EFFECT OF CONTRACTOR SELECTION CRITERIA AND DEVELOPMENT ON CONTRACTOR PERFORMANCE IN MUBENDE DISTRICT LOCAL GOVERNMENT OF UGANDA

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DECLARATION

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This dissertation has been submitted for examination with the approval of the supervisors.

…….. ……

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(UMI based

DEDICATION

This project is dedicated first of all to God for always guiding me and helping me accomplish my goals. To my lovely parents, Ponsiano (the late) and Lydia, for being who they are, inspiring me to be a better person, teaching me the important things in life and for supporting and trusting me in all my decisions. And to my wife Christine, for being always there for me.

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TABLE OF CONTENTS

Title page ……. **i**
Supervisors ……... **ii**
Declaration …… **iii**
Dedication …… **v**
Acknowledgements ……..… **vi**
Table of Contents ……..**vii**
List of Tables and Figures ……. **x**
List of Abbreviations ……... **xi**
Abstract …… **xii**

CHAPETER ONE: INTRODUCTION

1.0. Introduction ……... 1
1.1. Background to the study …… 1
1.2. Statement of the problem ……... 5
1.3. General objectives …… 6
1.4. Specific objectives …… 7
1.5. Research questions …… 7
1.6. Research Hypothesis …… 7
1.7. Conceptual Framework …… 8
1.8. Significance of the study ……10
1.9. Justification of the study ……11
1.10. Scope of the study ……12
1.11. Limitations and Assumptions ……12
1.12. Operational definition of concepts ……13

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction ……15
2.2. Outsourcing and supply chain management ……15
2.3. Supplier selection criteria and supplier performance ……19
2.4. Supplier development and supplier performance ……23
2.5. Performance measurement systems ……25

2.6. Supplier performance ……26
2.7. Summary ……27

CHAPTER THREE: METHODOLOGY

3.0. Introduction ……29
3.1. Research design ……29
3.2. Study Area ……29
3.3. Study population ……30
3.3.1. Sample size and selection ……31
3.3.2. Sampling procedure ……32
3.4. Methods of Data Collection and instruments ……33
3.4.1. Data collection instruments ……34
3.4.2. Pre-testing of instruments ……36
3.5. Procedure of data collection ……38
3.6. Data analysis ……39
3.6.1. Data processing ……39
3.6.1.2. Data summary ……39
3.6.1.3. Statistical tests……39

CHAPTER FOUR: PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0. Introduction ……42
4.1. Respondent's profile ……42
4.1.1. Response rate ……42
4.1.2. Education level of respondents ……43
4.1.3. Contractors' volume of business ……44
4.1.4. Contractors' district of origin ……45
4.2. Effect of contractor selection criteria on contractor performance ……46
4.2.1. Descriptive analysis ……46
4.2.2. Contractor performance ……49
4.2.3. Correlation between selection criteria and contractor performance ……50
4.2.4. Regression comparisons of performance and selection criteria ……50
4.3. Effect of contractor development on contractor performance ……53

4.3.1. Descriptive analysis ……..…53
4.3.2. Correlation between contractor development and contractor performance ….56
4.3.3. Regression comparisons of performance and contractor development ….56

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0. Introduction ……..59
5.1. Summary ……..59
5.2. Conclusion ……..61
5.3. Recommendations ……..63
5.4. Limitations and directions for future research ……..66

6.0 REFERENCES ……..68

7.0. APPENDICES ……..78
Appendix 1 – Questionnaires ……..78
Appendix 2 – List of schools ……..82
Appendix 3 – List of contractors ……..87

LIST OF FIGURES AND TABLES

Figure 1: Conceptual Framework …… 8

Table 1: Performance of SFG in Mubende Local Government …… 5

Table 2: Breakdown of the population of the study ……31

Table3: Cronbachs's alpha coefficient for the latent constructs ……37

Table 4: Respondent's response rate ……43

Table 5: Respondent's highest level of education ……44

Table 6: Contractor's volume of business ……45

Table 7: Contractor's district of origin ……45

Table 8: Means for questions that measure contractor selection criteria ……47

Table 9: Means for questions that measure contractor performance ……49

Table 10: Correlation of contractor selection criteria, development and performance……50

Table 11: Regression comparisons of contractor performance on contractor selection criteria ……52

Table 12: Means for questions that measure contractor development ……54

Table 13 Regression comparisons of contractor performance on contractor development……...58

ABREVIATIONS

IGG	-	Inspector General of Government
GOU	-	Government of Uganda
LGA	-	Local Government Act
LGTB	-	Local Government Tender Board
SCM	-	Supply Chain Management
SFG	-	School Facilities Grant
UMI	-	Uganda Management Institute
ROI	-	Return on Investment

Abstract

As a result of decentralization, local governments are allocating more resources to their core functions and encouraging the outsourcing of non-core activities. This has increased the importance of effective contractor selection and development as these agencies exploit contractor's capabilities. However, sparse evidence exists regarding the impact of contractor selection criteria and contractor development on contractor's performance in the public sector environment. This research was aimed at investigating the effect of contractor selection criteria and development strategies on the performance of contractors in the delivery of construction services in Mubende local government.

Quantitative techniques were used in collecting and analyzing the data. A questionnaire describing contractor selection criteria, development and performance was administered to members involved in the classroom acquisition for a randomly selected sample of 90 respondents. Descriptive, tests of hypothesis and multivariate measures of analysis were conducted to confirm the relationships between the variables.

Findings indicated that there are variations in the level of importance attached to contractor selection criteria and contractor development and their effect on contractor performance. There is a strong positive and statistically significant relationship between contractor selection criteria and development and contractor performance. However, selection criteria impacts positively with only quality and delivery performance measures and negatively with rework and on-site conflicts. Contractor development impacts positively with quality, delivery and on-site conflicts and negatively with rework costs.

This study revealed that contractor selection criteria and development has much to offer local governments who wish to improve their contractor's performance. There is thus strong justification to promote contractor assessments across multiple dimensions and development efforts and to obtain the resources needed to implement them. Local governments should ensure that their human resource is developed to respond to the challenges of outsourcing. It is also recommended that effective contractor performance measurement systems are instituted to ensure continuous improvements and enhance contractor performance.

CHAPTER ONE

INTRODUCTION

1.0. Introduction

This study was an investigation of the effect of contractor selection criteria and development on contractor performance in the delivery of construction services in Mubende local government. Contractor selection criteria and development are conceived as the independent variables while contractor performance is the dependent variable.

This chapter presents the background to the study, the statement of the problem, the objectives of the study, conceptual framework, scope of the study, significance of the study, assumptions and limitations and the operational definitions of terms.

1.1. Background Information

Since 1993, Government of Uganda has been committed to the decentralization policy in which political, administrative, and financial powers were transferred from the central to Local Governments and downwards to the administrative units. The objective of decentralization is to make them effective centers of self-governance, participation, local decision-making, planning and development. Local Governments now have a wide range of powers to implement national policies and discretionary powers within the national framework.

With the increased grants from the center to the Local governments as a result of the decentralization policy, the procurement function in Local governments has become even more important as Local governments engage in the procurement of works, goods and services required to implement national programmes. Local Governments are now handling large amounts of funds to procure goods, works and services. In view of that, Government of Uganda has instituted several institutional reforms and measures which include: (i) privatization policy; (ii) public procurement reforms; (iii) anti-corruption efforts among many others. These have been instituted towards developing effective mechanisms for combating corruption and building Local Government capacity to enable efficient and effective utilization of public resources.

In 1997 the Government of Uganda launched the Education Strategic Investment Plan where increasing access to and quality of primary education was one of the major components. For that reason, classroom construction and rehabilitation through the School Facilities Grant (SFG) became a major expenditure item in this component. The School Facilities Grant has been channeled to the local governments as a conditional grant to assist the most needy school communities to complete unfinished classrooms and/or build new classrooms, supply furniture, build latrines and construct teacher's houses. The procurement of these works, and goods has been carried out in accordance with the Local Government Act, 1997 (LGA) Section 92 (as amended 2001) and the Local Government Financial and Accounting Regulations, 1998 Part IX. The law thus provides that where a local firm can competently provide the service up to the required or specified standards, then in the selection process amongst bidders, it should take precedence

over foreign or other firms from different localities. This is indeed a deliberate policy by Government to promote the local private sector as a way of creating short-term employment.

The LGA 1997 (as amended 2001) provides for Local Government Tender Boards (LGTB) and the enactment of the Procurement and Disposal of Public Assets Act, 2003 confirmed LGTBs as procurement and disposing entities. Every Local Government and urban council is required to use the LGTBs now contracts committees for the smooth procurement of works, goods and services. This is supported by evaluation committees of personnel from the Departments of Education, Works, Environment, and Community services) to enhance timely delivery of quality services.

As Government pursues its policy to outsource provision of construction services to private contractors in the SFG programme, local governments are allocating more resources to their core functions and encouraging the outsourcing of non-core activities, which increases their reliance and dependence on contractors. This has increased the importance of effective contractor selection and development as these agencies exploit contractor's capabilities.

Contractor selection criteria refers to the process of finding the contractors being able to provide the buyer with the right quality products and/or services at the right price, at the right quantities and at the right time (*Mandal* et al 1994, *Sarkis et* al 2002).

Contractor development refers to the process of working with contractors on a one-to-one basis to improve their performance for the benefit of the buying

organization. It is closely associated with contractor relationship management and partnering.

The two concepts of contractor selection criteria and development should lead to improvements in the total added value in terms of product or service offering, business processes and performance, improvements in lead times and delivery. However, sparse evidence exists regarding the impact of contractor selection criteria and development on contractor's performance in respect of quality products, on-timely delivery, cost reduction and conflicts. In the recent past countrywide, many classrooms, houses and latrines have collapsed due to shoddy work (The New Vision, November 10, 2003, Inspectorate of Government reports to Parliament, December 2000, December 2001, June 2002, December, 2003). These have been given wide publicity in the local and international media and have accordingly raised concern and anxiety among the public (The Monitor, Nov 25, 2002, All Africa News, Dec 10,2002). Seven hundred and seventy two (772) complaints relating to tenders and contract have been handled by Inspector of Government's office between January 2000 and December 2003 (Inspector General of Government reports to Parliament 2000, 2001, 2002, and 2003). The SFG procurement process takes longer than that in NGOs and is not as cost effective (Value for money audit report – Ministry of Education - SFG Programme 2003). In the same way, the contract selection process was fundamentally unsound (Ministry of Education and Sports Audit report, 2003).

In Mubende local government, cases of shoddy work, including time overruns are also reported. Table 1 below indicates the situation since the inception of the SFG programme.

Table 1: Performance of SFG in Mubende Local Government

Financial Year	*Total No. of contracts*	*Average contract duration(days)*	*Average construction duration(days)*	*% of contracts not well done*
1998/1999	42	221.7	189.5	50
1999/2000	23	206.5	186.2	30.4
2000/2001	27	202.3	187.5	37
2001/2002	30	197.5	177.6	30
2002/2003	25	187.9	174.5	36
2003/2004	26	194.3	175.7	39

Source: Department of Education and District Tender Board – Mubende district

1.2. Statement of the problem

Increasingly, GOU has instituted public procurement reforms to offer high levels of transparency, accountability and value for money in the application of procurement budgets. Hence, Government institutions are allocating more resources to their core functions and encouraging the outsourcing of non-core activities. Similarly, as local governments continue to seek performance improvements, they are reorganizing their contractor base and managing it as an extension of their service delivery system. Hence to build more effective relationships with contractors, local governments are using contractor selection criteria to strengthen the selection process, and they are using contractor development to stimulate improved contractor performance.

