and a disclaimer in 2015 (OAG, 2019, 2018). The Uganda Land Commission equally obtained a qualified opinion in 2019, 2017 and 2015. Additionally, the audit opinion by the AG on the consolidated financial statements of the Government of Uganda is a qualified opinion for the financial years of 2017, 2018, 2019. The basis for the qualified opinion across the years includes the issue of accountability. There is therefore a genuine demand that public sector institutions strengthen accountability to protect public resources and enhance public sector performance through improved service delivery.

In this study, punitive measures and internal audit quality are considered as possible explanations of financial accountability as there is scant evidence as to whether there is a direct relationship between punitive measures and accountability in statutory corporations in developing African countries such as Uganda. Punitive measures involve the use of deterrents such as fines, penalties; courts of law among other methods to enhance compliance behaviour (Kennedy, 1983). The persons responsible for providing accountability within the public corporations calculate the potential gains of not providing accountability, which should be countered by strict enforcement of punitive measures. Prior studies by Nakyeyune *et al.* (2016), Nkundabanyanga *et al.* (2019), Mwakibinga and Buvik (2013), Ntayi *et al.* (2012), Kim *et al.* (2019) and Allen *et al.* (2015) have confirmed that punishment is effective in achieving compliance behaviour. Specifically, Nakyeyune *et al.* (2016) found a significant positive relationship between punitive mechanisms and public regulatory compliance in Uganda. The results showed that the fear of being punished, the fear of the press and facing the Public Accounts Committee of Parliament (parliamentary committee of public accountability) motivated public officers to comply with regulatory requirements.

The above studies support the use of punitive mechanisms, although, Kuperan and Sutinen (1998) noted that the cost of enforcing the punitive model is usually high because the probability of detection has to be kept high, penalties must match the illegal gains and punishment must be swift. Allen *et al.* (2015) also echoed that police were not always able to sanction young drivers for non-compliance with traffic laws, further emphasizing that punitive measures are sometimes limited. Researchers have thus explored other mechanisms to explain compliance behaviour in addition to punitive measures. For instance, Saudagaran and Diga (2000) noted that to achieve financial regulatory compliance, the financial reporting environment ought to be made up of both preventive (*ex ante*) and punitive (ex-post) mechanisms. The preventive mechanisms consist of crime control measures such as audits, audit committee requirements, hiring competent staff, adherence to professional standards whereas punitive mechanisms consist of adverse extrinsic consequences resulting from non-obedience to the law such as penalties, imprisonment among others. This study explores the relative importance of each strand identified by Saudagaran and Diga (2000) to achieving accountability, where the quality of the internal audit function is viewed as a preventive mechanism while the punitive mechanisms are the coercive measures.

Whereas internal audit quality has been documented as a predictor of accountability (see, Nurdiono and Gamayuni, 2018), such studies have drawn evidence from other national settings other than Uganda. For instance, Nurdiono and Gamayuni (2018) document that internal audit quality is associated with accountability in Local Governments in Indonesia. Studies on accountability related issues are usually context specific because of variations in national systems and formations. We note that there are studies that link internal audit to accountability in Uganda's public sector (see Tumwebaze *et al.*, 2018; Bananuka *et al.*, 2018). Our study differs from previous studies as our understanding of internal audit quality is such that: First, the independence of internal audit staff allows them to examine the financial records regarding accountability without any bias. This is possible because independent internal auditors are appointed by the board audit committee and as a result, have a respectful organizational status. This means that internal audit organizational status matters in ensuring accountability. Previous studies such as those of Kabuye *et al.* (2017) reveal that internal audit organizational status is critical for fraud management in financial services firms. Also, once internal auditors are independent of management, their recommendations are acted upon without any delay. The claims above are substantiated in Alzeban's (2020) study where it was found that when the internal audit function reports to the audit committee, there is financial reporting quality unlike when internal audit reports to the Chief executive Officer or Chief Finance Officer. Alzeban (2020) further found that, if the auditees can implement the internal audit recommendations, then financial reporting quality is achieved. Second, competent internal audit staff can perform their roles such as evaluating the effectiveness of internal controls (organizational policies). In the work of Chen *et al.* (2020), it was found that internal audit staff competence strongly influences an organization's operations efficiency. Lastly, internal audit staffs have to comply with professional standards and all the requirements of professional bodies including the code of ethics that requires them to remain independent. The current study differs from Bananuka *et al.* (2018) whose understanding of a functioning internal audit was limited to only performance of internal audit roles (risk management, review of internal controls and regulatory compliance). Performance of internal audit roles in the current study is subsumed in staff competence, one of the measures of internal audit quality.

Internal audit has also been associated with the quality of financial reports. For example, Gras-Gil *et al.* (2012) established that greater involvement of internal audit in reviewing financial reports improves the quality of financial statements which is a component of accountability. Prawitt e*t al.* (2009) also found that internal audit quality is negatively associated with earnings management. In this study, we consider financial reporting quality as part of accountability. This means that previous studies on the relationship between internal auditing and financial reporting quality provide a partial accountability picture. Internal audit quality according to Roussy and Brivot (2016) is a function of internal audit independence, competence and compliance with professional standards which has been adopted in this study. This study on internal audit quality responds to calls by Nurdiono and Gamayuni (2018) for more variables under internal audit quality apart from competency. More so, Gras-Gil *et al.* (2012) call for studies that link internal audit function to other dependent variables such as accountability. Roussy and Brivot (2016) acknowledge that internal audit quality is an indispensable governance mechanism that requires more attention in the public sector since little is known about it. This is also emphasized by Abbot *et al.* (2016) who argue that the role of the Internal Audit Function in the financial reporting process is not yet fully understood and empirical evidence concerning the impact of internal audit function is minimal.

This paper makes a contribution in a number of ways. Prior studies on punitive measures have been majorly emphasized in taxation and compliance with traffic laws (See Castro and Scartascini, 2015; Mas'ud *et al.*, 2020; Allen *et al.*, 2015; Bates *et al.*, 2015) and the unit of analysis has been largely individuals. This paper examines financial accountability at the entity level, which if properly undertaken improves service delivery by government institutions. In addition, few studies have been done on punitive measures and financial accountability adding to scarce literature from a developing country's perspective. Lastly, studies on compliance behaviour have advanced to considering other study variables such as persuasion, ethics and trust in addition to punitive measures in a single study (Kuperan and Sutinen, 1998; Ariel, 2012; Inasius, 2019). However, most of these studies have ignored the possible mediation effect between the study variables. In this study, we test the mediating effect of internal audit quality on the relationship between punitive measures and accountability. We enlist responses from 82 statutory corporations using a questionnaire designed on a six-point Likert scale and unit of inquiry were Chief Finance Officers and Chief Internal Auditors. Results suggest that both internal audit quality and punitive measures are significant predictors of accountability though punitive measures are a significant predictor of accountability only where internal audit quality is absent. From the mediation results, our research makes an important contribution by showing that punitive measures strengthen internal audit quality which then leads to proper accountability. The remainder of the paper is structured as follows. The next section is the study setting, which is followed by a literature review and then methodology. Study results are presented in Section 5, followed by discussion of findings in Section 6. The last section is the summary and conclusion.

