THE ROLE OF PROCUREMENT ACT 2015 IN THE BUYER- SUPPLIER RELATIONSHIPS AND THE PERFORMANCE OF MILK PROCESSING FIRMS: A CASE OF NAIROBI COUNTY, KENYA

KENNEDY ONYANGO OWAGO
BBM Purchasing and Supplies Management (Mt. Kenya University)

A RESEARCH PROJECT SUBMITTED TO THE BOARD OF POSTGRADUATE STUDIES, SCHOOL OF BUSINESS AND ECONOMICS IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE CONFERMENT OF MASTER'S DEGREE IN PROCUREMENT AND LOGISTICS MANAGEMENT, KISII UNIVERSITY

JANUARY, 2022

DECLARATION AND RECOMMENDATIONS

Declaration by Student

This research project is my original work and has not been submitted for examination or general research purposes in another University or organization of higher learning.

_____ _____

Signature: Date

Kennedy Onyango Owago

Admission No: CBM15/10568/16

Recommendation by supervisor

This research project has been submitted with my approval as university supervisor

Signature..... Date.....

Prof Christopher Ngacho, PhD

Associate professor of Operation Management

Department of Management Science

Kisii University.

Sign..... Date.....

Dr. Joshua Wafula, PhD

Senior lecturer

Department of Accounting and Finance

Kisii University

COPYRIGHT

DEDICATION

I dedicate this work to my family for their sincere support throughout this learning journey. I thank you all for your love, support and assistance. My wife Carolyne thanks a lot for your encouragement. I am happy and blessed to have you in my life.

ACKNOWLEDGEMENT

Foremost I thank the Almighty God for this far He has brought me. I am greatly indebted to my supervisors Prof Ngacho and Dr Wafula for their guidance, advice and encouragement throughout the writing of this project. May God bless you abundantly. My classmates are also special for their moral support.

ABSTRACT

It is widely acknowledged that Kenya has made steady advances in the administration of public procurement and supply chain processes over the last 15 years. The procurement Act 2015 ensures that it takes a much shorter time to undertake procurement from start to finish provides for greater professional responsibility and accountability thus ensuring procurement outcomes are sound and follow due process. This therefore integrates procurement and supply chain professionals and firms' key suppliers in the decision-making process. The purpose of the study was to determine the role of procurement Act 2015 in the buyer-supplier relationships and the performance of milk processing firms in Nairobi County. The specific objectives which the study focused on were; to determine the effect of quality dependability, to assess the effect of information sharing, to ascertain the effects of cost control, to determine the effect of reliability of services on the performance of milk processing firms and finally to determine the moderating role of procurement Act 2015 on the buyer-supplier relationships and performance of milk processing firms. The study was guided by Transaction cost, commitment-trust and social exchange theories. The explanatory research design was used which involved 8 large-scale milk processing firms operating in Nairobi County. A target population was 2312 staff drawn from the 8 milk processing firms within Nairobi County. The sample size generated was 375 after adjustment for possible non-responses. The study adopted stratified random sampling and proportionate sampling designs. Pilot study was carried out on 38 employees of New KCC milk processing firm in Kitale, Trans Nzoia County. Data was collected using closed ended questionnaires that were in the form of Likert scale. Validity was examined by getting the opinion of the supervisor an expert in procurement. To test the reliability of the instruments of data collection, the Cronbach alpha test was employed. Data collected was sorted, coded, edited and then analysed using descriptive statistics which involved constructing tables of means, measures of dispersion such as standard deviation, regression analysis was done using SPSS version 25. The findings indicated that there was a significant role of procurement Act 2015 in the buyer-supplier relationships and the performance of milk processing firms. The study concluded that quality dependability perfectly contributed to firms' performance. On information sharing, the study concluded that information sharing was critical to firms' performance. In addition, there was a significant contribution of cost control and reliability of services on firm performance. On the procurement Act 2015 it was concluded that that it played a moderating role between buyer-supplier relationships and firm performance of milk processing firms. Thus, it is recommended that Milk processing firms should share their production skills in determining quality with their key suppliers and also embrace timeliness in order to improve performance through buyer supplier relationships.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS AND ACRONYMS

BSRs	Business Supplier Relationships
PPADA	Public Procurement and Asset Disposal Act
PPARB	Public Procurement Administrative Review Board
PPRA	Public procurement Regulatory Authority
SC	Supply Chain
SCM	Supply Chain Management
SCP	Supply Chain Performance
SET	Social Exchange Theory
SRM	Supplier Relationship Management

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Supplier relationship is the concept of quality management and is part of strategic management plan for risk mitigations and quality improvement in organizations globally. The buyer supplier relationship involves two parties that relate with each other through transactions that involve exchange of goods and services for money (Butt, 2019). These two parties are separately identified as suppliers and buyers. Effective buyer supplier relationship is associated with benefits including quality dependability, information sharing, cost control and reliability of services (Blessley, Mir, Zacharia & Aloysius, 2018). Buyer-supplier relationship has been acknowledged as the set of approaches that are utilized to ensure that the supplier is integrated in the chain with manufacturing; warehouses and stores which in the long run, will guarantee that merchandise is created and disseminated at different amounts with a point of limiting expenses while in the meantime fulfilling administration level necessities (Yoo, Rhim & Park, 2019).

Emerging from increased competition, firms have changed procurement practices through adoption of effective buyer supplier relationships. The extent to which firms compete is based on supplier quality, but sources of supplier competition link their buyer operations in the supply chain partners, distributors and retailers who supplied from wholesalers Najib, Kartini, Suryana & Sari, 2017). In Public organizations, most buyer supplier relationships are crucial to their performance. The effective buyer supplier relationship is associated with short demand and customer expectation refocused. Additionally, buyer supplier relationship have enhanced strategic role of the relationship in decision making. (Awan, 2019). Yang, Jiang, and Xie, (2019) indicated that one of the vital preconditions for long-term firm survival is the

achievement of its productivity and that productivity is achieved through aggressive supply relationship that is able to involve both internal and external stakeholders. Buyer-supplier relationship is a purchasing practice used in firms procurement aspects.

Globally, in Europe, Boddy (2016) on buyer supplier relationship and success of implementing partnering performance among firms noted that quality dependability aspect of buyer supplier relationship includes the timeliness and exchange credibility of the product or services procured. In Australia, Petrovic (2017) on the buyer supplier relationship noted that perceived quality as an aspect of buyer supplier relationship was critical in supply chain performance of enterprises. In Dublin, Vikas et al (2017) on the effect of dependability of key quality elements noted that quality elements of buyer supplier relationship could lead to customer satisfaction levels, loyalty and performance. In USA, Arrowsmith and Hartley (2016) on the impact of information sharing as an aspect of buyer supplier relationship noted that that firms need to procure with the correct information that is adequate, to take the correct materials. In China, Todd (2017) on buyer suppler relationship and firm performance noted cost cutting associated with integration between buyer and supplier systems improved performance.

Regionally in Africa, researchers have presented different perspectives on buyer supplier relationship and performance. In Ghana, Kumar (2018) on the relationship between quality dependability aspect of buyer-supplier relationship and customer satisfaction noted that quality dependability is very critical to achieve performance. In Burundi, Hallikas (2017) on the supplier's reliability and performance noted that buyer- supplier relationships promote reliability in supply chain goals. In Uganda Basheka and Mugabira (2018) on the implications of quality dependability on procurement performance noted that quality dimensions are relatively related to performance. In Egypt, Bob (2019) on buyer supplier

relationship and operating costs of postal corporations noted that cost control benefit of effective buyer supplier relationship had significant effect on performance through operating costs.

Locally in Kenya, buyer supplier relationship and performance have been examined in various sectors. In the education sector, Otieno and Getuno (2017) on supplier sharing information and procurement regulations on performance of public secondary schools in Nairobi County noted that transparency, inspections, professionalism and acceptance level had impacted on performance. In agricultural sector, Adhaya (2018) on buyer supplier relationship and supply chain performance found out that organization performance and efficiency are influenced by specific costing controls resulting from beneficial buyer supplier relationship. On the role of procurement and disposal Act 2015 on buyer- supplier relationship in Kenya, Kosgei (2016) noted that procurement Act is expected to enhance competitive growth through price negotiations, quality dependability, timeliness to the market, production and innovations.

1.1.1 Buyer Supplier Relationship

The effectiveness of buyer supplier relationship for firm performance is based on metrics such as quality dependability, information sharing, Cost control, Reliability of services among others (Amoako-Gyampah, Boakye, Adaku & Famiyeh, 2019). The metrics forms the benefits or elements of buyer supplier relationship. Quality dependability practices calls for trust which is a crucial factor in encouragement of commitment among supply chain partners and the presence of trust improves greatly the chance of successful supply chain performance. The quality dependability brings adoption, trust and buyer supplier commitment results to continued relationships (Tangus, 2015). Joshi, Shitole, Chavan, and Joshi (2018) noted that quality dependability is associated with improved quality of products, reduced cost and lead-time, enhanced competitiveness and increased compliance with laws and policies and general

customer satisfaction. Hassan, Habib and Khalid (2014) argue that quality dependability influences competitive advantage and therefore quality dependability will enhance performance.

Sharing information infers how much crucial and selected information is passed on to the other party in a relationship (Yang, Zhang, & Xie, 2017). It hints the path to private information between trading partners thus empowering them to screen the advancement of items and requests as they encounter unmistakable strategies in the production network. Information sharing and being friends with firm's suppliers leads to better organizational performance (Scuotto, Caputo, Villasalero & Del Giudice, 2017).

Cost control is a financial issue that affect buyer supplier relationships to the organizations (Blessley et al. 2018). Cost control is one of the components in buyer-supplier relationships with aspects of phone call costs, mail services costs, courier services costs and handling of complaints with a resultant effect on performance (Kaufmann, Esslinger & Carter, 2018). Cost control as attributed by the need to gain competitive advantage has forced business organizations to reconsider their relationships with customers, especially competitive battles that can only be fought within a network of cooperation (Butt, 2019).

Reliability includes supplier trust, loyalty, supplier's timeliness and buyer commitment (Chen, Smith & Thomchick, 2017). Highly reliable initiatives are costly, resource intensive and their outcomes are often unpredictable. They include the unwillingness to share information (Vijayakumar, Rahim, Ahmi & Rahman, 2019), potential additional responsibilities and work, perception of lack of mutuality and symmetry, mistrust about the fairness of benefit, costs and risk sharing (Al-Ma'aitah, 2018). All these barriers depict a high level of reliability competence in the endeavor to nurture relationships. Moreover, supplier reliability is also faced with the challenge of misconstrued perception and negativity that has

been proven empirically to come about with increased transactional costs, thus making a strategic partnership loose winning edge Kros, Kirchoff & Falasca, 2019). Reliability of services provides enhanced long-term relationships. The reliability involves providing supplier credit relations to physical long-term supply chains strategy (Awan, 2019).

1.1.2 Public Procurement and Assets Disposals Act of 2015

Public Procurement and Disposal Act, 2015 (PPDA, 2015) came into force and replaced PPDA 2005. The PPDA, 2015 guidelines are adopted by state owned corporations and generally provide provisions that guide the process of inventory management, asset management, contract performance and disposal of assets (Matasio, 2017). The initiatives of the PPAD 2015 involve two-stage tendering, design competition, electronic reverse auction; force account, competitive negotiations and framework agreements (Transparency International, 2015). PPOA (2016) clearly articulates that PPAD Act is purely enacted by provisions of Parliament which are described under Article 227. It spells out guidelines of sourcing goods and services for public entities (Odero & Ayub, 2017)

Procurement Act 2015 gives effect to article 227 of the constitution to provide procedures for efficient procurement and disposal by business entities (Mutangili, Awuor & Cheluget, 2020). The Act establishes Public procurement regulatory Authority (PPRA) to among other functions monitor, assess and review the public procurement and asset disposal system to ensure they respect the national values while PPARB was established by the Act to review, hear and determine tendering and asset disposal disputes(ppra.go.ke). The act aims to maximize the value for money to all public organizations and state organs in relations to buyer supplier relationships (Omolo & Akinyi, 2019). The process of procurement applies through planning, processing, inventory and asset management, disposal act and contract management.