However, despite this increased importance of effective contractor selection and development, there are widespread reports that contractor performance in SFG programme is often deficient in areas such as delivery, rework cost, on-site conflicts and quality in Mubende Local Government. Over 30% of the contracts are shoddy and the average contract duration for construction period is above 7 months despite the stipulated 3 months. The district sectoral committee on education under minute MIN SSC/09/2003 observed the poor quality of works and recommended a commission of inquiry for the SFG programme. Not only the lives of pupils and teachers have been put to risk but also the government objective of reducing the pupil: classroom ratio has not been achieved.

This study was aimed at carrying out an analysis to establish the effect of contractor selection criteria and development on contractor performance in the delivery of SFG construction services in Mubende Local Government.

1.3. General Objective

The overall objective of this study was to investigate the effect of contractor selection criteria and contractor development initiatives on the performance of contractors in the delivery of construction services in Mubende Local Government.

1.4. Specific Objectives

The research was guided by the following specific objectives:

- To investigate the effect between contractor selection criteria and contractor performance in the delivery of construction services under SFG programme in Mubende local government
- To assess the effect between contractor development strategies and contractor performance in the delivery of construction services under SFG programme in Mubende local government.

1.5. Research questions

The following questions were posed during the study:

- Is there an effect between contractor selection criterion and the performance of contractors in the delivery of construction services under SFG programme in Mubende local government?
- Is there an effect between contractor development and contractor performance in the delivery of construction services under SFG programme in Mubende local government?

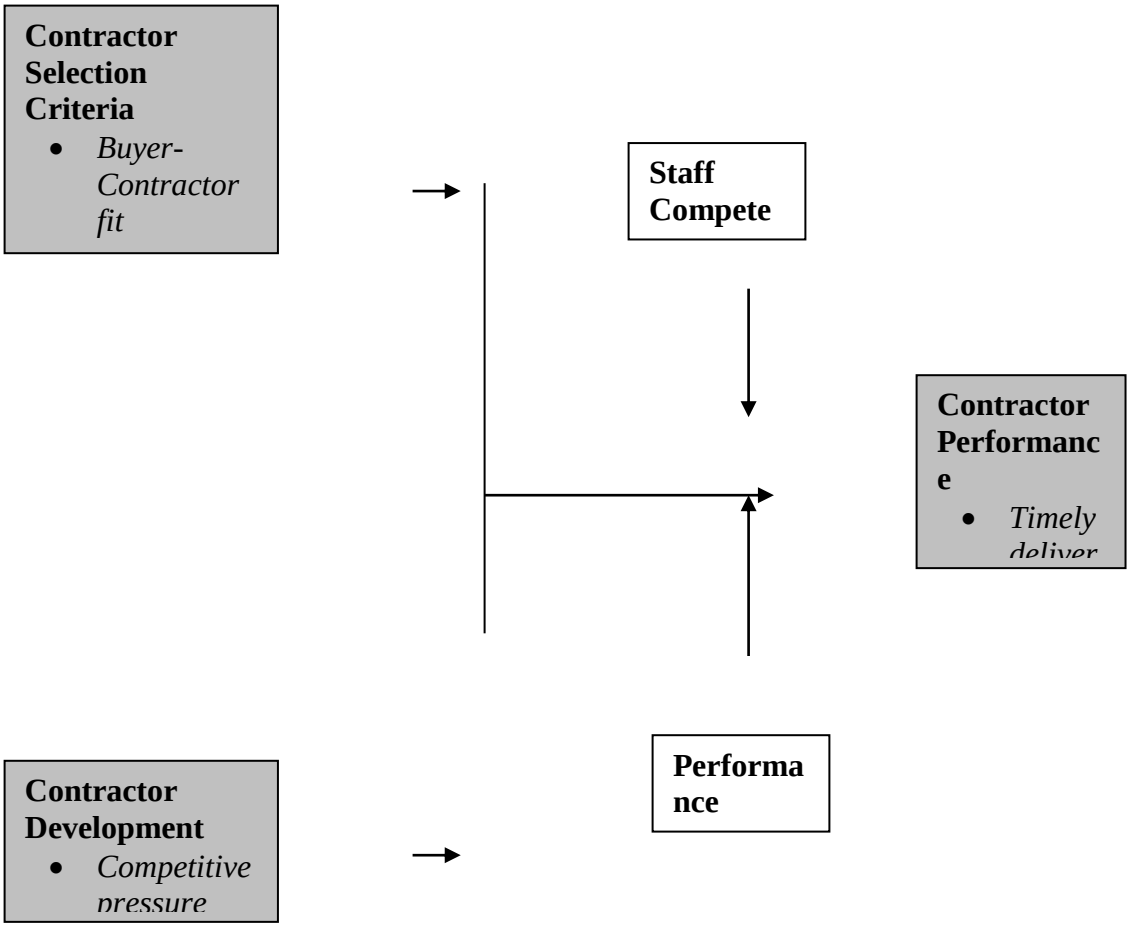
1.6. Research Hypotheses

- Contractor selection criteria significantly have an effect on contractor performance in the delivery of construction services in Mubende Local Government.
- Contractor development strategies have an effect on contractor performance in the delivery of construction services in Mubende Local Government.

1.7. Conceptual Framework

Figure 1 below illustrates the relationship between the research variables.

Figure 1. Conceptual framework showing the relationship between contractor selection criteria and development on contractor performance



In this study, it was conceptualized that contractor performance is influenced by contractor selection criteria and contractor development. Contractor performance is thus the variable of primary interest. Its variance is being explained by the two independent variables of contractor selection criteria and contractor development. This relationship is affected by two moderating variables of contractor performance measurement system and staff competence.

Contractor selection criteria

Contractor selection criteria is explained by the following constructs: buyer-contractor fit, capability, honesty and integrity, ability to meet buyer needs and strategic commitment of the contractor to the buyer (Vijay *et all*, 2002). The framework shows that there is an effect between contractor selection criteria and contractor performance. Establishing an effective contractor selection criteria enhances communication, knowledge sharing, improves decision-making and creates an environment of trust that builds fertile relationships between and organization and its contractors. These relationships can improve performance by increasing on-time delivery, reducing on-site conflicts and rework costs and improving product quality.

Contractor development

The independent variable, contractor development is explained by the following constructs: enforced competition, contractor incentives, direct involvement and contractor assessments (Krause *et al* 2000, 2002; and Handfield *et all* 2000). The framework as well conceptualizes that contractor development affects contractor performance. By developing contractors, contractors learn about customer requirements, culture, and decision-making patterns. They are also motivated to improve. This helps them to adjust and apply their resources in ways that have the greatest benefit. It also builds their capacity to continuously improve and may incite competition among them.

Staff competence and performance measurement systems

The study further conceptualized that apart from the two independent variables of contractor selection criteria and contractor development, other moderating variables including staff competence and performance measurement systems perfect this relationship. Consistent performance measurement systems help an organization focus resources, identify performance glitches, develop strategies for supply chain improvements, and determine the total cost of ownership of supply relationships.

Staff competences in form of formal training in procurement enhance the skill and knowledge levels in developing and using effective contractor selection criteria and contractor development strategies. This can improve performance by increasing on-time delivery, reducing on-site conflicts and rework costs and improving product quality.

1.8. Significance of the Study

This research is expected to be important to the stakeholders in the following ways:

1. **Mubende local government/other local governments**: This study highlights the importance of an effective contractor selection criteria and contractor development to improve contractor performance. The recommendations of this study may be used to enhance strategies for improving contractor performance in the delivery of construction services.

2. **Contractors**: With a well defined and communicated criteria used to evaluate and select contractors, potential contractors may have a clear understanding of client expectations. This study therefore, provides a foundation for contractors to improve their competitive advantage as they seek for other contracts.

3. **PPDA**: The study can be used to develop policies, regulations and guidelines to enhance public procurement in local governments as accounting entities.

4. **Academia and researchers**: The study can be used as a source of information for literature review. The findings and recommendations may also be used for further research.

1.9. Justification of the study

The literature reviewed suggests that great attention has been focused on associating the variation of contractor selection criteria and development and the variation of organizational performance in private sector organizations, and particularly in the manufacturing and retail industries.

This therefore, warranted a more stringent test of the relationship between contractor selection criteria and development and contractor performance in a public sector environment and construction industry. Public sector buying is a multi-person and multi-stage decision processes.

1.10. Scope of the study

This study was limited to only Mubende local government. Mubende local government is found in central Uganda, about 150Km from Kampala, the capital city of Uganda.

Conceptually, this study was limited to the variables of contractor selection criteria and contractor development and how they impact contractor performance in the procurement management process of SFG from financial year (F/Y) 1998/1999 – F/Y 2003/2004. This study did not cover other facilities outside SFG. This period covers the time when SFG had taken root in Mubende local government.

1.11. Limitations and Assumptions

Public procurement is a sensitive area in local governments. It has been frequently inspected by the Inspector General of Government (IGG). Many personnel have been put to task to help IGG in its investigations. This has always caused anxiety, fear and tension among the staff. This was a potential source of bias amongst the respondents of this research. To counteract this limitation, a letter of introduction from UMI indicating that this research is for academic purposes only, was attached on the research instrument. The work-based supervisor also introduced the researcher to the respondents using an introduction letter.

This research assumed that many of the respondents especially the head teachers and members of SMCs remained the same at their stations without any transfers and that the members of the LGTB and the technical evaluation committee also did not change.

1.12. Operational Definition of concepts

Supplier

An organization external to the Local Government that provides/constructs classrooms. In this context the word supplier is analogous to contractor.

Supply Chain Management (SCM)

Johnston (1995) defines SCM as:

… the process of strategically managing the movement and storage of materials, parts and finished inventory from suppliers, through the firm to customers.

Kranz (1996), on the other hand, suggests that SCM is:

… the effort involved in producing and delivering a final product from a supplier's supplier to the customers' customer.

Fundamentally, SCM aims to increase the transparency and alignment of a supply chain's coordination and configuration, regardless of functional or organizational boundaries (Cooper and Ellram, 1993). Therefore, SCM recognizes interdependency in the supply chain and seeks to improve its configuration and control base by integrating inter and intra organizational business processes.

In the context of this study, SCM is the network of facilities and activities that provide customer and economic value to the functions of design development, contract management, service and material procurement, materials delivery, and facilities management.

Outsourcing:

This refers to the process by which activities previously carried out on its own behalf by one organization are transferred to and provided by an external contractor.

Supplier development

" Any effort of a buying organization with a supplier to increase its performance and/or capabilities and meet the buying organization's short- and/or long-term supply needs" (Krause 1997, 1999). It ranges from enforced competition, contractor incentives, direct involvement and contractor assessments

Supplier Selection

Selection of suppliers is a typical multiple criteria decision making (MCDM) problem involving multiple criteria that can be both qualitative and quantitative. Hence, supplier selection process requires a formal, systematic and rational selection model.

CHAPTER TWO

2.0. LITERATURE REVIEW

2.1. Introduction

This chapter is organized into five sections. First, the underlying concepts are defined, and then the background literature on purchasing is outlined, with a short review on the importance of purchasing and the opportunities for competitive advantage. This is followed by a review on supplier selection criteria and development. Then the literature on public procurement is reviewed. Thereafter, a summary highlighting the main findings, areas of consensus and gaps in literature are presented.

2.2. Outsourcing and supply chain management

The increase in outsourcing over the last 20 years has been fuelled by arguments that an organization's competitive advantage stems from its ability to identify, concentrate on and develop its core competencies and activities, and outsource anything which is non-core (Handy, 1984; Kanter, 1989; Peters and Waterman, 1982; Prahalad and Hamel, 1990). Increasingly, organizations are now allocating more resources to their core competencies and encouraging the outsourcing of non-core activities, which increases their reliance and dependence on suppliers.

The use of contracting for service delivery is not new, but is extensive and rising (Alison *et al*, 2002; Avery, 2000; Burnes, 2000; Domberger, 1998; Greer *et al*., 1999; Gay and Essinger, 2000; Hunter and Gates, 1998; Rimmer, 1998; Takac, 1993). In private sector organizations this trend can be attributed to managers

seeking to defend or achieve competitive positions by focusing on core competencies, and purchasing cost-effective, specialist services to cover non-core areas of their operations (Marwaha and Tommerdahl , 1995). In particular, organizations aim to lower their costs while increasing service, and improve capabilities so that they can respond to future business challenges (Greer *et al*., 1999; Grover *et al*., 1996).

In the public sector, managers and policy makers are embracing the role that competition can play in increasing efficiency and effectiveness, and contracting has been widely adopted as a vehicle to achieve reform in the new public management (Hilmer, 1993; Williams, 1994). Consequently, there has been a dramatic increase in outsourcing in the public sector worldwide (Avery, 2000; Domberger, 1998). The OECD (1997) points out that the use of contracting in government services is increasing, as the evidence is fairly clear that contracting out can lead to efficiency gains, while maintaining or increasing service quality levels.

The two areas, efficiency (usually measured in direct financial terms or productivity), and effectiveness (usually indicated by quality), are frequently referred to when the benefits of outsourcing are discussed. However, there is an imbalance in the number of studies that explore the two areas (Hodge, 1998; Lee and Kim, 1999), and while the conclusions relating to efficiency result in apparent consensus, effectiveness outcomes are open to debate (Domberger, 1998; Hodge, 1998). Inconsistent findings with respect to effectiveness outcomes, such as quality, highlight the challenges associated with managing a service, but not the provider of that service. Managers need to ensure that costs are contained,

accountabilities are established, and outcomes monitored so that the potential strategic and financial benefits of outsourcing are realized without decreasing quality. An obvious and fundamental issue is to determine the role and importance of effective supply chain management in achieving these ends.

While many retail and manufacturing organizations are capitalizing on implementing SCM by attaining maximum business process efficiency and effectiveness through intra and inter organizational relations, the construction industry has been slow, or perhaps even reluctant, to employ the concept (Love, 2000). Longstanding efficient supplier-contractor relations that are subject to vulnerability due to the temporariness of projects and the one-off nature of the product are considered to be a major contributing factor (Akintoye *et al*., 2000). Vollman *et al*. (1998) have suggested that construction SCM should be seen as an integrated set of practices aimed at managing and coordinating the entire chain from raw materials to end customers. While the application of SCM philosophies is embryonic within the construction industry, organizations are beginning to comprehend its intrinsic value (Akintoye *et al*., 2000; Vrijhoef and Koskela, 2000; Love, 2000; Dainty *et al*., 2001). Organizations differ in the specific approaches used to manage their supply chains. Several supply chain management (SCM) initiatives such as alliancing/partnering, and incentive-based contracting have been sporadically implemented to ameliorate construction project performance. Such initiatives have often been used in conjunction with traditional practices for managing and controlling the project supply chain and as a result, performance improvements have been limited to the sub-process level (Vrijhoef and Koskela, 2000). Moreover, as total quality management (TQM) has not been

practiced as a philosophy by construction organizations, many have been unable to develop the skill and experience required to effectively utilize the tools and techniques needed to improve SCM (Love and Sohal, 2002).

Although Peter *et al* (2004) has proposed a holistic approach to project SCM in construction, most research has tended to focus on specific operational and tactical aspects of the supply chain such as client-contractor relations (Akintoye *et al*., 2000), contractor subcontractor/supplier interface (Vrijhoef and Koskela, 2000), rework (Love *et al*., 1999), environmental performance (Ofori, 2000), design management (Khalfan *et al*, 2001), service quality (Hoxley, 2001), and purchasing behaviour (Dubios and Gadde, 2000). Krause et al. (2000) examined the impact of supplier development on supplier performance in the private sector, and Vonderembse and Tracey (1999) investigated the impact of supplier selection and involvement on the buying firm's manufacturing performance. However, there is a clear dearth in research that explores the factors that affect the performance of suppliers of construction projects in the public sector. The public sector operates under a legal framework, which obliges it to demonstrate in an open and transparent manner, that, in spending public funds, it is providing value for money (Talbot, 2001). This study uses a survey to examine relationships between the perceived importance of supplier selection criteria and development for items being used in construction performance.

2.3. Supplier selection criteria and Supplier performance

Supplier selection and evaluation are arguably one of the most critical functions for the success of an organization (Khurrum and Faizul, 2002; Rainer *et al*, 2005).

"The purpose of supplier selection is to determine the optimal supplier who offers the best all-around package of product and services for the customer" (Swift and Gruben, 2000, p. 503) and greater use of advanced (supplier) selection and monitoring practices tends to increase profitability and product quality (Fawcett and Fawcett 1995; Mason 1996; Morgan 1996; Copacino 1996; Ittner *et al*., 1999; Shin et al, 2000; Tracey and Vonderembse, 2000).

Decision criteria used by organizational buyers to select suppliers have been examined in numerous studies. While there is some variation in the criteria across different purchase situations and product types, general themes of product/quality, price, delivery, and service consistently emerge (Khan, 2003; Dickson 1996; Lehmann and O'Shaughnessy 1974; Lehmann and O'Shaughnessy 1982; Dempsey 1978; Crow, Olahaysky and Summers 1980; Segal 1989, Holt, Olomolaiye and Harris 1995, and Wilson 1994; Wong et al, 2001).

Petroni and Braglia (2000, p. 64) argue that "managers perceive quality to be the most important supplier attribute" and "managers should not select suppliers based on low cost only, but should consider quality, delivery performance, and other attributes". Some studies found gender differences in using supplier selection criteria, where female purchasing managers place a higher level of importance on support (breadth of product line, geographical proximity, warranty availability) and dependability (ability to keep delivery promises, technical support availability and service response) than do male purchasing managers (Stoddard and Fern, 1999; Swift and Gruben, 2000).

Karande *et al*. (1999) studied the comparative aspects of supplier choice criteria used by both public and private sector purchasers in India. A total of 49 items under four broad categories of supplier choice criteria – economic criteria, other capabilities, reliability, and familiarity with the supplier – were considered in this study, which was similar to another study of Shipley and Prinja (1988). Karande *et al.* (1999, p. 73) found "that private sector managers perceive economic criteria to be more important than public-sector purchasing managers do". On the other hand, "the hypothesis that reliability of the supplier is more important to public-sector purchasing managers than to private-sector managers", was not supported. The study also found no significant differences between public-sector purchasing managers and private sector managers "in the perception of familiarity as a supplier evaluation dimension" (Karande *et al*., 1999, p. 74).

Supplier selection research can be categorized as either descriptive, describing actual practice, or prescriptive, modeling how suppliers should be selected given a set of selection criteria (Ellram 1990). Descriptive studies have addressed a wide array of issues. Early studies focused on identifying the criteria used by buyers to select suppliers (e.g., Dickson 1966; Lehmann and O'Shaughnessy 1982). These have been extended to identify supplier selection under specific buying conditions; for example, strategic buyer-supplier partnerships (Ellram 1990), single versus multiple sourcing (Swift 1995), routine versus non-routine purchases (e.g., White 1978; Dempsey 1978; Johnson 1981; Lehmann and O'Shaughnessy 1982), and direct versus indirect materials (American Machinery Manufacturers Association 1985). Several studies have also examined the relative importance of different selection criteria under different buying conditions (e.g.,

Lehmann and O'Shaughnessy 1974, 1982; Evans 1982; Wilson 1994). While cost, quality, and delivery performance have been consistently identified as being important determinants of supplier selection, it is also apparent that specific criteria and their relative importance are highly dependent on the type of purchase being made. A study by Verma and Pullman (1998) investigated whether selection criteria are consistent with their perceived importance in the eyes of purchasers. While quality was determined to be the most important selection criterion, selection decisions were more likely to be made on the basis of cost and delivery performance. Prescriptive research in supplier selection has used a variety of methodologies including mathematical programming (e.g., Turner 1988; Pan 1989), weighted average methods (Timmerman 1986; Thompson 1990), payoff matrices (Soukup 1987), and the analytic hierarchy process (Narasimhan 1983; Nydick and Hill 1992; Barbarosoglu and Yazgac 1997).

Additionally, a number of studies have examined the criteria used by buying organizations to assess supplier performance (e.g., Monczka and Trecha 1988; Giunipero and Brewer 1993; Watts and Hahn 1993; Walton et al. 1998; Carr and Pearson 1999). The evidence suggests that while cost is the primary criterion, quality, delivery, and service are also commonly used. Vonderembse and Tracey (1999) surveyed purchasing managers with the intent of determining the extent to which manufacturing companies used various supplier selection and supplier involvement tactics, and how these impacted manufacturing performance. Other studies have addressed supplier selection in the light of contemporary business pressures. Choi and Hartley (1996) examined supplier selection for companies at different points in the supply chain. Several studies have addressed issues

pertinent to purchases made in global markets (e.g., Min et al. 1994; Thorelli and Glowacka 1995; Deng and Wortzel 1995; Katsikeas and Leonidou 1996; Piercy et al. 1997). Two recent studies have examined the impact of environmental pressures on buying behavior (Dobilas and MacPherson 1997; Min and Galle 1997).

Findings and gaps in literature

The review revealed that there are a large number of decision making methods and tools proposed for supplier selection. The authors identify the decision criteria used by organizations to select suppliers under the general themes of product/quality, price/cost, delivery, and service. These criteria improve the buying organization performance in the delivery of competitive products on the market. The literature also reveal that supplier selection process requires more and more detailed evaluation and assessment of potential suppliers. This is because now many companies consider the suppliers as their best intangible assets and potential suppliers whether selected or not would want to know how they fared in the selection process and/or the areas which they need to improve.

The choice of a selection criteria depend on the buying condition and type of purchase. It is also found out that there are no significant differences between public-sector purchasing managers and private sector managers “in the perception of expertise as a supplier evaluation dimension.

The review provided strong evidence that there is a clear division of studies on supplier selection and contractor selection even though both processes follow an identical procedure. Contractor selection is mainly associated with the

construction industry while supplier selection is concerned with manufacturing related industries.

However, despite the volume of research, particularly in the area of supplier selection, no attempt has been made to identify the effect of supplier selection on supplier performance in the public sector. The literature reviewed mainly concentrated on manufacturing related industries ranging from electric, electronic, textile, furniture to automobile, information systems and technology. The reviewed articles studied the purchasing activities of the private sector organizations. Surprisingly, there was no evidence of any research on how public organizations evaluate and select suppliers.

2.4. Supplier Development and Supplier performance

The concept of supplier development has received considerable attention from researchers (e.g. Galt and Dale, 1991; Hahn *et al.*, 1990; Krause, 1997; Krause and Ellram, 1997a; Leenders, 1989; Watts and Hahn, 1993), as have the factors that facilitate or hinder the implementation of supplier development practices (e.g. Forker *et al.*, 1999; Handfield *et al.*, 2000; Krause and Ellram, 1997b; Lascelles and Dale, 1989; Watts and Hahn, 1993), and the supplier development process (e.g. Hahn *et al.*, 1990; Krause *et al.*, 1998; Krause, 1999; Watts and Hahn, 1993). The relationship of supplier development practices with performance has been addressed in several studies (e.g. Krause *et al.*, 2000; Forker and Hershauer, 2000). However, most studies offer only a partial analysis of the problem since they investigate only a few supplier development practices. For example, Carr and

Pearson (1999) reported a linkage between the implementation of supplier evaluation and a firm's financial performance. In their empirical research, Carr and Smeltzer (1999) found evidence of the relationship between effective communication with suppliers and a firm's financial performance. Forker and Hershauer (2000) used step-wise regression analysis to investigate the relationship between supplier development practices and customer satisfaction, supplier satisfaction, and supplier quality performance. They concluded that control of quality management and supplier development programs were crucial factors that lead to mutual satisfaction among buyers and suppliers. Krause *et al.* (2000) found that direct supplier involvement activities, such as buyer site visits to supplier factories and training/education of supplier personnel, play a critical role in supplier performance improvement. More recently, Tracey and Tan (2001) found that the involvement of suppliers in the buyer's product development process and continuous improvement programs increase customer satisfaction and the overall firm performance. Rodriguez *et al* (2005) identified important interrelationships among the various supplier development practices, basic, moderate, and advanced. In summary, it appears from the literature that the implementation of supplier development practices should result in improved supplier performance and/or capabilities, which in turn would improve the buying firm's purchasing performance. However, there is still little empirical research that has tested the effect of supplier development on performance of the supplier and the buying organization (Krause *et al.*, 2000). Consequently, the main objective of this research is to comprehensively analyze the importance of supplier development practices with in the public sector environment. In this study, supplier development is defined broadly: “any effort of a buying organization to

increase the performance of a supplier" (Krause, 1999, pp.206). This definition encompasses a variety of supplier activities including supplier assessment and feedback, the use of supplier incentives, competitive pressure, and direct involvement activities that may include supplier training and investment (Krause, Scannell, and Calantone 2000; Giunipero 1990; Forker and Hershauer, 2000; Handfield *et al*, 2000).

Findings and gaps in literature

The studies identify the major supplier development strategies and they provide a partial analysis of these strategies and their effect on specific buying firm's performance. They indicate that supplier development enhances buyer, customer and supplier satisfaction. It also improves the buyer's financial performance.

There is little evidence to suggest the importance of supplier development strategies on supplier performance.

2.5. Performance measurement systems

A purchasing performance measurement system is an appraisal and feedback system that determines and shapes organizational and individual behavior in the context of purchasing strategies and programs. Measures drive strategies and actions. Measures are created to appraise, reinforce, reward, and otherwise channel human behavior and plans into desired directions (Brumback, 1988). Measures that send strong and realistic feedback affect employees' motivation to learn and develop skills (Noe, 1993). Measurement systems test and monitor the alignment of purchasing strategies and action programs. Research has provided

empirical verification of the importance of measurement consistency with corporate goals, measurement simplicity and clarity, and the use of feedback to drive continuous improvement and learning in the organization (Dixon *et al*, 1990).

2.6. Supplier Performance

Clients expect a certain level of contractor performance from the construction industry and this performance is measured against a number of criteria, which again are dependent on the client, the project, and the context of the project. Economists disagree about the use of accounting data to measure performance because it ignores opportunity costs and the time value of money (Chen and Lee 1995). They have argued that business performance should be measured by financial data (e.g., internal rate of return). While Jahera and Lloyd (1992) observed that return on investment was a valid performance measure for midsize firms, Tobin and Brainard (1968) challenged its validity as a performance measure. A firm's financial leverage can affect its ROI to such a degree that it renders comparisons between firms meaningless. ROI also ignores opportunity costs and the time value of investments. However, most writers in this area emphasise time, cost, conflict and quality as the main criteria but little work has been done to assess the weightings attached to each. Banwell (1964), Wood (1975) and NEDO (1983) assumed that the trade off between time and cost, as measured against yardsticks and fastest time respectively were the criteria to be assessed. Bromilow (1970,1974) investigated predictability of costs and time and the extent of variations, and the NEDO report (1976) "The Professions in the Construction Industry" considered that architects had the major interest in quality

as far as the construction industry was concerned. Ireland (1983) makes the most comprehensive approach to the problem to date by assessing cost per square metre, time per square metre, income per square metre and architectural quality.

Given the lack of consensus regarding a valid cross-industry measure of construction performance, this research will adopt four of the nine performance measures used in Tan et al. (1998b). The measures are overall product quality, timeliness, on-site conflicts and rework costs.

2.7. Summary

The literature reviewed suggests that an efficient supplier management is of central importance for successful supply chain management. Selecting and evaluating suppliers grounded in the criteria of quality, delivery reliability, and product performance enhances organizational performance. Involving them in the supply chain by way of participating in continuous improvement programmes enriches the organization's delivery service and overall organizational performance. Similarly, identification of supplier development practices that positively impact performance allows an organization to more effectively manage scarce resources.

From the above studies, great attention has been focused on associating the variation of the above factors and the variation of organizational performance in private sector organizations, and particularly in the manufacturing and retail industries. These studies have been based on the perception of key informants. A more stringent test of the relationships between these independent variables and

supplier performance in a public sector environment and construction industry is required. Public sector buying is a multi-person and multi-stage decision process.

CHAPTER THREE

METHODOLOGY

3.0. Introduction

This chapter discusses the operational framework within which the facts of the study were gathered. It presents the research design, study area, population, sample size, sampling techniques, data collection methods and instruments, research procedure, data processing and analysis and measurement of research variables.

3.1. Research Design

The study was a cross-sectional survey in that data was gathered from a sample population at a particular time (Amin, 2005). Correlations amongst the variables was also used to enable the researcher to explain the relationships that existed between the variables.

Quantitative techniques were used in collecting and analyzing the data. Quantitative techniques were used to generate reliable based and generalized data in which the phenomenon under study took place.

3.2. Study Area and location of the study

This study was conducted in Mubende Local Government. The School Facilities Grant was chosen as the case study. Acquisition of the School Facilities is a function of the District Procurement Unit. However, there were widespread reports that the SFG project was not fully accomplishing its objectives and that

this was probably due to the poor contractor performance in the Local Governments (All Africa News, 2002). This had raised wide publicity and great concern among the public.

3.3. Study Population

Population refers to the entire set of individuals, events or objects having a common observable characteristic about which generalization of research finding will be made (Mugenda & Mugenda, 1999).

This study involved a population of 173 respondents who were engaged in the acquisition of classrooms under the SFG programme in Mubende local government for the period 1998/1999 – 2003/2004. These included members of the LGTB, members of the technical appraisal team, members of the technical evaluation committee, and head teachers of the primary schools where classrooms were constructed. This is seen in table 2 below:

Table 2: Breakdown of the population of the study

Financial Year	*Total No. of respondents*
1998/1999	42
1999/2000	23
2000/2001	27
2001/2002	30
2002/2003	25
2003/2004	26
TOTAL POPULATION	**173**

3.3.1. Sample Size and Selection

A sample size of 89 respondents out of a target population of 173 people who were involved in acquisition facilities under the SFG programme, was selected based on the formulae below:

$$n = \frac{z^2 pq}{(d^2)} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where	n	is the sample size
	z	is the statistical certainty at 95% confidence level
	p	is the estimated level of procurement awareness (75%)
	q	is the difference of 1 and p (1-p)
	d	is the desired precision or the tolerated maximum value of relative sampling error (9%).

Substituting the formula

z value at 95% confidence level	=	1.96
p	=	0.75
q	=	0.25
d	=	0.09

$$n = \frac{1.96^2 * 0.75 * 0.25}{(0.09^2)}$$ = **88.9 as sample size**

Approximate sample size used was **89** respondents

3.3.2. Sampling Procedure

The researcher utilized simple random sampling to select the appropriate sample size. Actual sample selection for each new classroom construction contract was done with the help of random numbers where the units of analysis were assigned unique numbers from 1 to the last number. A bowl was used where all the sampling units were put and shuffled thoroughly before selection of each unit into the sample.

The following respondents linked to the acquisition management process of new classrooms in respect to each contract selected were accordingly interviewed:

a. Members of the LG TB

It is by law under the LGA (1997) and LGFA regulations that award of contracts are done by the LGTB. The minutes of the LGTB since 1998 were analyzed to trace the contracts restricted to classroom construction under SFG. Classroom construction contracts outside the SFG programme were not considered. 5 members of the LGTB were as a result part of the key informants.

b. Members of the technical appraisal team

Field technical appraisal is an important planning and engineering element that ensures the facilities to be constructed fit the environmental, soil and the general structural requirements. The SFG guidelines were used to categorize the field appraisal team as key informants for interviewing. 4 respondents in this category who included the District Education Officer, the Engineering Officer (MOES), the

District Inspector of schools, and the District Engineer (Housing Officer) were interviewed.

c. Members of the Technical evaluation committee

Whereas award of contracts is done by the LGTB, their decision is governed by an evaluation report prepared by an evaluation committee. The evaluation process is conducted in accordance with the methodology and selection criteria stated in the solicitation document. Evaluation reports explicit to SFG were analyzed. Accordingly, 5 members of the evaluation committee were also selected as respondents.

d. Head teachers

Planning and Budgeting under the SFG programme originated from the beneficiary primary schools and there is an inventory of primary schools in the Education department. Similarly, there is a staff list of all manpower establishment in this department. The department of Education was thus used to identify all the SFG beneficiary schools and generate a list of head teachers. A total of 75 head teachers were selected as respondents.

3.4. Methods of Data Collection and Instruments

Questionnaire and documentary reviews were conducted.

A number of approaches were employed in the study to achieve its objectives including content analysis and field study. The following sources of data were used:

i. Secondary sources: these included tender documents, procurement guidelines in local governments and documents used by LGTB in awarding tenders.

ii. Primary sources through personal interviews with selected respondents.

3.4.1. Data collection instruments

Before the model in Figure 1 (conceptual framework) could be tested, data was collected using the following instruments:

3.4.1.1. Questionnaires

A structured questionnaire was specifically designed to use in the interviews by deploying the replication and extension method (Tsang & Kwan, 1999). The approach used by Karande *et al* (1999) was employed and modified in the following ways for this study:

i. A modified list of contractor selection attributes; 24 as opposed to 39 used in Karand *et al*.s study;

ii. Personal interviews and discussion were conducted with some key respondents following the initial response to the structured questionnaire, to cross reexamine the relationship between the variables.

The questionnaires were administered to the headteachers, members of the SMCs, evaluation committees, field appraisal team, and LGTB. The questionnaires were personally delivered to the respondents.

The questionnaire was divided into three parts to generate background information and data related to each of the variables under investigation as indicated below:

Contractor Selection (CS). The questionnaire listed criteria that Mubende Local Government uses in selecting contractors, as presented in appendix I. Respondents were asked to indicate/rate the importance Mubende Local Government assigned to these contractor selection criterions in the contractor selection process. The respondents were asked to rate the importance of each of the attributes on its individual merit and not in conjunction with any other attribute(s). This type of rating was used in other studies (Cavusgil & Yavas, 1987), in addition to Karande *et al.* (1999). A five-point Likert scale, which ranged from 1 (Very Unimportant) to 5 (Very Important), was used to assess importance.

Contractor development (CD). The questionnaire also listed contractor development strategies specifically competitive pressure, contractor incentives, and contractor assessments. Respondents were asked to indicate the importance Mubende Local Government assigned to these contractor development strategies in the contractor development process. A five-point Likert scale, which ranged from 1 (Very Unimportant) to 5 (Very Important), was used to assess importance.

Contractor Performance (CP). Each respondent was asked to rate contractor performance on a five-point scale from 1 (Strongly Disagree) to 5 (Strongly Agree) for the following dimensions: construction rework costs, on-site conflicts, quality and timeliness of the facilities. These performance areas were judged as

important contractor performance elements by practicing officers and the researcher. Some of the questions, as seen in appendix 1, assess the level of performance while others address change in performance over the past five years. This difference in the questions does not create a problem because the impact of each question is evaluated rather than combining the questions into a single measure of Contractor Performance.

3.4.1.2. Review of documents

Information was sourced from documents related to the area of study. These documents were studied and critically reviewed. They included those related to the procurement policies, regulations, and guidelines. Published and unpublished reports, journals, books and articles were also important sources of data.

3.4.2. Pre-testing of instruments

The questions in the questionnaire were reviewed by the researcher for completeness and comprehension. The questionnaire was pre-tested with six practicing managers including the Assistant Chief Administrative Officer, two Head teachers, two members of the technical evaluation committee, and one technical supervisor. This was done to test the validity and reliability of the questionnaire. The suggestions of these practitioners were used to improve the questionnaire with regard to wording, content, and overall relevance to the variables in the model. To test for reliability, a statistical test was run using STATA. Reliability analysis provides a measure of the ability of the survey instrument to produce consistent results from one administration to the next, or the degree to which measures are free from random error. One commonly used

measure of reliability is Cronbach's α (Cronbach 1951). Cronbach's alpha was used to measure how well a set of items measure a single unidimensional latent construct (contractor selection, development, and performance). When data have a multidimensional structure, Cronbach's alpha will usually be low (Less than 0.70). Technically speaking, Cronbach's alpha is not a statistical test but rather a coefficient of reliability based on the formulae below.

$$\alpha = \frac{N * \bar{r}}{1 + (N - 1) * \bar{r}} \quad \text{.....(2)}$$

Where **N** is equal to the number of items and **r-bar** is the average inter-item correlation among the items.

The minimum generally acceptable value for Cronbach's α is 0.70 (Nunnally 1978). Values of Cronbach's α for the multi-item constructs corresponding to contractor selection criteria, development and performance are shown in Table 3 below.

Table 3. Cronbach's alpha coefficient for the latent constructs

	Inter-item correlation	**alpha α**	**Notes**
Contractor Selection criteria	0.1007	0.7288	24 items were used
Contractor development	0.1296	0.7282	18 items were used
Contractor performance	0.3769	0.7075	4 item were used

Source: Primary Data

Cronbach's alpha for all 24 items explaining Contractor selection criteria indicate a high reliability (0.7288) with a relatively low average for inter-item correlation coefficient (0.1007) implying that the variables explaining this latent construct are one-dimensional. In addition Cronbach alpha coefficient is high for contractor development (0.7296) and a low average for inter-item correlation coefficient indicating the one-dimensional nature of the items explaining this latent construct as well. Similarly, Cronbach alpha coefficient for contractor performance showed a higher reliability using four (0.7075) items.

In each of the above cases, the value of α exceeded the minimum acceptable value, thus each scale can be considered as a reliable measure of the corresponding construct.

3.5. Procedure of data collection

Both primary and secondary data sources were used

Quantitative data

A questionnaire was directly given to a number of respondents who included head teachers for the sampled schools that benefited from SFG programme, district appraisal team, tender evaluation committee, and LGTB. The instrument solicited responses from these respondents about the importance placed on each contractor selection criterion by Mubende local government in contractor selection. The instrument also solicited responses regarding the importance placed to a number of contractor development activities, and asked to indicate improvement in the delivery, cost, conflict resolution and quality performance for their contractors during the three years prior to conducting this study.

Respondents were given a period of two days to complete the questionnaire after which they were collected for analysis.

3.6. Data Analysis

Quantitative data

3.6.1. *Data processing*

The researcher edited data from the respondents for accuracy and completeness of the information given and entered into a computer using EPIDATA and later analyzed it using STATA.

3.6.2. *Data summary*

Descriptive measures of analysis on contractor selection criteria, contractor development and contractor performance comprised of the mean, minimum, and maximum range based on the following formulae below.

$$\overline{X} = \frac{\sum_{i=1}^{i=n} X_i}{N} \quad \text{.....(3)}$$

3.6.3. *Statistical tests*

Test of Hypotheses

Hypothesis one

Contractor selection criteria significantly impacts contractor performance in the delivery of construction services in Mubende local government.

The Pearson rank correlation coefficient was used to obtain the relationship between contractor selection criteria and contractor performance using the following set of hypothesis and formulae

$$r_{x,y} = 1 - \frac{6\sum d_i^{\ 2}}{n\left(n^2 - 1\right)} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(4)$$

Where d_i is the difference between the ranks of X_i and Y_i

X_i is the generated contractor selection criteria index

Y_i is the generated contractor performance index

n is the number of observations

Decision rule

Since the correlation coefficient ranges from -1 to 1 ($-1 < r < 1$), a positive value of correlation coefficient indicates positive relationship while negative value of correlation coefficient (r) indicates negative relationship between the two variables. Additionally the magnitude of correlation coefficient indicates the strength of the relationship between the two variables in question.

On the other hand, the generated P value (Significance) indicates statistical significance of the relationship between the two variables based on the set level of significance (Confidence interval)

Hypothesis two

Contractor development strategies have a strong effect on contractor performance in the delivery of construction services in Mubende local government.

The Pearson rank correlation coefficient was used to obtain the relationship between contractor development and contractor performance using formulae three (3) above with the following set hypotheses based on the above decision rule.

Multivariate analysis

Multivariate regression analysis was used for plotting the line of best fit through the dots on an **x-y** scatter plot with contractor performance as dependent variable and contractor selection criteria, and contractor development as independent variables using formulae below.

$$P = b_0 + b_1 S + b_2 D \qquad (5)$$

Where P – Contractor Performance

S – Contractor selection criteria

D – Contractor development

b_0 as constant and b_1, b_2 as coefficients

The coefficients of each independent variable mentioned above indicate the relation of each independent variable with the dependent variable when all the other independent variables are held constant.

CHAPTER 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0. Introduction

This chapter presents and discusses the findings. The results are presented in three parts. The first section summaries the respondents profile. The second section presents and discusses the descriptive statistics highlighting the means and minimum and maximum expression for the items used to measure contractor selection criteria (CS), contractor development (CD) and performance measures. The third section presents and discusses the multivariate analysis between contractor selection criteria and the contractor performance questions, contractor development and contractor performance questions.

The findings are in relation to the objectives formulated in chapter one of this report.

4.1. Respondents profile

4.1.1. Response Rate

The survey instrument was given to 123 respondents directly involved in the acquisition management process of new classrooms under SFG and a total of 78 usable responses were received forming a response rate of 63.41 percent as indicated in table 4 below. The highest percentage (80.71%) of the respondents were affiliated to the education department. These included the head teachers, members of SMCs and staff in the education head office.

Table 4. Respondents response rate

Department Affiliation	Percent
Education	80.71
Works and Technical Services	5.12
Management	2.56
Finance and Planning	2.56
Production and Marketing	1.28
Health and Environment	1.28
LG Tender Board/Procurement	6.41

Majority of the respondents were from the education department mostly comprised of head teachers. Head teachers were key in the selection procedure and supervision framework of the SFG programme as they formed the users of the facilities. The least presented departments of Health and Production were just members of the evaluation committee in the acquisition process.

4.1.2. Education level of respondent

Information relating to the respondents highest level of education was collected. It was found out that none of the respondents hold formal education or professional qualification in procurement. 47.4% hold a Diploma, 33.3% a degree, 16.7% a certificate while 2.56% had unspecified levels of education. These results are presented in table 5 below. The majority of the respondents attained diploma as their highest level of education. Non of the respondents has formal or professional training in procurement. It is thus doubtable for such staff to appreciate the

rationale behind effective contractor selection criteria and development to perfect contractor performance.

Table 5: Respondents highest level of education

Highest level of Education	Percent
CIPS/Procurement	0
Degree	33.3
Diploma	47.4
Certificate	16.7
Other	2.56

4.1.3. Contractors Volume of Business

90 final payment vouchers to contractors and agreements were examined to determine the volume of business the contractor had had in the last three years.

Table 6 below indicates that 43.3% of the contractors had held business with Mubende local government equivalent of between Ushs.60 millions and less than Ushs.90 millions from F/Y 2000/2001 to 2003/2004, 30% for over Ushs 90 millions, 16.7% (Ushs.30 millions and less than Ushs.60 millions) and 10% (Ushs.1 million and less than Ushs. 30 millions).

Table 6. Contractor's volume of business

Volume of business	Percent
1M < 30M	10
30M < 60M	16.7
60M < 90M	43.3
> 90M	30

4.1.4. Contractor's District of origin

Technical evaluation reports for the F/Ys 2000/2001 – 2003/2004 were examined to determine the district of origin for the contractor. Table 7 below indicates that 83.3% of the contractors, were selected from within Mubende district while 16.7% came outside of Mubende district local government.

Table 7: Contractor's district of origin

District	Percent
Mubende	83.3
Other	16.7

4.2. Effect of contractor selection criteria on contractor performance

Objective 1. ***To investigate the effect between contractor selection criteria and contractor performance in the delivery of construction services under SFG in Mubende local government***

The results in this section are presented by discussing responses from specific items under each category. Results from Pearson's coefficient are thereafter presented and discussed. This is to determine whether there was a relationship between contractor selection criteria and contractor performance.

4.2.1. Descriptive Statistics

The means and minimum and maximum expressions for contractor selection criteria questions are presented in Table 8 below. Surprisingly, geographical proximity and due date performance ranked as the most important supplier selection criteria (4.581 and 4.323). Examination of the individual responses establishes that nearly all the respondents rated these criteria as Important or Very Important to their contractor selection process. This implies that these criteria are important to the contractor selection process and that they are in widespread use. Cultural match between the contractor and Mubende Local Government and percentage of contractors work commonly subcontracted were ranked as the least important with means of 1.516 and 1.452 implying that there is little attention put to these important aspects in Mubende district as compared to other contributing factors of performance.

Table 8: Means for questions that measure contractor selection criteria

	ELEMENT OF CONTRACTOR SELECTION CRITERIA	Mean	Min	Max
Capability	d. Technical expertise	4.194	3	5
	i. Reference/reputation of contractor	4.000	3	5
	g. Contractors construction capability	3.871	3	5
	c. Scope of resources	2.871	2	4
	a. Company size	2.323	1	3
	s. Percentage of contractors work commonly sub contracted	1.452	1	2
Honesty & Integrity	f. Open to site inspection	3.742	3	5
	b. Ethical standards	2.161	1	3
	h. Insurance and litigation history	2.129	1	3
Buyer – Contractor Fit	n. Geographical compatibility/proximity	4.581	4	5
	p. Past and current relationship with the contractor	2.032	1	3
	o. Cultural match between the contractor and your organization	1.516	1	2
Ability to meet buyer needs	j. Ability to meet delivery due dates	4.323	4	5
	k. Financial stability and staying power	3.452	3	4
	l. Honest and frequent communication	3.258	2	4
	e. Commitment to quality	3.032	2	4
	w. Commitment to continuous improvement in construction process	2.871	2	4
	x. Ability to respond to unexpected advertisements	2.806	2	4
	r. willingness to share confidential information	2.677	2	3
	m. Flexible contract terms and conditions	2.484	1	3
Strategic commitment of contractor to buyer	v. Willingness to integrate supply chain relationships	2.774	2	4
	y. Price offered	2.395	1	3
	u. Contractors ability to make a descent profit for doing your work	1.645	1	2
	t. Your annual orders as a percentage of their overall business	1.613	1	2
	q. Contractor has strategic importance to your organization	1.548	1	2

The results of this study provide some insight into how Mubende Local Government is currently evaluating its contractors and the variables perceived as more crucial to the assessment process.

While channel relationship factors, such as trust, commitment, and communication, have received much attention in the channels literature in the private sector, their use and relevance in the contractor evaluation context has not been widely reported in the public sector. The findings of this research, however,

support the importance of relationship factors since they were rated above average of all the contractor selection characteristics evaluated, and a large number of specific relationship factors, such as reputation (4.000), frequent communication (3.258) and commitment to quality (3.032), were frequently mentioned contractor characteristics evaluated. These findings are especially relevant in light of Tan, Kannan, and Handfield's (1998) research, which has shown that non-price factors such as information sharing are positively related to organizational performance measures. While information sharing is believed to be a critical factor in improving supply chain performance by facilitating planning and scheduling, and improving the nature and speed of communication between buyers and suppliers, the results here empirically validate what has in the past been no more than an assumed relationship between information flow and performance. Equally important is the fact that despite the realization that information flow affects a contractor's business performance, Mubende local government does not consider it important to assess the willingness and ability of contractors to share confidential information (2.677). This may be a result of the district not knowing how to assess information flow, or not recognizing its importance.

Surprisingly, the study results failed to find support for the importance of price as an evaluative factor (2.395). This de-emphasis on price is interesting given the importance of the attribute as noted in the academic literature and in marketing textbooks (Doney and Cannon 1997; Lamb, Hair, and McDaniel 1999; Pride and Ferrell 2000; Wilson 1994). The relegation of price to a more minor criterion in contractor assessment may indicate that the public sector has become more interested in other factors. This finding may be indicative of a recent trend toward

evaluating the total contractor bundle, rather than just product price. In the past, the cheapest contractor was often selected, resulting in additional costs such as "unreliable delivery, limited quality of works provided, and poor communication" (Degraeve and Roodhooft 1999). Consequently, less emphasis on price and a greater emphasis on other key factors should have positive outcomes. For example, Ittner et al. (1999) reported that the largest performance gains for the organization are contingent on the selection of suppliers based on non-price criteria. Moreover, Swift (1995) found that a low initial price was less of a concern for organizations that had a preference for single sourcing and relationship development; thus, the minimizing of the magnitude of price issues should be heartening news for contractors.

4.2.2. Contractor performance

The means and minimum and maximum expressions for contractor performance questions are presented in Table 9 below.

Table 9: Means for questions that measure Contractor performance

ELEMENTS OF CONTRACTOR PERFORMANCE			
Contractor Performance	**Mean**	**Min**	**Max**
a. Construction rework costs have decreased	3.516	3	5
b. The quality of finished structure has improved	2.741	1	4
c. Built structures are finished on time	2.225	1	3
d. On-site conflicts have reduced	4.000	3	5

The lowest mean is 2.225 (timely completion of built structures), and the highest mean is 4.000 (reduction in on-site conflicts). This implies that construction performance in terms of delivery is low and high for on-site conflict resolution.

4.2.3. Correlation between selection criteria and performance

Table 10 below shows the analysis of results for the correlation between the independent variables and the dependent variable.

Table 10: Correlation of selection, development, and general performance

		Selection	Development	
Performance				
Pearson	Selection criteria	1.000		
Correlation	Development	0.7021	1.000	
	Performance	0.6884	0.6754	1.000
Significance	Selection Criteria			
	Development	0.000		
	Performance	0.000	0.000	

Source: Primary data

From table 10 above, the relationship between selection criteria and performance showed a high value of Pearson correlation coefficient (0.6884) indicating a strong positive as well as statistically significant relationship at 95 % level of confidence. This implies the better the selection criteria used, the better performance expected.

4.2.4. Regression comparisons of contractor performance and selection criteria

Table 11 below contains the comparisons between contractor selection criteria and the contractor performance measures. A low computed significance value for the F-Statistic (0.000) from table 11 below implies that the independent variable (contractor selection criteria) is a predictor of the dependent variable (contractor performance measures) at a set level of significance (0.05). This independent

variable explains approximately 86.96 % of the dependent variable, performance. This means that there are others contributing factors to the dependent variable (performance), which may need further investigation.

Comparison of contractor selection criteria with performance measures shows that selection criteria correlates positively with quality and delivery. This means that the better the selection criteria the better performance is expected in terms of quality and delivery and vise versa. However, it is only delivery that has a statistically significant positive relationship (0.270) at 95% level of confidence.

The table also shows that contractor selection criteria relates negatively with rework costs and on-site conflicts. This implies that the better the selection criteria the less rework costs and on-site conflicts and vise versa. And of the two, it is only rework costs that is statistically significant (0.303) at 95% confidence level.

Table 11: Regression comparisons of performance measures on contractor selection criteria

```
      Source |       SS       df       MS              Number of obs =      78
-------------+------------------------------           F(  4,    73) =  129.38
       Model |  2.17449508     4  .543623771           Prob > F      =  0.0000
    Residual |  .306719389    73  .004201635           R-squared     =  0.8764
-------------+------------------------------           Adj R-squared =  0.8696
       Total |  2.48121447    77  .032223565           Root MSE      =  .06482

------------------------------------------------------------------------------
Selection Criteria  |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
------------------  +---------------------------------------------------------------
Reworks Costs       |  -.3031167   .0772025    -3.93   0.000     -.456981   -.1492524
Quality of work     |   .0015784   .0820611     0.02   0.985    -.1619691    .1651259
Delivery of works   |   .2700945   .0209157    12.91   0.000     .2284097    .3117794
On-site Conflict    |  -.0161214   .0108792    -1.48   0.143    -.0378035    .0055608
Constant            |   3.642154   .4751007     7.67   0.000      2.69528    4.589029
------------------------------------------------------------------------------
```

Source: **Primary Data**

4.3. Effect of contractor development and contractor performance

Objective 2: ***To assess the relationship between contractor development strategies and contractor performance in the delivery of construction services under SFG in Mubende local government.***

The results in this section are presented by discussing responses from specific items under each category. Results from Pearson's coefficient are thereafter presented and discussed. This is to determine whether there was a relationship between contractor development and contractor performance.

4.3.1. Descriptive Statistics

The means and minimum and maximum expressions for contractor development questions are presented in Table 12 below.

Respondents were asked to indicate the extent to which their organization engaged in the various contractor development activities. This list of items was generated from a literature review and discussions with people in purchasing and academia, and roughly follows a continuum of limited to extensive organizational involvement in contractor development activities. The means for contractor development are listed in Table 12 below and the results of the rankings reveal that Mubende Local Government engaged in some contractor development activities more than others.

Presence of certification or other documentation and recognition of contractor's performance in the form of awards ranked as the most important supplier development strategies (4.516). This implies that these strategies are important to the contractor development process and that they are in widespread use.

Table 12: Means for questions that measure Contractor Development

	ELEMENT OF CONTRACTOR DEVELOPMENT	Mean	Min	Max
Competitive pressure	n. Use of two or more contractors to create competition among contractors	3.709	3	5
	o. Switching contractors when competition is fierce to cut costs	2.968	2	4
Contractor incentives	p. Recognition of contractor's performance in the form of awards	4.516	4	5
	g. Promise of future business	1.709	1	3
	q. Promise of current benefits	1.451	1	2
Direct Involvement	r. Site visits by your personnel to contractor's premises	4.516	4	5
	f. Training/education of the contractor's personnel	3.548	3	5
Contractor Assessments	h. Presence of certification or other documentation	4.516	4	5
	m. Use of established formal guidelines and procedures	4.451	3	5
	j. Communication skills/systems (phone, fax, e-mail)	4.322	4	5
	c. On-time completion of works	4.129	4	5
	a. Quality level	3.677	3	5
	b. Service level	2.967	2	4
	d. Price/cost of the product	2.777	2	4
	i. The flexibility to respond to unexpected demand changes	2.614	2	4
	e. Willingness to share sensitive information	2.258	2	3
	l. Willingness to change their services to meet your changing needs	1.580	1	2
	k. Quick response time in case of emergence, problem or special request	1.513	1	2

Quick response time in case of emergence, problem or special request and promise of current benefits such as higher volume of present contracts were ranked as the least important with means of 1.513 and 1.451 implying that there is little attention put to these important aspects in Mubende district as compared to other contributing factors of contractor development.

Training/education of contractors' personnel and investment in the contractor's operation were rarely used in comparison with other activities, such as site visits to the contractor's premises or use of contractor certification programs. While

hands-on activities such as training and education may involve a higher level of resource commitment by the organization, they could conceivably yield substantial increases in contractor performance over the long term.

Initial evidence from Krause (1997), Krause *et al.* (2000), and Forker and Hershauer (2000) suggests that contractor development practices improve contractor performance and customer satisfaction. The respondents attributed much of their contractor performance improvements in terms of quality, delivery, and costs, as well as decreases in on-site conflicts, to their contractor development efforts compared to contractor selection criteria.

The results of this research suggest that contractor development activities can be characterized by level of buying organization commitment. First, enforced competition among contractors can foster performance improvements, but involves no commitment by the buyer. Second, the buying organization can hold increased volume allocations or consideration for future business contracts as incentives for contractor performance and/or capabilities increases. This approach involves commitment only if the contractor improves its performance. Third, the organisation can directly involve itself in the contractor development effort through such activities as training/education of contractors' personnel, site visits, and investments in the contractor. This last approach involves significantly higher levels of commitment. Individually, none of these approaches is new. These approaches are also not mutually exclusive. Thus, a contractor development effort

that consciously and judiciously integrates the three approaches might yield significant increases in contractor performance and capabilities.

4.3.2. Correlation between Contractor development and contractor performance

As indicated in table 9 above, there is a strong positive as well as statistically significant relationship between contractor performance and contractor development at 95% level of confidence.

From table 9 above, the correlation coefficients on the main diagonal are always 1.00, because each variable has a perfect positive linear relationship with itself.

4.3.3. Regression comparisons of contractor performance and development

Table 13 below contains the relationship between the contractor development strategies and the contractor performance measures. A low computed significance value for the F-Statistic (0.000) from table 13 below implies that the independent variable (contractor development) is a predictor of the dependent variable (contractor performance) at a set level of significance (0.05). This independent variable explains approximately 68.21 % of the dependent variable, performance. Similarly, like contractor selection criteria, this means that there are others contributing factors to the dependent variable (performance), which may need further investigation.

The relationship between contractor development with performance measures shows that development strategies relate positively with quality, delivery and on site conflicts. This means that the better the contractor is developed the better performance is expected in terms of quality, and delivery of the product and a

reduction in on-site conflicts and vise versa. However, it is only quality and delivery that are statistically significant (0.355 and 0.166) at $P < 0.05$.

Table 13 also shows that there is a statistically significant (0.238) negative relationship between contractor development with rework costs. This means that the better the contractor is developed the less rework costs are incurred.

Table 13. Regression of performance measures on contractor development

Source	SS	df	MS		
Model	2.45527741	4	.613819353	Number of obs	78
Residual	1.05916506	73	.01450911	F(4, 73)	42.31
Total	3.51444247	77	.04564211	Prob > F	0.0000
				R-squared	0.6986
				Adj R-squared	0.6821
				Root MSE	.12045

Contractor development	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
Rework costs	-.238264	.0597861	-3.99	0.000	-.3574175	-.1191106
Quality of work	.3553714	.0455326	7.80	0.000	.2646251	.4461177
Delivery of work	.1369229	.0390766	3.50	0.001	.0590434	.2148024
On-site Conflict	.017173	.0101749	1.69	0.096	-.0031056	.0374516
Constant	2.780379	.3605981	7.71	0.000	2.061708	3.49905

Source: **Primary Data**

CHAPTER FIVE

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0. Introduction

This chapter summarizes the study undertaken, and it gives a summary of the findings, draws the conclusion and recommendations of the study are presented based on the research objectives. Areas that require future research are also presented. The recommendations are proposed as priority strategies to improve the performance of contractors in local governments.

5.1. Summary of the study

As a result of decentralization, local governments are allocating more resources to their core functions and encouraging the outsourcing of non-core activities. This has increased the importance of effective contractor selection and development as these agencies exploit contractor's capabilities. However, sparse evidence exists regarding the impact of contractor selection criteria and contractor development on contractor's performance in the public sector environment. This research was aimed at investigating the effect of contractor selection criteria and development strategies on the performance of contractors in the delivery of construction services in Mubende local government.

Quantitative techniques were used in collecting and analyzing the data. A questionnaire describing contractor selection criteria, development and

performance was administered to members involved in the classroom acquisition for a randomly selected sample of 90 respondents. Descriptive, tests of hypothesis and multivariate measures of analysis were conducted to confirm the relationships between the variables.

From the findings, the following summary can be made:

Objective 1: Contractor selection criteria and its effect on contractor performance in the delivery of construction services in Mubende district.

Several observations can be summarized regarding the effect of contractor selection criteria on contractor performance.

It was discovered that a number of factors are used in the selection of contractors in Mubende local government. It was established that geographical compatibility/proximity deemed to be the most important factor in the selection of contractors while percentage of contractors work subcontracted was of less importance. The study established that there is a strong positive as well as a statistically significant relationship between contractor selection criteria and contractor performance. This implies that the current selection criteria have resulted into better contractor performance. However, the trend in better contractor performance is only in reepect of on-time delivery and quality of the classroom built as performance measures. The findings further reveal that the current contractor selection criteria have resulted into more rework costs and on-site conflicts.

Objective 2: Contractor development and its effect on contractor performance in the delivery of construction services in Mubende local government

The study established that contractors' performance is sufficient to support the local government service delivery efforts. Thus Mubende district must increase the overall performance of their supply bases, and such an effort should include effective communication of requirements and active facilitation of contractors; performance.

The data gathered in this study revealed that Mubende district participated more often in activities such as presence of certifications, recognition of contractor's performance, use of established procedures, and site visits, than activities such as promises of increased present or future business. The respondents attributed much of their contractors' increases in on-time delivery and quality, and reduction of on-site conflicts, to their contractor development efforts. However, it was observed that contractor development activities used, did not improve on the performance of contractors in respect to reduction of rework costs.

5.2. Conclusions

5.2.1. Effect of contractor selection criteria on contractor performance in the delivery of construction services in Mubende local government

This study has demonstrated the importance of contractor selection criteria to perfect contractor performance in the delivery of construction services. The findings of this study led the researcher to conclude that with greater dependence on contractors, there is increased need in Mubende local government to effectively manage its contractors through effective supplier selection. Mubende local government should rethink and reorganize its supply base to make it an

extension of its operations. A well defined and effectively communicated set of criteria to evaluate contractors is one that enables contractors to improve their performance.

A strategic commitment from contractors is clearly a vital determinant of business success. Not only does it directly impact contractor performance as the results demonstrate, it can also have an indirect impact. It is, for example, easier to address contractor delivery and quality problems if there is a relationship, and if there are shared expectations and objectives. The empirically validated positive impact of contractor selection criteria on contractor performance, such as that documented in this study, can be very useful for the manager who takes the initiative in contractor performance improvement.

5.2.2. Effect of contractor development on contractor performance in the delivery of construction services in Mubende local government

The findings from the study led the researcher to conclude that contractor development strategies are essential in improving the performance of contractors.

The results of this study provide strong justification to promote contractor development efforts and to obtain the resources needed to implement them. The initiative for implementation of contractor development may originate at different levels in the district. Contractor development practices can be initiated by the contracts committee, and in some instances, by the user department who recognize the need for contractor development implementation to respond to policy requirements.

5.3. Recommendations

From the results of this study, the following recommendations are suggested.

5.3.1. Effect of contractor selection criteria on contractor performance in the delivery of construction services in Mubende local government

1. Mubende local governments should focus on a set of contractor selection criteria that evaluates contractors across multiple dimensions including product quality, product performance, and delivery reliability. Developing and applying an appropriate set of contractor selection criteria that go beyond "best and lowest bid" should become routine in the public sector. When it is clear to contractors that they are judged on well-defined criteria, their attention to detail and their level of effort are likely to increase substantially, and this can lead to enhanced performance. Emphasizing these criteria should also become standard operating procedure for local governments, and the failure to adopt these may result in declining competitiveness.

2. It is recommended that management in Mubende local government introduces a strategic procurement approach supported by a contractor appraisal policy designed to enable selection of competent contractors. Once introduced, it should be a continuous process viewed as a cumulative exercise whereby one’s understanding of the contractor increases with confidence in being able to evaluate their potential.

3. It is evident from this study that there is lack of enough people with the right professional skills to implement a programme of radical improvement in their

procurement function. An effective training programme should start by mapping the different skills required throughout the organization and should follow from the analysis of procurement activities across the local government. It should set out a strategy to meet these needs, including recruitment of suitable staff, training, and ways of retaining trained staff.

4. The researcher recommends the following criteria for selection of contractors:

Characteristic	**Remarks**
Contractor's management capability	This is important, since management runs the business and makes the decisions that affect the future competitiveness of the supplier.
Overall personnel capabilities	This measurement requires an evaluation of non-management personnel. The benefit that a highly trained, stable, and motivated workforce can provide better performance
Cost structure	Understanding a contractor's total cost structure helps a buyer determine how efficiently a contractor can produce an item. A cost analysis also helps identify potential areas of cost improvement.
Environmental regulation compliance	This is important given that buyers do not want to be associated with known environmental polluters from a public relations or potential liability standpoint.
Financial capability and stability	Financial assessment as a screening process or preliminary condition is recommended that the supplier must pass before a detailed evaluation can begin.
Total quality performance, systems, and philosophy	This should address a contractor's quality management processes, systems and philosophy.
Process and technological capability, including the contractor's design capability	A contractor's selection of a construction process helps define its required technology, human resource skills, and capital equipment requirements.
Construction scheduling and control systems, including supplier delivery performance	The purpose behind evaluating the construction scheduling and control system is to identify the degree of control the contractor has over its scheduling and construction process.
Supplier purchasing strategies, policies, and techniques	These criteria are together one way to gain greater insight and understanding of the supply chain of the suppliers
Longer-term relationship potential	Assessing a contractor's willingness to develop longer-term relationships that may evolve into alliances or partnerships is increasingly becoming part of the evaluation process.

5.3.2. Effect of contractor development on contractor performance in the delivery of construction services in Mubende local government

1. The study reinforces the need to view contractors as extensions of the buying organization itself and not as independent entities to be dealt with at arm's length. It is therefore, recommended that Mubende local government develops long-term partnership relationships with its contractors where there is free sharing of information.

2. Having selected capable contractors, Mubende local government needs to track the development of the contractor's performance. It is therefore, that it establishes a system or method of measuring the performance of contractors. The system must be able to accumulate information and be able to share it over at least some designated area. Contractors should receive copies of ongoing performance evaluations at the time they are completed and have 30 days to discuss the findings. Typical past performance information systems should collect data on meeting specifications and standards, maintaining cost control, maintaining quality, meeting schedule or timeliness goals, exhibiting cooperative behavior, emphasizing customer satisfaction, maintaining a satisfactory business relationship, and providing service to the end-user. Some of the factors may be objective and some subjective - both should be used. This will form part of the continuous contractor management process. In all cases, contract guidelines must be developed to give feedback to contractors on how they are performing in order to improve on both communication and contractual trust.

5.4. Limitations and directions for future research

This research was obviously limited by the fact that there was no attempt to differentiate contractor selection and development process by facility size, geographical location of the contractor, or any other classification. It is likely that the selection and development process depends, at least to some extent, on some of these factors. Future research should consider these potentially influencing factors. Finally, it would be instructive to repeat this process on an annual basis to examine the evolution of contractor selection and development.

Despite the limitations, this research strongly indicates the need for further study in the contractor performance improvement realm. Results here indicate relatively low levels of importance attached to core selection and development processes in local governments. Given the relatively substantial amount of research that proclaims the benefits of formal contractor selection criteria and development in the private sector (e.g., Vonderembse and Tracey 1999), one must question why it is not so developed in the public sector. Thus, academicians may pursue this avenue of research prior to investigating other areas of contractor selection assessment and development. Other directions for new research would involve determination of the performance dimensions that should be included in selection evaluations, the effectiveness of existing processes, and the best method of evaluating contractors (e.g., contractor self-evaluation, buyer evaluation, certifications, etc.).

The ability to tie specific types of contractor development activities to the type of performance achieved would also be valuable for practitioners. For example, what types of activities are more likely to achieve an improvement in construction quality? Are other activities more likely to achieve cost reductions or better service from the contractor?

This research examined the extent of use of specific contractor development strategies. Future research may examine the order in which these strategies should be implemented for optimal benefit. Future research efforts could also explore the specific relationship between the duration and intensity of contractor development efforts, the type of contractor development activities used, and the strength of positive results, both short and long term.

Future research should also be directed towards investigating the effect of staff competences and performance measurement systems on contractor performance.

Finally, this research only examined contractor performance from the buying organization's perspective. Future research should strive to incorporate the contractor's perspective.

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APPENDIX 1 QUESTIONNAIRE

FOR MEMBERS OF DLTB, HEAD TEACHERS, TECHNICAL EVALUATION COMMITTEE, SMCs.

This questionnaire is part of research being conducted in Mubende Local Government to study the factors affecting the supplier/contractor performance in the delivery of construction services. It is specifically focused on the School Facilities Grant programme.

Please kindly complete the questionnaire and return it to the following address:
Department of Production
Mubende Local Government
P.O.Box 93
Mubende
Tel: 078 349 670

Personal details of respondent

Job title
……...……
…….

Department……..……
……

Duration on this
job……
..

A. Contractor selection criteria

Please indicate using this scale how important the following factors are when selecting a key/preferred contractor for your organization in the SFG programme?

5 - High Importance
4 - Moderate Importance
3 - Important
2 - Slight Importance
1 - Low importance

	High				**Low**
a. Company size	5	4	3	2	1
b. Ethical Standards	5	4	3	2	1
c. Scope of resources	5	4	3	2	1
d. Technical expertise	5	4	3	2	1
e. Commitment to quality	5	4	3	2	1
f. Open to site inspection	5	4	3	2	1
g. Contractors construction capability	5	4	3	2	1
h. Insurance and litigation history	5	4	3	2	1
i. Reference/reputation of contractor	5	4	3	2	1
j. Ability to met delivery due dates	5	4	3	2	1
k. Financial stability and staying power	5	4	3	2	1
l. Honest and frequent communication	5	4	3	2	1
m Flexible contract terms and conditions	5	4	3	2	1
n. Geographical compatibility/proximity	5	4	3	2	1
o. Cultural match between the contractor and your organization	5	4	3	2	1
p. Past and current relationship with the contractor	5	4	3	2	1
q. Contractor has strategic importance to your organization	5	4	3	2	1
r. Contractors willingness to share confidential information	5	4	3	2	1
s. Percentage of contractors work commonly subcontracted	5	4	3	2	1
t. Your annual orders as a percentage of their overall business	5	4	3	2	1
u. Contractors ability to make a descent profit for doing your works	5	4	3	2	1
v. Willingness to integrate supply chain management relationships	5	4	3	2	1

w.	Commitment to continuous improvement in the construction process	5	4	3	2	1
x.	Reserve capacity or the ability to respond to unexpected advertisements	5	4	3	2	1

B. Contractor development

Please indicate using this scale how important the following issues are when developing your key/preferred contractor(s) in the SFG programme?

5 - High Importance

4 - Moderate Importance

3 - Important

2 - Slight Importance

1 - Low importance

a.	Quality level	5	4	3	2	1
b.	Service level	5	4	3	2	1
c.	On-time completion of works	5	4	3	2	1
d.	Price/cost of the product	5	4	3	2	1
e.	Willingness to share sensitive information	5	4	3	2	1
f.	Training/education of the contractor's personnel	5	4	3	2	1
g.	Promise of future business such as consideration for future business	5	4	3	2	1
h.	Presence of certification or other documentation	5	4	3	2	1
i.	The flexibility to respond to unexpected demand changes	5	4	3	2	1
j.	Communication skills/systems (phone, fax, e-mail)	5	4	3	2	1
k.	Quick response time in case of emergence, problem or special request	5	4	3	2	1
l.	Willingness to change their services to meet your changing needs	5	4	3	2	1
m.	Use of established formal guidelines and procedures	5	4	3	2	1
n.	Use of two or more contractors to create competition among contractors	5	4	3	2	1
o.	Switching contractors when competition is fierce to cut costs	5	4	3	2	1
p.	Recognition of contractor's performance in the form of awards	5	4	3	2	1
q.	Promise of current benefits such as higher volume of present contracts	5	4	3	2	1
r.	Site visits by your personnel to contractor's premises	5	4	3	2	1

a. Contractor performance

Please indicate on this scale the level of how much you agree or disagree with each statement in this guide.

5 - Strongly Agree
4 - Slightly Agree
3 - Agree
2 - Slightly Disagree
1 - Strongly Disagree

a. Construct rework costs have decreased	5	4	3	2	1
b. The quality of finished structure has improved	5	4	3	2	1
c. Built structures are finished on time	5	4	3	2	1
d. On-site conflicts have reduced	5	4	3	2	1

d. Performance improvement

As one of the key personnel involved in acquisition of school facilities, what do you think can improve the level of your contractor's performance in the delivery of construction services?

1. ……
……
2. ……
……
3. .....
.....
4. ……
……
5. .....
.....
.....

APPENDIX II

LIST OF SFG SCHOOLS - 1998/1999 – 2003/2004

S.No	Name of school	Sub county
1	Biwanga CU	Bagezza
2	Kabowa	Bagezza
3	Kabubu	Bagezza
4	Kasaana Public	Bagezza
5	Kaweri DAS	Bagezza
6	Kibalinga	Bagezza
7	Kyamukona	Bagezza
8	Mugungulu	Bagezza
9	Namagogo	Bagezza
10	CAWODISA	Bagezza
11	St.Stephen	Bagezza
12	Kisindizi	Bagezza
13	Mubende Army	Mubende TC
14	Nakayima	Mubende TC
15	St.Mary Mubende	Mubende TC
16	Bakijulula	Bulera
17	Buyambi	Bulera
18	Kalangalo	Bulera
19	Kibaale	Bulera
20	Kiryokya	Bulera
21	Kitetaaga	Bulera
22	Kiyoganyi RC	Bulera
23	Kiyuganyi CU	Bulera
24	Kyamusisi	Bulera
25	Kyetume	Bulera
27	Mwerelwe	Bulera
28	Nambute	Bulera
29	Namutamba	Bulera
30	Ndekuyamukungu	Bulera
31	Bukanaga	Busimbi
32	Butebi Islamic	Busimbi
33	Businzigo	Busimbi
34	Kabule	Busimbi

35	Kabuwambo	Busimbi
36	Kalamba	Busimbi
37	Kawoko	Bsimbi
38	Lulagala	Busimbi
39	Mbaliga UMEA	Busimbi
40	Naama UMEA	Busimbi
41	Namyeso	Busimbi
42	Nakaseta Islamic	Busimbi
43	St.Ambrose Tamu	Busimbi
44	Kisule	Busimbi
45	Kitebere CU	Butayunja
46	Kito RC	Butayunja
47	Kkande	Butayunja
48	Nakaziba	Butayunja
49	Bekiina	Butayunja
50	Buganyi	Butologo
51	Kanyogoga	Butologo
52	Kasozi	Butologo
53	Kiruuma	Butologo
54	Kiyungu	Butologo
55	Makukulu	Butologo
56	Kisagazi	Butologo
57	Kikuuta Islamic	Kakindu
58	Lugo	Kakindu
59	Malwa UMEA	Kakindu
60	Mayirye St.Theresa	Kakindu
61	Ngugulo	Kakindu
62	Buwaata	Kasambya
63	Ikula	Kasambya
64	Kabamba	Kasambya
65	Kasambya DAS	Kasambya
66	Kirume	Kasambya
67	Kitonzi	Kasambya
68	Kiyita	Kasambya
69	Kyamuguluma	Kasambya
70	Muyinana	Kasambya

71	Nabingora	Kasambya
72	Nakawala	Kasambya
73	Dyangoma	Kasambya
74	Kasenyi	Kasambya
75	Bweyongede	Kasanda
76	Kyabalanzi	Kassanda
77	Kyoga	Kassanda
78	Kassanda	Kassanda
79	Kamuli	Kassanda
80	Kawungera	Kassanda
81	Manyogaseka	Kiganda
82	Kinoni	Kiganda
83	Nsozinga	Kiganda
84	Kalagala	Kiganda
85	Kamusenene	Kiganda
86	Lutunku	Kiganda
87	Kakiganda	Kiganda
88	Kansera	Kiganda
89	Musozi	Kiganda
90	Bbambula	Kikandwa
91	Buyambi	Kikandwa
92	Kabongezo	Kikandwa
93	Kajoji	Kikandwa
94	Kibanda	Kikandwa
95	Namigavu	Kikandwa
96	Nakwaya	Kikandwa
97	Nampewo	Kikandwa
98	Wattuba	Kikandwa
99	Kakindu	Kiyuni
100	Katente west	Kiyuni
101	Katente East	Kiyuni
102	Katoma	Kiyuni
103	Kigamba	Kiyuni
104	Kabunyonyi	Kitenga
105	Kalonga	Kitenga
106	Katabalanga	Kitenga

107	Kirumbi	Kitenga
108	Nsengwe	Kitenga
109	Ssenkulu	Kitenga
110	Banda CU	Maanyi
111	Lusalira	Maanyi
112	Misigi	Maanyi
113	Nfumbye	Maanyi
114	Ttumbu	Maanyi
115	Kimuli	Maanyi
116	Buzibazi	Maanyi
117	Kikoma	Madudu
118	Madudu RC	Madudu
119	Madudu CU	Madudu
120	Kakenzi	Madudu
121	Kiyungu	Madudu
122	St.Stephen Kamuli	Malangala
123	Kawolongojjo	Malangala
124	Kiwawu CU	Malangala
125	Kyankowe	Malangala
126	Katungulu	Ssekanyonyi
127	Kasangula	Sekanyonyi
128	Kittete UMEA	Ssekanyonyi
129	Mpirigwa RC	Sekanyonyi
130	Mugulu	Ssekanyonyi
131	Kitete UMEA	Ssekanyonyi
132	Ssekanyonyi CU	Ssekanyonyi
135	Mityana Junior	Mityana TC
136	Mityana Public	Mityana TC
139	Buswa	Kassanda
140	Binikira	Kassanda
141	Kikandwa	Kassanda
142	Kiteredde	Kassanda
144	Kalwana	Kassanda
145	Kakindu	Kassanda
146	Namabale	Kassanda
147	Mirembe CU	Kassanda

148	Katuugo	Kassanda
149	Eliyana	Kassanda
150	Kwatampola	Kassanda
151	Namiringa	Kassanda
152	Kigarama	Kassanda
153	Makokoto	Bukuya
154	Seeta	Bukuya
155	Seeta	Bukuya
156	Kalagala	Bukuya
157	Kyamuyinula	Myanzi
158	Myanzi	Myanzi
159	Kabuyimba	Myanzi
160	Kidukulu	Myanzi
161	Kyakatebe	Myanzi
162	Kinoni	Myanzi

LIST OF CONTRACTORS TO MUBENDE LOCAL GOVERNMENT FROM 1998/1999 – 2003/2004

Name of Contractor	District of origin
Mbogo and Company Ltd	Mubende
Kassanda Multi purpose	Mubende
D.Ssekiziyivu	Mubende
Nakiduduma General Merchandise	Mubende
Butambala General Traders	Mpigi
Kaddu	Mubende
Nawangiri Agali Awamu Co.Ltd	Mubende
Zigoti Constructors	Mubende
Kalule Godfrey	Mubende
Buwekula Mixed Farm Ltd	Mubende
Ssebu General Merchadise	Mubende
Ddemirire Quality Services	Mubende
WINCO General Merchandise	Mubende
Kasota Construction Ltd	Mubende
Basiima Contractors Ltd	Wakiso
Alliance Engineers Company Ltd	Kampala
Audio Logic U.Ltd	Kampala
Smart Rock Contractors Ltd	Kampala
Technical Masters Ltd	Kampala
Bujjuni Enterprises Ltd	Mubende
Naama Agro Consult Ltd	Mubende
Kyeitabya Contractors and Renovators Ltd	Kampala
Kiganda General Purpose	Mubende
Belta Investments	Kampala
Luwangula General Purpose Contractors	Mubende
Bikwalira Construction company	Mubende
Kitongo Enterprises	Mubende
Bagod Enterprises	Mubende
Kakindu Trading Store	Mubende

Mubende Technical Services	Mubende
Kekimu Technical Services	Mubende
Kiyinda Carpentry Workshop and Contractors	Mubende
RMK Ltd	Mubende
Atom General Enterprises Ltd	Kibaale
Mityana Multi-Investment Company	Mubende
VINCO Enterprises	Mubende
Kabarega Constractors Ltd	Mubende
Busenvi Enterprises	Mubende
Sunrise Kiboga Construction Ltd	Kiboga
Novato Enterprises Ltd	Mubende
Ganafa Enterprises	Mubende
Jjemuva Enterprises	Mubende