2. Study setting

This study was conducted in Uganda, a landlocked country found in East Africa. Uganda was colonized by Britain and attained its independence in 1962. Uganda was immediately plunged into political unrest and civil wars until recently when the country stabilized to the extent that several laws have been enacted (Bananuka *et al.*, 2019). Laws are in place that establish several institutions to ensure that accountability for funds in government entities is not compromised. For example, the Constitution of the Republic of Uganda of, 1995 as amended establishes the Office of the Auditor-General whose duties include the audit of accounts of all government institutions and submission of a report to Parliament. The Public Finance Management Act of 2015 establishes the office of the Internal Auditor General whose mandate includes developing internal audit policies and evaluating the effectiveness of audit committees among other duties. The same act requires every government body to have an internal audit function, which appraises the soundness of controls, evaluates the effectiveness and contributes to the improvement of risk management processes; and provides assurance on the value for money. On the state of internal audit in Uganda, the Institute of Internal Auditors (2015) indicates that there is a general appreciation of the value of internal audit function and government is jointly working with development agencies to build internal audit capacity. There is an increasing demand for internal audit services as big firms outsource internal audit services and the accounting associations are providing support to the profession. For instance, the Institute of Certified Public Accountants of Uganda (ICPAU) through the Accountants Act of 2013 Section 34 (3) requires every head of accounts, finance and internal audit who occupies a public office to be a member of ICPAU. The Accountants Act of 2013 Section 5 further requires that, for one to be a member of ICPAU, he or she must have passed the qualifying examinations of ICPAU or be a full member of other accountancy bodies recognized by ICPAU. Despite the strengths identified above, the Institute of Internal Auditors (2015) reports that public sector institutions are not performing well concerning the governance indicator comprising of the tone at the top, independence, audit committees and risk management practices. Moreover, the follow-up process is not systematic resulting into weak implementation of internal audit recommendations.

On the side of punitive measures, the PFM Act (2015) has several measures in place to encourage accountability. The law highlights offences in Section 79 (1) and the corresponding punishments in Section 79 (2). Offences include incurring unauthorized expenditures, failing to keep records, diverting government funds to unauthorized activities, making misleading statements among others. The punishments include fines, imprisonment and recovery of losses from a public officer administratively or through a competent court. The offences highlighted in the PFM Act (2015) are usually identified by the AG during his end of year audit, after which he forwards his report to parliament (National Audit Act, 2008). The Parliament through its accountability committees discusses the reports of the AG and requests management of various institutions to respond to issues raised by the AG. The accountability committees can then recommend prosecution or request the AG to conduct a special audit or forensic audit. This implies that punitive measures are not implemented immediately upon committing the offence. Moreover, evidence shows that accountability committees of Parliament delay considering reports presented by the AG (take more than the mandated six months) (Centre for Policy Analysis, 2014) further suggesting that the punitive consequences of poor accountability are not immediate.

3. Literature review

3.1 Theory

3.1.1 Institutional theory. Institutional theory considers processes through which structures, rules, norms and routines become established as authoritative guidelines for social behaviour (Scott and Meyer, 1983). Institutional theory enquires into how these elements are created, diffused, adopted and adapted over time in an organization. According to DiMaggio and Powell (1983), organizations in the process of seeking legitimacy conform to rules and beliefs of the prevailing institutional environment which could encompass changing structures, routines and norms. Firms seek legitimacy by agreeing to pressures namely; coercive, mimetic and normative pressures. Coercive pressures arise from power exerted by regulators, mimetic pressures arise from mimicking successful competitors and peers and normative pressures arise from professional communities. Coercive pressures in this study are visible through the PFM Act (2015) requiring every vote (a vote is defined as an entity for which an appropriation is made or it can refer to an expenditure line item) to have an internal audit function and the Accountants Act (2013) specifying that every head of accounts and internal audit be a member of the ICPAU. A statutory corporation is thus forced to have an internal audit function, a qualified accountant and internal auditor in place. The normative force according to Lenz *et al.* (2018) is noticeable when the internal audit function is expected to be effective and tries to develop a distinct professional identity to adhere to professional standards. In Uganda, we now have the Institute of Internal Auditors (a chapter of IIA global) that has adopted the International Professional Practices Framework (IPPF) to guide internal auditors. The IPPF framework comprises the core principles of professional practice, the code of ethics and the international standards among other elements.

Similarly, Scott (2008) identifies three pillars (normative, cultural-cognitive and regulative pillar) that form the basis for organizations to adopt and adapt structures. The regulative pillar refers to a certain actor's capacity under their authority to constrain behaviour of other actors (Caronna, 2004). Behaviour is constrained through formal rules and coercion is the essential mechanism to influence behaviour of an organization and its actors. Under the regulative mechanism, the coercive force is used to gain compliance (Scott, 2008) and regulators influence behaviour through this mechanism. This is evident in the provisions of the PFM Act (2015), in that it adopts coercive measures such as imprisonment, vacation of office, fines to restrict free will in the management of public funds.

3.1.2 Deterrence theory. In addition to institutional theory, deterrence theory has too been widely used to explain how to deter crime (Paternoster and Pogarsky, 2009; Akers *et al.*, 2016). Bentham (1948) and Beccaria (1963) are responsible for some of the earliest formulations of criminal deterrence theory. Generally, deterrence theorists believe that crime can be reduced through the use of deterrents (Kennedy, 1983). Deterrence theory explains that a person would only commit a crime if the expected benefits are higher than the expected costs. In other words, a person would not commit a crime if the expected harm is greater than the benefits from committing the offence (Becker, 1968). Concerning accountability, employees who are responsible for providing these accountabilities compare gains and losses and make decisions. Several laws have long appreciated the need for deterrents to boost compliance behaviour. For instance, if an accounting officer and his subordinates fail to account for resources, Section 79 (2) of the PFM Act (2015) requires such an officer to be fined an amount not exceeding 500 currency points (each currency point is Ugx 20,000) or a term of imprisonment not exceeding four years or both. Whereas the PFM Act (2015) provides for the above punishments, Beccaria (1963) and Bentham (1948), identify 3 factors which include; severity, certainty and celerity/speed of the punishment as means for effective deterrence. Therefore, the effectiveness of fines, penalties and sanctions of the PFM Act (2015) to bring the desired accountability levels is judged against their heaviness, whether offenders are always punished and when the punishment is administered.

