THE EFFECT OF FIRM CHARACTERISTICS ON THE RELATIONSHIP BETWEEN ACCOUNTING RISK MANAGEMENT AND PERFORMANCE OF STATE ENTERPRISES IN UGANDA

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Abstract

The broad objective of this research was to determine the effect of accounting risk management, the mediating influence of the internal controls and effect of firm characteristics on this relationship of firm performance of state enterprises in Uganda. The specific objectives was; to examine the relationship between accounting risk management and performance of state enterprises in Uganda; to determine the moderating effect of firm characteristics on the relationship between accounting risk management and performances of state enterprises in Uganda and to assess the joint effect of accounting risk management, firm characteristics and internal controls on performance of state enterprises in Uganda. This study was anchored on the positivist paradigm since it is rational and objective and is generally characterized by the formulation and testing of the hypotheses. The population comprised of 34 state enterprises from 11 sectors, however, 32 responded, reflecting response rate of 94 percent. Primary data

was collected using semi-structured questionnaires and secondary data was derived from annual final accounts of state enterprises and annual indices reports from Transparent International Uganda for Corruption Perception Indices from 2015 to 2019. The unit of analysis were state enterprises and unit of inquiry were, Chief Executive Officers, Finance Managers, Chief internal auditors, Human Resource Managers and Procurement Managers. Methodology used descriptive and cross-sectional survey design to get information from state enterprises. Cronbach coefficient assessed the internal consistency and items of α ≥ 0.7 were considered. Equally a Contend Validity Index with ≥ 0.7 was also considered. The diagnostic tests, tested the relationship between the variables; normality was tested using P-P Plots, histogram and Shapiro-Wilk test; multicollinearity, were tested using Variance Inflation Factor (VIF) of < 10, tolerence statistics between 0-10 and Conditional Index Number <30. Homoscedasticity were tested by plot of residuals and Levene test-the equality of variances tested the null hypothesis. The findings showed accounting risk management had significant influence on performance of state enterprises; there was significant intervening effect of internal controls on this relationship; there was no moderating effect of firms' characteristics on the relationship; and there was a joint effect of accounting risk management, internal controls and firms 'characteristics on performance of state enterprises. Through this study, it is recommended that managers of state enterprises should consider aggressive accounting risk management practices to maximize the use profitability, liquidity, managerial efficiency, budgetary controls and reduction frauds so as to improve their performance. Therefore, it is prudent that accounting risk management practices and firm characters be embraced to increase profitability of state enterprises.

Keywords: Accounting risk management, firm characteristics, internal controls and firm performance, state enterprises

INTRODUCTION

Globally, state enterprises account for 25 percent of investment, five percent of employment, and up to 40 percent of output in some countries (Harelimana, 2017). Zhao, Qu and Huang (2016) assert that given the sustainable expansion of economic globalisation, performance of state enterprises has become a significant strategy for swift development of economies, enlargement of markets and brand effect. This demonstration that performance of state enterprises has become an important means for economies to improve competitiveness, and gradually become an important force to lead the economic future propensities. Accounting risk management (ARM), firm characteristics and internal controls have been expressed as significant attributes to improve performance of state enterprises. Nahar, Azim and Jubb (2020)

posit that risk disclosure and management have been of increasing importance to performance of firms and raised significant interest around the globe since major corporate collapse in 2007/2008. As well, risk management is at a fast clasp establishing itself as a dominant paradigm of enterprises (Jankensgard, 2019). Similarly, several theoretical and pragmatic studies have shown evidence that national economic growth and improved performance of state enterprises is determined by internal controls and firm characteristics (Romer, 1990; Westmore, 2013; Galindo & Méndez, 2014).

Studies show different economies greatly vary in their economic features, competitive environment and performance; thus, it is imperative to evaluate the probable findings of accounting risk management, firm characteristics, internal controls and performance of state enterprises in Uganda. This study was anchored and guided by diverse theories namely; institutional theory, agency theory, stewardship theory and risk management theory. A predominant factor underlying the rapid growth of institutional theory is its wide range of applicability in the literature of organization theory (DiMaggio & Powell, 1991). The theory therefore analyses the relationship between ARM, firm characteristics on performance of organizations as it is an affluent lens of understanding the applicability of the processes and structures (DiMaggio & Powell, 1983; Tolbert, 1985; Arwinge, 2013). Equally, agency theory is paramount to the study given that the enterprises have limited resources (time, experts with specialist knowledge, financial) to perform specific required activities thus leading to contractual arrangements which contain important elements of agency (Jensen & Meckling, 1976; Fama, 1980; Fama & Jensen, 1983). The agency theory is used to envisage the relationship amongst agents and principals. Therefore, the theory predicts the relationship between internal controls, character of ownership and performance of organizations because as agents, they are to safeguard the interests of the principal. Fama and Jensen (1983) confirm that the problem between the principal and the agent arises when the interests of both party's conflict. Therefore, the theory explains and conceptualizes the role and behavior of agents including managers and directors of state enterprises as embedded in firm characteristics.

The SOX Act 2002 or known as the SOX or Sarbox, was enacted in the USA as a law and was globally accepted to shield investors from fraudulent accounting activities by organizations (Kimmel, Weygandt & Kieso, 2011). The Act as well covers protects auditor independence, corporate governance, internal controls systems assessment and improved disclosures. Furthermore, Sarbanes-Oxley Act of 2002 controls and checks organizational frauds. The Act has shaped the public enterprises accounting oversight board to supervise the accounting sector, hence adoption of stewardship theory. The Act was approved because of accounting scandals at Enron, WorldCom, Global Crossing, Tyco and Arthur Andersen, all

which were corporations that caused losses in billions of dollars to corporate and investors (Schreyer, 2019) as a result of ownership structure and size of business which they were unable to control. The enormous losses destructively affected financial markets and overall investor faith.

The World Bank Report (2015) on refining public sector financial administration in emerging countries and emergent economies, states that, in the early 1990s, as the government of Pakistan pursued its agenda of privatization of state enterprises and removing regulations in the economy, they realized, there was an imperative reason to start financial supervision and governance improvements in the public segment. There were serious failures in financial data, systems and employees' skills inabilities resulting into unrealizable planning, budgeting and reporting, and in unproductive cash controls. The cash positions, assets and debt positions were unreliable and the liquidity ratio was also very low. There were as well unknown commitments and obligations. Annuities and accurate records were not maintained to date, triggering irregular resource distribution in expenditure. This resulted to inefficient governance structures and accountability. Bayirima (2015) posits that governments should recognize that the effectual usage of public resources depends on the availability of appropriate and pertinent financial management of enterprise data. Azzal and Mazza (2012) assert that public institutions ought to adopt generally accepted accounting practices (GAAPS) and auditing principles, best practices and morals to produce financial statements that are free from misstatements.

Empirical studies show that accounting systems play a critical function in any organization especially in measurement, evaluation, knowledge management, assumption of liabilities, control of assets and equity (Kobia, Vanessa, Wiebke, & Aykut, 2017). These accounting systems should review the risk-based statements and analysis in line with the country's laws and GAAPs. Therefore, successful implementation of accounting systems requires internal controls and procedures in key technical areas to avoid biased financial performance reports (Perols, 2011). This will lead to firm transformation and realignment with improvement in financial analysis while addressing systematic risk (Goshan & Rasid, 2012; Cao, Leng, Feroz & Dalaros, 2015; Bauwhelede & Willkens, 2018). Jones and Library (2011) affirm that close transformation and firm realignment addresses systematic risk through improvement of analytical reporting tools using enhanced information technology tools to attain accurate reports. The state enterprises in Uganda are formed and set-up by Acts of Parliament with the objective of offering goods and facilities that may not be availed by the private sector to the public (Nabukeera, Boerhannoeddin, Raja, & Binti, 2014). Kibwikyo (2008) adds that an Act is a statute instituted by Parliament of Uganda to officially create an entity that follows certain procedures. However, the state enterprises so far created have not lived to their expectations;

they continue to persistently make losses. The Auditor General's (AG) report for financial year 2018/2019 presented alarming financial deficiencies by most of the state enterprises. This has attracted public outcry regarding the declining performance for many years running (Auditor Generals Reports, 2009 to 2018). These depressing results were attributed to lack of ARM strategies, inefficient internal controls and corruption (Kaplan & Norton, 2015).

Performance is an approach of defining the degree to which organizational set objectives are achieved in a precise period by utilizing its resources (Bauwhede, Barney & Tyler, 1991) to generate profits (Kinyua, 2016). Firm performance is how sound the organization utilizes its resources as a primary mode of business to generate income and profits. Ural and Acaravic (2015) describe performance as economic values resulting from the relationship among attributes, actions and the age, size and ownership of the organization. There are several factors, that need to be considered while distinguishing performance of state enterprises. To assess performance of state enterprises sector, the study used financial and non-financial indicators to measure performance of state enterprises using significant parameters; profits, liquidity, budget variances, management efficiency and corruption. The parameters were adopted because they were found to be appropriate to adequately assess the soundness of state enterprises. It is emphatic that managers should act in good faith as agents and good stewards of the firm by applying intuition theory to enhance performance. Stewardship theory is a human model which describes the association amongst principal and steward. Jensen and Meckling (1976) agree that managers should apply agency theory, a principle that explains and resolves issues in the relationship between principals and their agents. Ordinarily it is from this perspective that the managers as agents and stewards safeguard the firms to make profits and have good financial health (Harelimana, 2017).

Baqar and Atiqa (2017) describe performance as a measure of efficiency to meet organizations' obligations whenever they fall due by ensuring sound liquidity, solvency and profitability as well as maintaining the positive value of assets. Agency theory denotes that agents need to exercise due diligence to satisfy the shareholders for continued operations and business focus (Frederick, 2014; Kaplan & Norton, 1992; Venkatraman & Ramanajam, 1986). Kaplan and Norton (2015) view financial performance as profits that result from positive outcomes that often keep the business afloat for a foreseeable future. Brownell (2015) adds that profits measure income less expenses for a given period of time as well as observing budget variances of an on-going concern. Epstain and Mcfarlan (2015) state that liquidity is to maintain the day-to-day operations afloat as the organization meets its obligations when they fall due. Ongore and Kusa (2013) attest that budgets are forecasts and estimates of income and expenditure that measure budget variances and diversion of activities. This may be due to

inaccurate and improper accountability leading to management inefficiency as a result of corruption. Dorminey, Fleming, Kranacher and Riley (2012), Bellringer, Ball and Craig (2011) posit that corruption, being a form of dishonesty executed by an individual entrusted with authority often to achieve personal benefits and may comprise bribery and embezzlement, affects performance.

The state enterprises in a country are part of the economy mandated to provide government services for the benefit of the public (Nabukeera et al., 2014). In Uganda, state enterprises are formed by Act of Parliament with the objective of giving services and goods to the public at a profit or surplus. The services include: collection of taxes, public healthcare, public education, public transit (road, railway and air), national security services, disaster management, and urban planning (Kibwikyo, 2008). The state enterprises are formed to meet socio-politico-economic objectives or correct market failure where such services cannot cost-effectively be provided by private investors (Kobia, Vanessa, Wieble & Aykut, 2017). In Uganda, the government under the Public Enterprise Reform and Divesture Act (PERDA) 1993, privatized most of the parastatals but retained some as state enterprises. The governance structure of state enterprises generally revolves around the board of directors (BOD) chaired by the minister, an executive director answerable to BOD, and support staff answerable to CEO. The accounts of the state enterprises are audited annually by the office of Auditor General (OAG) whose report is presented to the Parliament. The Parliamentary Accounts Committee (PAC) then scrutinizes the Auditor General's report and calls on CEO and other officials of the state enterprise to answer any questions and provide information regarding accountability. The law governing each state enterprise generally stipulates that appointments to the Board will be made by the line minister. In practice, the appointments are politically influenced and are regarded as patronage (Auditors General Reports - 2009-2018).

Research Objectives

The major purpose was to examine how ARM, firm characteristics and internal controls and their affect performance of state enterprises in Uganda. The specific objectives were to:

(i)   Examine the relationship between accounting risk management and performance of state enterprises in Uganda.

(ii)   Determine the effect of firm characteristics on the relationship between accounting risk management and performances of state enterprises in Uganda.

(iii)   Assess the joint effect of accounting risk management, firm characteristics and internal controls on performance of state enterprises in Uganda.

LITERATURE

Theoretical Review

Scholars and accounting risk management practitioners agree that there is a more "varied and complex" association among the firm characteristics and performance than can be dealt with in each individual stewardship theory (Nicholson & Kiel, 2007). Neither the general model nor the links between the two variables can be fully explained by a single theory. The conceptualization in this study is supported by the agency, the upper echelon, the convergence of interests, the entrenchment, and stewardship theories.

Institutional Theory

The institutional theory is a theoretical perspective that explain and focuses on the design and implementation of core control procedures and practices in organizations (Fox & Hamilton, 1994). Meyer and Rowan (1977) and DiMaggio and Powell (1991) affirm is a social, political and economic system that operate and gain their legitimacy. According to the theory, organizations adopt management practices and systems that are deemed reasonable by different organizations in their respective industries (Etengu & Nasieku, 2015). Hence, firm practices may be a direct image of, or response to, guidelines, systems and procedures found in their broader environment.

According to Arwinge (2013), the management is not only concerned with risks and rewards and cost-benefits, but also examines the management attitudes, firm traditions, and industry standards embracing strategies for new control practices. The theory also guides the conceptualization of size, age and ownership tenure as exhibiting a probable significant impact on board structure and organizational performance (Hogan, Rezaee, Riley & Velury, 2008). This study is also anchored on the institutional theory, which states that firm characteristics and internal controls are inclined to social expectations. The theory thus argues that state enterprises embrace a holistic institutional model as a system that predicts how ARM, firm characteristics, and how internal controls affect performance.

Agency Theory

Jensen and Meckling (1976) as advocates of agency theory viewed organizations as a complicated series of connections of contracts between different situations. The Institute of Chartered Accountants (ICA) (2005) explains that agency problem arises due to lack of information, self-interest, lack of trust, and temptation to pursue personal goals by agents. The concept has extensively been adopted by different scholars and researchers to examine the information asymmetry between principals and agents (Donaldson & Davis, 1991; Selznick,

1994). It is also a delegation of authority from the owners to the managers to run daily operational activities. The agency theory states that an organization constitutes a set of interrelated contracts between the managers and principals who have been authorized to control the significant body of work associated with these resources under the principal-agent framework (David & Slyke, 2007). Agency theory also covers the analysis of the organization to include managerial motivation to separate ownership and control in organizational governance (David & Sylke, 2007).

The agency theory in corporate governance states that corporate executives have a moral duty to act in the best interests of the parties they represent more so the shareholders. According to Morck, Shleifer and Vishny (1988) agency relationship influences major decisions which may affect the interest of principals as they are not involved in financing decisions (leverage) and employment of staff to implement strategies being pursued. The theory was therefore useful for this study because shareholders delegated daily operational responsibilities to management henceforth the need for strong internal controls to safeguard stockholder interests (Yasuda, 2005: David, & Sylke (2007). In addition, the capital structure under agency theory enhances, performance (Okiro, Aduda & Omoro, 2015). Founded on the agency theory, the study builds a complete framework and upholds that ARM affects firm performance by integrating compliance and corporate governance structure into the ARM model. The theory therefore supports the existence of ARM, firm characteristics, and internal controls but fails to address social benefits, which is addressed by stewardship theory.

Stewardship Theory

Donaldson and Davis (1991) as developers of stewardship theory advance that organizational shareholders' wealth is protected and maximized by the steward. The stewards protect and maximize shareholders' wealth through organizational performance thus maximizing the utility functions of stewards. The stewardship theory contrasts from the agency theory in that it not only examines individualism (Donaldson, Davis & Preston, 1991), but the top management's role as stewards is to strive and attain organizational goals. The stewardship view opines that stewards are satisfied when organizational goals are achieved (Donaldson & Davis, 1991). Van Slyke (2007) posit that stewardship theory appreciates the value of structures in ARM practices coupled with firm characteristics that enable the steward and offer managers the highest autonomy based on trust. Gupta et. al. (2016) opine that executives or employees act more autonomously in order to increase the shareholders' returns. In addition, directors and executives also achieve their career goals when they are perceived as effective stewards of

their companies (Selznick, 1994). The cost incurred to mitigate agency problems (moral hazards and information asymmetries) is lower when there is a direct participation by the owners in organizational management and there exists a normal sequence of principal-agent' interest with risk and growth prospects (Meckling & Jensen, 1976). From the above, it can be argued that unlike the agency theory, the stewardship theory does not highlight the need for agency or monitoring costs such as establishment of an internal audit function (Ondigo, 2016). Stewardship theory therefore advocates for collaboration between the board, management and staff as major attributes of internal controls and ARM as tools to increase performance (Cohen, Krishnamoorthy & Wright, 2015). However, unlike institutional theory, it does not address the holistic model of the organization.

Risk Management Theory

This integrated perspective to risk management was developed in the 1960's and propounded in the 1970's and 1990's (Mehr & Hedges, 1963; Ehrlich & Becker, 1972; Miller, 1992). It was formalized and integrated and adopted by COSO (2004) in its framework. The theory assumes accounting risks have either direct or indirect effects on organization's survival (Coleman, 2009). One would expect the accounting risk indicators to influence organization's profitability if there is no effective and efficient ARM strategy (Ngugi, 2015). The theory identifies the major source of loss or profitability risk that affects the net-value of assets. Subsequently, liquidity risk being the inability to meet obligations when they fall due, affects productivity. Regulators are more concerned with overall risk than specific risk of portfolio elements because directors can window-dress the organization's situation. The requirements of total risk is a combination of risk factors associated with some type of investment decision in portfolio pointed out by Markowitz theory (1970) that has impact on performance. Kotler (2014) posits that risk management model adopts two major perspectives to measure risk, situation analysis and value at stake (situation analysis method does not need distribution risk assumption. Computation is highly subjective and presumes that impending outcomes will be similar to the prior ones (Anas & Fauziah, 2014). Probable losses are evaluated using asset return distribution in the value-at-risk (VAR) approach. According to Harelimana (2017) analytical VAR method and Monte-Carlo simulation are the two common approaches of computing VAR as they allow the management to forecast and measure the financial risk within the firm portfolio over pre-determined time span. The theory consequently looks at firm characteristics and internal controls as a gateway for enhancing performance.

Empirical Review

Studies that have looked at the variables' direct relationships have reported inconclusive results, for instance the works of Muhammad, Masron and Majid's (2015) examination of the relationship between firm size and firm performance in business entities in Sweden found that firm characteristics were in-significant on performance. Another survey by Gottardo and Mojsello (2011) on the effect of the fragmentation of the entrepreneurship function and firm characteristics on business performance of 50 micro-finance institutions in 49 countries found out that ownership structure did not contribute much to performance. The study could have adopted ARM and firm age and to predict performance or made comparisons with public enterprises.

Odalo, Achoki and Njuguna (2016) evaluated the effect of firm size and management efficiency on firm performance of 20 registered agricultural companies in Kenya. The study looked at financial reports of ten years (2003 to 2013) using Ordinary Least Squares (OLS) model to analyse data. Firm size indicator used total assets (log of assets) as a measure. Findings revealed positive relations between firm size and firm performance. Firm size indicated positive relationship on all the parameters on performance, indicating that larger companies had a competitive advantage over small firms.

Yasuda (2005), in a study on 80 public entities in Japan, found that, ownership distinguishes the best performing entities in their growth and also established that organizations with ownership participation survived in businesses. However, the results would have been different if he used firm age and size as moderating indicators and alongside accounting risk management indicators (these are; risk-based financial statement reviews, compliance and corporate governance, operationalization of accounting policy, financial reinstatement support, complex accounting analysis and reporting, close transformation and firm realignment) to enhance performance. Amato and Wilder (2012) in their survey on 120 public enterprises in Indonesia established that enterprise risk management indicators and firm size contribute to higher performance as a result of organized internal control structures. The study could have improved if they had also used ARM as a predictor variable and firm age and ownership for different results on performance
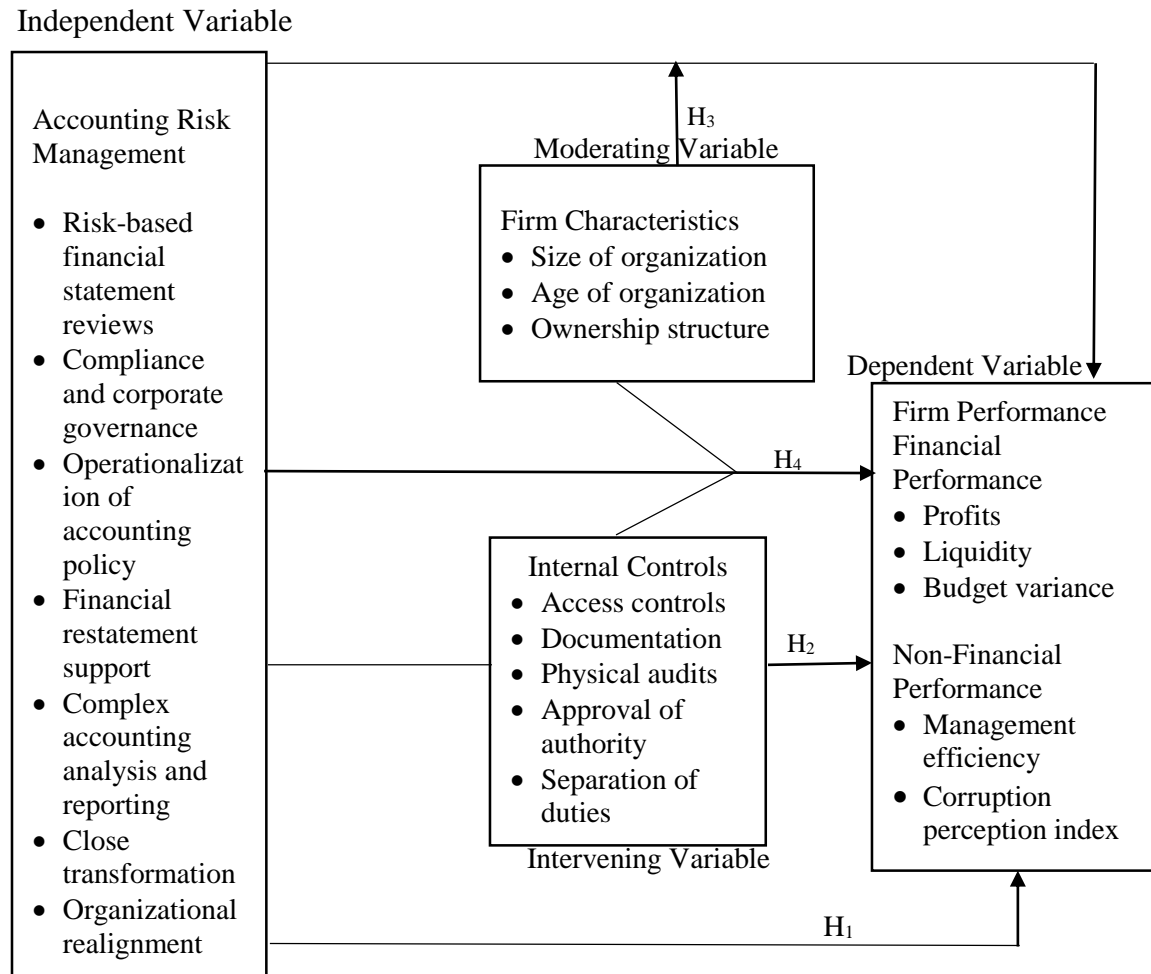
Research Gaps

The review of existing literature connecting accounting risk management (ARM), firm characteristics, and internal controls on performance of state enterprises is narrow. Epstein and McFarlan (2016) discussed ARM in state enterprises in the public sector but did not embrace internal controls and firm characteristics in their study which this study has addressed. Elbama

(2017) studied ARM on performance with no focus on the influence of access controls, documentation, approval of authority, and separation of duties to improve performance. Desouza et al. (2012) focused on performance of internal controls but did not apply ARM and firm characteristics affect performance. Wakaisuka (2016) focused on internal controls in financial institutions but did not apply ARM and internal controls effect on performance. Krishnan and Visvanathan (2014) studied internal control deficiencies on performance in banks but did not include ARM and firm characteristics. Nabukeera et al. (2014) on privatization of parastatals in Uganda, focused on the effect of internal control systems on performance but did not apply ARM and firm characteristics. Evidence by various studies indicate different variables used to measure performance, but none has investigated, ARM, firm characteristics, and internal controls on performance of state enterprises in Uganda. Fadun (2017) in his observation of significance of organizational governance in particular reference to developed and developing economies, established that corporate governance as a risk management instrument, improves firm performance and protects stakeholders' interests. Adeyemi and Adenugba (2013) studied influence of corporate governance on performance of 30 Nigeria Stocks Exchange listed business firms. They focused on three corporate governance variables, size of the board, independence of the board, CEO tenure and their effect on performance. ROA and ROE were measurement used as indicators for measurement of performance. Further research should introduce a consolidative concept model among accounting risk management and its performance with firm characteristics as a moderating variable in other sectors.

Conceptual Framework

The conceptual model has integrated the theories of agency, stewardship and risk management to present a conceptualised interaction among accounting risk management (independent variables) and firm performance (dependent variables). A discussion of the dependent, independent, moderating, and intervening variables is undertaken followed by the conceptual model and the research hypotheses. The model further conceptualizes internal controls as intervening, while firms' characteristics were placed as moderating in the relationship. This position is depicted in hypothesis two and three in the diagram. Finally, the model tests the joint effect of the three variables on performance in hypothesis four. This proposition has not been previously tested to the best knowledge of the researcher. The model postulates that since the ownership is separated from control, the agent could be motivated by selfish reasons. The internal and its effectiveness provides an essential controlling function in an effort to address the agency conflict that exists among the management and equity holders. Figure 1 shows the conceptual framework for this study.

Figure 1 Conceptual Framework

Independent Variable

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│                         │                           H₃
│ Accounting Risk         │              Moderating Variable
│ Management              │         ┌──────────────────────────┐
│                         │         │ Firm Characteristics     │
│ • Risk-based            │         │  • Size of organization  │
│   financial             │         │  • Age of organization   │
│   statement             │         │  • Ownership structure   │
│   reviews               │         └──────────────────────────┘      Dependent Variable
│ • Compliance            │                                      ┌──────────────────────────┐
│   and corporate         │                                      │ Firm Performance         │
│   governance            │                                      │ Financial                │
│ • Operationalizat       │                                 H₄   │ Performance              │
│   ion of                │─────────────────────────────────────▶│  • Profits               │
│   accounting            │                                      │  • Liquidity             │
│   policy                │         ┌──────────────────────────┐ │  • Budget variance       │
│ • Financial             │         │ Internal Controls        │ │                          │
│   restatement           │         │  • Access controls       │ │ Non-Financial            │
│   support               │─────────│  • Documentation    H₂   │ │ Performance              │
│ • Complex               │         │  • Physical audits  ────▶│ │  • Management            │
│   accounting            │         │  • Approval of           │ │    efficiency            │
│   analysis and          │         │    authority             │ │  • Corruption            │
│   reporting             │         │  • Separation of         │ │    perception index      │
│ • Close                 │         │    duties                │ │                          │
│   transformation        │         └──────────────────────────┘ └──────────────────────────┘
│ • Organizational        │          Intervening Variable
│   realignment           │─────────────────────────────── H₁ ──────────▶
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Hypotheses of the Study

From the above conceptual model, the following four hypotheses were formulated and tested:

H_1: Accounting risk management does not influence performance of state enterprises in Uganda.

H_2: Internal controls do not have an intervening effect on the relationship between accounting risk management and performance of state enterprises in Uganda.

H_3: Firm characteristics do not have a moderating effect on the association between accounting risk management and performance of state enterprises in Uganda.

H_4: There was no joint effect among accounting risk management, firm characteristics and internal controls on performance of state enterprise's in Uganda.

METHODOLOGY

Research Design and Population

A cross-sectional study was used as it observed and analysed data from a population at a specific point in time (Field, 20009). Ondigo (2016), Wakaisuka (2017) and Ssendagire (2018) used a similar design for similar studies. The study population comprised of 34 state enterprises from sectors; energy four; education two; information and communication five; trade and tourism six; lands and housing one; gender one; agriculture one; water and environment one; accountability three; security six; and public works and transport four, but only 32 responded representing 94% response rate.

The Data

Data for this research was collected using questionnaire for primary data while audited financial statements for five years (2015-2018) for secondary data. The rationale for selecting this period for analysis was as a result of persistence dismal performance of state enterprises in Uganda. The period also was characterized by rampant corruption in most institutions in Uganda and as a result the Anti-corruption unit under the Office of the President was created to curb corruption. In addition, the period also witnessed interdiction of most CEOs of most state-enterprises who were suspected to have participated in financial scandals as reportred by Office of the Auditor General. Reliability of instruments were tested for consistent output or data after subsequent trials (Field, 2009; Cooper & Schindler, 2011). The Cronbach's alpha (α) was used to estimate the instrument's reliability value and 0.7 and treated as strong (Sheldon, 1978). Nunnally (1978). Validity was also tested to ascertain whether the research instrument truly measured the anticipated phenomenon with precision and the content validity index ≥ 0.7 was considered (Sekaran, 2009; Zikmund & Saunders, 2006). The diagnostic tests, tested the relationship between the variables; normality was tested using P-P Plots, histogram; Shapiro-Wilk test; multicollinearity, was tested using Variance Inflation Factor (VIF), Tolerence statistics and Conditional Index Number; homoscedasticity was tested by plot of residuals and Levene test-the equality of variances tested the null hypothesis.

Operationalization of Variables

The study used profitability, liquidity, budget variances, management efficiency and corruption perception index to measure performance. Consistent with Odalo, Achoki and Njuguna (2016), the research used Ordinary Least Squares (OLS) model to analyse data. Firm size indicator used total assets (log of assets) as a measure while financial performance

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indicators used earnings per share (EPS), ROA and ROE. On the other hand, regression model presented goodness of fit to determine the regression between log of total assets, ROE and earnings per share respectively. It was observed that overall regression model of ROA, ROE and earnings per share (EPS) was significant. This study looked at accounting risk management and used indicators; risk-based financial statement reviews, Compliance and corporate governance, operationalization of accounting policy, financial restatement support, complex accounting analysis and reporting, close transformation and organizational realignment to ensure final statements are free from misrepresentation (Cohen et al. (2014). The internal control's used multi-variables comprising; access controls, documentation, physical audits, approval of authority and separation of duties to safeguard assets from misuse and waste (Kobia, Vanessa, Wieble and Ayukut, 2017).

Table 1 Operationalization of the Variables

Type of Variable	Variable Name	Indicator	Operational Definition	Data Type	Measurement
Independent variable	Accounting Risk Management	Risk based financial statement reviews	Regular detailed reviews of financial statement to recognize major risks or extremely informative accounting matters so as to circumvent having a matter raised subsequent to the new financial year through pre-clearance with the auditor general.	Likert scale	Interval
		Compliance and corporate governance	Implementation of enhanced accounting internal controls and progression standardization within the shared-services; implementation of restitution strategy to solve auditor material weakness findings for the organization, assessed and documented.	Likert scale	Interval
		Operationali-zation of accounting policy	Preparation of detailed accounting guidelines and procedures; Operationalization of all established accounting guidelines and procedures for key technical areas in the organization; developing consistent and dependable guidelines and procedures to avoid accounting risks from emerging.	Likert scale	Interval
		Financial restatement support	Preparation of restated financial statements and regulatory filings; holding consistent communications with the organization's audit committee concerning improvement in preparation of financial statements in government.	Likert scale	Interval

Type of Variable	Variable Name	Indicator	Operational Definition	Data Type	Measurement
		Complex accounting analysis and reporting	Providing leadership in financial reporting processes aimed at making improvement and transition as part of central government accounting requirements.	Likert scale	Interval
		Close transformation	Rationalisation and standardizing risk management progressions; improving risk diagnostic and reporting tools; improving information technology support systems in management of risks.	Likert scale	
		Organization realignment	Evaluation of the finance and accounting firm design, reviewing current resources, recommending supplementary resource requirements in important areas; strengthening of operational effectiveness; designing a road map that aligns the risk management objectives and workflows throughout the organization.	Likert scale	Interval
Intervening variable	Internal Controls	Access controls	Security technique used to regulate use of organization resources and physical access assets.	Likert scale	Interval
		Documentation	Use of enterprise standard documents to indicate financial transactions, ensure regulated storage and retrieval.	Likert scale	Interval
		Physical audits	Physical verification is the procedure that normally performs by the auditor to confirm the existence of certain physical assets that records in the client's financial statements.	Likert scale	Interval
		Approval of authority	Approval authority needs specific line managers to authorize particular transactions. This adds a layer of responsibility to accounting records.	Likert scale	Interval
		Separation of duties	Concept of not allowing one staff to handle a task alone from origin to completion. This is done by separation of duties to prevent fraud and error.	Likert scale	Interval
Moderating variable	Firm characteristics	Size of organization	This may refer to the number of subordinates below the supervisor's direct control or market share of the firm in the industry.	Real value	Ratio
		Age	Determined by the existence of the organization since inception and the period of operations in business.	Real value	Ratio
		Ownership structure	Regulates the control of management and operations of the organization. It is the legal shareholding of share capital.	Likert scale	Interval

Type of Variable	Variable Name	Indicator	Operational Definition	Data Type	Measure-ment
Dependent variable	Firm performance	Profits	Profit is a financial gain attained as revenues collected exceed expenses incurred. Profit is calculated as total revenue minus total expenses.	Real value-Likert scale	Ratio
		Liquidity	Measures the extent of availability of cash to meet instantaneous short-term dues, or current resources that are rapidly converted to handle the obligations.	Real value-Likert scale	Ratio
		Budget variance	Variance is the difference between the budgeted and baseline amount of expenditure or revenue and the actual amount. If the budgeted value is higher than the actual, the results are adverse and vice versa. Is also measurement of actual against its expected outputs or goals (Goodwin, 2003.	Real value-Likert scale	Ratio
		Management efficiency	The management's performance is qualitatively evaluation of management's output, systems, firm discipline, quality of staff among others.	Likert scale	Interval
		Corruption perception index	The implementation of prevention strategies and initiatives to curtail corruption in enterprises.	Indices	Ratio

Data Analysis Approach

The study adopted multivariate analysis to establish the relationship among ARM and firm performance; firm characteristics as a moderator on the relationship between ARM and firm performance; internal controls as a mediating variable between ARM and firm performance and joint effect of ARM, firm characteristics, and internal controls on financial performance of state enterprises in Uganda. This research as well used hierarchical multiple regression for assessing the contribution of predictors above the previously utilized predictors as averages of statistical controls for analysing incremental validity (Aiken & West, 1991). Data was analyzed using factor and descriptive analyses, correlation, regression and goodness of fit. Based mediation effect on Baron and Kenny's (1986) conditions, the mediating effect and was tested using Jose (2013), Preacher & Hayes (2004) and moderation effect was tested following Jose (2013) and Preacher & Hayes (2004) procedures.

Table 2 Analytical Model, Analysis Techniques and Interpretation

Objective	Hypothesis	Analytical Model	Analysis Techniques	Interpretation
Examine the effect of ARM and performance of state enterprises in Uganda	H_1: ARM does not influence the performance of state enterprises in Uganda	$FP = \beta_0 + \beta_1 ARM + \varepsilon$ $NFP = \beta_0 + \beta_1 ARM + \varepsilon$ where FP is final performance, NFP is non-financial performance, ARM is accounting risk management, ε is error term.	Simple linear regression and factor analysis.	R^2 for goodness-of-fit, F-test -overall significance, T-test- individual significance and marginal changes.
Determine the effect of internal controls on the association between ARM and performance if state enterprises in Uganda.	H_2: Internal controls do not have an intervening effect on the association between ARM and performance of state enterprises in Uganda.	Financial Performance Measures Step (i) $FP = \beta_0 + \beta_1 ARM_+ \varepsilon$ Step (ii) $IC = \beta_0 + \beta_1 ARM + \varepsilon$ Step (iii) $FP = \beta_0 + \beta_1 ICs + \varepsilon$ Step (iv) $FP = \beta_0 + \beta_1 ARM + \beta_2 IC + \varepsilon$ Non-Financial Performance Measures Step (i) $NFP = \beta_0 + \beta_1 ARM_+ \varepsilon$ Step (ii) $IC = \beta_0 + \beta_1 ARM + \varepsilon$ Step (iii) $NFP = \beta_0 + \beta_1 ARM + \beta_2 ICs +$ Step (iv) $FP = \beta_0 + \beta_1 ARM + \beta_2 ICs + \varepsilon$ where, ICs is internal controls.	Multiple linear regression, Baron and Kenny test, and factor analysis.	R^2 for goodness-of-fit, F-test -overall significance, T-test - individual significance, and marginal changes.
	H_3: Firm characteristics do not have a moderating effect between ARM and performance of state enterprises Uganda.	$FP = \beta_0 + \beta_1 ARM + \beta_2 FC + \beta_3 ARM* FC_+ \varepsilon$ $NFP = \beta_0 + \beta_1 ARM + \beta_2 FC + \beta_3 ARM* FC_+ \varepsilon$ where FC is firm characteristics.	Multiple linear regression and factor analysis.	R^2 for goodness-of-fit, F-test - overall significance, T-test - individual significance, and marginal changes.
Assess the joint effect of ARM, Internal controls and firm characteristics on performance of state enterprises in Uganda.	H_4 There was no joint effect among ARM internal controls and firm characteristics on performance of state enterprises.	$FP = \beta_0 + \beta_1 ARM_+ \beta_2 IC + \beta_3 FC + \varepsilon$ $NFP = \beta_0 + \beta_1 ARM_+ \beta_2 ICs + \beta_3 FC + \varepsilon$	Multiple linear regression and factor analysis.	R^2 for goodness-of-fit, F-test -overall significance, T-test - individual significance, and marginal changes.

FINDINGS AND DISCUSSIONS

Table 3 revealed that state enterprises were performing better in firm characteristics with a 4.03 mean and 0.65 standard deviation, followed by internal controls, mean of 3.89 with standard deviation of 0.69, ARM, mean 3.79 with standard deviation of 0.59 and firm performance, mean of 3.25 with standard deviation of 0.50, implying that state enterprises were not sure of their performance.

Table 3 Descriptive Statistics for Study Variables

Study Variables	Mean	Standard Deviation
Accounting risk management	3.7924	0.58686
Firm characteristics	4.0274	0.64833
Internal controls	3.8861	0.68631
Firm performance	3.2523	0.49597

The composite variable was created by combining the four variables of ARM, firm characteristics, internal controls and firm performance into a single variable as in table 4.3 above. To get the composite variable, items were aggregated and loaded on each component and aggregated to make up a composite variable.

In Table 4 below, the outcomes presented by most of the respondents agreed on all aspects under investigation given that the means were above 3.5 on the Likert scale, except for restructuring of personnel in departments every year within the organization and there were changes in operations or activities in departments every year with means of 2.45 and 2.32, respectively. This indicated that restructuring of personnel in departments was not done every year and there were no changes in operations or activities in the departments of the variable ARM under study.

Table 4 Descriptive Statistics for Accounting Risk Management

Accounting Risk Management	Mean	Standard Deviation
All procedures on financial transactions are fully followed	4.0474	.46413
Enterprise regularly trains staff to improve their skills in ARM	3.4813	.74414
Management ensures that all comments on the review of financial statements are adopted and adjusted in the financial statements	4.1849	.44972
Accounting operating rules and procedures are displayed on organization's official website and are accessible	2.9393	.78572
Board of Directors meet regularly to monitor the conduct of business in line with rules and procedures	4.0682	.56455
Organization has an audit committee	4.3594	.54329
Audit committee and Board of Directors review significant elements of the enterprise's financial statements	4.1237	.49816

Accounting Risk Management	Mean	Standard Deviation
Financial performance is communicated to stakeholders and employees immediately after the financial statements have been audited	3.7172	.53926
Errors discovered by external auditors in the final accounts are communicated and rectified before they are passed by the directors	4.0563	.68612
Audit committee is vigilant in scrutinizing all financial transactions, including revision regarding evaluation of reports by external auditors	3.9578	.63786
Staff understand the operations and activities the business/organization is doing	4.1451	.38611
Management understand the operations and activities carried out in the organization	4.3737	.46058
Financial reports are understood by all management staff	3.7870	.71413
Board of Directors checks management's performance on activities, present alternative views on findings and act on any wrongdoing	4.0729	.47073
Accounting system analyses the financial reports in detail (profit and loss, statement of financial position, budgets, cash flow statements)	3.5260	.84579
Budgets are prepared each year	4.3852	.88971
Budgets are implemented and monitored promptly	4.1581	.65063
Chart of accounts is available and clear to follow and understand	4.0815	.65990
Restructuring of personnel in departments is done every year within the organization	2.4531	.77192
There are changes in operations or activities in departments every year	2.3229	.73809
There is improvement in managerial supervision in the organization	3.7164	.52432

Given the distribution of the means in Table 5 below, most of the responses were above 3 on the Likert scale. This implies most respondents agreed that their enterprises performed well under firm characteristics.

Table 5 Descriptive Statistics for Firm Characteristics

Firm Characteristics	Mean	Standard Deviation
Organization chart is not complex	4.2164	.55675
Supervisor is available any time you need him	4.2273	.54195
Work-related problems are solved instantly when they happen	3.8107	.60169
Enterprise has a well-elaborated organizational structure	4.2026	.60307
Number of employees is adequate to the enterprise requirements	3.6049	.62664
All employees who work in the enterprise are qualified	3.8310	.54309

The results in Table 6 below display the descriptive statistics on firm performance. The findings show, highest mean for management efficiency (3.92); followed by liquidity (3.03). This implied that the state enterprises were performing well in the two areas with means above 3. While profits with a mean of 2.78 and budgets with a mean of 1.30 were not properly handled and were, therefore, not contributing to enhance performance of the state enterprises.

Table 6 Descriptive Statistics for Firm Performance

Firm Performance	Mean	Standard Deviation
Profits	2.7813	1.75489
Budgetary deviations	1.3031	0.77355
Liquidity	3.0250	1.59657
Management efficiency	3.9161	0.40471

Table 7 below indicates Cronbach's α values for ARM, 0.964; firm characteristics, 0.850; internal controls, 0.918 and firm performance, 0.738 respectively. The conclusion is all variables qualified for further analysis since scores were > 0.7, indicating a moderate internal consistency.

Table 7 Composite Reliability

Study Variables	Number of Items	Cronbach's Alpha
Accounting risk management	70	.964
Firm characteristics	8	.850
Internal control	22	.918
Firm performance	4	.738

Table 8 below presents the outcome run by KMO and Bartlett's model whose results are presented. The KMO and Bartlett's measure assessed the suitability of factor analysis. Findings were, chi-square, 2266.034 with 231 degrees of freedom at significant at 0.05 level of significance, implying data was suitable for EFA and further examination to be performed. After this, items loading 0.5 and above were considered to have sufficient variation with the component of ARM as presented in the communalities.

Table 8 Kaiser-Meyer-Olkin and Bartlett's Test on Accounting Risk Management

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.837
Bartlett's Test of Sphericity	Approx. Chi-Square	2266.034
	df	231
	Sig.	.000

Table 9 presents the Pearson correlation coefficient (is the measure of the strength of the association between the two variables) findings that determined the strength of the relationship between variables. Results indicate ARM moderately positively correlated with firm characteristics. The table also indicates a relatively strong positive correlation amid internal controls and ARM. Furthermore, there was moderately positive correlation between ARM and firm performance. However, there was relatively negative correlation between firm

characteristics and firm performance. Therefore, results reveal, there is a linear association among the study relations.

Table 9 Bivariate Correlations

	Accounting risk management	Firm characteristics	Internal control	Firm performance
Accounting risk management	1.000			
Firm characteristics	0.424**	1.000		
Internal control	0.567**	0.310**	1.000	
Firm performance	0.228**	-0.157*	0.287**	1.000

N= 32, **. Correlation is significant at the 0.01 level (2-tailed).
  *. Correlation is significant at the 0.05 level (2-tailed).
.

Table 10 below shows tests for normality using Shapiro-Wilk test. The *Shapiro-Wilk test* evaluates whether a variable is normally distributed within the population and is determined by the p-value. If p-value $\geq$ 0.05, data is considered as normal but if p-value < 0.05, then data significantly deviates from the normal distribution. Normality test to establishes whether the sampled data was drawn from a normally distributed population within some tolerance (Field, 2009). Therefore, the results in Table 4.18 below show Shapiro-Wilk value and p-value of firm performance, 0.977; ARM 0.949; firm characteristics 0.889; and internal controls 0.883. Since all p-values were >0.05 the conclusion indicates survey variables are normally.

Table 10 Tests of Normality of the Study Variables Using Shapiro-Wilk Test

Study Variables	Statistic	Degrees of Freedom	P-Value
Firm performance	.977	32	.059
Accounting risk management	.949	32	.070
Firm characteristics	.889	32	.350
Internal controls	.883	32	.460

Table 11 below shows multi-collinearity among study variables. This refers to a situation where exists a high linear relationship among more than two predictor variables in a multi-regression assumption. The variance inflation factor (VIF) is a measure of the amount of multi-collinearity in a set of multi regression variables and CIN shows the degree of multicollinearity in a regression design matrix. They are used to assess multi-collinearity in a multi-regression model. Tolerance measurement is between 0 and 1, VIF measurement is less than 10 and condition index number (CIN) measurement is less than 30. From Table below, tolerance was less than 1, VIF was less than 10 and CIN was less than 30 for all the variable, which means multicollinearity was not violated.

Table 11 Multi-Collinearity Among Study Variables

| Study Variables | Collinearity Statistics | | |
	Tolerance	Variance Inflation Factor	Condition Index Number
Accounting risk management	0.610	1.638	14.14
Firm characteristics	0.813	1.229	18.26
Internal controls	0.672	1.487	19.50

Table 12 shows homogeneity tests and results indicate p-value of the Levene test statistics < 0.05, therefore, indicates the assumption of homogeneity was violated.

Table 12 Test of Homogeneity of Variances of the Study Variables

Study Variables	Levene Statistic	Degrees of freedom 1	Degree of freedom 2	Sig.
Accounting risk management	4.616	7	25	.000
Firm characteristics	7.776	7	25	.000
Internal controls	6.662	7	25	.000
Firm performance	6.955	7	25	.000

Based on Table 13 below, 12.2 percent of deviations in firm performance are described by ARM, which was a low explanatory power. Since the p-value = 0.000 is less than α-value = 0.05, conclusion is overall model and ARM were significant and hence ARM was significant in explaining firm performance. The linear regression analysis model of ARM and firm performance was FP =2.608 + 0.34 ARM. This implies that, if ARM is increased by one-unit, then firm performance will be also be increased by 0.34 units on average.

Table 13 Regression of Accounting Risk Management on Firm Performance

Variable	Coefficients	R^2	Adjusted R^2	Standard Error	T-Value	P-Value	F-Value
		0.122	0.116			0.000	21.701
Constant	2.608				9.317	0.000	
ARM	0.340			0.073	4.658	0.000	

According to the results in Table 14 below, 14.8 percent of variations of firm performance are explained by ARM and internal controls, which was low explanatory power. In addition, the results were significant because the p-values for the constant, ARM, and internal control were less than α-value = 0.05, hence internal controls had mediating reaction on the linkage amid ARM and performance of state enterprises in Uganda. The predictive linear regression equation was, therefore, FP = 2.39 + 0.23ARM + 0.16IC meaning that if ARM had an

increment of one-unit, firm performance on average would be increased by 0.23 units, and if internal control rose output by one-unit then firm performance, would on average rise by 0.16 units.

Table 14 Regression of Accounting Risk Management and
Internal Control on Firm Performance

Variable	Coefficients	R^2	Adjusted R^2	Standard Error	T-value	P-Value	F-Value
		0.148	0.137			0.000	13.42
Constant	2.387				8.088	0.000	
ARM	0.233			0.088	2.660	0.009	1.474
Internal control	0.161			0.075	2.153	0.033	1.474

Findings in Table 15 show R^2 change was significant but interaction term was not significant. Therefore, there was no moderation, since interaction term was not significant. This finding supports the hypothesis (H_3) which stated, firm characteristics had no moderating influence among ARM on performance of state enterprises. The composite variable was created by combining or aggregating data of indicators of ownership, age and size into a single variable. This was computed by aggregating data by summing up scores of raw data, getting the averages and were transformed into weighted averages. This implied that firm characteristics indicators; ownership structure, age and size of firm did not moderate ARM and performance of state enterprises in Uganda since the interaction term was insignificant (p-value > 0.05).

Table 15 Regression of Accounting Risk Management and
Firm Characteristics on Firm Performance

Variable	Coefficients	R^2	Adjusted R^2	Standard Error	T-value	P-Value	F-Value
		0..140	0.137			0.000	8.33
Constant	4.819				3.506	0.006	
ARM	-.210			0.397	-.529	.598	1.474
Firm Characteristics	-.705			0.3628	-1.943	.054	1.474
Interaction term	.134			0.102	1.312	.191	

As Table 16, below, results show, 20.6 percent of variations of firm performance was expounded by ARM, firm characteristics, however, internal control revealed a low explanatory power. Similar, the p-values, the constant and the firm characteristics were significant as their p-values were less than α-value = 0.05. On the other hand, ARM and internal control variables

were not significant because their p-values were more than α-value = 0.05. Hence, the conclusion was there was a joint effect of firm characteristics and performance of state enterprises in Uganda, but there was no joint effect of ARM and mediating variable on performance of state enterprises in Uganda. The predictive linear regression was FP = 2.04 + 0.22FC implying an increase in firm characteristics by one-unit, would result to an average increase of 0.22 units of firm performance.

Table 16 Joint of Effect of Accounting Risk Management, Firm Characteristics
and Internal Controls on Firm Performance

Variable	Coefficients	R^2	Adjusted R^2	T-Value	P-Value	Change R^2
		0.206	0.190			0.206
Constant	2.040			6.708	0.000	
ARM	0.115			1.254	0.212	
Firm characteristics	0.223			3.355	0.001	
Internal control	0.145			2.026	2.026	

CONCLUSION

The hypothesis H_1 was rejected implying existence of significant association among ARM and performance of state enterprises in Uganda. Apparently, the presence of significance of association among ARM and firm performance, it implies that adherence to concepts of ARM will improve performance of state enterprises. Therefore, with indicators of ARM, the conclusion is, the better the risk-based financial statement reviews, compliance and corporate governance, operationalization of accounting policy, financial restatement support, complex accounting analysis and reporting, close transformation, and firm realignment, the better the firm performance of state enterprises.

Hypothesis H_2 assessed the effect of internal controls as a mediator between ARM and performance of state enterprises in Uganda. The findings disclosed internal controls has an intervening effect on the relationship between ARM and firm performance of state enterprises. It can, therefore, be confirmed that internal controls had an intervening effect on the association between ARM and performance of state enterprises in Uganda.

The rejection of hypothesis H_3 reveal that there was no moderating effect on the association between ARM and firm characteristics on firm performance of state enterprises in Uganda. It can be concluded that size of organization, age of organization and ownership structure had no influence on performance of state enterprises in Uganda.

Hypothesis H_4 measured the joint impact of ARM, firm characteristics, internal controls on performance of state enterprises in Uganda. The study's findings revealed there was a joint effect of firm characteristics and performance of state enterprises in Uganda.

RECOMMENDATIONS

Theoretical recommendations

For meaningful and successful business decisions, firms should adopt ARM tools for implementation of stringent internal controls and FCs, to register tremendous improvement in firm performance. Performance therefore, can be achieved when organizations use their resources from its primary mode of business to generate revenues. State enterprises should also evaluate their investments by attaining its goals through profitable activities. The activities should be monitored and evaluated adopting internal control indicators (profits, liquidity, budget variance, management efficiency, and CPI) to improve performance. The organization has to make profits in order to be self-sustainable and for expansion. Liquidity should be under surveillance to meet short-term obligations and in order not to risk legal shut-down. This should be a result of management efficiency and good governance systems. It is, therefore, imperative for state enterprises to inculcate anti-corruption as part of its culture and operations. Employees, customers and suppliers will have trust in state enterprises if zero-tolerance policy on corruption is manifested. The management should also assess and know the risks faced and prepare for them hence, recognize opportunities to improve the business and adhere to policies compliance.

Practical Recommendations

Considering current complex environment that businesses are operating in state enterprises, multi-dimensional approach is required to diversify their products and services to improve their performance. There is need to rationalize their expenditures and comply with budget guidelines in order to improve profits, maintain healthy liquidity position and managerial competences in the long-run. They must also keep track of and monitor budget variances to avoid unnecessary and wasteful expenditures. However, to achieve meaningful and successful business decisions, firms should adopt ARM tool and implement strong internal controls to register tremendous improvement in performance. Henceforth, the role of financial and management accounting, financial management and audit are the most important pillars to achieve effective performance.

Managerial recommendations

Management and owners should strengthen the internal controls (that is, access controls, documentation, physical audits, approval of authority, and separation of duties) since they are key drivers that influence ARM to enhance performance. To enhance performance, ARM indictors (risk-based financial statement reviews, compliance and corporate governance, operationalization of accounting policy, financial restatement support, complex accounting analysis and reporting, close transformation and firm realignment) should be operationalized through enhanced internal controls (access controls, documentation, physical audits, approval of authority, and separation of duties) to attain fostered performance. Performance has been identified and equated with effectiveness and efficiency. But to achieve sustainability, ARM constructs should be adopted strengthened by internal controls.

AREAS FOR FURTHER RESEARCH

- The study could adopt a qualitative approach using the same variables; In addition, triangulation of both the quantitative and qualitative approaches could be considered
- Perceptions of respondents can be studied longitudinally
- Findings of firm characteristics (age, size and ownership structure) be carried out in other sectors

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