This procurement Act plays an important role to avoid doubt that may or not arise on the process of procurement or disposal of assets as it applies. It clearly indicates that procurement Act has vital role in providing public organizations strategic plans to achieve their goals and prepare for uncertainties ahead of costs (Maradze, 2019). Procurement Act 2015 takes part procurement requirement to meet driving costs. The opportunities exist with procurement Act 2015 functions to improve performance in strategic ways. Organizational procurement is based on this act from supplier registrations process and obtaining prospective providers or procuring goods (Munyede & Mapuva, 2020).

Organizations apply procurement Act on cost reduction for acquiring goods to meet client satisfaction, interest, honesty, and fair play (Mugadza, 2018). The significance of procurement morals and ethical behaviours are based on technical competencies through buyer supplier relationships (Munyao & Moronge, 2017). Maintenance of suppliers is done by invitations basis in subsequent tendering procedures such as quotation request and restricted tendering on listing period. The procuring of goods and services are set aside on the group of tenders in those organizations (Andhov, Caranta & Wiesbrock, 2019). The objective of procurement or disposals is based on professionals' services, but not on regulatory values. However, procurement Act 2015 has been applied with laws and regulations that need to be reviewed in order to abide by constitutional best practices.

The issue of buyer supplier relationships has the value of improving the value of procurement through increased competition and accountability. Procurement Act 2015 includes firms or institutions with procurement systems that are regulated by procurement regulatory bodies. Public procurement and disposal act established in Kenya states that procurement functions shall be governed by procurement professionals who are registered under public procurement and disposal Act 2015. In buyer supplier relationships, the act remains the same; milk-processing firms are identified like other procuring organizations under act 2007 of PPOA.

The distributions of funds are meant to oversee the provisions of financial management act. Therefore, the procurement Act 2015 is supposed to enhance the achievement of goals by public procurement agencies transparently (Getuno 2017).

1.1.3 Firm Performance

Various authors have defined firm performance differently. Fowowe (2017) describes firm performance as money related and non-monetary outcomes of a firm. Monetary related performance is regularly estimated utilizing ROA, ROS, EBIT, EVA or Sales development. The non-money related performance can be estimated utilizing operational Key Performance Indicators, for example, Market share, advancement rate or client fulfillments are unmistakable cases, gives a review of regularly utilized performance measures (Danoshana & Ravivathani, 2019). Numerous analysts additionally utilize self-announced measures to operationalize performance. Others consolidate both, the accounted monetary KPIs and self-announced measures in their reports (Kale, Aknar & Başar, 2019).

Vikas (2017) showed that different ways non-monetary performance could be estimated; anyway, the performance can be scarcely surveyed without the connection to corporate procedure in Kenya. Performance contrasts in firms are regularly the subject. Generally, the accentuation in examining varieties in firm performance has been at the business level, inferring that qualities of an industry as significant to the industry and thus decide to a vast degree firm performance.

1.1.4 Milk Processing Firms in Nairobi County

Dairy industry in Kenya has been changing due to more concerns over sustainability, consumer demands and greater efficiency requirements. Dairy sector continuously strive for efficiency due to the price and volume competition in various countries (Berut, 2020). Collaboration between supply chain partners is very critical in addressing the challenges

inhibiting performance of dairy processing firms (Muhammad, Akhter and Ullah, 2014). Supply Chain Collaborations consist of members that have specific objectives and each partner has unique characteristics. Moreover, supply chain partners' influence on the decision making or supply chain activities of others. Generally, stronger members can get more benefits from the supply chain in respect of profit gains from lower cost and enhanced innovative capacity leading to clients' satisfaction. Further to this membership there is increased value leading to competitive advantage (Kimiti, Muathe & Murigi, 2020).

The Kenyan dairy industry is dominated by three major dairy processors: New KCC, Brookside and SpinKnit. These three dairy processors have countrywide coverage in terms of milk collection, sales and distribution. These processors also have the capacity to produce a wide range of dairy products (Chemirmir & Ndeto, 2021). However the New KCC is the only processor with milk powdering capabilities and is a public entity supported by the government of Kenya. The rest of the dairy industry is made up of medium or small-scale processors, with limited product range and milk collection and distribution networks (KDB, 2018). Milk processing firms operating in Nairobi County includes; Brookside, New KCC, Sameer Agriculture & Livestock, Bio food product , Orchard Limited , Lattana, Eldoville Dairy and Kinangop Dairy Ltd (Mwangi & Gakobo, 2018).

1.2 Statement of Problem

Effective buyer-supplier relationships coupled with quality dependability, information sharing, cost control and reliability of services ensures that there is efficiency, competitiveness, transparency, predictable procedures, open competition and enhanced performance in the firms leading to increased profits, customer satisfaction, appropriate lead time and compliance to the best practices in buyer supplier relationships (Maradze, 2019). There is also need to have cooperation between buyers and suppliers that is essential to

achieve performance in terms of increasing sales with fewer inventories in the total system and matching supply and demand (Mutangili, Awuor & Cheluget, 2020).

Despite the importance of buyer supplier relationship to firm performance, the dairy industry in Kenya is not realising its full potential by not embracing the benefits of effective buyer supplier relationships. Milk processing firms do not trust their suppliers with vital information, do not share skills on product quality, have high operational costs, and lack reliability in timeliness, trust, commitment and loyalty leading to poor customer satisfaction, low profitability, inadequate lead time and poor compliance with rules and regulations (Kiarie, 2017). In recent past, milk processing firms have experienced performance challenges in the existing markets. From the financial reports of 2018, Kenya Cooperative Creameries (KCC) for instance has been characterized by drop-in profitability for the year 2015 to 2018. The company made a net loss of Ksh. 500 million, Ksh. 605 million, Ksh. 200 million and Ksh.1.19 billion in 2015, 2016, 2017 and 2018 respectively.

The empirical review has established knowledge gaps. First, the studies have tended to focus on various aspects of buyer supplier relationship such as quality dependability, information sharing, cost control and reliability of services in isolation. There is therefore a need for a study that examines various aspects of buyer and supplier relationships and firm performance in one study. Secondly, few studies examining buyer supplier relationship and firm performance have evaluated the moderating role of Procurement Act 2015 on the buyer supplier relationship and firm performance. Finally, few studies have examined buyer supplier relationship in firm performance among milk processing firms Nairobi County. In response to the above, the study sought to evaluate the role of procurement Act 2015 in the buyer-supplier relationships and the performance of Milk processing firms in Nairobi county Kenya.

1.3 Objectives of the Study

1.3.1 Overall Objective of the Study

The general objective of the study was to determine the role of Procurement Act 2015 in the buyer-supplier relationships and performance of Milk processing firms in Nairobi County, Kenya.

1.3.2 Specific Objectives

i) To examine the effect of quality dependability on performance of milk processing firms in Nairobi County.

ii) To evaluate the effect of information sharing on performance of milk processing firms in Nairobi County.

iii) To determine the effects of cost control on performance of milk processing firms in Nairobi County.

iv) To assess the effect of reliability of services on the performance of milk processing firms in Nairobi County.

v) To determine the moderating role of Procurement Act 2015 on buyer- supplier relationships and performance of milk processing firms in Nairobi County.

1.4 Research Hypotheses

The study tested following hypotheses

H_{01}: Quality dependability has no statistically significant effect on performance of milk processing firms in Nairobi County.

H_{02}: Information sharing has no statistically significant effect on performance of milk processing firms in Nairobi County.

H_{03}: Cost control has no statistically significant effect on performance of milk processing firms in Nairobi County.

H_{04}: Reliability of services has no statistically significant effect on performance of milk processing firms in Nairobi County.

H_{05}: Procurement Act 2015 has no statistically significant moderating effect on the buyer-supplier relationships and performance of milk processing firms.

1.5 Significance of the Study

The study contributes to the understanding of buyer- supplier relationships for the benefit of managers of milk processing firms in Nairobi County. Study report will insightful to management of milk processing firms on the benefits of effective buyer supplier relationship. Study findings would enable management to understand buyer supplier relationship and firm performance to make sound decisions to enhance quality, make timely delivery and at cost affordable to customers. The results of this study would be significant to potential investors in milk processing firms in informing them significance of effective buyer-suppliers relationships in supplier performance. The study would also be critical to future researchers in the area of buyer supplier relationship and firm performance. The study would serve as literature for the concerned researchers especially in the identification of study gaps. Institutions of learning would also benefit from the study since it adds to the current collection of information on the topic. The study findings can benefit the arms of government and government agencies for legislation and policy purposes. The ministries of agriculture and cooperatives would find the study useful in formulation of policy regarding regulation of the relationship between buyers and suppliers to ensure maximum benefit and protection of parties. The study would especially be critical in protecting small-scale suppliers of milk from exploitation by milk processors.

1.6 Scope of the Study

The study was geographically conducted in milk processing of firms in Nairobi County. On content scope, the study focused on the role of procurement Act 2015 in the relationship

between buyer-supplier relationships and the performance of Milk processing firms. The aspects of buyer supplier relationships evaluated included quality dependability, information sharing, cost control and reliability of services. Based on methodological scope; the study used questionnaire to collect primary data from the employees working in milk processing firms in Nairobi County. The population targeted was 2312 employees from the 8 milk processing firms in Nairobi County that would be part unique sample; supplier chain management was focused. On time scope, the study was conducted from May to September 2019.

1.7 Limitations of the Study

In the process of carrying out the study, the researcher encountered respondents who were not willing to render some information. Specifically some respondents found is uncomfortable in answering personal questions regarding their education and age. Additionally, some respondents were apprehensive that management could use the information collected against them. Besides other respondents were just not willing to sit and answer the research questions. The researcher minimised the limitations by assuring the respondents that the information generated will only be for academic purposes and that they will not be released to any party including management. Additionally, the study did not require the respondents to record names or any other information that may be directly associated with them and that codes were used to represent respondents.

1.8 Study Assumptions

The study assumed that the respondents would be willing to answer the questions in the questionnaire honestly to the objectives of the study. The study also assumed that respondent would be able to understand the nature of buyer supplier relationship to respond in time and thus completely fill the questions in the questionnaire. Research respondents' would be cooperative and voluntarily respond accurately to the information required.

1.9 Definition of Operational Terms

Buyer- Supplier relationships: This is the interactions and attitudes developed between users and producers of certain product.

Cost Control: These are remedial actions taken by firms to rectify poor outcomes.

Firm performance: This means attainment of set goals such as profit levels, sales levels, cost limits and image improvement.

Information sharing: This means exchange of necessary business messages and reports.

Quality dependability: Means the sharing of skills on product usability, efficiency and referrals.

Reliability of services: The ability to trust, to be committed and loyal to a relationship including ensuring timeliness in delivery of goods and services.

Procurement Act 2015: An Act of parliament that gives effect to article 227 of the constitution to provide procedures for efficient procurement of and disposal of goods and services.

CHAPTER TWO

LITERATURE REVIEW

2.1 Theoretical Review

Three theories are identified by the researcher to be relevant to this area of study. These are Transactional Cost theory, Commitment-trust theory and Social exchange theory. These are the theories that most of scholars have used in explaing the impact of buyer supplier relationship on firms execution.

2.1.1 Transaction Cost Theory

This theory traces its roots to Coase (1937) through his work “The Nature of the Firm”. This theory posits that optimal level of buyer-supplier relationship is based on the lowest possible total cost such that ordering cost is balanced with warehousing cost (Grover & Malhotra, 2003). Warehousing costs are the internal operation costs that are incurred by a firm in holding inventory such as storage cost, cost of obsolescence and other cost of operating the warehouse as long as the goods are still held in the store. Warehousing cost includes all cost incurred by a firm from the time inventory is received at the warehouse to the time inventory are issued from the warehouse to customers (Williamson, 2008). Ordering costs on the other hand are cost incurred by a business from the time requisition is made by user department to the time inventory arrives at the firm. The ordering cost includes the purchase price of the products, cost of transportation, insurance on goods on transit to the firm, loading and unloading costs and clerical costs incurred on staff involved in ordering inventory. The ordering costs include cost of purchasing, planning, adapting and monitoring externally transacted operations (Williamson, 2008).