3.2 Punitive measures and accountability

Punitive measures are rooted in institutional and deterrence theory. Scott's (2008) suggested three pillars (normative, cultural-cognitive and regulative) form the basis for organizations to adopt and adapt to structures. The regulative pillar emphasizes the establishment of rules, inspecting conformity to them and manipulating sanctions and rewards in an attempt to influence behaviour (Scott, 2008). This pillar stresses coercion supporting the use of punitive measures so that actors are accountable. Similarly, deterrence theory is based on a notion of punishment to prevent crime. Officers in statutory corporations evaluate the possible punishments related to not providing accountabilities and this influences their decision making. In Uganda, many Acts advocate for punishment in case of failure to account. This means that punitive measures have been long recognized as a means of achieving accountability. Empirical studies on how punitive measures influence compliance behaviour have been widely carried out although those that directly link to financial accountability are scarce. A study by Allen *et al.* (2015) on what drives compliance with road laws among the youths in Australia, established that informal deterrence measures (parental enforcement of road rules) positively predicted higher compliance with new road rules. Their study further showed that young drivers who would feel more shame over wrongdoing were more likely to report compliance with new road rules. Similarly, in South Korea, Kim *et al.* (2019) found out that deterrent effects of punishment had a positive effect on employee anti-phishing behaviour thus compliance with a firm's internal security procedures. By experiment, Kim *et al.* (2019) found out that employees who had been previously punished for falling to a phishing scam were unlikely to fall to the same scam later. Furthermore, the findings of Mwakibinga and Buvik (2013) established that coercive measures had a positive impact on compliance with procurement guidelines although this relationship was weakened with increased monitoring activities.

A study by Nakyeyune *et al.* (2016) revealed that deterrence measures are associated with regulatory compliance within public secondary schools in Uganda. Regulatory compliance was driven by factors such as fear of inspectors from the Ministry of Education, fearing to attract the attention of the press and the probability of being found out. A further study in Uganda by Nkundabanyanga *et al.* (2019) too showed that deterrence mechanisms predict public regulatory compliance in government agencies in Uganda. Furthermore, the findings of Ntayi *et al.* (2012) indicated that public procurement regulatory compliance in Uganda was explained by factors such as fear of being caught, the fear of getting punished and the fear of "losing face". The findings further show that a public procurement officer who sees a non-compliant colleague getting away unpunished will also be involved in the same act the next time. This study hypotheses that.

H1. Punitive mechanisms are positively associated with financial accountability

3.3 Internal audit quality and accountability

The development and quality of the internal audit function in Uganda are explained by institutional theory specifically the coercive and normative forces. The coercive institutional pressures from regulators in Uganda require government entities to have an internal audit function and be headed by a member of ICPAU whereas the normative pressures have led to the adoption of the International Professional Practices Framework (IPPF) to guide internal auditors. Studies that provide evidence on the direct relationship between internal audit quality and accountability are minimal. Studies such as Nurdiono and Gamayuni (2018) established that internal audit quality specifically the auditor's competence improves accountability. The findings of Bananuka *et al.* (2018) indicate that a functioning internal audit function significantly contributes to accountability in statutory corporations. Bananuka *et al.* (2018) understand a functioning internal audit as that, which reviews and evaluates internal control systems, complies with regulations and contributes to the improvement of risk management practices of statutory corporations. In this study, internal audit quality has been understood in terms of auditor's independence, auditor staff competence and compliance with professional standards. These measures are significantly different from those measures employed by Bananuka *et al.* (2018). Our understanding of internal audit quality is in line with that of Roussy and Brivot (2016) that internal audit quality is composed of internal auditor's competence, Internal Audit Function's level of independence, internal auditor's conformance to norms and best practices and usefulness of internal audit reports. The above themes emerged from interviews with internal auditors, external auditors, audit committee members and the Institute of Internal Auditors. The four themes map into our conceptualization of internal audit quality.

Few studies have attempted to link internal audit function to accountability especially in statutory corporations. For example, Bananuka *et al.* (2018) found that internal audit function is significantly associated with accountability of Uganda's statutory corporations. Further, Tumwebaze *et al.* (2018) document a positive association between internal audit and accountability. Other scholars have linked internal audit quality with financial reporting quality (see Johl *et al.*, 2013) while others have linked internal audit function with earnings management (see Alzeban, 2020). Johl *et al.* (2013) found that internal audit quality is significantly associated with financial reporting quality, a measure of accountability (see Bananuka *et al.*, 2018). Further, Alzeban (2020) established that when internal auditors report directly to audit committees, there is a significant positive impact on financial reporting quality but when they report to the Chief Executive Officer, there is a negative impact on quality. This implies, internal auditors have to report to the audit committees directly if the quality of financial statements is to be maintained by an organization. Further, Alzeban (2020) found that if internal audit recommendations are implemented, the quality of financial reports improves.

In the recent past, literature links internal audit to firm performance. For example, Jiang *et al.* (2020) found that the internal audit function's involvement in operations-related services has a significant positive association with operating performance. In another study, Chen *et al.* (2020) found that internal audit function quality is significantly associated with firm operational efficiency. Further, Chen *et al.* (2020) found that internal audit competence improves firm operational efficiency while internal audit independence does not. However, Chen *et al.* (2020) documented that internal audit function quality can improve operational efficiency in the presence of effective corporate governance. This means that for an internal audit function to perform better there should be an effective audit committee. As noted earlier, the internal audit function is more independent when it reports to the board audit committee. Given the foregoing discussion, we hypothesize that:

H2. Internal audit quality has a significant positive impact on accountability

3.4 Punitive measures and internal audit quality

As earlier stated that organizations do not operate in a vacuum, they are constrained to have an internal audit function in place and punishments to conform to institutional pressures. Internal audit quality in the context of a preventive measure may collide with punitive measures. The key question is whether one of the two improves the other or vice versa. Scholarly contributions that relate punitive measures and internal audit quality are scarce. We infer from the literature that relates to disciplinary sanctions against external auditors and the impact on external audit quality to explain the relationship between punitive measures and internal audit quality. A number of prior studies show that when external auditors are exposed to increased liability and sanctions, it is associated with higher audit quality. For instance, Wong *et al.* (2018) established that when small-sized partnership Certified Public Accountants' firms in China are exposed to high litigation risks they report more conservatively (thus increased audit quality). The small firms increased audit effort, which led to audit quality to avoid the high economic costs and bankruptcy risks associated with an audit failure. Similarly, Carcello *et al.* (2011) found a greater reduction in abnormal accruals of auditees in United States of America (USA) as a result of the Public Company Accounting Oversight Board (PCAOB) inspection of audit firms, providing evidence of an increase in audit quality due to monitoring. It is thus argued that the fear of getting a bad inspection report from regulators causes audit firms to upgrade their audit effort thus increasing audit quality. Moreover, Abbot *et al.* (2013) revealed that audit firms in the USA that were found to have deficiencies after the inspection by regulators were more likely to lose their audit clients to audit firms with clean reports. From the above literature, it is apparent that punitive measures within the environment such as a bad report from a regulator impact on external audit quality; we, therefore, expect punitive measures to be associated with internal audit quality. For instance, we expect the strict administration of punishment due to poor accountabilities by the responsible institutions to force statutory corporations to pay attention to the quality of the internal audit function.

We, therefore, hypothesize that;

H3. Punitive measures have a significant positive impact on internal audit quality

For accountability to be realized, legislations are passed by Parliament and organizations are expected to follow such legislations. Conformance to legislations is explained by theories such as institutional theory. The PFM Act (2015) is the primary legislation in financial management in Uganda for statutory corporations which provides for punishments and internal audit function. This study aims to test whether internal audit quality mediates punitive measures and accountability. Whereas prior literature shows a relationship between punitive measures and internal audit quality, we also believe that punitive measures may influence accountability through internal audit quality. As earlier indicated, punitive measures are associated with audit quality (Wong *et al.*, 2018), as institutions strive to put in place quality functions such as internal audit to avoid sanctions and punishments related to non-compliance with the law. More so, literature indicates that audit quality is associated with accountability (Nurdiono and Gamayuni, 2018; Alzeban, 2020). It is, therefore, reasonable to expect a mediation effect audit quality in the relationship between punitive measures and accountability. The following hypothesis is stated;

H4. Internal audit quality mediates the relationship between punitive measures and accountability.

4. Methodology

4.1 Research design, population and sample size

The research design for this study is cross-sectional. The study population comprised 102 statutory corporations (Auditor-General Report, 2016). The statutory corporations considered for this study were those audited by the Auditor-General for the financial year 2015/2016. Statutory corporations are selected for this study because they use taxpayers' money through budget allocations and they are expected to account for such monies. The study was based on a sample of 86 statutory corporations, selected from a population of 102 statutory corporations following Krejcie and Morgan's (1970) table for sample size determination. From Krejcie and Morgan's table, there was no population of 102 thus we considered the next highest population of 110 and the respective sample of 86. The simple random sampling method was used to identify the 86 statutory corporations because it accords equal chance for each member within a given population to become part of the sample from which data is collected. From each statutory corporation, two (2) respondents were selected; Chief Finance Officer (CFO) and Chief Internal Auditor (CIA) (unit of inquiry). The CFO and CIA are the primary custodians of information related to accountability within an organization. One Way ANOVA was used to test if there were significant differences in the perceptions of the CFOs and CIAs. The significance values were; punitive measures 0.997, Internal audit quality 0.590 and Accountability 0.099, implying there were no significant differences in the perceptions of the CFOs and CIAs. The unit of analysis was a statutory corporation. Responses from the CFO and CIA were aggregated at entity level. From a sample size of 86 statutory corporations, useable questionnaires were received from 82 firms representing a response rate of 95%. The high response rate was possible because of the ample time given to the respondents and follow-up of respondents during the data collection exercise. Respondents were given one month to complete the questionnaires.

4.2 Sample characteristics

Table 1 shows the demographic characteristics of the respondents. In total, 160 questionnaires were received from Chief Finance Officers (CFOs) and Chief Internal Auditors (CIAs). The male respondents were 87 (or about 54%) and the female respondents were 73 (or about 46%) which means that in Uganda, affirmative action and women emancipation, especially in government entities, are beginning to be realized. This is because; there is almost a balance between males and females in senior positions of chief finance officer (Chief Accountant in some cases) and chief internal auditor (Head internal audit in some cases). A total of 58% of the respondents had attained a bachelor's degree and 33% a master's degree. This means that the respondents were well educated and thus able to comprehend the items in the questionnaire. Almost all the respondents were members of professional bodies except 10% who did not possess any. 69 respondents (or about 43%) are full members of the Institute of Certified Public Accountants of Uganda (possess the CPA qualification) while 65

Background information		Frequency	Percentage
Gender	Male	87	54
	Female	73	46
	Total	*160*	*100*
Education qualification	Diploma	13	8
	Undergraduate	93	58
	Masters	53	33
	PhD	1	1
	Total	*160*	*100*
Professional qualification	CPA	69	43
	ACCA	65	41
	CIMA	4	3
	CIA	5	3
	NONE	17	10
	Total	*160*	*100*
Length of service	1–3 years	24	15
	4–10 years	92	57
	11–20 years	30	19
	Above 20 years	14	9
	Total	*160*	*100*

Source(s): Primary data

Table 1.
Sample characteristics

respondents (or about 41%) are members of the Association of Chartered Certified Accountants (possess the ACCA qualification). The results mean that statutory organizations have gone a long way to implement the requirements of the Accountants Act of 2013 which require heads of accounts, finance and internal audit within the public sector to be members of ICPAU. In terms of length of service, 85% of the respondents had served four years and more, suggesting that they had the necessary experience to respond to the items in the questionnaire appropriately.

4.3 The questionnaire and variables measurement

The study used primary data. The data was collected using a close-ended questionnaire with items anchored on a six-point Likert scale. Primary data provides first-hand information concerning the opinions of respondents in respect to the study variables. Given the deductive approach taken, quantitative data was collected to test the hypotheses using a close-ended questionnaire. The use of questionnaires enables the researchers to reach many participants within a shorter period and responses are free from the bias of the data collectors (Lajunen and Summala, 2003; Saunders *et al.*, 2009). Internal audit quality was measured based on the scales employed by Roussy and Brivot (2016). These are; auditor's independence, auditor staff competence and compliance with professional standards. Accountability was operationalized in terms of physical output, financial reporting and record-keeping (Nyamori, 2009; Minja, 2013; Bananuka *et al.*, 2018). Punitive measures was a uni-dimensional variable and measured using Likert scale statements (see Table 2 for sample questions).

4.4 Tests of factorability, validity and reliability

Factor analysis was run for financial accountability and internal audit quality (see Tables 3 and 4) to find out how much of the variance present in the data is common variance. Factor analysis for punitive measures was not carried out because the variable was uni-dimensional. Before performing principal component analysis, we assessed the suitability of data for factor

Table 2. Definitions of study variables

Variable	Acronym	Dimension	Measurement	Definition	Sample items
Accountability	ACC	Physical output	Respondents' mean rank of items included in the questionnaire on a six-point Likert Scale	Being responsible for actions through reflecting the traditional financial Information in addition to physical output Nyamori, 2009; Minja, 2013)	There is always tangible output as a way of accountability in this entity
		Financial reporting	Respondents' mean rank of items included in the questionnaire on a six-point Likert Scale		The financial statements are prepared on a timely basis
		Record keeping	Respondents' mean rank of items included in the questionnaire on a six-point Likert Scale		This entity prepares source documents like payment vouchers
Internal Audit Quality	IAQ	Independence	Respondents' mean rank of items included in the questionnaire on a six-point Likert Scale	The attribute of the internal audit to perform their duties as enshrined in the applicable laws in an independent and professional manner	Senior Internal audit staffs are appointed through the audit committee of this entity
		Staff competence	Respondents' mean rank of items included in the questionnaire on a six-point Likert Scale		Internal audit staffs are knowledgeable in all operations of this entity
		Compliance with professional standards	Respondents' mean rank of items included in the questionnaire on a six-point Likert Scale		Internal auditors in this entity have no relatives in this entity in as far as I am aware
Punitive Measures	PM	Uni-dimensional	Respondents' mean rank of items included in the questionnaire on a six-point Likert Scale	Adverse extrinsic consequences to discourage unaccepted behavior (Kennedy, 1983)	Government is very strict in the administration of punishments There are harsh punishments in this entity for wrong doing In this entity we follow the law because we fear inspectors from the Ministry of Finance

analysis using the Keiser–Meyer–Olkin and Bartlett's tests (Bartlett, 1954; Kaiser, 1974). The KMO values for the study variables were all above 0.5 implying that the data was fit for factor analysis and Bartlett's test in all scales reached statistical significance. The KMO values (See Tables 3 and 4) for internal audit quality and financial accountability were 0.83 and 0.86 respectively. To assess the validity of the instrument, it was given to four experts to assess the relevancy of the questions (academicians and practitioners). The contribution of the experts was taken into consideration in designing the final questionnaire that was used for data collection. To ensure the reliability of the instrument, the Cronbach's α test was performed and the coefficients were above 0.7.

Item	Component Audit staff competence	 Auditor's independence	 Compliance with professional standards
Internal audit findings add value to this organization	0.823		
Internal auditors in this entity act with the highest level of integrity	0.801		
Internal audit staff have the necessary experience to perform their duties	0.782		
Internal auditors in this entity have never been involved in any form of fraud	0.739		
Internal audit staff are knowledgeable in all operations of this entity	0.731		
Internal auditors in this entity do not accept gifts from other staff	0.656		
Internal audit staff in this entity are professional accountants	0.632		
Internal audit staff here are members of the Institute of Certified Public Accountants of Uganda	0.607		
Internal audit staff here frequently attend Continuous Professional Development programs/seminars	0.597		
Internal audit recommendations are worked upon without any delay in this entity		0.765	
Internal audit receives this entity's management support while executing its duties		0.600	
Senior Internal audit staff are appointed through the audit committee of this entity		0.580	
Staff in this entity are quick at providing internal auditors with the necessary information		0.528	
Internal auditors in this entity do not easily associate with other staff of the entity			0.802
Internal audit remuneration is fixed by the audit committee			0.667
Internal auditors in this entity have no relatives in this entity in as far as I am aware			0.619
Eigenvalues	6.181	2.013	1.296
Percentage of variance	31.024	14.919	13.370
Cumulative percentage	31.024	45.943	59.313

Note(s): KMO = 0.833; Approx. Chi square = 1242.387; Bartlett's test of Sphericity: df = 120; Sig = 0.000
Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization
Source(s): Primary data

Table 3.
Rotated component matrix for internal audit quality

Item	Record keeping	Component Financial reporting	Physical out put
This entity properly transfers information from the source documents to journals	0.877		
This entity maintains up to date journals	0.872		
This entity posts transactions from the journals to the ledgers	0.867		
This entity does timely postings to the relevant accounts	0.841		
This entity prepares source documents like payment vouchers	0.803		
This entity prepares a statement of cash flows		0.833	
This entity prepares a statement of financial position / Financial condition		0.807	
The financial statements are prepared on a timely basis		0.772	
Account balances in the financial statements are traceable to source documents		0.756	
The entity prepares a summary statement of revenues and expenditures		0.694	
This entity prepares a statement of financial performance		0.610	
This entity's activities can be seen by the public			0.881
This entity's physical activities attract the interests of the major stakeholders			0.821
There is always tangible output as a way of accountability in this entity			0.731
This entity's activities are completed according to the approved timeline			0.705
This entity's activities comply with its mandate			0.684
Eigenvalues	7.173	2.572	1.569
Percentage of variance	25.770	24.222	20.722
Cumulative percentage	25.770	49.991	70.713

Note(s): KMO = 0.861; Approx. Chi square = 1890.192; Bartlett's test of Sphericity: df = 120; Sig = 0.000
Extraction Method: Principal Component Analysis
Rotation Method: Varimax with Kaiser Normalization
Source(s): Primary data

Table 4. A rotated component matrix for accountability

4.5 Parametric tests

Parametric tests (linearity, homogeneity of variance, multi-collinearity and normality) were conducted to establish if the data distribution of the sample satisfied the assumptions of parametric data. Scatter plots were used to test linearity between the study variables and the trend line represented a positive linear relationship between the study variables. Additionally, Levene's statistic was non-significant indicating that data was homogeneous. Data also fulfilled the assumption of normality as skewness and kurtosis values were in the range of 3.29 to −3.29 (Field, 2009). These are presented in Table 5. The VIF values are all below 10 and the tolerance statistics are above 0.2, therefore, there were no multicollinearity problems in the data (Field, 2009).

4.6 The model

This study utilises hierarchical regression to establish the contribution of punitive measures and internal audit quality to accountability (Panel A regressions). Hierarchical regression helps to establish the contribution of each predictor variable to variances in the dependent

Table 5. Descriptive Statistics for the dependent and independent variables

Variable	*N* Statistic	Min Statistic	Max Statistic	Mean Statistic	Std. Deviation Statistic	Skewness Statistic	Skewness Std. Error	Kurtosis Statistic	Kurtosis Std. Error
Accountability	82	3.18	6.00	5.1996	0.52143	−1.278	0.266	2.661	0.526
Physical out put	82	3.10	6.00	4.8797	0.60814	−0.254	0.266	−0.084	0.526
Financial reporting	82	2.75	6.00	5.3921	0.65368	−1.631	0.266	3.157	0.526
Record keeping	82	3.00	6.00	5.3270	0.65873	−1.479	0.266	2.256	0.526
Internal Audit Quality	82	2.48	6.00	4.5184	0.66547	−0.258	0.266	0.267	0.526
Auditor's independence	82	2.38	6.00	4.4340	0.76545	−0.200	0.266	0.286	0.526
Audit staff competence	82	3.11	6.00	4.8986	0.65894	−0.468	0.266	0.272	0.526
Compliance with professional standards	82	1.83	6.00	4.2226	1.03432	−0.170	0.266	−0.915	0.526
Punitive measures	82	2.42	6.00	4.2813	0.67857	−0.282	0.266	0.561	0.526

Source(s): Primary data

variable. In addition to Panel A regressions, we run Panel B regressions to test for mediation. Specifically, we state the following models;

Panel A: Hierarchical regression models

$$\text{Model 1} \quad \text{ACC} = \beta_0 + \beta_1\text{PM} + \varepsilon$$
$$\text{Model 2} \quad \text{ACC} = \beta_0 + \beta_1\text{PM} + \beta_2\text{IAQ} + \varepsilon_j$$

Panel B: Mediation Models

$$\text{Model 3} \quad \text{IAQ} = \beta_0 + \beta_1\text{PM} + \varepsilon_j$$

$$\text{Model 4} \quad \text{ACC} = \beta_0 + \beta_1\text{PM} + \varepsilon_j$$

$$\text{Model 5} \quad \text{ACC} = \beta_0 + \beta_1\text{IAQ} + \varepsilon_j$$

$$\text{Model 6} \quad \text{ACC} = \beta_0 + \beta_1\text{PM} + \beta_2\text{IAQ} + \varepsilon_j$$

where ACC is accountability; PM is Punitive Measures; IAQ is Internal Audit Quality; β_0 is a constant and ε_j is the error term.

5. Results

5.1 Descriptive statistics

Table 5 represents the descriptive statistics of the study variables. Mean values were computed from data coded from completely disagree (1) to completely agree (6). The mean values for punitive mechanisms, internal audit quality and accountability are 4.28, 4.51 and 5.19 respectively while the standard deviations are 0.67, 0.66 and 0.52 respectively (See Table A1 for mean and SD of all items). According to Field (2009) when standard deviations are small compared to mean values, it is apparent that the data points are close to the means and hence calculated means highly represent the observed data. The findings imply that respondents agree that there is accountability in statutory corporations and the internal audit function is independent, competent and complies with professional standards.

5.2 Correlation analysis results

Pearson's correlation coefficient analysis was used to establish the relationships between study variables. The correlation results are presented in Table 6. Pearson's correlation coefficient, r, was used because it is a parametric statistic and requires interval data for both variables (Field, 2009). The results in Table 6 indicate a significant positive relationship between punitive measures and accountability of Uganda's statutory corporations ($r = 0.248$* and $p < 0.01$). The results also show that there is a positive significant relationship between internal audit quality and accountability of Uganda's statutory corporations ($r = 0.450$** and $p < 0.01$). The findings further reveal a positive correlation between punitive measures and internal audit quality ($r = 0.389$** and $p < 0.01$) implying that coercive measures within the environment and the entity improve internal audit quality.

5.3 Regression analysis results

Hierarchical regression analysis was conducted to ascertain the contribution of each variable to accountability. Results show that punitive measures significantly predict accountability as shown in Table 7 (Model 1) by 6.2% thus confirming hypothesis *H1* ($\beta = 0.248$; $p < 0.05$; $t = 2.294$). By considering the R square change which shows the contribution of internal audit quality when added in Model II, internal audit quality contributes 14.7% to accountability ($\beta = 0.416$; $p < 0.05$; $t = 3.827$). This confirms *H2*. The R square, which measures the variability in accountability explained by internal audit quality and punitive measures, is 20.9%. The R square tends to increase as more independent variables are added to the model thus the R square may increase not because the independent variables are good predictors of

Variable	1	2	3	4	5	6	7	8	9
Accountability (1)	*1*								
Physical output (2)	0.725**	1							
Financial reporting (3)	0.878**	0.446**	1						
Record keeping (4)	0.832**	0.393**	0.635**	1					
Internal Audit Quality (5)	*0.450***	*0.511***	*0.310***	*0.304***	*1*				
Auditor's independence (6)	0.165	0.293**	0.060	0.079	0.711**	1			
Audit staff competence (7)	0.586**	0.553**	0.461**	0.434**	0.857**	0.327**	1		
Compliance with professional standards (8)	0.120	0.249*	0.029	0.042	0.783**	0.608**	0.442**	1	
Punitive measures (9)	*0.248**	*0.128*	*0.183*	*0.297***	*0.389***	*0.392***	*0.324***	*0.208*	*1*

Note(s): **Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)
Source(s): Primary data

Table 6.
Zero-order correlations

Item	Model 1	Model 2	VIF	Tolerance
Constant	4.390	3.248	na	na
Punitive measures	0.248**	0.084	1.178	0.849
Internal audit quality		0.416**	1.178	0.849
Model *F*	5.263**	10.405**		
R Square	0.062	0.209		
Adjusted *R* Square	0.050	0.188		
F change	5.263**	14.650**		
R Square change	0.062	0.147		
Durbin Watson		2.055		

Source(s): Primary data

Table 7.
Hierarchical regression analysis results

the dependent variable. To balance the effect that the number of independent variables has on the R square, the adjusted R square is used. Overall, both punitive measures and internal audit quality explain about 18.8% of the variance in accountability (Adjusted R Square = 0.188). The Model F = 10.405 is significant suggesting that the Model is fitting. F change in Model 2 is too significant suggesting that the addition of internal audit quality significantly improved the prediction. It is noted that, with or without punitive measures, internal audit quality predicts accountability of statutory corporations. Punitive measures only predict accountability in the absence of internal audit quality and this is indicated in Model I. The results imply that preventive measures in this case internal audit quality contribute to accountability better than the punitive measures. The findings further support *H3* that there is a significant relationship between punitive measures and internal audit quality as shown in Table 8 (standardized beta = 0.389) which implies that punitive measures have a positive effect on internal audit quality.

5.4 Testing for mediation

Mediation tests were performed to establish whether the conditions suggested by Baron and Kenny (1986) were met. The four conditions of Baron and Kenny (1986) were met as shown in Table 8;

Table 8. Testing for mediation

Dependent variables												
	Model 3 Internal audit quality			Model 4 Accountability			Model 5 Accountability			Model 6 Accountability		
Predictor	β	SE	Beta	β	SE	Beta	β	SE	Beta	β	SE	Beta
Intercept	3.170	0.398		4.390	0.363		3.399	0.406		3.248	0.449	
Punitive measures	0.347	0.092	0.389**	0.1942	0.084	0.248**				0.067	0.084	0.087
Internal audit quality							0.389	0.086	0.450**	0.360	0.094	0.416**

(1) Variations in the punitive measures significantly account for variance in internal audit quality (Model 3 – Table 8).

(2) Variations in punitive measures significantly account for variance in accountability (Model 4 – Table 8.

(3) Variations in internal audit quality significantly account for variance in accountability (Model 5 – Table 8).

(4) The effect of the independent variable on the dependent variable reduces significantly when the mediator is included (Model 6 – Table 8).

Further, the significance of the mediation was tested using the Sobel test using Jose's Medi graph. The Sobel test is a specialised *t*-test that is used to determine whether the reduction on the effect of the independent variable after including the mediator in the model is a significant reduction and therefore whether the mediation effect is statistically significant (Sobel, 1982). Based on the results of the Medi graph in Figure 1, the indirect effect of punitive measures on accountability is 0.161 and the direct effect 0.087. The total effect coefficient was 0.248. Thus 64.92% of the effect of punitive measures on accountability was mediated through internal audit quality. Additionally, 35.08% was the direct effect of punitive measures on accountability when internal audit quality is controlled. The results

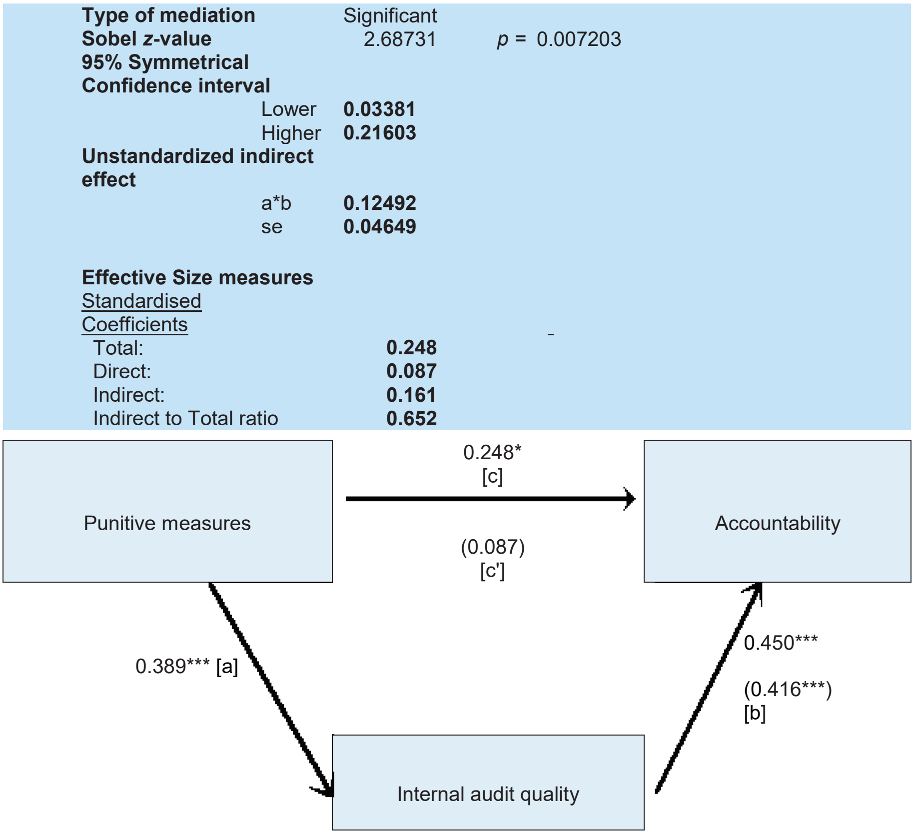

Figure 1.
The mediation effect of internal audit quality on the relationship between punitive measures and accountability

also indicated that the indirect effect of punitive measures on accountability was significant supporting *H4*. The association between punitive measures and accountability reduced to non-significance on the introduction of the mediator in Model 6, we, therefore, conclude that it is full mediation. Besides, the indirect effect is 64.92%, which is above 50% suggesting full mediation.

6. Discussion of findings

Results indicate that internal audit quality and punitive measures are independent significant predictors of accountability of Uganda's statutory corporations. The results suggest that when an entity has competent internal audit staff that comply with professional standards and report to the audit committee of the board, accountability is manifested. The presence of internal audit quality alone is a preventive measure since internal audit according to the Public Finance Management Act of 2015 of the Republic of Uganda is mandated to appraise the soundness and application of the accounting, functional and operational controls; evaluate their effectiveness and contribute to the improvement of risk management processes and provide assurance on the value for money of all expenditure incurred by an accounting entity. The internal audit function in every statutory corporation in Uganda prepares quarterly internal audit reports that are submitted to the Internal Auditor General (IAG) and the respective audit committee. These reports are consolidated by the Internal Auditor General (IAG) to form the IAG's report which is discussed by Public Accounts Committee (PAC) of Parliament. PAC is interested in how the IAG's recommendations were addressed by the accounting officers. Besides, the audit committee of each statutory corporation discusses the quarterly reports and follows up with management to see how the recommendations have been responded to. This makes the internal audit function influential. In corporations where the audit committee is weak, the CEO will likely influence the quarterly report findings and also interfere in the follow-up by the audit committee. This may weaken the internal audit recommendations. This study confirms institutional theory that stipulates that institutions do not operate on their own; they are predisposed to coercive, mimetic and normative pressure within the environment that they usually have to conform to. The PFM Act (2015) requires all institutions to have an internal audit function that was adhered to by all corporations. Likewise, the study revealed that the most important factor that explains internal audit quality is audit staff competence which is in line with the requirements of ICPAU. The study findings are consistent with findings of the previous empirical studies, for example, Johl *et al.* (2013), Alzeban (2020) and Bananuka *et al.* (2018). Johl *et al.* (2013) established the fact that internal audit quality is significantly associated with internal audit quality in Malaysia. Alzeban (2020) found that companies in Saudi Arabia with an internal audit function that complies with standards, with competent staff have better financial reporting quality. Moreover, Bananuka *et al.* (2018) found that an internal function that reviews the effectiveness of internal controls, ensures regulatory compliance and contributes towards risk management achieves accountability. The study findings indicate that when internal staffs are competent, they appreciate the document accountabilities that relate to specific expenditures, they are keen at detecting misstatements and prepare their financial reports on time. Further, when the internal audit function reports to the audit committee functionally, the internal audit staffs are objective in reporting, do not selectively choose areas for audit and are not easily manipulated. Similarly, compliance with professional standards such as the code of ethics for professional accountants, positions the internal audit staff to work within the expected norms which cannot conflict with accountability requirements.

The study findings also showed that punitive measures are positively associated with accountability. The results show that punishment is important in achieving financial accountability confirming institutional and deterrence theory. The findings are consistent with the works of Nakyeyune *et al.* (2016), Nkundabanyanga *et al.* (2019), Mwakibinga and Buvik (2013) and Ntayi *et al.* (2012). Punitive measures such as imprisonment, fines and loss of office force public officers that follow when public officers do not account, compel many officers to account for public resources.

Further, the study findings revealed that punitive measures become insignificant when internal audit quality is present. It can thus be argued that, once there is internal audit quality, the need for punitive measures is subsumed in internal audit. In Uganda, there has been application of punitive measures such as imprisonment for mismanagement of funds, the recent being a former principal accountant in the Office of the Prime Minister who has been imprisoned for 15 years (Etukuru, 2020). However, the application of punitive measures appears to be selective which affects the effectiveness of such measures. This can be evidenced in the case of management of Global Funds where ministers were implicated in mismanagement of funds but were never imprisoned (Cocks, 2007). This is also confirmed by Nakyeyune (2016) where interviewees emphasized the issue of fair treatment (procedural justice) in application of punishment in Uganda. Secondly, the PFM Act (2015) provides for recovery from a public officer who has failed to account, which has not been popularly implemented. Thirdly, as earlier stated, punitive measures are not implemented immediately upon committing the offence. They are implemented after discussion of the Auditor General's report by Parliament which process delays (Centre for Policy Analysis, 2014). The delay weakens justice and the magnitude of the case(s).The scenarios above make the implementation of punitive measures weaker in Uganda. However, in the absence of internal audit quality, then punitive measures become critical in achieving financial accountability. Chambers and Odar (2015) noted that internal audit at times is capable of failing to perform its duties and even wonders where internal audit was during the global financial crisis in 2008. So, in Uganda, internal auditors may not solely be relied on. In situations where the internal audit function cannot perform its duties, then punitive measures ensure accountability. Punitive measures may make the internal audit function perform its duties and comply with professional standards which in turn improves accountability. Punitive measures thus may not directly influence accountability but through the internal audit quality. Internal audit quality then appears to be a strong mediator in the relationship that explains accountability. If failure to implement internal audit recommendations attracts a punishment, then those responsible are keen to implementing such recommendations which improves accountability. Also, if there are punishments for failure by internal audit to perform their duties, it is implied that internal audit will be committed to performing their duties. Similarly, prior literature suggests litigation risks and bad inspection reports influence audit firms to improve audit quality (Wong et *al.*, 2018; Carcello *et al.*, 2011).

7. Summary and conclusion

The purpose of this study was to establish the contribution of punitive measures and internal audit quality on accountability and the mediating effect of internal audit quality on the relationship between punitive measures and accountability. This was achieved through a questionnaire survey of 82 statutory corporations which were audited by the Auditor General for the financial year-end 30th June 2016. Results reveal that punitive measures and internal audit quality predict accountability to the extent of 18.8% and punitive measures are only a significant predictor of accountability in the absence of internal audit quality. Results further indicate that internal audit quality mediates the relationship between punitive measures and accountability.

Overall, the findings of this study have important implications for academics as well as practitioners and regulators. For academics, the results suggest that only internal audit quality is a significant predictor of accountability and punitive measures are only significant in the absence of internal audit quality. In addition, punitive measures influence accountability through internal audit quality. For Government, findings are important in that, the Internal Auditor General's office needs to focus on ensuring that internal auditors achieve the necessary independence, are competent and follow the professional standards. The Management of every statutory corporation needs to observe the importance of internal audit and give the necessary support such as a separate budget to enable the function to achieve its goals as a department. Given that the Uganda's Accountants Act of 2013 Section 5 explains the requirements and qualification of an accountant in the public office while section 34 (3) requires that the head of internal audit be a member of the ICPAU, internal auditors must adhere to such legal provisions. Such provisions are advocated for by institutional theory. Unfortunately, this law was put in place in 2013 when people were already occupying such offices. A number of internal auditors had not embarked on professional courses and as such, there is a need for support by the ministries and departments to ensure internal auditors achieve such qualifications. Also, the accountants need to be encouraged and supported to attend the Continuous Development Programmes (CPDs) that are organized by the ICPAU. Given that in Uganda, we also have the Institute of Internal Auditors, no legal requirement is in place to require internal auditors to be members of such an institute or to acquire qualifications from such an Institute, However, government and management of statutory corporations and ministries may encourage members of the Internal audit to utilize the institute of internal auditors maximally. Punitive measures also cannot be ignored wholly in the battle to achieve accountability as shown by the study findings. Thus punitive measures such as fines, imprisonment, and loss of public office have to be upheld since they influence internal audit quality which in turn influences accountability.

The contributions of this study should be interpreted with respect to the following limitations. First, this study was limited to the statutory corporations; the results are only applicable to Uganda's statutory corporations and the public sector. Second, the study used internal auditors and accountants as respondents and there could be bias since the internal auditors are responsible for checking the effectiveness of internal controls in respect to accountabilities and accountants are responsible for preparing accountability documents. However, we strongly believe that these were in the best position to respond to questions related to internal audit quality, accountability and punitive measures in statutory corporations. The study used a quantitative research approach which limits respondents' freedom to express their opinions, unlike the qualitative approach. Further research could be carried out using interviews, in other public entities and private firms to establish the contribution of punitive measures and internal audit quality on accountability. This study only looked at one preventive measure – internal audit quality. Future studies could explore the effect of other preventive measures. In the presence of the above limitations, this study's results are important for Uganda and other similar environments in explaining accountability in statutory corporations.

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Appendix 1

	Accountability	Min	Max	Mean	Std. Dn
	Physical output / Visibility of activities				
1	There is always tangible output as a way of accountability in this entity	2.50	6.00	4.76	0.86
2	This entity's activities can be seen by the public	3.50	6.00	4.96	0.74
3	This entity's activities are completed according to the approved timeline	3.00	6.00	4.73	0.78
4	This entity's physical activities attract the interests of the major stakeholders	2.50	6.00	4.84	0.80
5	This entity's activities comply with its mandate	2.50	6.00	5.01	0.81
	Financial reports				
6	This entity prepares a statement of financial performance	2.00	6.00	5.45	0.77
7	This entity prepares a statement of financial position/financial condition	2.50	6.00	5.44	0.79
8	This entity prepares a statement of cash flows	2.50	6.00	5.49	0.77
9	The financial statements are prepared on a timely basis	3.00	6.00	5.39	0.81
10	Account balances in the financial statements are traceable to source documents	3.00	6.00	5.40	0.72
11	The entity prepares a summary statement of revenues and expenditures	2.50	6.00	5.42	0.78
	Record keeping				
12	This entity prepares source documents like payment vouchers	3.00	6.00	5.41	0.78
13	This entity maintains up to date journals	3.00	6.00	5.29	0.69
14	This entity properly transfers information from the source documents to journals	3.00	6.00	5.30	0.73
15	This entity posts transactions from the journals to the ledgers	3.00	6.00	5.39	0.68
16	This entity does timely postings to the relevant accounts	3.00	6.00	5.29	0.76
	Punitive measures				
17	Punishments are administered accordingly for any mismanagement of public resources	1.00	6.00	4.06	1.19
18	The laws of government related to the financial management of public resources are always enforced	1.00	6.00	4.60	1.20
19	There are harsh punishments in this entity for any wrongdoing	1.00	6.00	4.17	1.34
20	Government is very strict in the administration of punishments	1.00	6.00	4.01	1.22
21	In this entity, we follow the law because we fear inspectors from the Ministry of Finance	1.00	6.00	3.78	1.43
	Internal audit quality				
	Auditor independence				
22	Senior internal audit staff are appointed through the audit committee of this entity	1.00	6.00	3.98	1.40
23	Internal audit has an independent budget in this entity	1.00	6.00	4.19	1.35
24	Internal audit receives this entity's management support while executing its duties	1.00	6.00	4.72	1.03
25	Internal audit recommendations are worked upon without any delay in this entity	1.00	6.00	4.44	1.05
26	Staff in this entity are quick at providing internal auditors with the necessary information	2.00	6.00	4.53	0.92
27	Internal audit does not directly report to management/permanent secretary functionally	1.00	6.00	3.99	1.36
28	Internal audit remuneration is fixed by the audit committee	1.00	6.00	3.51	1.68
	Staff competence				
29	Internal audit staff in this entity are professional accountants	1.00	6.00	4.62	1.08

Table A1.
Descriptive statistics

(continued)

	Accountability	Min	Max	Mean	Std. Dn
30	Internal audit staff here are members of ICPAU	2.00	6.00	4.79	0.93
31	Internal audit staff here frequently attend CPD programmes/seminars	2.00	6.00	4.95	0.87
32	Internal audit staff are knowledgeable in all operations of this entity	3.00	6.00	4.92	0.76
33	Internal audit staff have the necessary experience to perform their duties	2.00	6.00	4.93	0.83
34	Internal audit findings add value to this organization	2.00	6.00	5.14	0.83
	Compliance with professional standards				
35	Internal auditors in this entity act with the highest level of integrity	2.50	6.00	4.93	0.90
36	Internal auditors in this entity do not accept gifts from other staff	2.00	6.00	4.83	0.94
37	Internal auditors in this entity do not easily associate with other staff of the entity	1.00	6.00	3.96	1.40
38	Internal auditors in this entity have never been involved in any form of fraud	1.00	6.00	4.84	0.98
39	Internal auditors in this entity have no relatives in this entity in as far as I am aware	1.50	6.00	4.75	1.07

Table A1.

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