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Internal audit function, audit committees' effectiveness and accountability in the Ugandan statutory corporations

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Internal Audit Function, Audit Committees' Effectiveness and Accountability in the Ugandan Statutory Corporations

Abstract

Purpose - The purpose of this study was to investigate the contribution of internal audit function and audit committees' effectiveness on accountability in the Statutory Corporations (SCs).

Design/ methodology - This study is cross sectional and correlational. Data were collected through a questionnaire survey of 52 SCs in Uganda through their Chief Internal Auditors and Chief Finance Officers. Data were analyzed using Statistical Package for Social Sciences.

Findings - Internal audit function significantly contributes to accountability of SCs in Uganda and audit committee effectiveness is not where effective internal audit is present in such organisations. However, audit committee effectiveness significantly contributes to accountability when internal audit function is not present.

Research limitations / implications– The use of hierarchical regression is prone to problems associated with sampling error. However, the likelihood of these problems is mitigated by the interface with data.

Originality / value–Whereas hitherto both internal audit function and audit committees' effectiveness had been viewed as explanations of accountability, this study only confirms internal audit function as a significant predictor of SCs' accountability relative to audit committee effectiveness.

Key words–Accountability, Uganda, Public Sector, Statutory Corporations, Internal Audit, Audit Committees

Paper type– Research paper

Introduction and motivation

The purpose of this paper is to investigate the contribution of internal audit function and audit committees' effectiveness on accountability in Statutory Corporations (SCs) in Uganda in a single study. Accountability of State Owned Enterprises (SOEs) (also known as statutory corporations in some jurisdictions) is a crucial and growing topic in public management. In their guest editorial, Grossi, Papenfuß and Tremblay (2015), exemplify the importance of SCs but lament the scant empirical studies available on the topic. Yet in Uganda, for example, the Auditor General (AG) has for a number of years lamented and discovered accountability failures in this country. Thus, questions continue to abound about which models, mechanisms, instruments and processes SCs could employ for effective, efficient and sustainable accountability.

According to Brennan and Solomon (2008) board composition, existence and performance of audit committees, external audit, institutional investors and functioning of internal audit can explain variances in accountability. However, according to Khongmalai, Tang and Siengthai (2010) most studies have focused on the private sector rather than the SCs' sector, and focused on only one practice of corporate governance. For example, the board of directors or governing boards (Michie and Oughton, 2001; Nkundabanyanga, *et al*., 2015), internal control (Giroux and McLelland, 2003), internal audit (Xie *et al.*, 2003), or risk management (Crawford and Stein, 2004). Except for the study of Khongmalai, Tang and Siengthai (2010), whose study's value lay in the demonstration of the multi-attribute nature of the corporate governance model in SOEs in Thailand, to our knowledge, there is no study that has empirically tested the role of internal audit function and audit committee effectiveness in explaining accountability in the SCs, in a single study.

Initially, we reason that since one of the audit committee roles is to review corporate accounting information and yet also internal audit must evaluate and contribute to improvement of internal controls, internal audit function and audit committee effectiveness should hybridize in order to obtain better accountability. Like in purely private corporations, this is possible in the SCs because King III (2009) has for instance introduced a combined assurance model that considers internal assurance units (e.g. internal and audit committee functions) as one of the three lines of defense along with management and external assurance providers. Within the context of accountability on the African scene, King III (2009) requires internal assurance mechanisms such as the audit committee function to ensure the integrity of financial disclosures considered one of the accountability mechanisms. Similarly, the government of Uganda enacted the Public Finance Management Act (PFMA) in 2015 which requires every government agency to have an internal audit function. Theoretically, because SCs are run by individuals with private interests yet such corporations are public in nature, we expect that to reduce the risk of principals (the public/ tax payers) making adverse judgements on the agent's likelihood to pursue the principal's interests, management of SCs are likely to seek the services of an internal auditor.

This, more than likely, can signal to principals that the agents are acting responsibly and in a manner consistent with their contract of employment (Adams, 1994). Farber's (2005) results suggest that this improves the quality of governance.

Moreover from literature, the audit committee serves as a communication link between the internal and external auditor, review and supervision of internal audit systems and review of corporate financial information (Lin, Xiao and Tanga, 2008; Magrane and Malthus, 2010). Indeed, the Uganda's AG report (2014) recommended that all SCs should have functioning internal audit departments and effective audit committees to enhance accountability. Nevertheless, the majority of empirical studies examining the relationship between internal audit function and accountability have relied on data obtained from Australia, Hong Kong, Malaysia and New Zealand (e.g. Leung and Cooper, 2011; Cooper *et al*., 2006; Van Peursem 2004). Still, much of the research that explores the relationship between audit committees' effectiveness and accountability is based on the experience of Europe, USA, China and Asian countries (e.g. Lin *et al*., 2008; Magrane and Malthus, 2010).