The theory is based on number of assumptions. The theory assumes that transactional costs can be differentiated clearly between warehousing costs and ordering costs, such that costs are either involved in process of order making including purchase price of the products, cost

of transportation, insurance on goods on transit to the firm, loading and unloading costs and clerical costs incurred on staff involved in ordering inventory. The warehousing costs are those costs incurred while the goods and material are held in the store. The theory also assumes that organizations are rational and that rational organizations are always exploring the options of reducing and avoiding transactions costs (Papulova & Papulova, 2016). Hobbs (1996) further outlined three elements of transaction relations, namely: transaction-specific investments, uncertainty and frequency. Smeltzer and Siferd (1998) argued that transactional cost approach to buyer supplier relationship was particularly useful in connection to achievement of efficiency, flexibility and overall performance issues.

The dominant criticism leveled against transactional cost theory is the need to go beyond narrow cost approach to a wider transaction benefits based analysis that is based on long-term benefits for both parties in exchange process (Youn, Hwang & Yang, 2012). The theory has also been criticized for its assumption that parties to exchange transaction are rational such that they would look for opportunity to minimize cost of transactions. In real business environment, decision makers in firms are not always rational and buyer supplier relationship is not always based on transactional costs minimization. There are other wider benefits of supplier buyer relationships that go beyond the rational buyer supplier relationship including irrational behaviours such as friendship and attachment between buyer and supplier.

The theory is applicable in the current study on the association between buyer supplier relationship and firm performance. The theory is particularly critical in explaining the association between transaction relationships and firm performance of milk processing firms. Theory identifies optimal level of transactional relationship when their optimal transactional costs such that the internal costs of operations are balanced with external cost of ordering inventory and moving the inventory from supplier to the purchasing firm. The purchasing firm is the milk processing firm and the suppliers are the milk farmers who supply the key

raw material in milk processing. For maximum performance, the milk processing firms are required to regulate or control their costs. This could be done by reducing the costs associated with ordering the raw material from a new supplier or recruiting new suppliers by maintaining the current suppliers.

2.1.2 Commitment-Trust Theory

Morgan and Hunt (1994) proposed commitment trust theory of relationship marketing. The theory is part of the broader network paradigms that recognizes that global competition is occurring between networks of firms. The theory posits that in the networks of firms are functionally specialized organizations whose norm driven relationships are coordinated by market-focused organization by means of sharing norms and commitment based on trust. For an organization to be a trusted organization that can compete among the networks it requires trust to be developed. The theory posits that the days of lone predatory competition are long gone and in its place is competition based on cooperation and collaboration.

Relationship marketing includes promoting and establishing relationships with suppliers by tending to their necessities and regarding their obligations. Rather than seeking after short-term benefits, firms following the norms of relationship marketing produce supplier relations relationships with their suppliers (Handfield, 2002). In this manner, suppliers trust in these firms, and the regular faithfulness empowers the two groups to fulfill their goals. Heikkila (2002) portrayed trust as the assurance the two groups in the relationship have that the other party will not accomplish something hurtful or unsafe. Firms make trust by staying behind their assurances. Responsibility incorporates a long haul need to keep up a valued firm. Desire makes the business always place assets into making and keeping up firms with its clientele (Williams, 2006). Through a movement of relationship-building works out, the business exhibits its duty with respect to the suppliers. As demonstrated by Martin (2003) the outcomes of a relationship in light of obligation and trust are pleasing practices that empower

the two groups to fulfill their prerequisites. Purchasers not just get the item or services they are paying for but do also feel valued. Christopher (2004) notes that the commitment trust theory of relationship administration says that two key parts, trust and responsibility must exist for a relationship to thrive.

The theory assumes that suppliers trust in these firms, and the regular faithfulness empowers the two groups to fulfill their goals. The portrayed trust as the assurance the two groups in the relationship have that the other party won't accomplish something hurtful or unsafe. Firms make trust by staying behind their assurances. Responsibility incorporates a long haul need to keep up a valued firm. Desire makes the business always place assets into making and keeping up with its clientele. (Williams, 2006).

There has been conceptual critique to what the model is trying to achieve. The three-component conceptual model has been regarded as the leading model for organizational commitment. However, a collection of studies has shown that the model is not consistent with empirical findings. To present that TCM combines different attitude phenomena. They have concluded that TCM is a model for predicting turnover. In a sense, the model describes why people should stay with the organization whether it is because they want to, need to, or ought to. The model appears to mix together an attitude toward a target, that being the organization, with an attitude toward behaviour, which is leaving or staying (Eagly and Chaiken, 2004).

Commitment trust theory is critical for the current study on examining the relationship between buyer supplier relationship and firm performance in the supply chain. Establishing and implementing effective buyer supplier relationship has been a challenge in the supply chain by becoming the prerequisite of business success. The effective buyer supplier relationship is more dependent on commitment of the buyer and supplier to each other and

the level of trust developed between the parties. Commitment from buyer and supplier to each other is critical for effective supply chain performance.

2.1.3 Social Exchange Theory

Social exchange theory (SET) is one of the most influential theoretical paradigm for evaluating social interactions among humans in contexts such as workplace, trade among other contexts. The theory traces its roots to the works of Malinowski, (1922), Homans, (1958), Blau, (1964). Even though there exists various differing views on theory, proponents have generally agreed that social exchange involves a series of interactions that generate obligations on the part of parties interacting (Emerson, 1976). Within SET, these interactions are often viewed as being interdependent and contingent on the actions of the parties interacting (Blau, 1964). The theory posits that that these interdependent interactions or transactions have the capability to evolve into high-quality relationships among the parties, however the possibility of such evolution depends certain circumstances (Simmel, 2011).

SET holds that for relationships to evolve over time into trusting, loyal, and mutual commitments; there are three basic assumptions that must hold including rules and norms of exchange, resources exchanged, and relationships that emerge (Kingshott, 2006). The first assumption is that transactional relationship is based on rules and norms of exchange. Rules of exchange form a basis for the establishment of the relationship among participants in an exchange relation, hence acting as the guidelines for the exchange process. The most dominant exchange rule is the expectations of reciprocity. Reciprocity generally referred to as repayment in kind (Homans, 1958). Exchange relationship is usually based on each party to the exchange giving something of value to the other party. In the case of buyer supplier relationship, the buyer takes a payment while the supplier delivers products. The second rule of exchange is the Negotiated Rules where parties in an exchange relationship are expected to

negotiate over the transactional relationship with the aim of reaching an arrangement that is beneficial to both parties (Blau, 1964).

The second assumption is that interdependent interactions that have the potential of evolving into high value relationship must be based on resources that can be exchanged. The resources of exchange may include status, love, goods, services, information and money. The resources that can be exchanged is further classified in to particulate vs Universal and concrete vs intangible (Homans, 1958). Resources such as money are universal hence; their value is constant and does not depend on the giver while a resource such as information is more particular and value depends on the giver of information. Further, universal and concretes resources are usually exchanged in the short-term period while resources that are particular and less concrete as usually exchanged in the long-term period (Blau, 1964).

The final assumption of SET theory is based on social exchange relationships. SET assumes that only certain transactions can lead to interpersonal connections. Such interpersonal connections are referred to as social exchange relationships (Cropanzano, Byrne, Bobocel, & Rupp, 2001). Social exchange relationships in the context of buyer supplier relationships only evolve when both the buyer and supplier takes care of each other thereby leading to beneficial consequences. In other words, the social exchange relationship is a mediator or intervening variable: Advantageous and fair transactions between strong relationships and these relationships produce effective work behaviour and positive employee attitudes. This line of reasoning has received much attention—most of which uses Blau's (1964) framework to describe social exchange relationships.

SET has been equally been criticised based on certain challenges in the conceptualization. Despite the benefits of SET framework, it has various systematic difficulties. One of the criticisms has been based on the key ideas that comprise SET that have are still not yet

adequately ventilated. Therefore, tests and application of the theory tends to be based on incomplete specified set of ideas. Most tests of SET have tended to omit crucial theoretical variables. Second, some variants and formulations of SET are ambiguous leading to multiple interpretations making the model difficult to test (Miller, 2005).

Despite the challenges, SET is critical and relevant in the current study in examining buyer supplier relationship and firm performance. The theory examines that the transactional relationship of economic nature between buyers and suppliers that may evolve into long-term beneficial relationship to both parties. The theory further explains that for the buyer supplier relationship to evolve into high value relationship, there ought to be resources of value that can be exchanged and there should be reciprocity and negotiated benefits between the buyer and the supplier. The resources that can be exchanged between the buyer and supplier include money, services, information, love, trust, commitment among other resources.

2.2 Empirical Literature Review

The empirical literature review past studies on the association between buyer-supplier relationships as firm performance. The empirical literature has been organized in terms of research objectives as follows:

2.2.1 Quality Dependability

At the global stage, studies exist on Quality Dependability and firm performance, In Europe Boddy (2016) conducted a study on quality dependability and success of implementing partnering performance among European firms. The study aimed to examine the relationship between quality dependability and success of implementing partnering firm's performance. The study used descriptive design, where 15 managers and 26 supervisors were given questionnaires. Using correlation analysis and regression model analysis, the findings indicated that quality dependability includes timeliness and exchange credibility of the

product or services procured. It is also significant to the level of accuracy and adequacy and thus quality dependability had significant impact on performance of firms.

In Australia, Petrovic (2017) investigated the impact of perceived quality on the performance of enterprises. The main objective of the study was to investigate the impact of perceived quality on the performance of enterprises. The questionnaire was used to collect primary data from 56 respondents. Both descriptive and inferential statistics were used to analyze data. The findings showed that perceived quality is critical in supply chain performance of enterprises. The study established that perceived quality differs from different suppliers in procurement activities according to the firms. Hence, this study aimed to fill the gap on sharing skills on quality designs, efficiency, and customer referrals.

In Dublin city, Vikas et al (2017) examined the effect of dependability of key quality elements on achieving competitive advantage in information service firms in Dublin city. The study aimed to examine the effect of quality dependability on competitive advantage. The study adopted cross sectional design to collect data from 93 firms operating in Dublin city. Factor analysis was used to analyze primary data which was collected by questionnaires. The findings showed that firms distinguish its performance by quality dependability. Quality element can lead to customer satisfaction levels, loyalty and performance, especially dependability on quality drives to customer satisfaction. Dependability of quality is the major driver of competitive advantage.

In Ghana, Kumar (2018) carried a study on the relationship between quality dependability and customer satisfaction in information technology firms. From inferential statistics through use of chi-square test, it was shown that quality dependability element is important on enhancing customer satisfaction. However, it was also established that quality dependability is very critical to achieve performance. Quality dependability was not easy to state as an important aspect. The customer demand is driven by customers' quality methods applied in

the supply chain that requires buyer supplier cycles to prevent wastage level, stock shortage in lead-time and minimize inventory cost.

In Uganda, Basheka and Mugabira (2018) carried out a study on the implications of measuring quality dependability on procurement performance of bakery industries. The study adopted a case study design. The correlation analysis was used to analyze quality dimension on the firm's performance. The results indicated that quality dimensions are relatively related to performance. However, it was also showed that quality dimensions were viewed as an element of operational factors. Customers are expected to be satisfied with different quality perspectives. Effective supply chain using operation management improved performance.

In Tanzania, Hui (2015) did a study on quality dependability consumptions on growth of firms in Tanzania. The study aimed to examine the effect of quality dependability on growth of firms in Tanzania. Using survey design, the study targeted 5 manufacturing firms in Tanzania. Secondary data was used through document guides and primary data was used through questionnaire. The descriptive statistics indicated that supply chain management is very critical in quality dependability. Quality in supply chain management improved performance, thus quality is used to improve performance by lean practices, postponement, outsourcing, and strategic procurement plans.

In Kenya, Kamau (2015) analysed buyer- supplier relationship on dependability of supply chains of super foam manufacturing firm in Kisumu. Descriptive research design was used to describe the nature of buyer supplier relationship dependability among supply chains. The cross tabulation of chi-square was used to analyse data collected from 74 questionnaires. The study showed that customer centric sustainability depends on supplier quality. In procurement practices, quality dependability is a critical factor that can differentiate suppliers from supply chains. The element of dependability involves technical service quality, sources of

competitive advantage, customer satisfaction and sustainable loyalties; there is a connection between dependability of quality and performance of firms. However, firm's performance depends on quality dependability dimensions resulting to sources of competitive growth. However, customer satisfaction and loyalty can result to stiff competition due to the notion that most of the firms provide similar goods and services, thus adopting dependability ensures improved market share with customer quality.

Tangus (2015) studied the effect of quality dependability practices on performance of manufacturing firms in Kisumu County, Kenya. The study adopted longitudinal design. The data was collected by questionnaire issued to 32 respondents comprising of employees working in manufacturing firms. Using split half test, it was established that quality product is crucial to improve performance of manufacturing firms. However, supply chain partners vary with quality products. The trust of suppliers is greatly improved with supply chain performance.

2.2.2 Information Sharing

In the USA, Arrowsmith and Hartley (2016) investigated the impact of information sharing on performance of firms in New York. The objective of the study was to investigate the impact of buyer- supplier and supplier engagement on performance. The study adopted correlation design. The study data collected was analyzed by descriptive statistics using mean and percentage. The study indicated that firms need to procure with the correct information that is adequate, to take the correct materials. This implies that procurement operations must be informed about the product consequently affecting the performance of firms. This has affected supplier cost of operations as there is high spending in procurement processes and trust building. Buyers and suppliers feel free and secure when they have information.

In Ethiopia, Simchi and Kaminsky (2013) analyzed factors affecting information sharing, designing and managing supply chain performance in Ethiopian public organizations. The

purpose of the study was to analyze the factors affecting information sharing, designing and managing on supply chain performance in Ethiopia public organizations. The study analyzed supplier information sharing in 4 public health organizations. The respondent comprised of 345 employees working in public health organizations. Using panel design where simple and multiple regression analysis were applied. It was found that the firm's performance and supplier information sharing was statistically significant. The supplier information was based on stock levels, returns and cost knowledge.

In Uganda, Hallikas and Vilko (2017) examined the impact of supplier information sharing on multimodal firm performance in Uganda listed firms. The study adopted a case study on analysing 5 listed firms in Uganda. The study also used 5 years to collect data from 2011 to 2015; this employed pooled regression design (Panel data design). The results showed that information sharing, and firm performance has significant effect. The comprehensive procurement report showed that supplier information affect performance. Manyuru (2015) examined information sharing and corporate governance among Uganda listed firms. The study adopted survey design; stratified sampling technique was used to determine the sample size of 34 respondents. Descriptive statistics was used. The study indicated that information sharing informs about corporate governance, the production of goods and services exhibit reasonability of supply chain. Sharing information improves the firm's requisition that later improves performance.

In Kenya, Otieno and Getuno (2017) studied the effect of supplier sharing information and procurement regulations on performance of public secondary schools in Nairobi County in Kenya. The study sought to establish the effects of supplier sharing information and its impact on procurement regulation in public secondary schools. Census of the entire population was conducted in 6 secondary schools. The researcher adopted descriptive

research design with a target population of 76 procurement staff. Questionnaire was used to collect primary data. Pearson correlations coefficient was done to analyze transparency, procurement reforms, inspections, tendering activities and professionalism on organizational performance. The results showed that transparency, inspections, professionalism and acceptance level had significant effect on performance. The study further showed that public secondary schools have implemented information sharing in the procurement of goods and services.

2.2.3 Cost Control

In India, Schoch (2011) investigated the effect of cost control on performance of firms in India. The study investigated cost control and performance of firms. Time series data was employed and fixed effect regression to analyze data collected. The study showed that there exists statistically significant effect on performance. In his study, he argued that cost control is a strategy that takes place in various forms. The findings showed that cost control differs by business type. Various cost control measures include; reducing expenditure, cost of purchasing, service cost, and payment delays; minimize avoidable purchases, improved cost saving. However, the study failed to outline various cost controls involved such as administrative cost expenses and operational costs. The cost controls used to cut cost can be used in many organizations to reduce costs involved yet determining strategic costs in manufacturing sector are still challenging. The knowledge gap is that the study only concentrated on the types of cost involved in various forms but fails to indicate how type of cost affect performance of firms.

In China, Todd (2017) examined the effect of cost control on the firm performance in China. The aim of the study was to assess the effect of cost cutting on firm performance. The correlation design was used to analyze control and firm performance. Correlation and regression analysis were also employed. The findings indicated that cost cutting does not

translate to improved performance. It was also noted that most firms retrying to use cost cutting in their period of operation interfere with cost ratios, but they have not been efficiently utilized. This created a knowledge gap on cost control in terms of phone calls cost, mail cost, courier cost and handling of complaints costs on buyer supplier relationships on firm performance.

In Canada, Alkhtib (2012) examined the role of cost controls on performance of manufacturing firms in Canada. To achieve the objectives, panel analysis was used on a sample of 52 manufacturing firms from 2010 to 2014. The study empirically found that there is a positive and significant relationship between cost control and procurement performance. Contrary to this study, the relationships between buyer supplier relationships remain a gap. The cost control involved selection of suppliers based on low cost from purchase.

In Malaysia, Chen and Paulraji (2014) analysed theory of cost control and supply chain management on public organizations. The study aimed to examine the theory of cost control and supply chain management. The study adopted descriptive design with a sample of 36 employees in public organizations. Correlation analysis was used to establish the relationship between cost controls and supply chain management. From the findings it was shown that different types of cost are based on technological changes, equipment variations, outsourcing levels, processing techniques, inventory management, transportation levels, quality control lines etc. Though, inventory cost is based on cost per unit and maintenance cost, the findings failed to establish cost control measures for implementation on performance in manufacturing firms.

In Egypt, Bob (2019) examined the influence of cost alternative controls and its effect on operating costs of postal corporation in Egypt. The objective of this research was to determine ways to cut operating cost. Stepwise method and correlation analysis were used to

analyze data from the questionnaire collected from a sample of 66 postal corporation employees. From Multiple regression analysis, it was established that most corporations cut cost without controlling cost. Cost alternative controls had significant effect on performance through operating costs.

In Zambia, Landgraf (2013) did a study on effectiveness of procurement cost controls on performance of public organizations in Zambia. The study aimed to determine the effectiveness of procurement cost controls on the performance of public organizations. The study adopted descriptive statistics such as mean and standard deviations to analyze 458 employees in public organizations. The study found that cost control is done through expenditure cost reductions. The costing processes require standardized procedures. The vendor management need cost evaluations from raw materials to provide cost controls efficiency. However, this cannot arrive to conclusive evidence since cost reduction strategies affected manufacturing firms' performance.

In Kenya, Adhaya (2018) studied the determinant of cost control strategies in supply chain performance of firms, a case of agricultural organizations in Kenya. The objective was to analyze the determinants of cost control strategies and organization performance in Kenya agricultural organizations. The objective of the study was to investigate the effect of strategic cost management on organization performance. The study used descriptive design. The study found out that organization performance and efficiency are influenced by specific costing controls. The desired amount of inventory cost is controlled through minimum order quantities, reorder point, warehouse, and ride of obsolete stock levels. Just in time, inventory systems help to improve performance through supply chain management in buyer supplier relationships.

Meira (2010) studied the effect of management controls on buyer supplier relationships in listed construction companies in Kisumu. The study sought to establish the effect of management controls on buyer supplier relationships in construction companies in Kisumu. Explanatory design was used with 75 respondents. From the data collected and analysed by factor analysis, it was indicated that the use of consignment inventory reduces lead-time cost. Shipping internationally and locally lowers transportation and logistics cost through different modes. Administration cost control systems and commitments are based on buyer supplier relationships that need to be studied.

2.2.4 Reliability of Services

In India, Abdulateef, Mokhtar and Yusoff (2013) examined supplier chain reliability and performance in technical institutions in India. The study sought to establish the linkage between reliability of services through knowledge applications, technology, and first call resolutions in bound to the performance of technical institutions. Descriptive design was used to analyze reliability of supply chain management in technical institutions. Correlation and factor analysis were done which found out that technical institutions implement purchasing strategies in relation to supplier reliability. Cost effective purchase decisions are influenced by reliability of services on delivery of quality goods in lead time and agreeable contract terms. Reliability of services should be expressed in terms of trust, loyalty, timeliness and commitment.

In the US, Ponomarov (2017) examined the understanding of reliability of services on performance of supply chain resilience in American Homewood, Illinois. The study sought to establish the understanding of the reliability of services on performance of supply chain resilience. The study adopted descriptive design with a sample of 23 respondents. Using descriptive statistics from mean and percentage it was shown that suppliers, customers, stakeholders and strategic partners that anchor on level of trust, commitment on crucial

competition reliabilities perform better. Product lifecycles are based on customer expectations, since business must invest and focus on customer, suppliers' relationships. Thus, supply chains have become more reliable when driving at supply chain management.

In Mexico, Alfredo (2016) analysed reliability of services in supply chain on the methods of self-assessment as first step building resilient systems. The study found out that reliability of supply chain is measured in different steps to promote construction of resilient supply chains. This is necessary to guarantee efficiency in securing global purchase and supply of goods. The reliability between supply chains and complexity of systems affect buyer supplier relationships.

In South Africa, Sodhi and Son (2012) examined the reliability of services on supply chain management efficiency of firms. The study aimed to examine the extent to which suppliers' reliability affect supply chain management. The case study design was collected, and descriptive statistics was done. It was held that supplier reliability could be developed by different buyers-supplier's operations in the markets. The finding showed that reliability of services in supply chain is hindered by buyer supplier relationship disruptions. The improvement of reliability of services affects flexibility in supply chains. However, supply chain reliability is enhanced through stock levels. The result showed that organization frequently relate with suppliers to lay down responsiveness of reliability standards. Hence, there is the need to put re-order or place with order number, customer identifier, product identifier, confirmed date of supplier, shipment information, delivery date and not number.

In Burundi, Hallikas (2017) investigated the effect of supplier's reliability on performance of firms in Burundi. The study sought to determine the influence of reliability of services in supply chains, the study employed both inferential and descriptive statistics. The findings showed that the objective of buyer- supplier relationships promotes reliability in supply chain

goals. It also proposes that supply chain management quality affect performance. The change in supplier relationship can be affected by the changes in buyer demand.

In Kenya, Cedillo and Bueno (2014) did a study on the impact of supplier's reliability on global supply chains performance in Sugar processing firms in Kenya. The study explored the impact of reliability systems on global supply chains performance. The study used ordinary least square (OLS) to determine the impact of supplier's reliability on supply chain performance. The target population of 63 was used to determine the sample size through census. The results indicated that customer satisfaction affect buyer supplier relationships on performance of processing firms.

Mwale (2014) carried a study on the effect of supplier chain reliability on organization performance among manufacturing firms in Kenya. Objectives of the study were to establish supply chain management practices, and to investigate the effects of reliability of services on supply chain management and performance. The study involved cross sectional design of 46 firms in Nairobi Kenya. Questionnaire was used which was analysed by mean and standard deviation to analyse variables. Findings showed that there is significant relationship between supplier's reliability and organizational performance. This includes supplier partnerships, customer relationships, information sharing, quality of product, outsourcing supply chains, lean procurement practice and postponement.

Kamau, (2013) did a study of reliability of services and performance of retail outlet in Nyeri County Kenya. The study used explanatory design to determine the effect of supplier's reliability on performance of retail outlet. Factor analysis was used to analyze data. The results showed that cooperation, mutual goals, trust, performance of suppliers and commitment led to supplier reliability of organizations. However, continuous reliability includes key suppliers on goal setting.

2.2.5 Procurement Act

In the US, Moore (2017) examined the role of procurement Act and its impact on performance of Washington defense forces. The study used a target population of 55 firms in United States. Stratified sampling technique was also used to arrive at the sample size. The data was collected through the self-administration and analyzed by descriptive statistics and regression. The results showed that procurement and disposal procedures comply with PPAD Act, compliance with section 147, 68, 148 and 149 of public finance management Act, there is signing of all supplier contracts, authority of procurement plans demonstrates application of tenders within approved budgets.

Mark and Ram (2019) investigated the relationship between lean reliability and procurement Acts in the United States of America. The study sought to determine the relationship between lean reliability and procurement Acts in United States. The study adopted 23 firms applied with lean practices with descriptive research design. From regression analysis, it was established that head of procurement unit shall render procurement advice with the accounting officers according to section 47(2), update and maintain registered list of suppliers or contractors/consultants under section 57, procurement officers should provide secretariat services during tender evaluation committees under section 46(4)(c).

In China, Chiou (2012) evaluated the effect of procurement Acts on overall performance of public organizations in China. Descriptive research design was used to analyze data from 321 respondents using correlation and inferential. The finding showed that PPAD is expected to improve performance in supply chain management. The results further indicated that proposed membership is required to attend tender opening, negotiations, evaluations and disposal committees during supplier appointment in line with the procurement Act. Contract documentation and correspondence should be done by issuing notification letters and letter of tender terminations.

In Uganda, Ntayi (2012) analyzed the role of procurement Act on performance of public organization in Uganda. The study sought to establish the role of procurement Act on performance of public organization in Uganda. Explanatory design was used to explain the available information about procurement Act. Questionnaire was distributed to 54 respondents specifically employees working in public organizations. The analysis of data collected was done by correlations and chi-square test. This showed that procurement Act 2015 approves and ratifies policies governing procurement activities. It also oversees the control, management and organizational assets administrations under the authority.

In Tanzania, Inayat (2012) did a study on the role of buyer-supplier relationship in procurement Act implementations in Tanzania. A survey of 54 manufacturing companies was carried out. Descriptive analysis showed that face-to-face communication is fair to suppliers and buyers and is positively related to performance. Suppliers in writing ensure evaluation of bids without splitting of procurement plans as prescribed due to the availability of funds.

In Kenya, Mwale (2014) affirmed that, most firms are developed with different supply chains. Firms have put more efforts to achieve that and their supply chain performance is better to improve buyer supplier relationships. Companies have supply chains which play a role in procurement regulatory regimes and other policies in price negotiations in environment they operate both locally and internationally.

Kosgei (2016) analyzed the impact of procurement Act on buyer- supplier relationship in Kenya airways. The study adopted correlation design and descriptive analysis of 37 research questions. The study showed that competitive progression is based on procurement Act within high technology firms. Procurement in national public organization and other entities shall manage procurement and disposal of assets based on registering procuring entities. However, procurement Act is expected to enhance their competitive growth through price

negotiations, quality, and dependability, timeliness to the market, production and innovations. This indicates that procurement Act has an impact on different supplier price.

2.2.6 Firm Performance

Gengeswari et al., (2013) found that there are some good motives for using subjective measures in buyer supplier relationships in China. To begin with, administrators might be unwilling to unveil genuine execution information on the off chance that they think of it as industrially delicate or private. Second, execution estimates, for example, gainfulness may not precisely point toward the basic money related strength of a firm. To wrap things up, there exists a solid relationship amongst goal. Comments on survey forms or customer comment cards emerged as the most popular choice for gleaning customer information as a measure of customer satisfaction.

Melia and Robinsoni, (2010) describes firm performance as money related and non-budgetary performance in Australia. Performance is regularly estimated utilizing ROA, ROS, EBIT, EVA or Sales development. The estimation of buyer supplier amounts accesses the benefits located for relationship creation. In any case, asset report controls and decisions of bookkeeping strategies may likewise prompt qualities that permit just constrained equivalence of the money related quality of organizations. Compliance, profit levels, leads time and customer satisfactions.

Richard et al., (2009) in various fields of Zimbabwe. While firm performance is relevant, problems based on researcher's investments, customer satisfactions and little consideration of its dimensionality has prompted absence of understanding and choice of markers. Even though firm execution is multidimensional, various examinations measure it utilizing a solitary pointer and speak to this idea as one-dimensional. It sets that if a few measurements exist, specialists ought to pick the measurements most significant to their examination and judge their preferred results.

Muragura (2010) did a research on factors affecting buyer supplier relationships on performance of manufacturing firms in Kampala. Buyer supplier relationship has continuity in manufacturing firms in Kampala. The major finding confirms that good relationships have positive impact on relationship continuity with the limitation that it failed to mention the impact of relationship continuity on firm performance. The non-money related performance can be estimated utilizing operational Key Performance Indicators, for example, Market share, advancement rate or client fulfillments are unmistakable cases, gives a review of regularly utilized performance measures. Numerous analysts additionally utilize self-announced measures to operationalize performance. Others consolidate both, the accounted monetary KPIs and self-announced measures in their reports.

Vikas (2017) showed that in different ways non-monetary performance can be estimated; anyway, the performance can be scarcely surveyed without the connection to corporate procedure in Kenya. Performance contrasts in firms are regularly the subject. Generally, the accentuation in examining varieties in firm performance has been at the business level, inferring that qualities of an industry as significant to the industry and thus decide to a vast degree firm performance.

2.3 Summary of Research Gaps

From the literature reviewed, it is shown that Boddy (2016) conducted a study on quality dependability and success of implementing partnering performance among European firms. Using correlation analysis and regression model analysis, the findings indicated that quality dependability includes timeliness and exchange credibility of the product or services procured. It is also significant to the level of accuracy and adequacy and thus quality dependability had significant impact on performance of firms.

Arrowsmith and Hartley (2016) investigated the impact of information sharing on performance of firms in New York. The study indicated that firms need to procure with the

correct information which is adequate, to take the correct materials. This implies that procurement operations must be informed about the product consequently affecting performance of firms. This has affected supplier cost of operations as there is high spending in procurement processes.

Simatupan (2015) analyzed the effect of suppliers sharing information on performance of firms in India. The study aimed to analyze the effect of supplier information sharing on performance of firms. The study used descriptive study design. The sample of 22 firms was given the questionnaires to collect data. Descriptive statistics and correlation coefficients were used to analyze data. The study showed that there is a statistically significant effect on the relationship between supplier information sharing and performance. Thus, supplier cost of supply chain determines how much to select on supply to buyer requirement, ability to supply the good and services.

Schoch (2011) investigated the effect of cost control on performance of firms in India. The findings showed that cost control differs by business type. Various cost control measures include; reducing expenditure, cost of purchasing, service cost, payment delays; and minimizing avoidable purchases improved cost saving. However, the study failed to outline various cost control involved such as administrative cost expenses and operational cost. The cost controls used to cut cost can be used in many organizations to reduce cost involved yet determining strategic cost in manufacturing sector are still challenging. The knowledge gap is that the study only concentrated on the types of cost involved in various forms but fails to indicate how type of cost affect performance of firms.

Abdulateef, Mokhtar & Yusoff (2013) examined supplier chain reliability and performance technical institutions in India. Descriptive design was used to analyze reliability of supply chain management in technical institutions. Correlation and factor analysis were also done

which found that technical institutions implement purchasing strategies in relation to supplier reliability. Cost effective purchase decisions are influenced by supplier reliability on delivery of quality goods in lead time and agreeable contract terms.

Hallikas (2017) investigated the effect of supplier's reliability on performance of firms in Burundi. The study sought to determine the influence of reliability in supply chains, the study employed both inferential and descriptive statistics. The findings showed that the objective of buyer supplier relationships promotes reliability in supply chain goals. It also proposes that supply chain management quality affect performance. The change in supplier relationship can be affected by the changes in buyer demand.

Cedillo & Bueno (2014) did a study on the impact of supplier's reliability on global supply chains performance in Sugar processing firms in Kenya. The study explored the impact of reliability systems on global supply chains performance. The study used ordinary least square (OLS) to determine the impact of supplier's reliability on supply chain performance. The target population of 63 was used to determine the sample size through census. The results indicated that customer satisfaction is affected by buyer supplier relationships on performance. Muragura (2010) did a research on buyer-supplier collaborations and relationship continuity of manufacturing firms in Kampala whose major finding confirms that good relationships have positive impact on relationship continuity with the limitation that it failed to mention the impact of relationship continuity on firm performance.

Kamau (2013) investigated buyer-supplier relationships and firm performance among large manufacturing firms in Nairobi, Kenya. The findings agree that the relationships have positive impact on organisational performance but with a lack of specific focus on milk processing firms.

Mwale (2014) carried a study on the effect of supplier chain reliability on organization performance among manufacturing firms in Kenya. Objectives of the study were to establish supply chain management practices, and to investigate the effects of reliability of services on supply chain management and performance. The study involved cross sectional design of 46 firms in Nairobi Kenya. Questionnaire was used and analysed by mean and standard deviation to analyse variables. Finding showed that there is significant relationship between supplier's reliability and organizational performance. Therefore, none of the study has analyzed the role of procurement Act 2015 on buyer supplier relationship and performance.

2.4 Conceptual Framework

Conceptual framework is explained as diagrammatical illustrations of the relationship between independent variables and the dependent variable. The study independent variables were quality dependability; information sharing; cost control and reliability of services with a moderating role of procurement Act 2015 which was assumed to affect firm performance as the study dependent variable. This illustration is depicted in figure 2.1 below.

Independent Variable **Dependent Variable**

Buyer Supplier Relationships

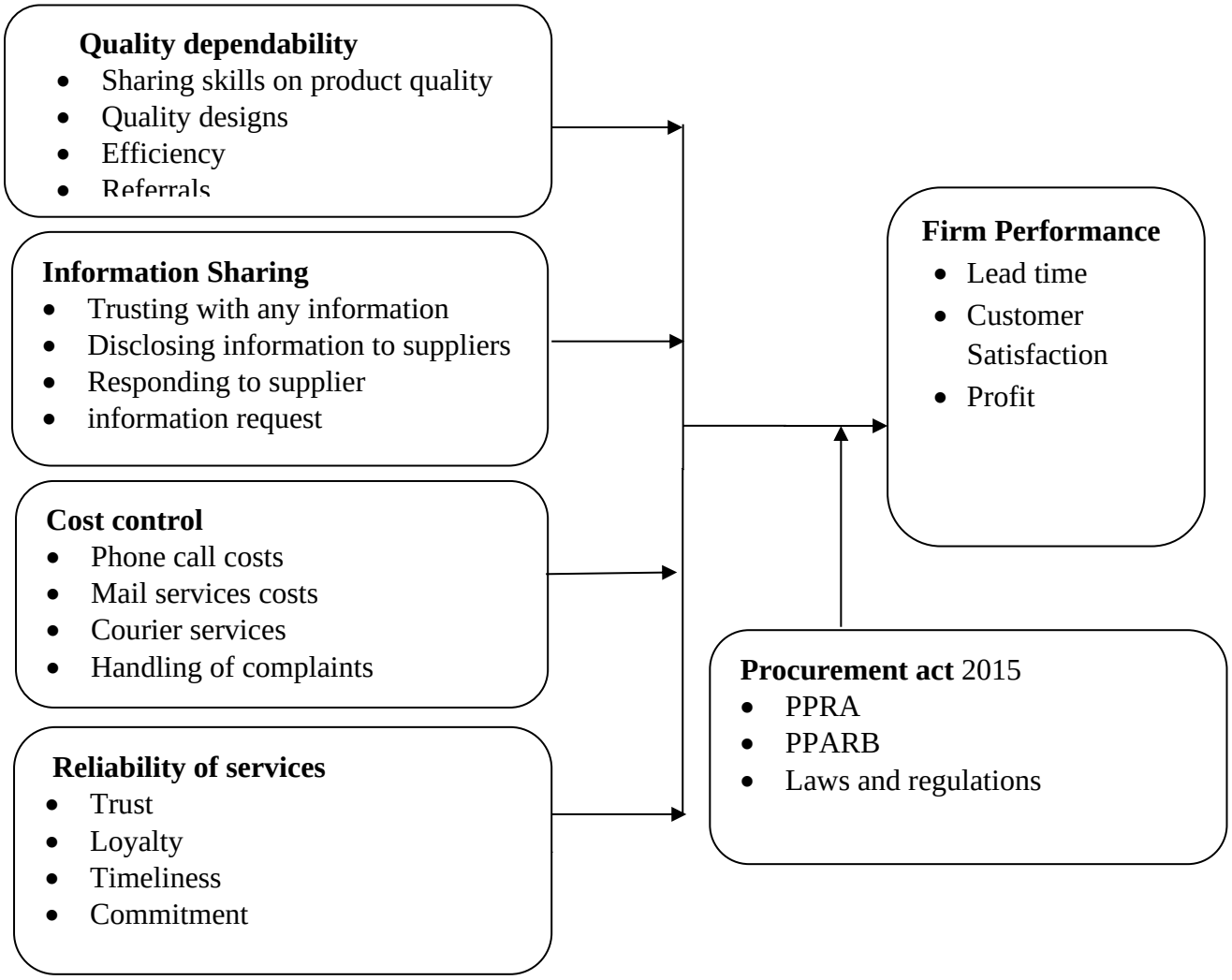


Figure 2.1 Conceptual Framework

Source: Researcher, (2021)

The above model illustrates the relationship between the independent and dependent variables of the study. The independent variables are quality dependability, information sharing, cost control and reliability of services of buyer-supplier relationships and its effects on firm performance while the dependant variable is organization performance measured in terms of; compliance with rules and regulations, profit, lead time and customer satisfaction. The moderating variable is the Procurement Act 2015.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The explanatory research design was used since it explores the facts given from the respondents directly without any alteration (Cooper and Schindler 2011). The design allowed use of questionnaires that established relationships between the variables (Hair et al., 2007). The researcher determined the independent variables after the analysis of statistical data; hence, the design was appropriate to the study. The explanatory design was used to describe quantitative data under study (Babbie, 2002). The design enabled investigation of buyer-supplier relationship and its effects on firm performance.

3.2 Study Area

The study was conducted in 8 milk processing firms within Nairobi County namely; Brookside, New KCC, Sameer Agriculture & Livestock, Bio food product, Orchard Limited, Lattana, Eldoville Dairy and Kinangop Dairy Ltd.

3.3 Target Population

The target population was 2312 staff forming a universe drawn from the 8 milk processing firms within Nairobi County. The 8 milk processing firms included Brookside, New KCC, Sameer Agriculture & Livestock, Bio food product, Orchard Limited, Lattana, Eldoville Dairy and Kinangop Dairy Ltd. From the 8 firms HR database, there was a total of 2312 employees of the 8 milk-processing firms who belong to marketing, production and procurement. Only employees in the procurement department, Marketing and production in the targeted milk processing firms were the respondents, since such workers have direct interactions with aspects of buyer-supplier relationships and firm performance.

Table 3. 1: Target Population

Milk Processing Firms	Employee Groups	Employees	Percentage
Brookside	Production	112	4.84
	Procurement	65	2.81
	Marketing	148	6.40
New KCC	Production	127	5.49
	Procurement	72	3.11
	Marketing	154	6.66
Sameer Agriculture & Livestock	Production	111	4.80
	Procurement	54	2.34
	Marketing	147	6.36
Bio food product	Production	108	4.67
	Procurement	49	2.12
	Marketing	107	4.63
Orchard Limited	Production	109	4.71
	Procurement	52	2.25
	Marketing	110	4.76
Lattana	Production	115	4.97
	Procurement	53	2.29
	Marketing	117	5.06
Eldoville Dairy	Production	98	4.24
	Procurement	47	2.03
	Marketing	113	4.89
Kinangop Dairy Ltd	Production	97	4.20
	Procurement	40	1.73
	Marketing	107	4.63
Total		**2312**	**100.00**

Source: HR Database (firms), (2019)

3.4 Sampling Design and Sampling Size

According to Särndal, Swensson and Wretman (2003) a sampling frame is the source material or device from which a sample is drawn. It is a list of all those within a population who can be sampled, and may include individuals, households or institutions. Considering that this is

a probability sample, the most effective sampling frame is to ensure it enlists the entire cases from the derived samples.

3.4.1 Sample Size

A sample size must be large enough to be representative of the universe population (Kothari, 2012). Creswell (2014) stresses that sample size chosen by the researcher should be capable of giving enough information about the population and one which can be analyzed with ease. To obtain favourable results, a sample should at least be 30 elements (Kombo and tromp 2006). Mugenda, Mugenda (2003) states that in order to achieve a proper sample to represent the population, researchers should use 10% of the population above 1000 elements. In this research, Yamane formula was used to calculate the sample for the study. It was used in this study, since it has a wider spectrum of accuracy in data and population characteristics. Yamane formula (1967) as determined by Israel (2012) was.

$$n = \frac{N}{1+N\,(e^2)}$$

Where by: n = Sample Size, N = Target Population, e = Margin of error (0.05)

$$n = \frac{2312}{1+2312*0.05^2} \qquad n = 341$$

After the sample size of 341 respondents was generated, the final sample size was arrived at in consideration of non-response rate of 10% to take care of respondents who failed to return questionnaires.

0.1*341=34.1

341+34.1

Final sample size =375

3.4.2 Sample Design

Stratified random sampling was then used to select the representative sample from each milk processing firm. According to Botev and Ridder (2017), stratification is the process of dividing members of the population into homogeneous subgroups before sampling. The representative sample from each stratum was selected using proportionate sampling as presented in Table 3.2 where N = target population, n = sample size, a = population elements in each stratum, b = population in each stratum divided by total population and C is the sample size to be picked from each stratum.

Table 3. 2: Sample Size and Sampling Technique

Milk Processing Firms	Employee Groups	Employees (a)	Percentage b = (a/N)	Sample C= (b*n)/100
Brookside	Production	112	4.84	18
	Procurement	65	2.81	11
	Marketing	148	6.40	24
New KCC	Production	127	5.49	21
	Procurement	72	3.11	12
	Marketing	154	6.66	25
Sameer Agriculture & Livestock	Production	111	4.80	18
	Procurement	54	2.34	9
	Marketing	147	6.36	24
Bio food product	Production	108	4.67	18
	Procurement	49	2.12	8
	Marketing	107	4.63	17
Orchard Limited	Production	109	4.71	18
	Procurement	52	2.25	8
	Marketing	110	4.76	17
Lattana	Production	115	4.97	19
	Procurement	53	2.29	9
	Marketing	117	5.06	19
Eldoville Dairy	Production	98	4.24	16
	Procurement	47	2.03	7
	Marketing	113	4.89	18
Kinangop Dairy Ltd	Production	97	4.20	16
	Procurement	40	1.73	6
	Marketing	107	4.63	17
Total		**2312**	**100.00**	**375**

Source: HR Database (firms), (2019)

3.5 Data Collection

The researcher requested the university to give introductory letter to apply for NACOSTI after project approval. The permit given from NACOSTI was used with introductory letter to visit milk processing firms for data collection. The structured questionnaire was used to collect data from the respondents. The researcher conducted a pilot study to familiarize with the area of study. Then it made easier for appointment to meet management for explanations of the need to conduct the research in milk processing firms.

3.5.1 Instrumentation

The study collected primary data based on structured questionnaire. The questionnaire had closed ended questions. The items on variables were based on 5 point Likert scale where 1 was strongly disagree and 5 was strongly agree. The questionnaire had seven sections A, B, C, D, E, F and G. Section A was background information about the firms and the respondents. The remaining sections were on the independent, dependent and moderating variables. Section B-E was on the independent variables (quality dependability, information sharing, cost control and reliability of services. Section F was on the dependent variable firm performance. Finally, section G was on moderating variable procurement Act 2015.

3.5.1.1 Validity

Validity is the measure of what the research proposes to investigate (Joppe, 2000). Similarly, it is the degree to which results acquired from the investigation of the information really speak to the wonder under examination, Mugenda and Mugenda (1999). To determine and improve the validity of the questionnaire assistance was sought from the supervisors and other experts of procurement and logistics. This allowed the preparation of the final questionnaire to capture the needed data.

3.5.1.2 Reliability

It is important to determine reliability in research instrument, since it is concerned with consistency of the measures used to analyse data. The reliability of research instrument is based on its capacity to produce similar output when used repeatedly (Fraenkel and Wallen, 2000). In this study, reliability of research instrument was tested by internal consistency based on Cronbach's alpha coefficient value. The Cronbach's alpha coefficient value was generated based on the responses in the piloted questionnaires.

3.5.1.3 Piloting

A pilot study was carried out on 38 employees of New KCC milk processing firm in Kitale, Trans Nzoia County. The number of respondents used during the piloting was 10% of the sample size as suggested by Mugenda and Mugenda (2009). Piloting was carried out in New KCC milk processing firm in Kitale because the milk processing firms in Trans Nzoia and Nairobi counties share similar conditions.

3.5.1.4 Internal Consistency (Cronbach's Alpha)

According Glen and Glen (2013), when Likert-type scales is adopted in a study, it is critical that Cronbach's alpha coefficient is calculated and reported to ensure internal consistency reliability for any scales or subscales that are adopted in a study. The rule of thumb for Cronbach alpha is that a value; greater than 0.9 is excellent, greater than 0.8 is good, greater than 0.7 is acceptable, greater than 0.6 is questionable, greater than 0.5 is poor while less than 0.5 is unacceptable (George & Mallery, 2013). The variables whose Cronbach Alpha was calculated included quality dependability, information sharing, cost control and reliability of services, firm performance and procurement Act 2015. The result of the finding are shown by Table 3.3 below.

Table 3. 3: Reliability Statistics

Variable	Cronbach alpha	Number of items
Quality dependability	0.712	10
Information sharing	0.834	10
Cost control	0.783	9
Reliability of services,	0.817	8
Firm performance	0.881	6
Procurement act 2015	0.752	6

Source: Field Data 2019

The study revealed that Quality dependability, Information sharing, Cost control, Reliability of services, Firm performance and Procurement act 2015 had Cronbach alpha of 0.712, 0.834, 0.783, 0.817, 0.881 and 0.752 respectively for 10,10,9,8,6 and 6 items respectively. Given that all the variables had Cronbach alpha greater than 0.7, it can thus be concluded that the questionnaire used in the study were reliable.

3.5.2 Data collection Procedures

The researcher followed procedures of applying for NACOSTI and introductory letter from the university. After getting permit, the researcher proceeded to collect data by distributing the questionnaire to the respondents. The questionnaire was collected after two weeks by the researcher through a research consultant.

3.6 Data Analysis

Data analysis is the process of constructing meaningful information through statistical calculations. The data was analyzed by descriptive statistics such as frequency, percentage, mean and standard deviations. The data was analyzed by SPSS and Microsoft excel. Regression analysis was used to investigate the predictability of the independent variables on the outcome variable. ANOVA was used to determine significance level of the regression

model under variables and test model fitness. The findings were presented by tables and figures that eased drawing of inferences. The regression model shown was presented by multiple regression equation;

$Y= \beta_o + \beta_1X_1 +\beta_2X_2 +\beta_3X_3+\beta_4X_4+ e$.....(i)

Where the β_i is regression coefficients which was used to measure change of variables

Y - Firm performance

X_1, -quality dependability

X_2 -information sharing

X_3 -cost control and

X_4 -Reliability of services

e= error term to cater for non-response

βo= the intercept/the value of Y when X=0

Moderating model;

$Y= \beta_o + \beta_1MX_1 +\beta_2 MX_2 +\beta_3 MX_3+\beta_4MX_4+ e$.....

(ii)

M= is the moderating role of procurement Act 2015

3.7 Ethical Consideration

Ethics in research are norms for conduct that distinguishes between acceptable and unacceptable behaviour especially during the conduct of a study. For this study, the respondents were assured that the information given was used for academic purposes only. Further, the names of respondents were not captured with codes being used to identify respondents. This was necessary to protect their identity. The researcher also allowed the respondents to exit the study in case they felt uncomfortable with the questions asked at any stage of the study.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Response Rate

The researcher distributed 375 questionnaires to Milk Processing Firms in Nairobi County. Table 4.2 below shows the response rate.

Table 4. 1: Response Rate

Response	Number	Percentage
Distributed Questionnaires	375	100.00
Returned questionnaires	354	94.9
Unreturned Questionnaires	21	5.1

Source; field data, 2020

The responded questionnaires were 354 which represented 94.4% while 21(5.6%) did not respond. The response rate of 94.4% was adequate for data analysis. The respondents who did not respond to the questionnaire were busy which hindered them from filling the questionnaire.

4.2 Demographic Analysis

4.3 Gender Distribution of the Respondents

The respondents were also required to state their gender. The responses from the 354 respondents were recorded in table 4.3 below.

Table 4. 2: Respondents Gender

Gender	Frequency	Percent
Male	221	62.42
Female	133	37.57
Total	**354**	**100.0**

Source; field data, 2020

On gender distributions, the study showed that 221(62.42%) of the respondents were male while female respondents were 133(37.57%). The results indicated that the majority of the respondents working in milk processing firms were male. This means that there is gender

imbalance in terms of employment in relations to the role of recruitment policy. However, a third gender rule is already achieved in milk processing industries.

4.4 Education Level

The level of education of respondents who participated in the study was also examined and the results were presented in table 4.3.

Table 4. 3: Education Level

		Frequency	Percent
Valid	KCSE	13	3.7
	Diploma	95	26.8
	Undergraduate	231	65.3
	Postgraduate	15	4.2
	Total	**354**	**100.0**

Source; field data, 2020

The results presented showed that 231(65.3%) of the respondents were qualified with Undergraduate level, 95(26.8%) of the respondents were also qualified with Diploma, 15(4.2%) had postgraduate qualification and finally 13(3.7%) had KCSE (secondary level) qualification. The study established that the respondents had formal education and thus they could respond to the questionnaires without need of an interpreter.

4.4.1 Experience of Working in the Firm

The study also requested the respondents to indicate their experience of working in milk processing firm. The results were presented in table 4.4.

Table 4. 4: Respondent's Experience of Working in the Firm

	Frequency	Percent
Less than 5 year's	28	7.9
5-10Years	93	26.3
11-15Years	207	58.5
Over 15Years	26	7.3
Total	**354**	**100.0**

Source; field data, 2020

Table 4.4 showed that the 207(58.5%) of the respondents have worked for 11 to 15 years, while 93(26.3%) have worked for 5 to 10 years, 28(7.9%) of the respondents have worked for less than 5 years, and 26(7.3%) worked for over 15 years. Majority of the respondents have long experience in milk processing firms and therefore it is expected that they have enough experience on the operations of milk processing firms. They can thus give the relevant information.

4.4.2 Age of the Firm

The study also requested the respondents to indicate the age of the firm in which they work. The results were presented in table 4.5.

Table 4. 5: Age of the firm in Operation

		Frequency	Percent
Valid	<5 year's	20	5.6
	5-10years	74	20.9
	11-15years	83	23.4
	16-20 years	82	23.2
	Over 20 years	95	26.8
	Total	**354**	**100.0**

Source: Field data 2020

Table 4.5 shows the number of years the firm has been in operation. The study indicated that 95(26.8%) of the respondent firms have been in operation for more than 20 years, 83(23.4%) indicated 11 to 15 years of operations, 74 (20.9%) of the respondents indicated 5 to 10 years followed by 82(23.2%) indicated 16 to 20 years and less than five (5 years) were 20(5.6%).

4.5 Descriptive Statistics

The findings are derived from a Likert scale in the questionnaires where the respondents were supposed to indicate their level of agreement or otherwise with a given statement. The descriptive statistics was done based on each independent variable/objective.

4.5.1 Quality Dependability

The first objective of the study was to determine the effect of quality dependability on performance of milk processing firms in Nairobi County. The results from a 5 point Linkert scale questionnaire are shown in table 4.6.

Table 4. 6: Quality Dependability

	N	Minimum	Maximum	Mean	Std. Deviation
We share production skills in determining quality with our key suppliers	354	1	5	4.52	.711
Our firm is committed to quality standards through sharing skills on product	354	1	5	4.48	.594
Our firm involves all suppliers in quality design	354	1	5	3.97	.567
Our firm help our suppliers to enhance product quality in supply chain	354	1	5	3.93	.533
We normally get referrals from our supply chain to the buyers	354	1	5	3.83	.699
Our firm is committed to efficiency to maintain clients	354	1	5	3.88	.699
We solve quality complaints with our suppliers so as to maintain efficiency	354	1	5	4.00	.795
We involve our suppliers with new production processes	354	1	5	4.01	.825
We normally get referred by our supply chain customers' needs through quality production	354	1	5	3.98	.868
Referral programs help us to establish long-term relations with customers	354	1	5	4.20	.723
Grand Mean				**4.08**	**0.605**

Source: Field data 2020

Table 4.6 showed that milk processing firms were committed to ensuring quality standards through sharing skills on product quality with the highest (Mean=4.52; SD= 0.711). High mean indicates that the milk processing firms were committed to ensuring quality standards

while the low standard deviations shows that the respondents agreed among themselves. Ccommitment to quality standards through sharing skills on product with their customers had a (Mean =4.48; SD=0.594). Also, milk processing firms normally involves all suppliers in quality design as indicated by (Mean =3.97; SD= 0.567). The respondents further indicated that milk processing firms had helped their suppliers to enhance product quality in supply chain with mean (Mean=3.93; SD=0.533) and that normally they get referrals from their supply chain to the buyers normally get referrals from their supply chain to the buyers (Mean=3.83; SD=0.699).The study findings further showed that most respondents indicated that their firms are committed to efficiency in order to maintain clients (Mean=3.88; SD=.699). Milk processing firms solve their quality complaints with their suppliers so as to maintain efficiency with mean (Mean=4.00; SD=.795). On whether milk processing firms involved their suppliers with new production processes, most respondents agreed with that as shown by a mean of (Mean 4.01; SD=.825). They also agreed that milk processing firms normally got referrals from supply chain to the buyers (Mean=3.98; SD=0.868). Lastly, majority of respondents agreed that referral programs help them establish long-term relations with customers as shown by (Mean=4.20; SD=0.723).

Thus, the general perception of the respondents as captured in grand mean is that management of milk processing firms in Nairobi County prefers quality dependability to a great extent (M=4.08 SD=0.605). The staff of milk processing firms were of the general opinion that quality dependability is an important aspect of buyer-supplier relationship that impacts on firm performance.

4.5.2 Information Sharing

The second objective of the study was to determine the effect of Information sharing on performance of milk processing firms in Nairobi County. The study sought to assess the

effect of information sharing on performance of milk processing firms. The results were presented in table 4.7.

Table 4. 7: Information Sharing

	N	Minimum	Maximum	Mean	Std. Deviation
Trusting our suppliers with any information improves performance	354	1	5	3.95	.635
We disclose truthful information to our customers	354	1	5	3.89	.622
We trust our suppliers in disclosing information to the public	354	1	5	3.94	.585
Responding to suppliers needs improve credibility in supply chain	354	1	5	3.96	.689
We determine our customer expectation by responding to suppliers	354	1	5	3.97	.785
We request our supplier to supply to us in time	354	1	5	4.02	.811
Information request by supplier improves accuracy	354	1	5	4.11	.814
The information is exchanged within suppliers in a timely manner	352	1	5	3.94	.743
We interact with our clients to ensure shared ideas	354	1	5	3.93	.728
We determine our customer expectations frequently	354	1	5	4.00	.704
Grand Mean				**3.97**	**0.712**

Source: Field data 2020

The study results showed that milk processing firms trusted their suppliers in disclosing information to the public as shown by (Mean=3.95; SD=0.635).Further, the respondents indicated that they don't just disclose information, but went ahead and stated that the information disclosed by the milk processing firms to the customers is truthful as shown (Mean=3.89; SD=0.622).The also did agree that they trust their suppliers in disclosing

information to the public (Mean=3.94; SD=0.585). Concerning whether milk processing firms responded to their suppliers needs in order to improve credibility of supply chain, the respondents were in agreement about that as indicated (Mean=3.96; SD=0.689). Also, the findings show that the respondents determine their customer expectation by responding to suppliers (Mean=3.97; SD=0.785). Similarly, the findings show that the respondents agreed that milk processing firms requested their suppliers to supply to them in time (Mean=4.02; SD=0.811).Further, information request by supplier improved accuracy of milk processing firms (Mean=4.11; SD=.814). Respondents also agreed that milk processing firms exchanged information within suppliers in a timely manner as shown (Mean=3.94; SD=.743). On the same breathe, majority respondents agreed that milk processing firms interacted with their clients to share ideas (Mean=3.93; *SD*=0.728) and also processing firms determined their customer expectations frequently (Mean=4.00; SD=.704).

Finally, the grand mean showed a mean and a standard deviation of (Mean = 3.97; SD= 0.712) that tended to the agreement implying that the milk processing firms in Nairobi county viewed information sharing aspects of buyer –supplier relationship as being critical to firm performance.

4.5.3 Cost Control

The third objective of the study was to determine the effect of Cost Control on performance of milk processing firms in Nairobi County. The study sought to ascertain the effects of cost control on performance of milk processing firms. The results were presented in table 4.8.

Table 4. 8: Cost Control

	N	Minimum	Maximum	Mean	Std. Deviation
Our firms phone call cost is reduced from suppliers ordering cost	354	1	5	4.08	.629
We use phone calls to reach far customers	354	1	5	4.02	.580
We use Mail services to cut travelling expenditure	354	1	5	3.91	.656
Our mail services are cost effective than other supply chain	354	1	5	4.44	.619
We use courier services to control cost of enquiry	354	1	5	4.32	.600
Courier services is faster to our client's relationships	354	1	5	4.00	.628
Our way of handling client complaints control costs	354	1	5	3.77	.649
We reduce complaints of purchasing and services for better performance	354	1	5	3.83	.654
Our administrative expenses are less in handling complaints	354	1	5	3.92	.819
Grand Mean				**4.03**	**0.648**

Source: Field data 2020

Table 4.8 show that the respondents agreed that their firms phone call cost is reduced from suppliers ordering cost (Mean=4.08; SD=.629) and milk processing firms used phone calls to reach far customers (Mean=4.02; SD=.580).Most respondents also agreed that firms used mail services to cut travelling expenditure (Mean=3.91; SD=.656).In addition, majority of respondents affirmed that their mail services are cost effective than other supply chain (Mean=4.44; SD=.619).

Most respondents also greed that they use courier services to control cost of enquiry (Mean=4.32; SD=.600). Courier services are also considered faster to their client's relationships (Mean=4.00; SD=.628).Concerning whether milk processing firms reduced complaints of purchasing and services for better performance, the respondents agreed as indicated (Mean=3.83; SD=.654). Similarly, the respondents acknowledged that the

administrative expenses were less when handling complaints (Mean=3.92; SD=0.819). Most of these means was accompanied by high standard deviation, an indication that the respondents differed on their view concerning these statements. Majority of respondents agreed that their way of handling client complaints control costs (Mean=3.77; SD=0.649).

Finally, the grand mean showed a mean and a standard deviation of (Mean = 4.03; SD= 0.6483) that tended to the agreement implying that the milk processing firms in Nairobi county viewed cost control aspects of buyer –supplier relationship as being critical to firm performance. Cost control ensures that the buyer –supplier relation is efficient thus improved performance of the milk processing firms.

4.5.4 Reliability of Services

The fourth objective of the study was to determine the effect of reliability of services on performance of milk processing firms in Nairobi County. The study sought to determine the effect of reliability services on performance of milk processing firms. Table 4.9 presents the results.

Table 4. 9: Reliability of Services

	N	Minimum	Maximum	Mean	Std. Deviation
We trust our suppliers in delivery of quality products	354	1	5	4.20	.575
We trust our suppliers in the procurement process	354	1	5	4.10	.564
We maintain loyalty in order to enhance our value chain to make and provide our customer services	354	1	5	4.07	.682
Our acquisition of goods to make products are timely	354	1	5	3.87	.698
We support timeliness for fairness and transparency of procurement activities in our firm	354	1	5	3.93	.776
We maintain timeliness in delivery within time frame to ensure performance	354	1	5	4.03	.769

Our commitment to inspections is based on acceptance of purchasing decisions	354	1	5	3.99	.751
Our commitment to procurement associated activities and resources provides are significance to clients	354	1	5	4.14	.744
Grand Mean				**4.04**	**.599**

Source: Field data 2020

The results show that the firms trusted their suppliers in delivery of quality products (Mean=4.20; *SD*=.575) and also in the procurement process (Mean=4.10; *SD*=.564).Respondents agreed that they maintained loyalty in order to enhance value chain made to provide services to customers (Mean=4.07; *SD*=.682). Similarly, their acquisition of goods to make products are timely (Mean=3.87; *SD*=.698).

Respondents agreed to the question 'we support timeliness for fairness and transparency of procurement activities in our firm' (Mean=3.93; *SD*=.776). Majority of respondents also agreed that they maintain timeliness in delivery within time frame to ensure performance (Mean=4.03; *SD*=.769) and their commitment to inspections is based on acceptance of purchasing decisions (Mean=3.99; *SD*=.751).Lastly, they agreed that commitment of the firm to procurement associated activities and resources provided significance role to clients (Mean= 4.14; SD=.744).

Finally, the study showed that reliability of services was a critical aspect of buyer supplier relation as depicted by grand mean of 4.04 and grand standard deviation of .599. The mean tended to the agreement implying that the milk processing firms need reliability of services in their buyer supplier relationship to enhance their performance. The services should be reliable to ensure dependability.

4.5.5 Procurement Act 2015

The fifth objective of the study was to determine the moderating role of Procurement Act 2015 on the relationship between buyer- supplier relationships and performance of milk processing firms. Table 4.10 presents the results.

Table 4. 10: Procurement Act 2015

	N	Minimum	Maximum	Mean	Std. Deviation
Public procurement and disposal act (PPDA) promote good buyer supplier relationship leading satisfaction	354	1	5	3.83	.517
Our firm's associated activities are regulated by public procurement and disposal act regulations (PPDA)	354	1	5	3.99	.656
We are recognized as a procuring entity and our procurement functions are regulated by PPARB regulations	354	1	5	4.08	.729
PPARB generally improves compliance of rules and regulations in procurement reports	354	1	5	4.00	.802
Laws and regulations monitor and review procurement system for entities	354	1	5	4.03	.866
Laws and regulations help procurement process of determining tendering disputes	354	1	5	4.17	.808
Grand Mean				**4.02**	**0.73**

Source: Field data 2020

The study findings on Table 4.10 showed that laws and regulations helped procurement process in determining tendering disputes (Mean=4.17; *SD*=.808).On whether the milk processing firms were recognized as procuring entities and their procurement functions were regulated by PPARB regulations, the respondents not only agreed with the stamen, but also

agreed among themselves as indicated by (Mean=4.08; *SD*=.729).Respondents also agreed that laws and regulations monitored and reviewed procurement system for entities (Mean=4.03;SD=0.866).The findings further indicated that firm's associated activities were regulated by public procurement and disposal Act regulations(PPDA) (Mean=3.99;SD=.656). Public procurement and disposal Act (PPDA) also promoted good buyer supplier relationship which led to customer satisfaction (Mean=3.83; SD=5.17) .Respondents agreed that PPARB generally improved compliance of rules and regulations in procurement reports (Mean=4.00; SD=0.802).

Thus the general perception of the respondents is that the management of milk production firms in Nairobi county embraces Procurement Act 2015 to a great extent (M=4.02 SD=0.73).The strict adherence to Procurement Act 2015 was incidental to the performance of milk processing firms with firms that adhered to the act incurring lower costs associated with legal liability.

4.5.6 Firm Performance

Lastly, the study sought to determine the level of firm performance in relation to buyer-supplier relationships as shown in table 4.11.

Table 4. 11: Firm Performance

	N	Minimum	Maximum	Mean	Std. Deviation
Our lead time is efficient to meet customer expectations	354	1	5	4.10	.776
Our lead time focuses on quality of goods procured	354	1	5	4.12	.718
Our performance is enhanced through customer satisfaction	354	1	5	3.87	.708
There is improvement of customer satisfaction in our firm	354	1	5	3.81	.753
Our efficiency in procurement process increases profits	354	1	5	3.75	.878
Our profits level depends on buyer supplier relationships	354	1	5	3.99	.764
Grand Mean				**3.94**	**0.766**

Source: Field data 2020

The results showed that the firm lead time focused on quality of goods procured (Mean=4.12; *SD*=0.718).Respondents also did agree that lead time is efficient to meet customer expectations (Mean=4.10; *SD*=0.776).Majority of respondents also agreed that their profits level depends on buyer supplier relationships (Mean=3.99; *SD*=0.764).A greater majority of respondents also agreed that their performance is enhanced through customer satisfaction (Mean=3.87; *SD*=0.708).There was improvement of customer satisfaction in milk processing firms which is indicated (Mean=3.99; *SD*=0.764). Finally, the results showed that the firm's efficient procurement process increased profits (Mean=3.75; *SD*=0.878). In all cases above, the grand (Mean =3.94; SD=0.766) showed that performance could be enhanced through customer satisfaction and good procurement procedures.

4.6 Diagnostic Tests

Statistical tests rely upon certain assumptions about the variables used in the analysis where if these assumptions are not met the results may not be valid (Osborne and Waters (2014). It is therefore important to pretest for these assumptions for validity of their results. In this research, assumptions for normality and multicollinearity were checked prior to data analysis.

4.6.1 Normality Test

Normality is obtained when errors are distributed normality, plots of the residual value approaches normal curve. Normality was tested through histogram of standard residuals. From the plots in the Normal P-P as presented in Figure 4.1 observed cumulative probability value for explanatory variables were explained in the relationship that exists between buyer-supplier and firm performance under the study.

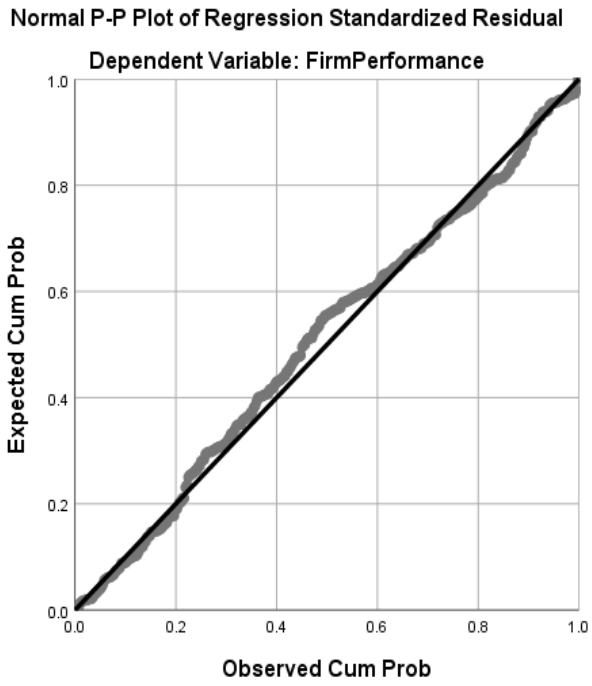


Figure 4. 1: Predicted Standardized Predicted Value

4.6.2 Multicollinearity

Multicollinearity test was carried out to determine if one or more independent variable in regression model are highly correlated. This would be used to predict linearity from each other. Tolerance value and Variance Inflation Factor (VIF) are used to test Multicollinearity. Tolerance value of less than 1 and VIF value of more than 10 suggest presence of Multicollinearity.

Table 4. 12: Multicollinearity

	Model	Collinearity statistics	
		Tolerance	**VIF**
1	(Constant)		
	Quality dependability	.622	1.608
	Information sharing	.597	1.674
	Cost control	.782	1.134
	Reliability of services	.730	1.369

Source: Field data, 2020

From table 4.12, it indicates that all the independent variable had tolerance value of less than 1 and no VIF value greater than 10. These findings showed that there is no independent variable with strong linear relation with any other independent variable.

4.6.3 Linearity Test Results

Linearity assumption accurately estimates the relationship between dependent and independent variables scatter plot graph was used to test linearity assumption. This is presented on Figure 4.2.

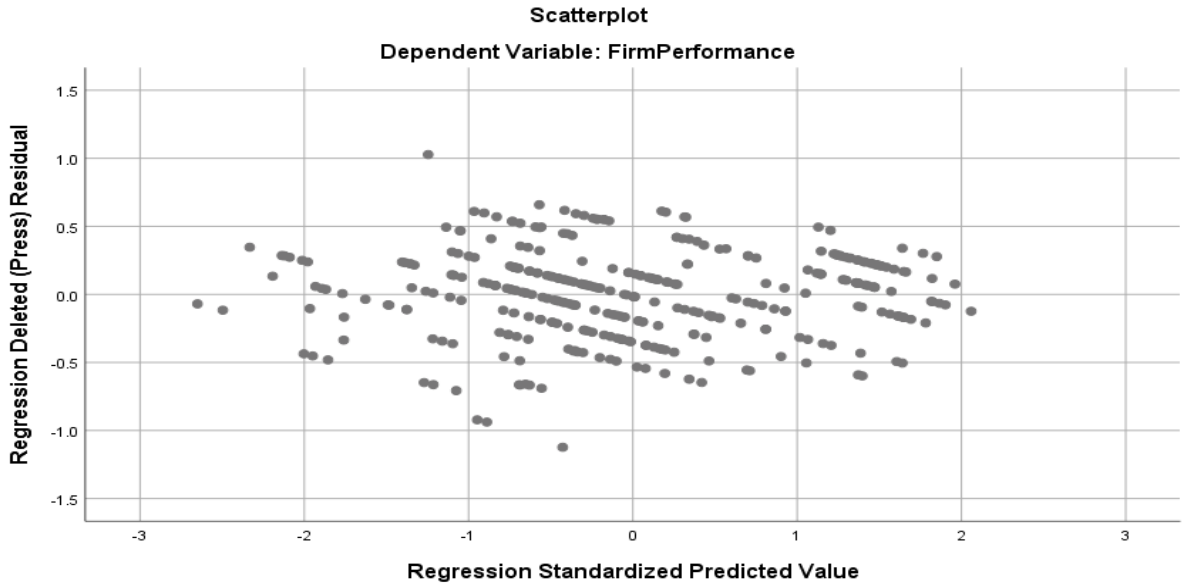


Figure 4. 2: Scatter plot on Predicted Standardized Predicted Value

Figure 4.2 showed predicted standardized predicted value that the role played by procurement Act 2015 can explain the variation of buyer supplier relationship and firm performance of milk processing firms in Nairobi County.

4.7 Correlation Analysis

After performing descriptive analysis, correlation analysis was done to determine the association between independent and dependent variables. The correlation coefficients range from -1 for a perfect negative relationship to +1 for perfect positive relationship through zero

for no relationship. Table 4.13 presented a pair wise results of the variable correlated which were independent variables and dependent variable.

Table 4. 13: Correlation Matrix

		Quality Dependability	Information Sharing	Cost Control	Reliability of Services	Firm Performance
Quality Dependability	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	354				
Information Sharing	Pearson Correlation	.556**	1			
	Sig. (2-tailed)	.000				
	N	354	354			
Cost Control	Pearson Correlation	.990**	.549**	1		
	Sig. (2-tailed)	.000	.000			
	N	354	354	354		
Reliability of Services	Pearson Correlation	.409**	.509**	.409**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	354	354	354	354	
Firm Performance	Pearson Correlation	.597**	.529**	.593**	.531**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	354	354	354	354	354

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

Source: Field data, 2020

There is a strong, positive and significant correlation between Quality dependability at r=0.597, P<0.01) with firm performance. There was also a strong, positive and relevant correlation between Information sharing and firm performance at (r=0.529, P<0.01) with firm performance. Cost control had a strong, positive and significant association (r=0.593 and p=<0.01) with firm performance. