

Moderating Effect of Buyer-Supplier Trust on the Relationship between Outsourced Formal Contracts and Supplier Delivery Performance: An Empirical Study of Public Sector Procurement

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Abstract

This study examines the moderating effect of buyer-supplier trust on the relationship between outsourced formal contracts and supplier delivery performance in the domain of public sector procurement. In so doing, we extend the paradigm that formal contracts and relational governance mechanism function as complements rather than substitutes. Using a cross sectional data from a survey of 612 staff that are involved in managing outsourced contracts in Ugandan public sector, Structural Equation Modelling results support 10 of the 14 hypotheses thus, demonstrating the fundamental preposition of complementarity between formal contracts and relational governance mechanisms. Also, findings revealed that well-structured outsourced formal contracts have a significant positive influence on buyer-supplier trust and supplier delivery performance. However, the path coefficient for the interaction effect between change characteristics and buyer-supplier trust was initially hypothesised to positively influence supplier delivery performance but did not. The use of case studies and additional surveys in future research might help to explain this phenomenon. Although the two constructs of buyer-supplier trust and supplier opportunism are robust and sufficiently represent the relational aspects, the multidimensional nature of relational practises can be investigated further. This study has managerial and policy implications that are also discussed in this paper.

Key words: Outsourced formal contracts, relational governance, supplier delivery, Performance

1. Introduction

Today many organizations are using outsourcing as a strategy to improve business focus, mitigate risks, build sustainable competitive advantage, and extend technical capabilities and free resources for core business purposes. Outsourcing is the process of using an outside company to provide a non-core service previously performed by staff (Gottschalk & Solli-Saether, 2005). A common thinking is that, the use of outsourced formal contracts is expected to improve supplier delivery performance by creating buyer-supplier trust and mitigating supplier opportunism (Goo, Kishore, Rao & Nam, 2009). Consequently, numerous public sector organizations in Uganda such as ministries, parastatals, commissions, and hospitals have adopted outsourced contracts to reduce costs, increase flexibility, access better expertise, improve quality of services, reduce capital investment, and improve internal user satisfaction (Public Procurement Disposal of Assets (PPDA), 2009; National Integrity Survey (NIS), 2008).

These organisations outsource non-core functions including Information Technology (IT), car repairs, consultancy, cleaning services, security, waste management, couriers' services, and catering services to improve supplier delivery performance. However, this has not been achieved; supplier delivery performance has not improved significantly (PPDA, 2009; Inspector General of Government (IGG), 2009; 2010).

Similarly, anecdotal evidence from Uganda has shown these organizations are suffering from long lead times, poor quality of services delivered, and high levels of contract violations (IGG 2010). Simply, outsourced services are not delivered on time, specifications are not being met as required, and internal users complain of late deliveries (PPDA, 2008; 2009; Public Accounts Committee (PAC), 2010). Despite the existence of detailed formal contracts, most suppliers have persistently failed to fulfill contract terms that they signed. Despite these failures little has been done to address such problems in any meaningful way.

Notwithstanding the increased research in public procurement, no study has examined the role of relational governance mechanisms particularly buyer-supplier trust, and supplier opportunism in explaining outsourced formal contracts and supplier delivery performance. Gottschalk and Solli-Saether (2005) examined critical success factors from IT outsourcing theories while Goo et al. (2009) explicated the role of Service Level Agreements (SLA) in relational management of information technology outsourcing. Similarly, Gulati and Nickerson (2008) investigated interorganizational trust, governance choice and exchange performance, whereas Koh et al. (2009) elucidated trust across borders focusing on buyer-supplier trust in Global B2B E-commerce.

Ntayi et al. (2010a) sought to explain procurement officers' deviant behavior using moral disengagement, work anomie, perceived normative conflict, and procurement planning behavior as predictor variables. Likewise, Ntayi et al. (2010b) examined how perceived project value, opportunistic behavior, and interorganisational cooperation affected contractor performance. Eyaa and Nagitta (2011) examined the nature of non-compliance in Ugandan public procurement contracts. Basheka (2009) provided some basis for public procurement corruption and its implications on service delivery. NIS (2008) research also sought to identify the most corrupt entities in both central and local government domains. Ahimbisibwe and Muhwezi (2010) expounded vertical collaborations, buyer-supplier compliance and contract performance in public entities in Uganda. Ntayi et al. (2010d) investigated the association of social cohesion, groupthink and ethical behaviour of public procurement officers. None of these studies specifically addresses the impact of outsourced formal contracts, buyer-supplier trust, and supplier opportunism on supplier delivery performance in Uganda.

Hence the purpose of this study is to examine the moderating effect of buyer-supplier trust on the relationship between outsourced formal contracts and supplier delivery performance. In so doing, we make a significant contribution to existing literature by extending the paradigm that formal contracts and relational governance mechanism function as complements rather than substitutes. The remainder of this article is organised as follows. The next section covers theoretical underpinnings of outsourcing and reviews literature to develop research hypotheses. The subsequent two chapters cover methodology and data analysis. Finally, the article concludes by discussing the findings, implications, limitations and directions for future research.

2. Theoretical underpinnings, literature review and Research Hypotheses

This section explains the different theoretical underpinnings of this study, reviews literature on the previous studies that have been conducted on outsourced formal contracts, relational governance mechanisms specifically on buyer-supplier trust and supplier opportunism, in the context of supplier delivery performance, to develop research hypotheses for validating the research model.

2.1 Core competencies theory, resource based theory and transaction cost theory

A number of theories have also been put forward in the literature that attempt to justify the unprecedented rate of outsourced contracts (Gottschalk & Solli-Saether, 2005). Core competencies theory suggests that activities should be performed either in house or by suppliers depending on what is core or noncore (Hancox & Hackney, 2000). This implies that activities which are non-core competencies should be outsourced to best-in-the-world suppliers (Gottschalk & Solli-Saether, 2005).

Similarly, according to the resource-based theory of the firm, outsourcing is a strategic decision, which can be used to fill gaps in the firm's resources and capabilities (Grover, Teng & Cheon, 1998).

The underlying logic here is that organisations are different and they must develop self-motivated competences to adjust to varying environments. This is supported by the transactional cost theory (Williamson, 1979) that argues that transaction costs arise because complete contracting is often impossible and incomplete contracts give rise to subsequent renegotiations when the balance of power between the transacting parties shifts. Hence, all functions should be outsourced where benefits like revenues and reduced costs for the company exceed the transaction costs.

2.2 Contractual theory, Neo classical economic theory, partnership theory and relational exchange theory

The proponents of contractual theory such as Luo (2002) argue that an outsourced contract provides a legally bound, institutional framework in which each party's rights, duties, and responsibilities are codified, and the goals, policies and strategies underlying the arrangement are specified. Every outsourced contract has the purpose of facilitating exchange and preventing opportunism. Supplier opportunism is "self-interest seeking with guile" (Williamson, 1979). Ntayi et al (2010b) further describe guile as "lying, stealing, cheating and calculated efforts to mislead, distort, disguise, obfuscate or otherwise confuse." Neo classical economic theory posits that firms outsource to attain cost advantages from assumed economies of scale and scope possessed by vendors (Ang & Straub, 1998).

Likewise, Lambe, Spekman and Hunt (2002) reveal that according to partnership and alliance theory, partnerships can reduce the risk of inadequate contractual provision, which may be comforting for clients about to outsource a complex and high-cost activity such as IT. Finally the relational exchange theory, which is based on relational norms, suggests that the key to determining how efficiently contract governance is carried out lies in the relational norms between the parties (Artz & Brush, 2000).

In summary, some theories give justifications for why organisations should engage in outsourced contracts (theory of core competencies, resource-based theory, transaction cost theory, neoclassical economic theory, and theory of firm boundaries) while others indicate challenges that may be associated with outsourced contracts (contractual theory, partnership and alliance theory, relational exchange theory, social exchange theory, agency theory, and stakeholder theory) (Gottschalk & Solli-Saether, 2005).

Table 1 gives a summary of theoretical foundations of outsourcing and their significance in explaining the concept of outsourcing with supporting references.

Table 1: Theoretical foundations of outsourcing

Theory	Significance in explaining the concept of outsourcing	Supporting references	Comment
Theory of core competencies	Activities should be performed either in house or by suppliers depending on what is core or noncore	Hancox& Hackney (2000)	Specifies possibilities of outsourcing all functions that are non-core in the production of goods and services
Resource-based theory	Outsourcing is a strategic decision, which can be used to fill gaps in the firm's resources and capabilities	Grover, Teng&Cheon (1998)	Postulates the limitation of outsourcing to only areas where a firm lacks strategic resources that are unique, valuable, difficult to imitate, exploit and substitute
Transaction cost theory	All functions should be outsourced where benefits like revenues and reduced costs for the company exceed the transaction costs.	Williamson (1979)	Stipulates possibilities of outsourcing based on comparison of revenues and costs
Contractual theory	Outsourced contract provides a legally bound, institutional framework in which each party's rights, duties, and responsibilities are codified, and the goals, policies and strategies underlying the arrangement are specified.	Luo (2002)	Explains limitations of outsourcing such as power imbalances, conflicts and inflexibility.
Neoclassical economic theory	Firms outsource to attain cost advantages from assumed economies of scale and scope possessed by vendors.	Ang& Straub (1998)	Indicates possibilities of outsourcing based on any activity that an external vendor can operate at lower costs.
Partnership and alliance theory	Partnerships and Alliances reduce the risk of inadequate contractual provision and comforts clients who outsource complex and high-cost activities.	Lambe, Spekman and Hunt (2002)	Stipulates limitation of outsourcing to functions where a company can secure partnerships and alliances with trust.
Relational exchange theory	The key to determining how efficiently contract governance is carried out lies in the relational norms between the parties.	Artz& Brush(2000)	Explains limitations of outsourcing to areas where norms with the vendor can be developed and secured
Social exchange theory	Outsourcing is regarded as an on-going reciprocal process in which actions are contingent on rewarding reactions from others.	Das &Teng (2002)	Explains limitation of outsourcing to instances where parties can pursue their egocentricities in transactions without causing harm to others.
Agency theory	Outsourcing is viewed as an agency relationship that arises whenever one or more individuals, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision-making authority to the agents.	Hancox& Hackney (2000)	Explains limitation of outsourcing to where the principal and agent have common goals.
Theory of firm boundaries	Outsourcing is viewed as one of the ways by which the boundary of the firm can be adjusted to meet the market demand	Lonsdale & Cox (2000)	Postulates the limitation of outsourcing to only areas where a firm lacks strategic resources and where the cost is high.
Stakeholder theory	stakeholder groups have significant differences in terms of expectations and goals in regard to outsourcing hence satisfying these interests based on the principles of moral management determines the success of outsourcing	Gottschalk &Solli-Saether (2005)	Explains limitation of outsourcing functions that can meet stakeholders interests

2.3 Outsourced Formal Contracts and Buyer-Supplier Trust

In carrying out economic exchange, Contracts specify the terms and arrangements for the parties involved (Goo et al., 2009). The contract is a formal written agreement that is legally binding between two or more competent parties, which creates obligations, whereby one party becomes bound to another to do or omit to do certain acts that are the subject of that contract (Ntayi et al., 2010b). This implies that contracts provide the framework for the economic exchange, outlining the nature and terms of the relationship, what is to be provided and the rights and obligations of parties to the contract. In addition, contracts also fulfill another important role in minimizing the potential for opportunistic behavior. This can occur through ex ante mechanisms that bind the parties together, such as requiring parties to undertake transaction-specific investments or credible commitments to the relationship (Stefanie, Phillip, Kim, & Helmut 2010).

Alternatively, ex post mechanisms may be incorporated which provide parties with rights and sanctions over others in the event of non-performance or other pre-specified situations. According to Goo et al. (2009) outsourced service contracts mainly involve Service Level Agreements (SLA). They defined a Service Level Agreement as a formal written agreement developed jointly between service recipient and service provider that specifies a product or service to be provided at a certain level so as to meet business objectives. The SLA specifies responsibilities, strengthens communication, reduces conflict and is expected to build trust and mitigate supplier opportunism in an exchange relationship over time. Goo et al. (2009) identified the formal contractual elements as foundation, change management, and governance characteristics.

The foundation characteristics in SLAs collectively explain the common beliefs between organizations, which intend to build a spirit of agreement among those entities involved with its development (Goo et al., 2009). Elements under foundation characteristics include service level objectives, process ownership plan, pricing schedules and service level contents. The change characteristics address the issue of how various situations that may occur during the course of the contract would be handled if they were to occur such as price inflation clauses in the industrial purchasing contracts and express warranties that address product failure (Goo et al., 2009). These contract features deal with the ground rules and procedures related to future contingencies, which would lead to desired outcomes if followed. Contractual elements under change management include future demand management plans, anticipated change plans, and innovation and feedback plans. It should be noted that in relational exchange a person cannot anticipate all contingencies and make complete plans thus these contracts have many tacit assumptions which could range from general to specific ones.

Additionally, Governance characteristics provide administrative procedures for implementing the party's roles and obligations in a contract. They explain ways of how to manage the relationship through a clear statement of the measurements, conflict arbitration, penalty, rewards, and an agreed upon means to facilitate communication. These contractual safeguards involve provisions and administrative procedures aimed at dispute prevention and resolution and the distribution of costs and benefits under future contingencies (Goo et al., 2009). The major contractual elements under governance characteristics include a communication plan, measurement charter, conflict arbitration plan, and an enforcement plan.

The concept of trust implies that the firm's belief that another party will perform actions that will result in positive outcomes for the firm as well as not take unexpected actions that will result in negative outcomes (Stefanie et al., 2010). Trust is therefore a multidimensional construct that comprises of confidence, predictability, credibility, ability, competence, expertness, consistence and friendliness (Morgan & Hunt, 1994). Stefanie et al. (2010) demonstrated that outsourcing is contract intensive in nature and that a successful outsourcing relationship relies upon a formal contract that takes into account and provides provisions for as many contingencies as may be anticipated. Therefore well designed formal contracts help to develop buyer-supplier trust by tolerating open communication, joint problem solving and mutual support between parties. In order to extend the understanding of the relationship between outsourced formal contracts and buyer-supplier trust, the following hypotheses are proposed:

H1: There is a positive relationship between foundation characteristics of outsourced formal contracts and buyer-supplier trust

H2: There is a positive relationship between change characteristics of outsourced formal contracts and buyer-supplier trust

H3: There is a positive relationship between governance characteristics of outsourced formal contracts and buyer-supplier trust

2.4 Outsourced Formal Contracts and Supplier Opportunism

Opportunism is defined as 'self-interest seeking with guile' (Williamson, 1979). Supplier opportunistic behavior involves the use of incomplete or distorted disclosure of information especially with calculated efforts to mislead, disguise, obfuscate, or otherwise confuse a buyer during a contracted buyer/supplier relationship. Examples of supplier opportunism include such acts as withholding or distorting information and or failing to fulfill promises or obligations as outlined in a contractual agreement (Ntayi et al., 2010b). Additionally, supplier opportunistic behavior is seen as seeking gain for oneself at the expense of others and such behavior is usually associated with breaches of contract (Stefanie et al., 2010).

Therefore, supplier opportunism takes various forms, depending on the mechanism used for the governance of business activities. Wathne and Heide (2000) conceptualized supplier opportunism as evasion, refusal to adapt, violation, and forced renegotiation. Their study generally revealed that suppliers tended to hold more key information with respect to their own products, including the products' function, quality, and cost. When buyers do not completely understand the particular attributes of a given product or service, sometimes suppliers will adopt opportunistic behaviours in order to pursue their own latent interests. Similarly, the transaction cost theory posits that in the absence of some form of governance mechanism, agreements between organizations will always be subject to risks from opportunistic behavior. In order to avoid such opportunistic behavior it is essential that the customer company fully discloses its expectations for quality and service levels and means for measuring performance within the outsourced contract. Therefore, this implies that formal contracts are designed to mitigate supplier opportunism and improve supplier delivery performance in outsourcing relationships. In order to extend the understanding of the relationship between outsourced formal contracts and supplier opportunism, the following hypotheses are proposed:

H4: There is a negative relationship between foundation characteristics of outsourced formal contracts and supplier opportunism

H5: There is a negative relationship between change characteristics of outsourced formal contracts and supplier opportunism

H6: There is a negative relationship between governance characteristics of outsourced formal contracts and supplier opportunism

2.5 Outsourced Formal Contracts and Supplier Delivery Performance

Formal contracts define predetermined performance standards that focus on achievement of minimum standards with an emphasis on maximizing supplier delivery performance. This includes defining details of quality, quantity, timing, and method of delivery of the corresponding inputs and outputs required from both parties to support the outsourced process. The components of quality, such as response time, reliability, and quality of support services must be defined according to the function being outsourced to achieve best service delivery. Well defined formal contracts also limit opportunism of the supplier through detailed SLA. This encourages trust based behaviors and decreases the frequency of conflict situation, while delivering the expected supplier delivery performance (Stefanie et al, 2010). Consistent with this debate, the following hypotheses will subsequently be tested;

H7: There is a positive relationship between foundation characteristics of outsourced formal contracts and supplier delivery performance

H8: There is a positive relationship between change characteristics of outsourced formal contracts and supplier delivery performance

H9: There is a positive relationship between governance characteristics of outsourced formal contracts and supplier delivery performance

2.6 Buyer-Supplier Trust and Supplier Delivery Performance

The resource based theory research postulates that buyer-supplier relations founded on trust enables firms to accumulate resources that are rare, valuable, rare to imitate with no readily substitutes (Hoyt & Huq, 2000). This implies that trust is a necessary precondition for effective buyer-supplier relations such as in outsourcing. However, the fundamental challenge in conceptualizing the role of trust in economic exchange is extending an inherently individual-level phenomenon to the organizational level of analysis without clearly specifying how trust translates from the individual to the organization level that leads to theoretical confusion about who is trusting whom, because it is individuals as members of organizations rather than the organizations themselves who trust. The relational exchange perspective does not stipulate the mechanisms by which individual-level action affects organizational-level outcomes and little research has been done to explain how trust particularly when conceptualized as a multilevel phenomenon operates to affect the performance of inter-firm exchange (Johnston et al., 2004).

Consistent with Koh et al. (2009) and Goo et al. (2009), buyer's trust in a supplier can be defined as the buyer's intention to accept vulnerability to the supplier based upon positive expectations of the benevolent intentions or behaviour of the supplier.

This clearly indicates how buyer-supplier trust has multiple impacts on transactions between organizations (Koh et al, 2009). It affects transaction costs (Chiles & McMackin 1996), governance choice, exchange performance (Gulati & Nickerson 2008), cooperation and commitment (Hoyt & Huq, 2000), information sharing (Dyer & Chu 2003), and negotiation and conflict (Zaheer et al., 1998; Johnston et al., 2004) between organizations. In order to extend the understanding of the relationship between outsourced formal Contracts and supplier delivery performance, the following hypothesis is proposed:

H10: There is a positive relationship between buyer-supplier trust and supplier delivery performance.

2.7 Supplier Opportunism and Supplier Delivery Performance

Supplier opportunism is generally characterized by calculated efforts to mislead, disagree, confuse, withhold or distort information, avoid or fail to fulfill promises or obligations, and appropriate a firm's technology when possible. As a result, such behavior can have negative implications for supplier delivery performance (Wathne & Heide, 2000). Individuals within organizations that perceive the threat of opportunistic behavior by suppliers are faced with a greater need for screening, negotiating, and monitoring partners' behavior, which results in increased transaction costs. In addition, opportunistic behavior can also negatively affect an organizations performance resulting from a supplier's lack of commitment to, or execution of, a given contract's terms, and consequently, the value contributed by the supplier to the buyer's respective organization or group (Ntayi et al. 2010b). Consistent with the above discussion we hypothesize that:

H11: There is a negative relationship between Supplier opportunism and supplier delivery performance.

2.8 Complementarity and substitution roles of formal contracts and relational governance

As earlier stated, in this study, we agree that formal contract and relational governance mechanisms are complimentary rather than compensatory. Consequently, we adopt a complimentary logical framework to develop and extend the interpretations of previous studies (Stefanie et al., 2010; Goo et al, 2009; Miranda & Kavan, 2005; Poppo & Zenger, 2002), that have provided empirical support for the fundamental proposition of complementarity between formal contracts and relational governance mechanisms. Similarly, we also maintain that well designed contracts enable long term, cooperative and trust based on social relations by not only discussing service level objectives but also by agreeing to the related contractual terms before signing these contracts (Stefanie et al., 2010). This subsequently, helps to advance a mutual understanding of expectations and capabilities, which creates an atmosphere of consensus with commitment to achieve the set performance standards.

While we acknowledge that body of research based on substitution that argues that the presence of one mechanism reduces the necessity for the other, we disagree to this school of thought. In contrast, we suggest that the complimentary approach based on combination of formal and relational governance yields a joint effect that generates higher performance. This is consistent with Goo et al. (2009) who empirically provided evidence for the complementary approach by examining the effects of SLAs in relational governance of IT outsourcing. Likewise, earlier studies (Miranda and Kavan, 2005; Poppo and Zenger, 2002) explored the critical question of whether the two forms of governance are complements or substitutes for each other. Stefanie et al. (2009) also, explicated the mediating effects of relational governance on formal contracts on BPO outsourcing; however, we also differ slightly here from Stefanie et al. (2009), in contrast, we argue that complementary approach should not be tested by mediating effects but rather moderating effects so as to capture the combined power of complementarity.

Moderation occurs when the impact of the predictor varies across different levels of moderator to affect the relationship with the dependent variable (Venkantraman, 1989). Moderation takes two types which are subgroup analysis and interaction (Boyd et al., 2012, p.13). Briefly, interaction effects in business strategy and social sciences involve the use of multiple regression analysis and causal modeling to compute the effect of a moderating variable. For example, in Structural Equation Modeling, this is achieved by creating an additional latent variable that is added to the causal model. This involves multiplication of construct indicators for the latent variables as cross products. The construct indicators may be first "centered" or "standardised" to avoid multicollinearity effects if it is likely to exist. Simply, this term is the interaction between independent variable and the moderating variable.

Figure 1 illustrates the alternate path diagram representations of fit as a moderator.

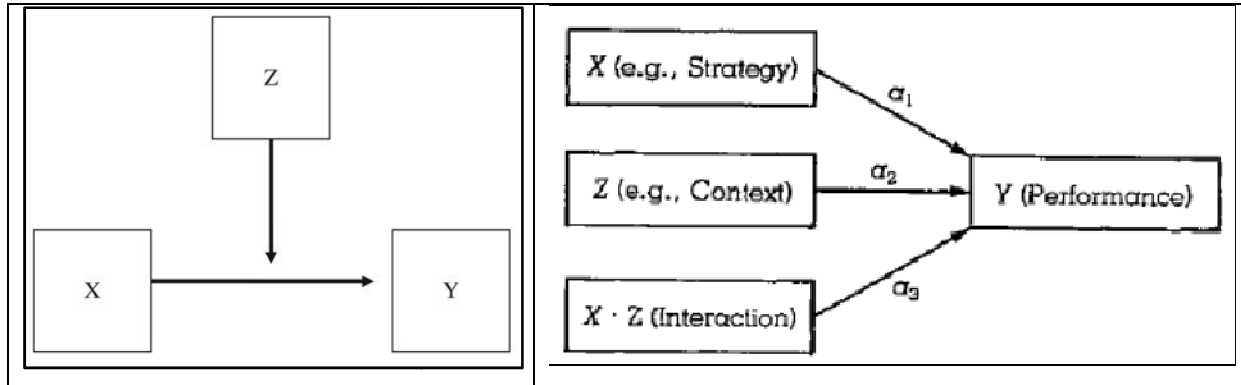


Figure 1: Alternate path diagram representations of fit as a moderator (Venkantraman, 1989, Figure 2, p.425; Fairchild & MacKinnon, 2009, Figure 4, p.90, Baron & Kenny, 1986, Figure 1, p.g 1174)

Note. X= the independent variable, Y= the dependent variable, Z= the moderator variable, XZ= the product of X and the moderator variable (Interaction), a_1 = the effect of X on Y, a_2 = the effect of Z on Y, and a_3 = the effect of XZ on Y

The interaction model can be represented mathematically as $Y=f(X, Z, X*Z)$. Where Y=performance; X=strategy; Z=the contextual variable that fits with strategy for performance improvement. X*Z reflects the joint effect of X and Z.

Hence $Y = a_0 + a_1X + a_2Z + a_3X*Z + e$ (Venkantraman, 1989, p.426, equation 3)

This implies that when contractual elements (CE)interact with Buyer-Supplier Trust (BST), a new variable (Interaction Term i.e.CExBST) is created that influences Supplier Delivery Performance (SDP).

Figure 2: shows a simplified moderation model for interaction in this study.

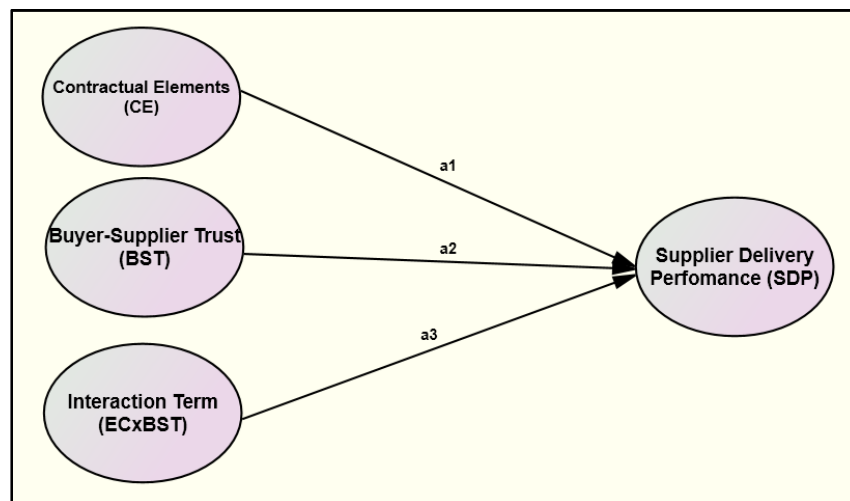


Figure 2: A simplified moderation model for interaction (Venkantraman, 1989, Figure 2, p.425; Fairchild & MacKinnon, 2009, Figure 4, p.90, Baron & Kenny, 1986, Figure 1, p.g 1174)

Note that this interaction occurs between all contractual elements (foundation, change and governance characteristics) and buyer supplier-trust respectively.Each of these moderation hypotheses is thus supported if the unstandardized coefficient, a_3 , differs significantly from zero, attesting to the effects of moderation between contractual elementsand buyer-supplier truston supplier delivery performance. Specifically, the evidence of complementarity between formal contracts and relational governance exists if the coefficients of the interaction terms are positive. In contrast, evidence of substitution between outsourced formal contracts and buyer-supplier trust exists if the coefficients of the interaction terms are negative.

Although earlier scholars (Baron and Kenny, 1986; Venkantraman, 1989; Muller, Judd and Yzerbyt, 2005; Fairchild and MacKinnon, 2009) proposed significant frameworks for conceptualising and analysing moderation, very few empirical studies on examining the moderating (interaction) role of trust (e.g. Goo et al., 2009) have attempted to follow their procedures conscientiously. Subsequently, most studies have been disconnected and lack external validity for generalizability. This relative paucity of quantitative data and lack of detailed empirical analysis coupled with the difficulty of comparative studies hinder clarity in debate which limits theory development in public procurement.

Figure 3 shows a General Joint Analysis Model proposed by Fairchild & MacKinnon, 2009 for conceptualising and analysing many interaction effects simultaneously in a single model.

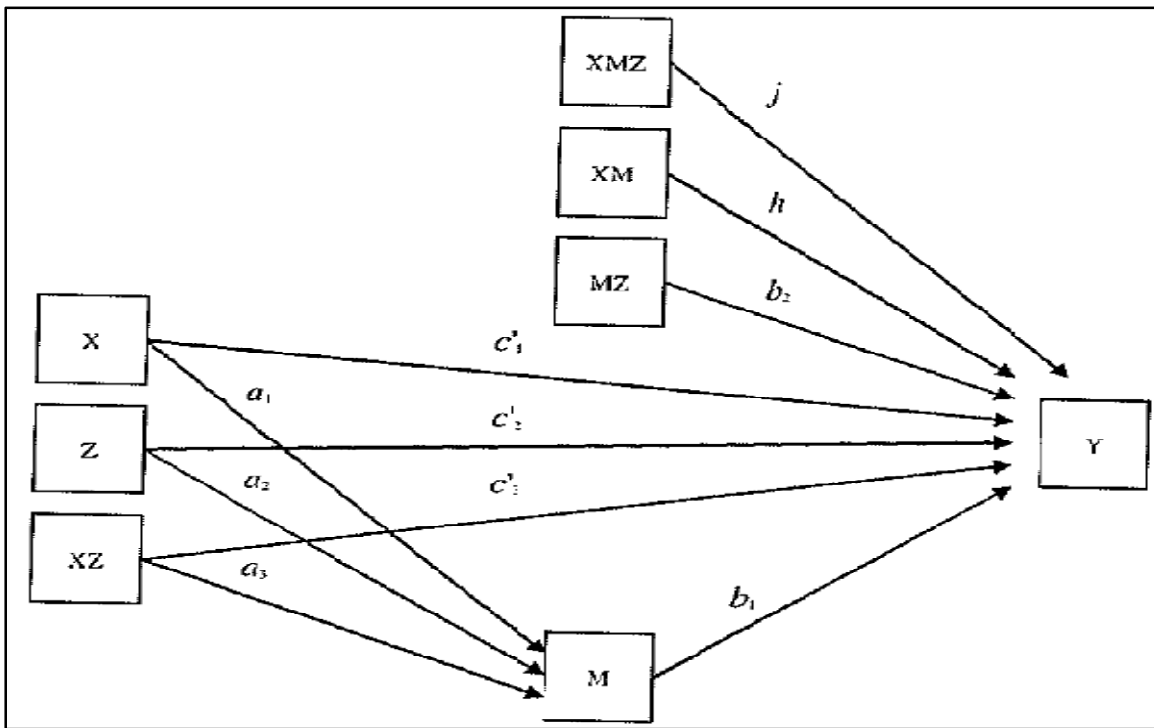


Figure 3: A General Joint Analysis Model (Fairchild & MacKinnon, 2009 Fig. 6, p.92)

Note. X= the independent variable, Y= the dependent variable, Z= the moderator variable, M= the mediating variable, XZ= the interaction of X and Z, MZ=the interaction of M and Z, XM= the interaction of X and M, and XMZ= the three-way interaction between X, M, and Z

Consistent with Poppo and Zenger (2002) and Goo et al. (2009) line of thinking, we also resonate that despite the convincing arguments about buyer-supplier trust and formal contracts acting as substitutes the logic for considering these two governance mechanisms as complements rather than as substitutes remains more substantial. Firstly, we also deliberate that the combined power of formal contracts and relational governance mechanisms may be much higher in terms of safeguarding assets and they can jointly deliver much higher exchange performance than either governance choice in isolation.

Secondly, we also resonate that well-crafted formal contracts promote longevity in exchanges by increasing the penalties for a party that may dissolve an exchange relationship. Thirdly, the process of developing a comprehensive and complex contract itself requires parties to engage in joint problem solving and both parties have to work as a team to develop and negotiate the various provisions that are incorporated in the SLA, including difficult aspects of the contract such as acceptable service levels, penalties for noncompliance and future contract changes. These joint efforts also lead to the development of social relationships between the two parties. Consistent with the aforementioned debate, we therefore hypothesize that;

H12: The foundation characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance

H13: The change characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance

H14: The governance characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance

2.9 The research model to be tested

Figure 4 shows the research model to be tested in this study with all the hypothesized relationships between: outsourced formal contracts (foundation, change and governance characteristics), relational governance mechanisms (i.e. Buyer-supplier trust and supplier opportunism) and supplier delivery performance. The outsourced formal contractual elements (i.e. foundation, change and governance) influence the relational governance mechanisms (i.e. buyer-supplier trust and supplier opportunism) which influences supplier’s delivery performance of public sector procurement.

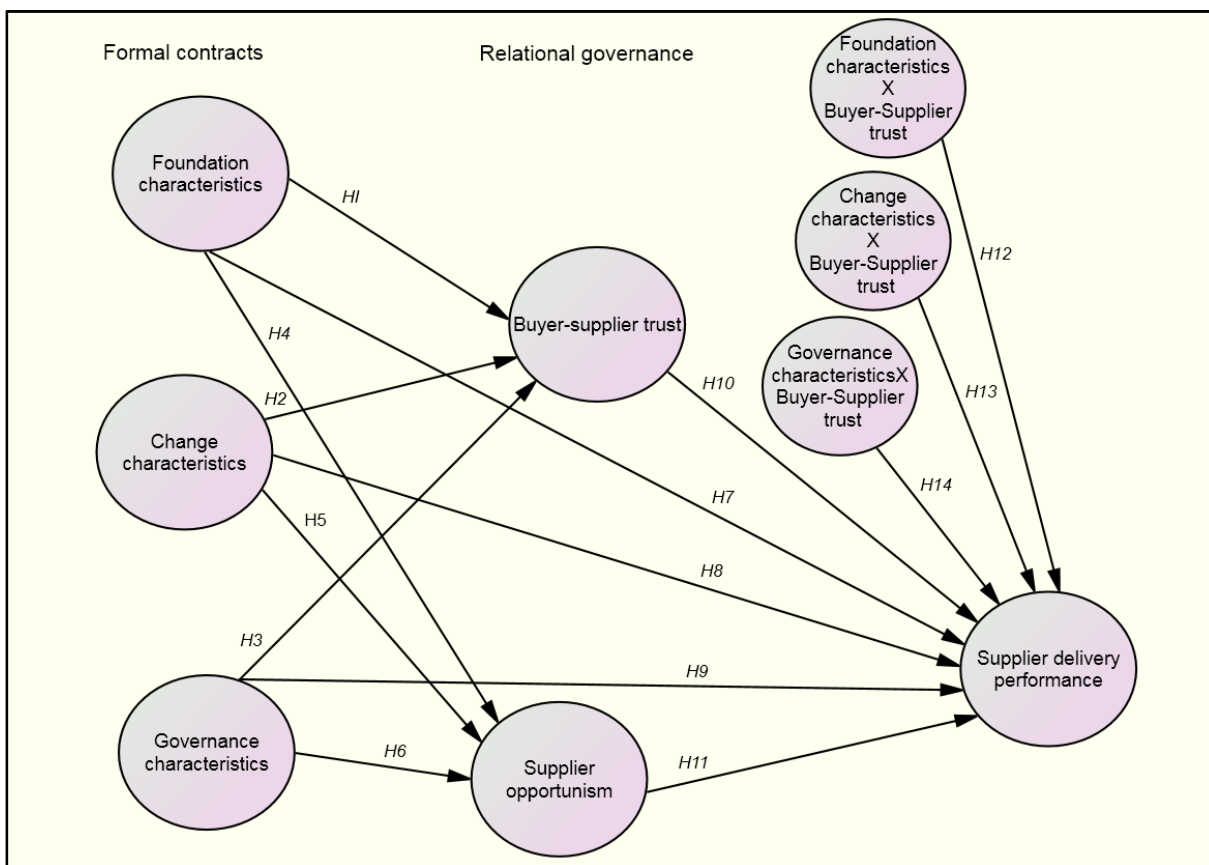


Figure 4: Research Model for Supplier Delivery Performance of Public Sector Procurement

3. Methodology

3.1 Operationalization of study constructs

The sources for research and tested instruments used to operationalize study constructs were as follows; Outsourced formal contract was measured based on amalgamation of works of Goo et al. (2009) and Stefanie et al. (2010). Thirty three items were modified and measured the extent to which provision of the eleven elements (which were summarized under foundation, change management and governance characteristics) are addressed in the SLA. Responses were anchored on a five (5)-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Buyer–supplier trust was assessed based on an amalgam of Morgan and Hunt (1994) and Stefanie et al., (2010) measurements that were modified to suit this study and captured dimensions such as benevolence, dependability, honesty, competence and friendliness.

Supplier opportunism was measured based on measurements from Wathne and Heide (2000) and Ntayi et al. (2010c) that were modified to suit the current study and dimensions like withholding information, failing to fulfill obligations, evasion, refusal to adapt, violation, and forced renegotiation were improved. Supplier delivery performance measurements were modified from works of Ntayi et al. (2010c) and item scales for on-time delivery, delivery reliability, order completeness, delivery speed, quality of goods provided by the supplier, reduced costs and reduced user complaints were received were added to the questionnaire.

3.2 Survey Design and pilot testing

The initial draft of the survey was first pilot tested using management professors from Makerere University Kampala, a major research university in Uganda, as respondents. Further, the pilot survey was also tested using individuals from 48 public sector organizations as respondents and yielded 95% response rate. Based on these pilot tests and comments from respondents concerning the clarity of the questions contained within the survey, measurement items were improved as required. Consistent with the guidelines set forth by Dillman (1991); questions were brief and to the point, addressing only a single issue at a time. In addition, each construct as outlined in the conceptual model proposed by this study was measured by at least three questions or items that were created on the basis of established theory. Survey questions were designed to capture perceptions of Accounting Officers (AO) and Contract Committees (CC) and Procurement Officers had about outsourced contracts for which they are expected to manage on an ongoing basis. Perceptual measures are frequently used in management research since they can parallel objective data in accuracy and research has supported the use of department managers as the key respondents for questions regarding performance within their respective departments and organization (Kearns & Sabherwal, 2007).

3.3 Sampling Procedure, data collection and survey responses

Data were collected from all 116 central government entities on outsourced contracts in Uganda in classifications of 14 commissions, 12 hospitals, 26 ministries and 64 parastatals. For each public entity, at least members of contracts committee (CC), Head of Procurement department and members of user departments were interviewed. These individuals were considered to be more knowledgeable about the subject matter of this study because of their participation in awarding, signing, renegotiating, monitoring and termination of outsourced contracts. The list of these public entities was obtained from the Public Procurement and Disposal of Assets Authority (PPDA) compliance assessment report (2009). A self-administered survey was used to obtain data from respondents. A five (5) point Likert scale ranging from 5-Strongly Agree 4-Agree 3-Not Sure 2-Disagree to 1-Strongly Disagree was used to measure respondents responses to the various questions included in the survey. 750 copies of the survey instrument were sent out to 116 central government entities. 612 usable questionnaires representing 81.6% response rate returned. The descriptive statistics revealed that the services that had been outsourced most frequently included cleaning services (85.3%), consultancy (74.2%), security (70.9%), IT and maintenance (70.3%), courier & messenger (44.8%) and transportation (34.3%). The respondents from the Parastatals (55.6%) dominated the study followed by those from the Ministries (25.5%), Commissions (17.0%) and Hospitals (2.0%). Among the entities with over 1000 employees, the majority were Parastatals (60.0%) while the Ministries comprised 24.0% of this workforce category.

4. Data Analysis and Results

The data was analysed using Structural Equation Modelling (SEM) in AMOS Version 19.0 for tracing structural relations between the study constructs (Joreskog & Sorbom, 1989). SEM was preferred due to its capability for confirmatory analyses with explicit test statistics that establish convergent and discriminant validity which is important for management research, tests an overall model rather than individual coefficients, allows for error terms and reduces measurement error through the use of multiple indicators (Kearns & Sabherwal, 2007). Consistent with Anderson and Gerbing (1988), the analysis of the measurement and structural models was carried out in a two-step process. This allowed improvement of measures before testing of the structural model and is consistent with previous studies (Byrne, 2001; Kearns & Sabherwal, 2007). Firstly, the measurement model was used to measure the fit between the theorized model and observed variables and to establish reliability and validity. Secondly, the results of the measurement model were used to create a structural model in order to measure the strength of the theorized relationships. Since, this study employed a confirmatory rather than exploratory approach, in order to allow for cross-validation of findings, the total sample (N=612) was split into two samples (calibration sample (N=306) on which the initially hypothesised model was tested and validation sample (N=306) for testing the validity of its structure) (Byrne, 2001, p.249).

4.1 Validity and Reliability

Using the raw data file as input, this study strictly used Confirmatory factor analysis (CFA) to verify the measurement model by examining construct validity in measuring how well individual items represent the construct. Firstly, both construct validity and discriminant validity were tested to demonstrate the dimensionality of the constructs in the measurement model. Consistent with Jung, Wang & Wu (2008), in this study, construct validity was evaluated in two ways: (1) High factor loadings with significant t-values are mostly good indicators of the construct validity and (2) A high squared correlation value for a construct also indicates good construct validity (Anderson & Gerbing, 1988; Joreskog & Sorbom, 1989). All six constructs demonstrated good model fit when subjected to Hu and Bentler's (1999) criteria and Rigdon's (1996) criteria. The factor loading of each item in all six constructs was reasonably acceptable i.e. above 0.40 (Table 2). In addition, all the factor loadings were significant, indicated by their corresponding critical ratios above 2 (Table 2). Following guideline by Fornell and Larcker (1981), squared correlations values were then calculated for each construct. The Average Variance Extracted (AVE) for each of the eight constructs exceeded the suggested threshold of 0.50, indicating that the variance captured by a construct was larger than the variance due to measurement errors (Jung et al, 2008). Hence, the construct validity of the six constructs was established.

Discriminant validity was also established for any construct pair, the AVE of each construct exceeded the square of the construct correlations shown in the table 2. No correlation exceeded the prescribed limit of 0.90 which was a good indicator that there was no multicollinearity in this study. Chi-square (χ^2) difference tests were also run for all possible construct pairs. For each pair, a comparison was made between the χ^2 values for the constrained model and the unconstrained model. The constrained model represents a case in which the variances and covariance for the construct pairs were constrained to unity. The χ^2 differences were significantly less for the unconstrained models compared to the constrained models, suggesting that the better model was the one in which the factors were separate but correlated (Anderson & Gerbing, 1988).

Further, the reliability analysis was conducted by calculating the Cronbach's alpha coefficient for each construct. The results showed that the Cronbach's alpha measures for all six constructs well exceeded the recommended critical point of 0.70 (Hair et al., 1998), indicating good internal-consistency reliability.

Table 2 shows final results of construct validity and reliability tests for the measurement model.

Table 2: Construct validity and reliability

Constructs and final items		Std. loading	Critical ratio	R square	Cronbach Coefficient
<i>Code</i>	<i>Foundation characteristics</i>				.84
Scontt1	Our outsourcing contracts contain a statement of the key business measurements required.	.78	14.17	.60	
Scontt2	Outsourcing contracts contain established service quality targets	.85	15.50	.73	
Scontt3	Outsourcing contracts contain general description of the services required, major categories of the services, specific service elements.	.75	13.60	.57	.87
	<i>Change characteristics</i>				
Futu3	The contract indicates processes that we should use to prioritize changes and modify the volume, type or level of service to match evolving user requirements.	.69	12.71	.47	
Antic1	The outsourcing contract specifies relevant technology, business and industry drivers for change.	.77	14.99	.60	
Antic2	The contract specifies roles, responsibilities and decision making procedures for each category of change.	.75	14.19	.56	
Antic3	We include clear definitions of the key categories of change e.g. charges for volume changes.	.78	15.22	.62	
Inpl1	Outsourcing contracts stipulate process for innovation including implementation and prioritization.	.76	14.72	.58	.80
	<i>Governance characteristics</i>				
Meas2	Our outsourcing contracts contain definition of what is to be measured e.g. price, customer satisfaction.	.74	14.30	.55	
Meas3	Our outsourcing contracts contain definition of the processes to periodically measure the defined categories.	.81	16.15	.75	
Enfor1	Our outsourcing contracts contain penalty definitions and formular.	.75	14.55	.56	
Enfor3	Outsourcing contracts contain statement of exit responsibilities	.87	17.76	.75	
Comm2	Outsourcing contracts show organizational reporting structure.	.50	8.83	2.5	.83
	<i>Buyer –supplier trust</i>				
Trust7	This supplier has no problems answering our questions.	.55	9.67	.30	
Benv1	This supplier has made sacrifices for us in the past.	.56	9.69	.31	
Benv2	This supplier cares for us.	.80	15.55	.63	
Benv3	In times of shortages, this supplier has gone out on an extremity for us.	.59	10.53	.35	
Benv4	This supplier is like a friend.	.78	15.20	.60	.80
Benv5	We feel the supplier has been on our side.	.85	17.17	.72	
	<i>Supplier opportunism</i>				
Oppbr7	Our providers evade the performance of some duties.	.54	8.39	.29	
Oppbr8	Our providers refuse to adopt our contract terms and conditions	.50	7.53	.25	
Oppbr9	On occasion, the supplier has lied about certain things in order to protect his interest.	.99	18.47	.98	
Oppbr10	Sometimes the provider slightly alters facts in order to get what he wants.	.72	13.76	.52	.81
	<i>Supplier delivery performance</i>				
Costs2	The cost of outsource services in this entity is low compared to the previous in house services.	.72	13.64	.52	
Usesa3	I feel we should continue with our outsourced providers.	.74	14.03	.55	
Usesa4	Outsourced providers provide services that we expect.	.66	11.87	.43	
Ledt1	Outsourced providers perform their tasks promptly.	.56	9.82	.32	
Relmg1	Our outsourced providers are cooperative in problem solving.	.83	16.583	.69	

4.2 Self reporting, social desirability and analysis of non-response bias

Self-reports and social desirability usually lead to common method variance in survey research when sampling perceptual data (Podsakoff, Mackenzie, Lee & Podsakoff, 2003). The main concern is that common methods bias leads to type 1 & 2 errors whereby the researchers may accept or reject the null hypothesis when they should not have done so. Common method bias was deliberately addressed in three ways; firstly, the questionnaire was designed to avoid implying that one response is better than the other hence controlling self-report data and also avoided socially accepted responses (Kearns & Sabherwal, 2007).

Secondly, we assessed common methods variance using Harman's one factor test (Podsakoff et al, 2003). If common method bias accounts for the relationships among variables, then a factor analysis should yield a single factor when all the items are analysed together. No single factor emerged or one general factor accounted for most of the variance implying that no substantial common method variance was present.

Thirdly, a confirmatory factor analysis approach was used to test a model positing that a single factor underlies the study variables, by linking all the items to a single factor for common method variance (Kearns & Sabherwal, 2007). The model exhibited a poorer fit as compared to the initial and final measurement models suggesting that common method variance was not a problem.

Non response bias was established in T-tests by comparing the average values for each of the constructs for the first quartile completed questionnaires received versus the last quartile completed questionnaires allowing the late questionnaires to proxy the perceptions of non-respondents. Mean differences for each of the constructs did not reveal any significant difference between the early and late questionnaires (2-tailed *t*-tests, $p < 0.05$). This comparative test depicted the absence of non-response bias in this study.

4.3. The structural model

As earlier stated, results from the final measurement model were used to create the structural model that tested the strength and significance of the theorized relationships. The results from final model with standardised path coefficients are shown in Figure 5 and summarised in Table 3. The final structural model accounts for 48.5% of the variation in supplier delivery performance. Thus, the model is very successful in accounting for a substantial portion of the variability in supplier delivery performance. Four paths coefficients did not demonstrate the expected results; the path coefficients between change characteristics and buyer-supplier trust; change characteristics and service delivery performance were non-significant. Similarly, the path coefficients between change characteristics and supplier opportunism was expected to be negative but instead was positive though significant. The interaction effect of change characteristics and buyer-supplier trust also indicated a negative impact on the relationship with supplier delivery performance.

Goodness-of-fit was used to describe how well the statistical model fits the sample data and to determine whether the data supports a hypothesized model in SEM. It was established by multiple indices to negate bias associated with the use of a single index. The examples of measures that were used include Average Absolute Standardised Residual (AASR), Chi-Square per degree of freedom (χ^2/df), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), Root Mean Square Residual (RMSR) and Root Mean Square Error of Approximation (RMSEA) (Joreskog & Sorbom, 1989).

4.4 Results

The results suggest that the model adequately fits the data ($\chi^2/df = 2.58$, $p < 0.01$), the other fit indices also suggested a good fit to the model (CFI = .90, TLI = .88, RMSR = .08, RMSEA = .077). Although χ^2 is recognised as a measure of fit, it is usually affected by the size of correlations within the model and can produce inaccurate probability values particularly for samples outside the range of 100-200 (Kearns & Sabherwal, 2007). Since χ^2 is almost always significant for larger sample sizes, it was replaced with χ^2/df with values of less than 3 being acceptable. Based on these values, the final structural model was deemed acceptable since the hypothesised model adequately fits the sample data (Byrne 2001; Joreskog & Sorbom, 1989).

Figure 5: shows the results of the structural model and standardised path coefficients.

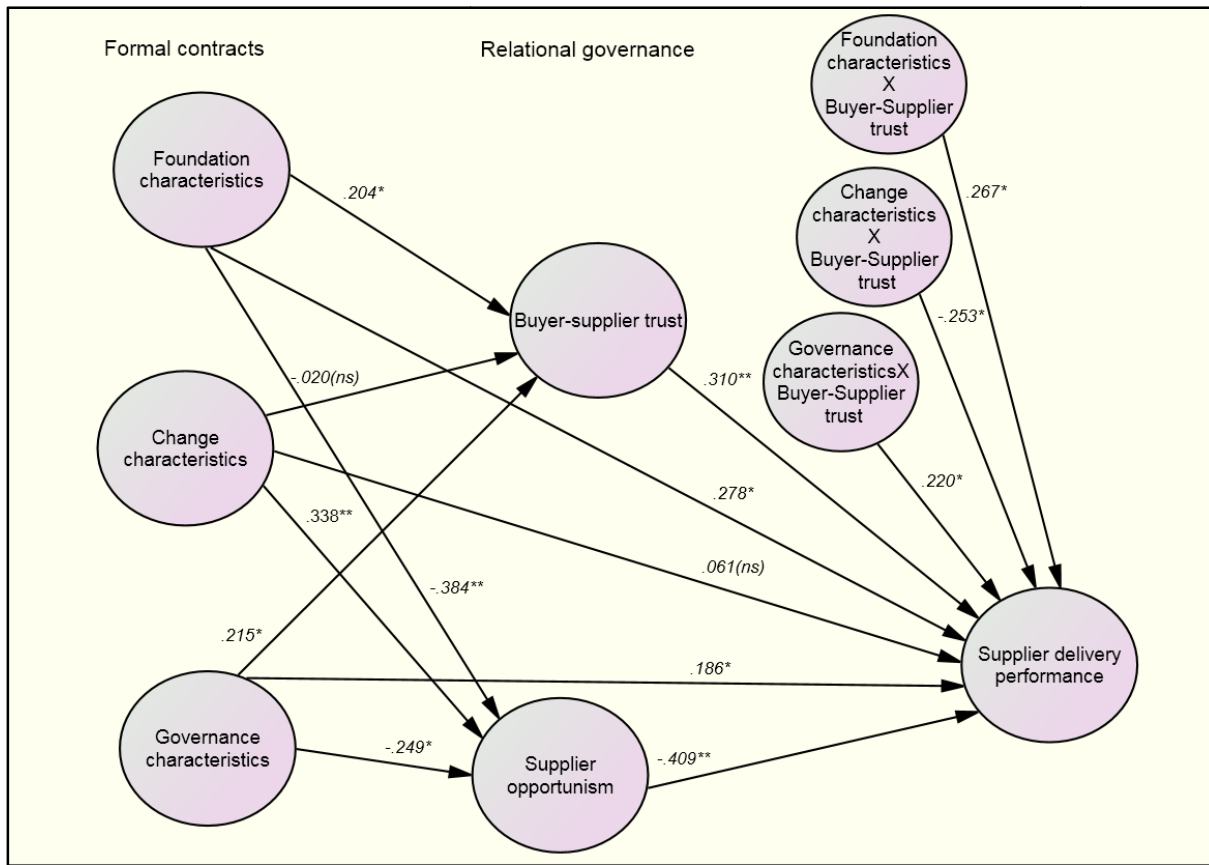


Figure 5: Results of the final Structural Equation Model

Note: All model coefficient are standardised, ns means non-significant path coefficients

Table 3 summarises the results of the final Structural Equation Model.

Table 3: Summary of the results of the final Structural Equation Model				
		Buyer-Supplier trust (BST)	Supplier Opportunism (SO)	Supplier Delivery Performance (SDP)
Service Level Agreement (SLA) characteristics for formal contracts	Foundation characteristics (FC)	.204*	-.384**	.278*
	Change characteristics (CC)	-.02	.338**	.061
	Governance characteristics (GC)	.215*	-.249*	.186*
Relational governance	Buyer-Supplier Trust (BST)			.310**
	Supplier Opportunism(SO)			-.409**
Interaction Terms	FC x BST			.267*
	CC x BST			-.253*
	GC x BST			.220*
R-square		.267	.289	.485

Note: The numbers in the cells are standardised beta coefficients from covariance based structural model.
*p<0.05, **p<0.01

4.5 Supports for Research Hypotheses

Based on a sample of 612 observations provided by civil servants who are responsible for the general management of outsourced contracts in Ugandan public sector, survey data supported 10 of the study's 14 hypotheses as shown in Table 4. The results reveal that all three outsourced contractual elements have significant effects on all the two relational governance elements as follows: Foundation characteristics were positively and significantly associated with buyer-supplier trust ($\beta=0.204$, $p<0.05$) supporting *H1: There is a positive relationship between foundation characteristics of outsourced formal contracts and buyer-supplier trust*. Change characteristics were negatively associated with buyer-supplier trust and not significant as postulated ($\beta=-0.02$, $p>0.05$) hence failing to provide support for *H2: There is a positive relationship between change characteristics of outsourced formal contracts and buyer-supplier trust*. The governance characteristics had positive and significant effects on buyer-supplier trust ($\beta=.215$, $p<0.05$) hence providing support for *H3: There is a positive relationship between governance characteristics of outsourced formal contracts and buyer-supplier trust*.

There was a negative and significant association between foundation characteristics and supplier opportunism ($\beta=-.384$, $p<0.01$) supporting *H4: There is a negative relationship between foundation characteristics of outsourced formal contracts and supplier opportunism*.

The results also pointed out that change characteristics had a positive and significant influence on supplier opportunism ($\beta=.338$, $p<0.01$) which was contrary to the initially hypothesised negative relationship *H5: There is a negative relationship between change characteristics of outsourced formal contracts and supplier opportunism*. The results also revealed that governance characteristics were negatively and significantly associated with supplier opportunism ($\beta=-.249$, $p<0.05$) hence supporting *H6: There is a negative relationship between governance characteristics of outsourced formal contracts and supplier opportunism*.

The results also indicated that foundation characteristics have positive and significant direct effects on supplier delivery performance ($\beta=.278$, $p<0.05$) thereby, supporting *H7: There is a positive relationship between foundation characteristics of outsourced formal contracts and supplier delivery performance*. However, the path coefficient between change characteristics and supplier delivery performance was positive but not significant ($\beta=.061$, $p>0.05$) thus, not supporting *H8: There is a positive relationship between change characteristics of outsourced formal contracts and supplier delivery performance*. Similarly, there was direct significant association between governance characteristics and supplier delivery performance ($\beta=.186$, $p<0.05$) thus, empirically providing evidence for *H9: There is a positive relationship between governance characteristics of outsourced formal contracts and supplier delivery performance*.

Additionally, the results reveal that buyer-supplier trust has a significant effect on supplier delivery performance ($\beta=.310$, $p<.01$): thus supporting *H10: There is a positive relationship between buyer-supplier trust and supplier delivery performance*. As expected there was a negative and significant association between supplier opportunism and supplier delivery performance ($\beta=-.409$, $p<0.05$) thus supporting *H11: There is a negative relationship between Supplier opportunism and supplier delivery performance*.

Finally, all the moderation hypotheses were all significant confirming existence of moderation effects of buyer-supplier trust on the relationship between formal contractual elements and supplier delivery performance. Specifically, there was a positive and significant influence between the interaction effects of foundation characteristics and buyer-supplier trust on supplier delivery performance ($\beta=.267$, $p<0.05$) thereby, supporting *H12: The foundation characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance*. There was a negative and significant influence between the interaction effects of change characteristics and buyer-supplier trust on supplier delivery performance ($\beta=-.253$, $p<0.05$) contradicting the initially hypothesised positive relationship hence failing to provide supporting evidence for *H13: The change characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance*. The interaction effects of governance characteristics and buyer-supplier trust on supplier delivery performance had a positive and significant influence ($\beta=.220$, $p<0.05$) supporting *H14: The governance characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance*.

Table 4: Summary of support for hypotheses using all dependent variables

<i>Hypotheses</i>	<i>Supported</i>
<i>H1: There is a positive relationship between foundation characteristics of outsourced formal contracts and buyer-supplier trust</i>	Yes
<i>H2: There is a positive relationship between change characteristics of outsourced formal contracts and buyer-supplier trust</i>	No
<i>H3: There is a positive relationship between governance characteristics of outsourced formal contracts and buyer-supplier trust</i>	Yes
<i>H4: There is a negative relationship between foundation characteristics of outsourced formal contracts and supplier opportunism</i>	Yes
<i>H5: There is a negative relationship between change characteristics of outsourced formal contracts and supplier opportunism</i>	No
<i>H6: There is a negative relationship between governance characteristics of outsourced formal contracts and supplier opportunism</i>	Yes
<i>H7: There is a positive relationship between foundation characteristics of outsourced formal contracts and supplier delivery performance</i>	Yes
<i>H8: There is a positive relationship between change characteristics of outsourced formal contracts and supplier delivery performance</i>	No
<i>H9: There is a positive relationship between governance characteristics of outsourced formal contracts and supplier delivery performance</i>	Yes
<i>H10: There is a positive relationship between buyer-supplier trust and supplier delivery performance.</i>	Yes
<i>H11: There is a negative relationship between Supplier opportunism and supplier delivery performance.</i>	Yes
<i>H12: The foundation characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance</i>	Yes
<i>H13: The change characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance</i>	No
<i>H14: The governance characteristics of outsourced formal contracts interact with buyer-supplier trust to positively influence supplier delivery performance</i>	Yes

5. Discussion of Findings

The purpose of this study was to examine the moderating effect of buyer-supplier trust on the relationship between outsourced formal contracts and supplier delivery performance in the domain of Ugandan public sector procurement. In so doing, we contribute to the exiting literature by extending and demonstrating the fundamental preposition of complementarity between formal contracts and relational governance mechanism. Barring one exception, the findings of this study clearly demonstrate and favour a complementarity relationship between outsourced formal contracts and relational governance mechanisms (i.e. buyer-supplier trust). All interaction relationships involving foundation and governance characteristics of outsourced formal contracts and buyer-supplier trust indicated positive and significant effects on supplier delivery performance.

Specifically, there was a positive and significant influence between the interactions of foundation characteristics and buyer-supplier trust on supplier delivery performance. Similarly, there was a positive and significant influence between the interactions of governance characteristics and buyer-supplier trust on supplier delivery performance. These results indicate that when the foundation and governance characteristics of outsourced formal contracts are combined with relationships of high buyer-supplier trust, supplier delivery performance improves significantly. This is consistent with Goo et al. (2009) findings that revealed that contractual characteristics induce relational governance mechanisms because they enhanced ability to unilaterally punish performance deviation and strengthen incentives for cooperation as well.

However, our results also provide some mixed evidence with respect to change characteristics of contracts. The study data did not support the initially hypothesised positive relationship between change characteristics and buyer-supplier trust. The change characteristics were found to have a non-significant influence on buyer-supplier trust. Similarly, the relationship between change characteristics and supplier opportunism was initially hypothesised to be negative but instead was positive. This implies that change characteristics do not influence and favour the development of buyer-supplier trust but instead promote supplier opportunism to flourish in outsourced formal contracts.

The interaction of change characteristics and buyer-supplier trust had a negative impact on the relationship with supplier delivery performance. These paradoxical findings indicate that incorporating specific and detailed change clauses in outsourced formal contract may create a detrimental effect on supplier delivery performance through their interaction with buyer-supplier trust. These finding mirror Goo et al. (2009) study that found that formal contracts changes was one of the most intricate aspects of market exchanges and was where opportunism had the most potential to occur. They also suggested that the parties concerned should not include all the contingencies, processes and methods for contractual changes because they may hinder the development of trust in the relationship. The use of case studies and additional surveys in future research might help to explain this phenomenon.

Further results from the analysis revealed that outsourced formal contracts, buyer-supplier trust and supplier opportunism are significant predictors of supplier delivery performance in public sector procurement. This implies that appropriate and methodical management of the outsourced contracts while allowing successful buyer-supplier trust to flourish ultimately leads to better supplier delivery performance. As such, it is important to ensure that procurement officers truly strengthen the relationships that they have with their suppliers as far as the outsourcing transactions are concerned. This mirrors findings by Hoyt and Huq (2000) which have shown how governance mechanisms based on trust and mutual cooperation improve supplier performance.

From the perspective of resource based theory, a better supplier performance is possible when the buyer-supplier relationship exhibits high levels of trust that supports responsiveness and a willingness to assume greater levels of risk. The contractual transactions in the 1980's relied heavily on governance mechanism based on arms-length relationships that were more compatible with the principles of transaction cost theory but transaction cost theory seem to have lost its ability to explain present day buyer supplier relations based on trust and information sharing, as a consequence other explanations must be sought. Other organizational theories like network theory, agency theory and strategy-structure theory are also useful in explaining the role of buyer supplier trust and would be worthy of consideration in a future study. However, the Ugandan public sector procurement seems not to favor long term buyer-supplier relations because of competitive bidding required by the PPDA Act, 2003.

This study also found that supplier opportunistic behavior results in poor quality of services, late deliveries, fake products, contract variations, abrupt price increases, forced renegotiations, information withholding and manipulation, and intentions to cheat the buyers. This is supported by the works of Ntayi et al. (2010b) and Wathne and Heide (2000) which found that opportunistic behaviors were characterized by high transactional costs, withholding and distorting information, failing to fulfill promises or obligations, evasion, refusal to adapt, violation, and forced renegotiation.

In order to address supplier opportunism scholars have suggested designing improved contractual clause involving exchange partners under conditions of uncertainty in order to avoid this type of behavior, and identifying alternative governance mechanisms to mitigate such risk (Stefanie et al., 2010; Goo et al., 2009). These researchers have suggested that as a way to avoid such behavior it is essential that buyers fully disclose expectations for quality and service levels upfront and use these expectations as a means for measuring performance during the execution of the outsourced contract. Similarly, in the context of Ugandan public sector procurement, Ntayi et al. (2010a), Eyaa&Nagitta (2011) and Basheka (2009) have also recommended for effective implementation of well-designed contracts to control supplier opportunism. Although they have also called for serious reprimand against poor suppliers, little has been done to date.

Generally, this research has provided more empirical supporting evidence that is more refined which extends and demonstrates the paradigm that formal contracts and relational governance mechanisms function as complements rather than substitute, as was also found by Stefanie et al. (2010), Goo et al. (2009), Miranda and Kavan (2005), Poppo and Zenger (2002).

6. Managerial and Policy Implications

This research has demonstrated the moderating effect of buyer-supplier trust on the relationship between the outsourced formal contracts and supplier delivery performance. Similarly, outsourced formal contracts, buyer-supplier trust and supplier opportunism were found to be significant predictors of supplier delivery performance. Since outsourcing is important in improving and delivering better services, it is quite necessary that these public entities ensure that they cultivate and develop trusting relationships with reputable firms that over time have been outsourced and shown to be good performers. It should be noted that buyer-supplier trust takes time to emerge from fair transactions and cannot be forced. Unfortunately, the PPDA Act, 2003 does not favor the growth of long term relationships which are a prerequisite for trust. Clearly, changes to current legislation as it stands, is needed if longer term more trust-based relationships between buyers and suppliers are to be developed.

Likewise when developing mutually trusting relationship between buyers and suppliers, buyers should ensure that they engage in fair conduct as it relates to agreements that may be in force. When suppliers feel they are not getting what they ultimately deserve or were promised, they may end up performing well below their capacity, thus negatively affecting the buyer's organization in the process. In the same spirit of open and fair conduct, public entities should also ensure that they clearly specify and outline product or service specifications as required and once delivered as needed that they make payments to suppliers in a timely fashion as outlined by the terms of the contract. In so doing, outsourced suppliers will not only have a better understanding of what they need to deliver, but with payment assured, they should also be more motivated to do so and in a more effective and efficient manner.

There is a need for senior public officials to be committed to resist dealing with prevalent opportunistic tendencies in order for the contracts they manage to achieve their set targets and objectives. This top-level management commitment should be directed towards and permeate throughout all the public institutions that they manage so that even lower level employees are all resistant to this detrimental behavior. As a means to help those involved with procurement overcome the challenges associated with opportunistic tendencies, procurement officers, evaluation committees, and contract committees should also focus increased attention on strengthening supplier evaluation procedures so as to proactively avoid opportunistic suppliers. Further, public entities need to develop mechanisms to deal with suppliers who engage in opportunistic behavior.

Finally, the PPDA Authority which is mandated with regulating public sector procurement in Uganda should consider making a deliberate effort to educate suppliers about the dangers of opportunistic behavior and its negative consequences on supplier delivery performance. During these sessions, suppliers should be encouraged to refrain from this type of behavior and made to clearly understand that engaging in opportunistic behavior will impact negatively future business prospects with the PPDA Authority. Suppliers who refuse to adapt should be black listed and not awarded future tenders.

7. Limitations and Future Research Directions

Although this research provided some interesting findings and makes an important contribution to the public procurement literature concerning outsourced formal contracts, buyer-supplier trust, supplier opportunism, and supplier delivery performance, there are some limitations worth noting. Although the two constructs of buyer-supplier trust and supplier opportunism are robust and sufficiently represent the relational aspects, the multidimensional nature of relational practises can be investigated further. The change characteristics were expected to positively influence buyer-supplier trust but did not. The use of case studies and additional surveys in future research might help to explain this phenomenon. Despite the diagnostic statistical tests for common methods bias, the use of a questionnaire where all the data was collected in the same measurement context using a common rater and with common item context makes common methods bias remain a potential threat. The future studies should also try to obtain measurements of the independent and dependent variables from different sources and at different times.

The data collection instrument that was used for this study was a standard questionnaire which usually limits the ability to collect information beyond the questions contained within the survey instrument. Future research may use a qualitative case-based approach that uses in-depth interviews to solicit unstructured views about opportunistic behavior and suppliers.

This study used a cross sectional research design approach, the behaviors of the variables over time were could therefore not be analyzed and this restricts the applicability of the findings since a longitudinal study may give different results from the ones that were obtained by this work.

Lastly, future research could employ a larger sample involving different types of public procurement stakeholders like the regulators, evaluation committees, local government (districts), chief administrative officers and town clerks among others. These future studies may also want to involve key respondents from suppliers that may have provided outsourced goods and or services. It would be interesting to compare and contrast viewpoints of both buyers and suppliers and in so doing , may provide insights into the basis for the phenomenon examined by this research that is otherwise unavailable at this time.

Conclusively, this research has demonstrated the moderating effect of buyer-supplier trust on the relationship between the outsourced formal contracts and supplier delivery performance. Similarly, outsourced formal contracts, buyer-supplier trust and supplier opportunism were found to be significant predictors of supplier delivery performance. In summary, this research has provided more refined empirical supporting evidence that extends and demonstrates fundamental preposition of complementarity between formal contracts and relational governance mechanisms.

References

- Ahimbisibwe, A., & Muhwezi, M. (2010). Vertical Collaborations, Buyer-Supplier Compliance and Contract Performance in Public Procuring and Disposing Entities (PDEs) in Uganda. A Case of National Water and Sewerage Corporation (NWSC) Uganda. Paper Presented at the Operations Research for Southern and Eastern Africa (ORSEA) Conference Proceedings, Kampala, Uganda.
- Anderson, J. C., & Gerbing, D. W. (1988) Structural Equation Modelling in Practice: A Review and Recommended Two-Step Approach. *Psychol. Bull.*, 103 (3):411–423.
- Ang, S., & Straub, D.W. (1998). Production and Transaction Economics and IS Outsourcing: A Study of the US Banking Industry. *MIS Quarterly*, 22 (4): 535-552.
- Artz, K.W., & Brush, T. H. (2000). Asset Specificity, Uncertainty and Relational Norms: An Examination of Coordination Costs in Collaborative Strategic Alliances. *Journal of Economic Behaviour & Organization*, 41(4): 337-62.
- Basheka, B. C. (2009). Public Procurement Corruption and its Implications on Effective Service Delivery in Uganda: An Empirical Study. *International Journal of Procurement Management*, 2 (2): 415-440.
- Baron, R.M. & Kenny, D.A. (1986). The Moderator Mediator Variable distinction in Social Psychological Research: Conceptual, Strategic and Statistical considerations. *Journal of Personality and Social Psychology*, 51(3), 1173- 1182.
- Boyd, B.K., Haynes, K.T., Hitt, M.A, Bergh, D.D & Ketchen, D.J. (2012). Contingency Hypotheses in Strategic Management Research: USE, DISUSE, OR MISUSE. *Journal of Management*, 38 (1):278-313.
- Byrne, B.N. (2001). Structural Equation Modeling with AMOS: Basic Concepts, Applications and Programming. Rahwah, NJ Lawrence Erlbaum.
- Chiles, H.T., & McMackin, J.F. (1996). Integrating Variable Risk Preferences, Trust, and Transaction Cost Economics. *Academy of Management Review* 21(1): 73-99.
- Corbitt, B. J., Thanasankit, T., & Yi, H. (2003). The Relationship between Buyer and a B2B E-Market Place: Cooperation Determinants in an Electronic Market Place Context. *Electronic Commerce Research and Applications*, 2 (3): 203-215.
- Dillman, D. A. (1991). The Design and Administration of Mail Surveys. *Annual Review of Sociology* 17: 225-248.

- Dyer, J.H., & Chu, W. (2003). The Role of Trustworthiness in Reducing Transaction Costs and Increasing Information Sharing: Empirical Evidence from the United States, Japan, and Korea. *Organization Science* 14(1): 57-68.
- Eyaa, S., & Nagitta, P.S. (2011). Explaining Compliance in Public Procurement in Uganda. *International Journal of Business and Social Science*, 2 (11): 35-44.
- Fairchild, A. J., & MacKinnon D.P. (2009). A General Joint Analysis Model for Testing Mediation and Moderation. *Preventive Sciences*, 10: 87-99.
- Fornell C. & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1):39-50.
- Gottschalk, P., & Solli-Saether, H. (2005). Critical Success Factors from IT Outsourcing Theories: An Empirical Study. *Industrial Management & Data Systems*, 105 (6): 685-702.
- Grover, V., Teng, T.C., & Cheon, M.J. (1998). Towards a Theoretically-Based Contingency Model of Information Systems Outsourcing. In Willcocks, L.P. and Lacity, M.C. (Eds.), *Strategic Sourcing of Information Systems: Perspectives and Practices* (pp. 79-101). Chichester, UK: John Wiley & Sons.
- Goo, J., Kishore, R., Rao, H.R., & Nam, K. (2009). "The Role of Service Level Agreements in Relational Management of Information Technology Outsourcing: An Empirical Study." *MIS Quarterly*, 33(1): 119-145.
- Gulati, R., & Nickerson, J.A. (2008). Interorganizational Trust, Governance Choice and Exchange Performance. *Organizational Science* 19 (2): 1-21.
- Hair, J.F., Black, W.C., Babin, B.J, & Anderson, R.E (2009). *Multivariate Data Analysis* (7th Ed.). Englewood Cliffs, NJ: Prentice Hall.
- Hancox, M., & Hackney, R. (2000). IT Outsourcing: Frameworks for Conceptualizing Practice and Perception. *Information Systems Journal*, 10 (3): 217-237.
- Hoyt, J., & Huq, F. (2000). From Arm's Length to Collaborative Relationships in the Supply Chain: An Evolutionary Process. *International Journal of Physical Distribution & Logistics Management*, 30 (9): 750-764.
- Hu, L., & Bentler, P.M. (1999). Cut off Criteria for Fit Indices in Covariance Structure Analysis: Conventional Criteria versus New Alternatives. *Structural Equation Modelling*, 6 (1): 1-55.
- Inspector General of Government (2009). *Report on the Alleged Irregular Procurement of Tetra Communication Walkie Talkies System for CHOGM*. Kampala, Uganda: Auditor General. Retrieved from: www.igg.go.ug/static/files/publications/CHOGM_TALKIE.pdf.
- Inspector General of Government (2010). Report to Parliament: January –June 2010. Kampala, Uganda: Inspectorate of Government. Retrieved from: <http://www.igg.go.ug/static/files/publications/ig-annual-report-2010.pdf>.
- Johnston, D. A., McCutcheon, D. M., Stuart, I., & Kerwood, H. (2004). Effects of Supplier Trust on Performance of Cooperative Supplier Relationships. *Journal of Operations Management*, 22: 23-38.
- Joreskog, K. G., & Sorbom, D. (1989). *LISREL 7: A Guide to the Program and Applications*, 2nd ed. Chicago, IL: SPSS.
- Jung, Y.J., Wang, J.W., Wu, S. (2008). Competitive Strategy, TQM Practice, and Continuous Improvement of International Project Management: A Contingency Study. *International Journal of Quality and Reliability Management*, 26 (2): 161-183.
- Kearns, G.S., & Sabherwal, R. (2007). Antecedents and Consequences of Information Systems Planning Integration. *IEEE Transactions on Engineering Management*, 54(4): 628-643.
- Koh, T. K., Fichman, M., & Kraut, R. (2009). Trust across Borders: Buyer-Supplier Trust in Global B2B E-commerce. Paper 120: 1-38. Tepper School of Business. Retrieved from: <http://repository.cmu.edu/tepper/120>. (Accessed on December 20, 2011).
- Lambe, C.J., Spekman, R.E., & Hunt, S.D. (2002). Alliance Competence, Resources, and Alliance Success: Conceptualization, Measurement and Initial Test. *Journal of the Academy of Marketing Science*, 30(2): 141-158.
- Lonsdale, C. & Cox, c. (2000). The Historical Development of Outsourcing: The Latest Fade? *Industrial Management & Data Systems*, 96 (1), 444-450

- Luo, Y. (2002). Contract, Cooperation and Performance in International Joint Ventures. *Strategic Management Journal*, 23 (10): 903-19.
- Morgan, R. M., & Hunt, S. D. (1994) . The Commitment-Trust Theory of Relationship Marketing. *Journal of Marketing*, 58 (3): 20-38.
- Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89(6): 852-863.
- National Integrity Survey (2008). *Inspectorate of Government Final Report*. Kampala, Uganda: Inspectorate of Government. Retrieved from: <http://www.igg.go.ug/static/files/publications/third-national-integrity-survey-report.pdf>.
- Ntayi, M.J., Eyaa, S., & Ngoma, M. (2010a). Moral Disengagement and Social Construction of Procurement Officer's Deviant Behaviors. *Journal of Management Practice and Policy*, 11 (4): 95-110.
- Ntayi, M.J., Rooks, G., Eyaa, S., & Qian, C. (2010b). Perceived Project Value, Opportunistic Behavior, Interorganizational Cooperation and Contractor Performance. *Journal of African Business*, 11(1): 124 - 141.
- Ntayi, M.J., Namugenyi, I., & Eyaa, S. (2010c). Supplier Delivery Performance in Ugandan Public Procurement Contracts. *Journal of Public Procurement*, 10 (4): 479-511.
- Ntayi, M.J., Byabashaija, W., Eyaa, S., Ngoma, M., & Muliira, A. (2010d). Social Cohesion, Groupthink and Ethical Behavior of Public Procurement Officers. *Journal of Public Procurement*, 10(1): 68-92.
- Podsakoff, P. M., Mackenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common Methods Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, 88(5): 879-903.
- Poppo, L., & Zenger, T. (2002). Do Formal Contracts and Relational Governance Function as Substitutes or Complements? *Strategic Management Journal*, 23(8):707-725.
- Public Accounts Committee (2010). *The Report of the Public Accounts on the Report of the Auditor General on the Special Audit on the Common Wealth Heads of Government Meeting (CHOGM) 2007, 11th May 2010*. Kampala, Uganda: Parliament of Uganda. *Public Procurement and Disposal of Assets Act* (2003). Retrieved from: http://www.kituoachakatika.org/index2.php?option=com_docman&task=doc_view&gid=876&Itemid=36
- Public Procurement and Disposal of Assets Authority (2008). Final Report –The 2nd *Public Procurement Integrity Survey*. Kampala, Uganda: PPDA. Retrieved from: <http://unpcdc.org/media/142845/ppda%20%202nd%20integrity%20survey.pdf>
- Public Procurement and Disposal of Assets Authority (2009). *PPDA Annual Report 2009-2010*. Kampala, Uganda: Retrieved from: <http://www.ppda.go.ug/>
- Rigdon, E.E. (1996). CFI versus RMSEA: A Comparison of Two Fit Indices for Structural Equation Modelling. *Structural Equation Modelling*, 3 (1):369-79.
- Stefanie, L., Phillip, Y., Kim, W., & Helmut, K. (2010). Relational Governance Mediates the Effect of Formal Contracts on BPO Performance. A Paper Presented at the 18th European Conference on Information Systems (ECIS), June 8th-9th, Pretoria, South Africa. Retrieved from: <http://aisel.aisnet.org/cgi/viewcontent.cgi?article=1121&context=ecis2010>.
- Venkantraman, N. (1989). The Concept of Fit in Strategy Research: Toward a Verbal and Statistical Correspondence. *Academy of Management Review*, 14 (3), 423-444
- Wathne, K.H., & Heide, J.B. (2000). Opportunism in Interfirm Relationships: Forms, Outcomes and Solutions. *Journal of Marketing*, 64 (4): 36-51.
- Williamson, O.E. (1979). Transaction-Cost Economics: The Governance of Contractual Relations. *The Journal of Law and Economics*, 22 (2): 233-61.
- Zaheer, A., McEvily, B., & Perrone, V. (1998). "Does Trust Matter? Exploring the Effects of Interorganizational and Interpersonal Trust on Performance." *Organization Science*, 9 (2): 141-159.