The exact mechanism by which internal audit function and the audit committee of the board ensure accountability of SCs is to date less known on the African experience. To fill this lacuna, therefore, in this study we employ the agency theoretic logic (Jensen and Meckling, 1976) and focus on the internal audit function and audit committees' effectiveness as explanatory variables for accountability in a single study. Using hierarchical regression analysis, this study finds that internal audit function is a significant predictor of accountability of SCs in Uganda and audit committee effectiveness is not where effective internal audit is present in such organisations. However, audit committee effectiveness will be a significant predictor of accountability when internal audit function is not present.

These results are particularly important for a number of reasons. First, the findings of this study, which are robust to controls of company-specific characteristics such as ownership structure, support the notion that the internal audit function, as an internal assurance provider, is vital to combined assurance models in enhancing accountability of SCs. It can be speculated that effective internal audit function and effective audit committee may potentially become standalone in the improvement of accountability in the public sector. Second, unlike prior studies which have not focused on the role of internal assurance units in terms of both internal and audit committee functions, this study has uncovered the exact mechanism through which the two units can ensure accountability in the SCs. The empirical evidence which is drawn from a unique setting (Uganda, an African country) implicates both the internal audit function and audit committee function in the accountability of SCs. Under this setting, the results show significant positive association between accountability practices and both internal audit and audit committee function. In particular, we show that internal audit with clear mandate in the review of internal control systems, compliance with regulations and risk management are likely to enhance accountability in terms of record-keeping, physical outputs and activities and financial reporting. Similarly, audit committees with clear mandate in the review of corporate accounting information and liaison with external auditors are likely to enhance the accountability of SCs. Lastly, as little empirical evidence is available on the contribution of each internal assurance unit in the African setting on accountability of SCs, in particular whether internal audit function and audit committee effectiveness have the same predictive potential, a significant contribution of this study is that it provides initial empirical account of the contribution made by internal audit function and audit committee effectiveness on accountability of SCs.

The rest of the paper is organized as follows: The next section is literature review and hypothesis development. Methodology follows next and then results and discussion. The last section is summary and conclusion.

Literature Review and Hypothesis Development

The concept of accountability

Nkundabanyanga (2007) defines accountability as an obligation to demonstrate and take responsibility for performance in light of agreed expectations. Nkundabanyanga (2007) further notes that accountability in Uganda's public sector is generally understood to mean the process of reporting on how appropriated funds have been utilized. Whereas there are a variety of models used to explain accountability in government entities (Goddard, 2004; Romzek and Ingraham, 2000; Scott,2000; Sinclair, 1995; Stewart, 1984), this study utilizes the one suggested by Stewart (1984) as the most appropriate as it provides the nature of information required by the different constituents in the accountability relationship. Stewart (1984) explains accountability as a relationship between different parties that is to say, the party that accounts and is held to account and the party that holds the other to account.

There are a number of dimensions of accountability of public officials. Stewart (1984) set these dimensions in form of a ladder which runs from accountability by standards to accountability by judgement. In Stewart's ladder of accountability, there are five steps which translate into five dimensions of accountability. In the first three steps where public officials are required to demonstrate their compliance with statutes while observing recognized prudent practices, there is financial accountability – which is the major focus of this study, process accountability (which focuses on procedural matters and efficiency) and performance accountability (focuses on the outcomes of activities for which an account has to be provided that is to say the use of performance measures and the consequences of achieving or missing the set targets). The last two steps include programme accountability and policy accountability (these two rungs of accountability are more concerned with the achievement of goals and objectives and the quality of policies respectively). Accountability should reflect the traditional financial information in addition to output (Stewart, 1984; Dunne, 2013). Dunne (2013) further explains that financial accountability deals with compliance with expected standards and requires a minimal level of judgement to be exercised by those responsible for accountability. Financial accountability in the public sector means visibility of activities (physical output), record keeping and financial reports / annual accounts (Nyamori, 2009; Gray *et al.*, 2006, Porter, 2009; Minja, 2013).

Theoretical foundation

This study utilizes agency theory (Jensen and Meckling, 1976) in the examination of the relationship between internal audit, audit committee and accountability of SCs. The popularity of this theory gained momentum when economists explored risk sharing among individuals or groups (see Arrow, 1971). The risk sharing literature in agency theory was broadened to include the agency problem that managers have selfish interests and will exploit all possible avenues to satisfy their self-seeking interests (Jensen and Meckling, 1976). Our choice of this theory is because it reduces the entire corporation to only two participants, that is to say, the managers (agents) and shareholders (principals) and thus it can easily be conceptualized (Nkundabanyanga *et al.,* 2014; Daily *et al.,* 2003). Therefore, managers of SCs become accountable to government. In the context of this study, the theory suggests that management of SCs have selfish interests and so can manipulate financial statements and falsify other accounting records to satisfy their interests (Kaawaase *et al.,* 2016). Were this to happen, accountability of SCs would suffer. To counteract this possibility, the Government of Uganda requires corporate boards which constitute themselves into sub committees like audit committees to monitor management's mode of operation. To further monitor the way management executes its mandate, an internal audit function is put in place as a third eye of the board to review and evaluate internal controls, risk management and regulatory compliance. The role of internal audit is indeed essential because of the agency risk at functional management level. The internal auditor can watch out that management complies with the internal policies of the statutory corporation's accountability including proper accounting and controls. In the absence of an internal auditor, there is the risk that financial statements, which are one of the accountability mediums, contain material misstatements due to errors and fraud. The argument is that the internal audit presence, independence and competence would increase accountability predisposition of the corporation. This paper therefore argues that the internal auditor is also a monitor of agency risk that can arise at functional management level.

According to this theory, tax payers and donors hire agents through government to perform work and in this case shareholders and donors become principals (Nkundabanyanga *et al.,* 2014). When the interests of the shareholders are not aligned to those of agents, the resources under the control of managers are not put to proper use and in turn, accountability for such resources becomes questionable. Therefore, an audit committee is put in place to serve as a communication link between the internal and external auditor, to review and supervise internal audit systems and to review corporate financial information (Lin *et al.*, 2008). Similarly, an internal audit function is put in place to check on internal controls, regulatory compliance issues and risk management (Cooper *et al.*, 2006). Within the agency theoretic logic, financial statements and other activities of the organization should be verified by an auditor (for SCs, the auditor general) (Mzenzi and Gaspar, 2015) so that there are no material misstatements and to achieve that an audit committee and an internal audit function are put in place to assist in ensuring accountability. Tax payers and donors through government provide resources to managers of SCs with the expectation that the resources will be put to proper use. One way of ensuring resources have been put to proper use is visibility of activities or commonly known as physical output for tangible items (Nyamori, 2009; Gray *et al*., 2006; Stewart, 1984). The next way of ensuring accountability for the resources given to managers is financial reporting and proper record keeping (Minja, 2013).

Internal audit function and accountability

The International Auditing and Assurance Standards Board (IAASB) (2013), defines an internal audit function as a function of an entity that performs assurance and consulting activities designed to evaluate and improve the effectiveness of the entity's governance, risk management and internal control processes. Badara and Siti (2012) defined internal audit function as a function of an organization established with the aim of reviewing the effectiveness and efficiency of the activities of the organization, ensuring compliance with established regulations, evaluation of risk management and internal controls system of an organization.

Internal audit function can enhance accountability (Badara and Siti, 2012; Alzeban and Sawan, 2013). Agumas (2015) found that a functioning internal audit promotes accountability and thus there is a positive relationship between internal audit function and accountability. Others (e.g. Brennan and Solomon, 2008) argue that for accountability requirements to be met there must be a functioning internal audit in an organization. The Uganda Government enacted the Public Finance Management Act in 2015 which requires every government agency to have an internal audit function in a bid to enhance accountability. However, elsewhere the internal audit has sometimes failed to detect and prevent or even report fraud during the financial crisis and has been regarded as the gatekeeper that failed (Chambers and Odar , 2015). The implication of such an assertion is that it is not automatic that the internal audit will enhance accountability. On the contrary, Roussy and Brivot (2016) suggest that internal audit should be financed as this will enable it increase transparency and accountability. The suggestion by Roussy and Brivot (2016) implies that the importance of internal audit in the accountability equation cannot be overlooked. Thus in this study we try to reaffirm the relationship between internal audit function and accountability by hypothesizing that:

HI: Internal audit function is positively associated with accountability in the Ugandan SCs.

Audit committees' effectiveness and accountability

Lin *et al*. (2008) defines audit committee effectiveness as performance of audit committee roles of reviewing corporate accounting information, supervision of internal audit system and liaison with the external auditors. Further, an effective audit committee should ensure reliable financial reporting, internal accounting controls and risk management through its conscientious oversight efforts (Lary and Taylor, 2012; DeZoort *et al*., 2002). According to the Uganda's Public Finance Management Act of 2015 audit committees should review financial statements prepared by accounting officers to ensure that the disclosure in the financial statements is adequate and that fair representation is achieved; and ensure that the internal audit performs its functions. To be effective, Brennan and Kirwan (2015, p.470) suggest what audit committee should actually do in practice (Praxis). According to these authors, audit committees should:

- Review financial and other statements/reports
- Review internal controls
- Provide oversight of internal audit
- Review internal audit reports
- Liaise with external audit
- Assess external auditor independence
- Conduct of audit committee meetings
- Interact with various practitioner groups
- Disclose audit committee activities (e.g., actions and talk)

A study conducted by Nest. (2008) in the South Africa's public sector concluded that audit committees are an accountability instrument. Nest (2008) found a significant positive relationship between audit committees and accountability. The study by Lin et al. (2008) carried out in China's stock markets indicate that investors and creditors will want audit committee roles that will enhance accountability when performed. In the study by Haji and Anifowose (2016), it was found that effectiveness of the audit committee is positively associated with integrated reporting practices. In fair value literature, Abbott *et al.* (2007) theorised that the presence or existence of an audit committee in a company mitigates the risk of value manipulation. Corroborative evidence by Bedard et al (2004) suggests that an audit committee with at least a financial expert will normally protect shareholders' interest by ensuring compliance with the financial reporting standards and hence enhancement of transparent accountability. West and Berman (2006) note audit committees as having been suggested in the review and improvement of standards and procedures for financial accountability. Thus, it is hypothesized that;

> *H2: There is a positive relationship between audit committees' effectiveness and accountability in SCs.*

Control variables

The works of Bartov, Gul and Tsui (2000) suggest that failure to control for confounding variables could lead to mistakenly rejecting the hypothesis. As such we needed to control for ownership status, age and size (Number of employees). Studies conducted by Khaled et al (2014) indicate that large firms incur less marginal costs to disclose information through preparing financial reports and publishing as they are usually diverse in the scope of their business, the types of products and the geographical coverage unlike the small firms. Ownership structure was found to have a relationship with performance according to studies conducted by Tusiime et al (2011) who found out that the performance of those entities fully owned by Government was poor as compared to those partially owned. Age of the corporation is associated with accountability according to studies conducted by Sherif et al (2015).

Methodology

Design, population and sample

This study's research design is cross sectional and correlational. The cross sectional design was suited for this study because we aimed at finding out the prevalence of a phenomenon, situation, problem or attitude by taking a cross section of the population at a given time. The study population is 91 SCs (AG report, 2014) from which sample size of 73 SCs was determined using Krejcie and Morgan table (1973). A simple random sampling method without replacement was used to select the 73 corporations. Of the 73 SCs, completed questionnaires were received from 52 corporations indicating a response rate of 71.2%. This study's unit of analysis was a statutory corporation and the unit of inquiry was the Chief Internal Auditors (CIAs) and the Chief Finance Officers (CFOs). For the unit of inquiry, the male respondents were 83 (or about 63%) and the female respondents were 48 (or about 37%). About 65% had completed university education (bachelor's degree) and 28% had post graduate education. 52% were members to the Institute of Certified Public Accountants of Uganda (ICPAU), 28% were members to Association of Chartered Certified Accountants (ACCA) and 20% were members of other professional bodies like the Institute of Internal Auditors (IIA). This means that the respondents were able to comprehend the questions asked in the questionnaire and it also implies that chief finance officers and chief internal auditors are professional accountants.

To control for non-response bias, each questionnaire was accompanied by a letter providing explanations and assurances that all individual responses would be treated confidentially. Aware that non-response manifest themselves in two types; item and unit non-response, where item non-response is when certain questions in a survey are not answered by a respondent and unit non-response is when a randomly sampled individual cannot be contacted or refuses to participate in a survey, we: kept a short survey length, ensured a clear and concise wording of the questions (also utilized the results of content validity analysis), practical and appealing, placed multiple follow-up calls or email reminders up to a maximum of 3 for those delaying to answer the questionnaire. For item non-response, we carried out simple frequency runs and found that item non-response (missing values) was less than 1 % of all the questions, thus trivial to suppress the standard deviation (Field, 2006). However, even with this, the present study carried out a missing values analysis because missing data may reduce the precision of calculated statistics because there is less information than originally planned. Indeed a common concern when faced with multivariate data with missing values is whether the missing data are missing completely at random (MCAR); that is whether the missing data depends on the variables in the data set (Little, 1988). Using the E-M (Expectation – Maximisation), the MCAR, was not significant (Little's MCAR test: Chi-Square = 213.138, DF = 244, Sig. = .924). This meant that data was missing completely at random. As the missing values were for cases on different variables, it was deemed necessary not to delete those cases (because a lot of data could be lost) but instead replaced them using linear interpolation for its simplicity.

The questionnaire and measurement of variables

We collected data using a questionnaire with close-ended questions where the recording of the response in the questionnaire design needed to be considered (Sudman and Bradburn, 1982; Sekaran, 2000). This could be done in two ways. One way is to use an open-answer system which allows and encourages respondents to give their opinion fully and with as much nuance as they are capable (Sudman and Bradburn, 1982). However, we considered this approach inapplicable in this research because of the intention to calculate the mean ratings of the extent of agreement with each statement; in the alternative we considered a closed-answer format which is easier to analyse (Sudman and Bradburn, 1982). A six point Likert scale questionnaire ranging from completely disagree to completely agree designed to measure the opinion of a respondent was utilized. Although a questionnaire can only ask questions and is incapable of performing full experiments, because the data never passes through anyone's hands but those of the data gatherers and the clients it affords privacy to its subjects. Because of this advantage in addition to its usual cost advantage, the use of a questionnaire was found appropriate in data collection.

The measurement of variables is based on the review the existing literature on internal audit function, audit committees' effectiveness and accountability (see table 1 for operational definitions and measures)

[Insert table I about here]

Validity, reliability and parametric tests

We used content validity index and Cronbach's (1951) α to test the validity and reliability of the scales as measures of the study notions. Field (2009) explains content validity as evidence that the content of a test corresponds to the content of the construct it was designed to cover. The overall content validity index for this study is 0.91. The Cronbach's reliability coefficient for internal audit function, audit committees' effectiveness and accountability was $\alpha = 0.903$, $\alpha = 0.940$ and $\alpha = 0.845$ respectively. The results affirm that all the components of the instrument had an acceptable Cronbach α greater than 0.7 which indicates that the instrument was reliable (Field, 2009; Kline, 1999). To establish convergent validity, the principle components for each variable were extracted by running principle component analysis using Varimax rotation method and factor loadings below 0.5 coefficients were suppressed to avoid extracting factors with weak loadings. Prior to performing the principal component analysis for scales we assessed the suitability of the data for factor analysis based on sample size adequacy, the Kaise-Meyer-Olkin (KMO) and Bartlett tests. The results show the KMO values: internal audit function=0.831, audit committee effectiveness = 0.828 and accountability = 0 .634. Bartlett's test of Sphericity in all scales reached statistical significance ($p<0.05$) (significant value was 0.00 for each scale). Collectively, these results which are presented in Tables II-IV supported the factorability of the correlation matrices because the correlation matrices are significantly different from the identity matrices in which the variables would not correlate with each other. The determinants for all the three matrices were greater than 0.01 implying that there was no multicollinearity or singularity between variables (KULCSÁR, 2010). It should be noted that the main aim of performing factor analysis in this study was to reduce data to a manageable level as recommended by Field (2009).

[Insert Tables II – IV about here]

The Model

The study utilizes ordinary least squares (OLS) regression in investigating the effects of internal audit function and audit committees' effectiveness on accountability. The preference for OLS is dictated by the nature of the outcome variable. Namely, given that the dependent variable is not a binary indicator i.e. not taking on values of 0 and 1, applying the ordinary least squares estimator would not produce biased estimates. Therefore, we did not need to use a discrete choice model, either probit or logit (logistic). To examine the association between the internal audit function, audit committee effectiveness and accountability, we specified the following multiple regression model (Table I):

$$ACC = \beta_0 + \beta_1 IAF + \beta_2 ACE + \beta_3 OWNP + \beta 4AGE + \beta_5 SIZE + \varepsilon j$$

Findings

Descriptive statistics

Table V presents the summary descriptive statistics of internal audit functions, audit committee roles and accountability in SCs that is to say, minimum, maximum, mean and standard deviation values. The means and standard deviations are reported since the means epitomize a summary of the data and standard deviations show how well the means epitomize the data (Nkundabanyanga et al, 2014; Field, 2009). The mean for internal audit function is 5.276 with a standard deviation of 0.442, that for audit committee effectiveness is 4.368 with a standard deviation of 0.979 and that for accountability is 5.549 with a standard deviation of 0.251. Mean scores of the study variables range from 3.974 to 5.838 with standard deviations from 0.223 to 1.336. According to Field (2009) and Nkundabanyanga et al (2015), when 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. A minimum of 1.00 means that audit committees in some corporations do not communicate with external auditors.

[Insert table V about here]

Correlation analysis results

The correlations reveal that internal audit function is positively associated with accountability (r=0.533**, p<0.01) (see Table VI). This result substantiates *H1* which states that there is a positive relationship between internal audit function and accountability. Findings in table VI further indicate that, there is a positive relationship between audit committees' effectiveness and accountability in SCs (r= 0 .361**, p<0.01). This result suggests that *H2* which states that there is a positive relationship between audit committees' effectiveness and accountability is substantiated. However, there is a weak negative relationship between ownership status, age of the corporation, firm size and accountability in Uganda's SCs. This suggests that the results are not mystified by the control variables of this study.

[Insert table VI about here]

Regression analysis results

The regression analysis was carried out to establish the degree of influence (contribution) of the predictor variables onto the criterion variable as displayed in the Table VII. Overall, audit committees' effectiveness and internal audit function explain 24% of the variance in accountability. However, only internal audit function is a significant predictor of accountability. As we used a hierarchical regression analysis tool we established the contribution of each independent variable on accountability. Model 1 in Table VII is the starting model with only control variables and results indicate that control variables do not explain any significant variance in accountability. Again this means that the research models are not sensitive to confounding factors and the models are highly credible. The standardized β values were used in this study and not the unstandardized β because, the later takes on real values with no common measurement and yet this study had control variables which were measured differently from the study variables. Standardization allows the researcher to compare data when different units of measurement have been used (Field, 2009). Model 2 suggests that audit committees' effectiveness is a significant predictor of accountability at p =.001 or better but is not significant in Model 3 where internal audit function is significantly predicting accountability. This implies that audit committee effectiveness cannot significantly predict accountability once an internal audit function is also present. However, internal audit function with or without audit committees will predict accountability in SCs.

Discussion

According to the present results, the mechanism through which internal audit and audit committee contribute to the accountability of SCs is such that:

1) Both audit committee and internal audit contribute to positive variances in accountability of SCs but the contribution made by audit committee will not be significant when the internal audit is present. However, in the absence of internal audit, the audit committee of the board will significantly influence positive variances in accountability of SCs.

2) The contribution of internal audit to accountability is better observed through their proper review of internal control systems of SCs, ensuring of compliance with established regulations such as the PFMA of Uganda, for the case of Uganda and contributing to risk management.

3) The contribution of audit committee is better observed through their effective review of corporate accounting information and liaison with external auditors.

These results suggest that accountability of SCs is more associated with internal audit function than the SCs's audit committees. According to the present results, audit committees' effectiveness is not observed through supervision of internal audit system (Lin et al., 2008) in the case of Uganda. This means that Uganda's SCs audit committees may not be exercising their oversight efforts fully. If accountability of SCs in Uganda is better observed through proper record-keeping, physical evidence (physical output or visibility of activities (Nyamori, 2009)), it is difficult to see how the diligent oversight will be exercised by the audit committee that may not be supervising the internal audit system. Therefore, within the agency theory logic, the internal audit is an efficient monitor of agency risk that can arise at functional management level. The proponents of a combined internal assurance (internal and audit committee functions) (see, King III, 2009) might consider the context in which the system is being fitted. In a context where the audit committee does not effectively monitor internal audit systems, the internal audit function is rather a better predictor of corporations' accountability than the audit committee.

The accountability issue explored in this study highlights that the nature of African economies is such that internal audit function impacts on accountability of SCs and might explain that accountability failures have been a result of lapses in the internal audit function with respect to their mandate of proper review of controls, ensuring compliance with the regulations and adequate participation in risk management. The results highlight the need to keep proper accounting records (record keeping) and preparation of financial statements (reports) as Dunne

(2013) has argued, for accountability purposes along with physical outputs or activities that are amenable to accountability through mere visibility or access or use (Nyamori, 2009). The results reported in paper therefore highlight to the praxis of the work of audit committees and internal auditors on the African scene. For example the results show that among the much praxis of audit committees suggested by Brennan and Kirwan (2015), only the review of financial and other statements/reports and liaison with external audit are relevant for audit committees in Uganda's SCs.

The results of this study makes it obvious in the context of this study whereby management can manipulate information, if not befogging the accountability in Uganda (Auditor Generals reports, 2011-2015) which justifies the presence of agency risk(s) and proving the relevance of agency theory – internal audit must be highly effective in order that accountability is ensured (Chambers and Odar, 2015).

Summary and Conclusion

The objective of this study was to investigate the contribution of internal audit function and audit committees' effectiveness on accountability in the Statutory Corporations (SCs). Through cross sectional and correlational study design and use of a questionnaire survey of 52 SCs in Uganda, the study found that internal audit function significantly contributes to accountability of SCs in Uganda and audit committee effectiveness is not where effective internal audit is present in such organisations. However, the study finds that audit committee effectiveness significantly contributes to accountability when internal audit function is not present.

Overall, the findings of this study have important implications for academics as well as policy makers regarding SCs. For academics, our results suggest that internal audit function is more important for accountability than audit committees, and may be highly effective in alleviating agency problems bedeviling SCs. For policy makers like the Government of Uganda, findings are important for audit committees' policy development for example, in terms of the appointment authority of the audit committees, the reporting line of the audit committees as well as the roles of audit committees. In Uganda for example the PFMA (2015) provides for the supervision of audit committees and internal audit function by the Internal Auditor General, yet audit committees under the Uganda's PFMA are supposed to supervise internal audit function; this makes audit committees redundant and may explain why audit committees effectiveness is not a significant predictor of accountability by SCs when effective internal audit is present.

Like any study, ours also has limitations the reader should be aware of. First, this study was limited to SCs of Uganda and it is possible that the results are only applicable to Uganda's SCs. Second, the use of Chief Internal Auditors and Chief Finance Officers as respondents could have introduced some bias although we strongly believed that these could provide some more objective assessment of audit committee effectiveness. Lastly, the use of hierarchical regression is prone to problems associated with sampling error. However, the likelihood of these snags is lessened by our rigorous interface with the data. Well, the results of this study probably provide the initial evidence of the exact mechanism through which internal audit function and audit committee ensure accountability of SCs on the African scene.

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Table I: Operating definitions of the study variables

Variable			Measurement	Definition	Sample item scales
Global variable	***Acronym***	***Dimensions***			
Internal audit function	IAF	Review of internal control systems	Respondents' mean rank of the 6 items of information included in the questionnaire on a six-point Likert scale	A function of an entity that is charged with the processes of risk management, compliance with applicable laws and regulations, and evaluation and improvement of internal controls (Agumas, 2015, Leung & Cooper, 2011).	The internal audit confirms all the documentations
		Regulatory compliance	Respondents' mean rank of the 2 items of information included in the questionnaire on a six-point Likert scale		Internal audit submits a work plan to the audit committee
		Risk management	Respondents' mean rank of the 2 items of information included in the questionnaire on a six-point Likert scale		Internal audit contributes to the improvement of risk management.
Audit committees' effectiveness	ACE	Review of corporate accounting information	Respondents' mean rank of the 4 items of information included in the questionnaire	An effective audit committee is a subcommittee of the board that performs the roles of reviewing	The audit committee develops an understanding of the economic substance of unusual

			on a six-point Likert Scale.	corporate accounting information, supervision of internal audit systems and liaison with the external auditors (Lin et al.,2008; Brennan and Kirwan, 2015)	transactions.
		Liaison with external auditors (Auditor General)	Respondents' mean rank of the 3 items of information included in the questionnaire on a six-point Likert Scale.		Audit committee forms a forum to link directors with the auditors.
Accountability	ACC	Physical output / Visibility of activities	Respondents' mean rank of the 2 items of information 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).	This corporation's activities reflect economy.
		Financial reports	Respondents' mean rank of the 2 items of information included in the questionnaire on a six-point Likert Scale.		This corporation prepares a statement of cash flows.

		Record keeping	Respondents' mean rank of the 2 items of information included in the questionnaire on a six-point Likert Scale.	This corporation posts transactions from journals to the ledgers
Ownership of the corporation	OWNP		Dichotomous variables, 1 if the company is fully owned by the government; "0" partially owned	
Age	AGE		Dichotomous variables, 1 if the company is more than 10 years old; "0" otherwise	
Size	SIZE		Dichotomous variables, 1 if the company has more than more than 50 employees; "0" otherwise	
εj			Error term	

Table II: Rotated Component Matrix for Internal Audit Functions

Item	Component: Review of internal control systems	Component: Regulatory compliance	Component: Risk management
The internal audit confirms all the documentations of this entity	.878		
The internal audit always checks the authorization of all expenditures	.844		
The internal audit safeguards this corporation's tangible assets from misuse	.807		
The internal audit ensures that internal controls promote proper segregation of duties	.656		
Internal Audit updates staff on changes in laws and regulations	.633		
Internal audit gives assurance on risk management processes	.624		
Internal audit submits a work plan to the audit committee		.899	
Internal audit submits a report on the execution of the work plan to the audit committee		.799	
Internal audit commends that financial statements are prepared in accordance with IFRS/IPSAS			.860
Internal audit contributes to the improvement of risk management			.750
Eigen values	**4.634**	**1.534**	**1.171**
Percentage of variance	**36.170**	**19.998**	**17.227**
Cumulative percentage	**36.170**	**56.169**	**73.395**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			**.831**
Bartlett's Test of Sphericity			**235.916**

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Source: Primary data

Table III: Rotated Component Matrix for Audit Committee Effectiveness (roles' performance)

Item	Component: Review of corporate Accounting information	Component: Liaison with external auditors
The audit committee develops an understanding of the economic substance of unusual transactions	.905	
The audit committee has the financial expertise to review the corporate financial information	.899	
The audit committee advises on the application of accounting policies	.869	
The audit committee advises on the selection of the corporation's accounting policies	.834	
Audit committees form a forum to link directors with auditors		.906
Audit committees set the scope of the external auditors		.860
Audit committees handles the complaints of external auditors especially in regard to obtaining the necessary information		.849
Eigen values	**4.512**	**1.347**
Percentage variance	**46.870**	**36.837**
Cumulative percentage	**46.870**	**83.707**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.828**
Bartlett's Test of Sphericity		**287.734**

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Source: Primary data

Table IV: Rotated Component Matrix for Accountability

Item	Component: Record keeping	Component: Physical output	Component: Financial reports
This corporation posts transactions from journals to the ledgers	.923		
This corporation maintains up to date journals	.903		
This corporation's activities reflect economy		.899	
There is always tangible output as a way of accountability		.871	
This corporation prepares a statement of cash flows			.825
This corporations prepares a statement of financial performance			.783
Eigen values	**2.025**	**1.360**	**1.231**
Percentage variance	**28.490**	**26.543**	**21.910**
Cumulative percentage	**28.490**	**55.034**	**76.944**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			**.634**
Bartlett's Test of Sphericity			**381.687**

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Source: Primary data

Table V: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Ownership status of a company	52	0	1	.98	.139	-7.211	.330	52.000	.650
Age of the corporation	52	0	1	.08	.269	3.271	.330	9.043	.650
Number of employees	52	0	1	.25	.437	1.189	.330	-.611	.650
Review of internal control systems	52	2.75	6.00	4.9249	.76737	-1.233	.330	1.490	.650
Compliance with regulations (e.g. Public Finance Management Act)	52	4.00	6.00	5.4521	.58275	-1.116	.330	.299	.650
Risk management	52	4.42	6.00	5.4506	.40445	-.846	.330	.576	.650
Internal Audit Function	52	4.14	6.00	5.2759	.44216	-.990	.330	1.224	.650
Review of Corporate Accounting Information	52	2.63	6.00	4.7619	.88332	-1.070	.330	.520	.650
Liaison with external auditors	52	1.00	6.00	3.9744	1.33589	-.578	.330	-.531	.650
Audit committee effectiveness	52	1.81	6.00	4.3681	.97921	-.776	.330	.256	.650
Record keeping	52	4.67	6.00	5.6539	.34858	-.891	.330	.029	.650
Physical output and activities	52	3.75	6.00	5.1542	.54074	-.488	.330	-.063	.650
Financial Reporting	52	5.25	6.00	5.8381	.22291	-1.298	.330	.817	.650
Accountability	52	5.05	6.00	5.5487	.25121	.019	.330	-.544	.650

Table VI: Zero order

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Accountability (1)	1													
Record keeping (2)	.637**	1												
Physical output and activities (3)	.824**	.195	1											
Financial Reporting (4)	.387**	.116	.053	1										
Internal Audit Function (5)	**.533****	.027	.644**	.199	1									
review of internal control systems (6)	.515**	.063	.612**	.158	.861**	1								
Compliance with regulations (7)	.288*	-.099	.396**	.169	.787**	.498**	1							
Risk management (8)	.355**	.110	.377**	.112	.512**	.210	.195	1						
Audit committee effectiveness (9)	**.361****	.034	.499**	-.043	.553**	.635**	.410**	.017	1					
Review of Corporate Accounting Information (10)	.489**	.056	.616**	.073	.704**	.678**	.541**	.243	.818**	1				
Liaison with external auditors (11)	.206	.013	.324*	-.111	.345*	.482**	.244	-.136	.925**	.538**	1			
Ownership status of a company (12)	-.035	.198	-.178	.003	-.054	-.106	.069	-.076	-.188	-.145	-.179	1		
Age of the corporation (13)	-.008	.080	.018	-.197	-.054	-.011	.055	-.235	.094	.048	.106	.040	1	
Number of employees (14)	-.242	.032	-.242	-.281*	-.173	-.071	-.253	-.068	-.120	-.120	-.097	.081	.167	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table VII: Hierarchical regression results

	Model 1	**Model 2**	**Model 3**
Constant	5.611	5.108	4.061
Audit Committees' Effectiveness		.346**	0.088
Internal Audit Function			0.460**
Control Variables			
OWNP	-.017	.047	.018
AGE	.034	-.009	.034
SIZE	-.246	-.203	-.159
Model *F*	1.022	2.452	4.221**
Adjusted R^2	0.001	0.102	0.240
F change	1.022	6.399**	9.517**
R^2 change	0.060	0.113	0.142
Durbin Watson			0.947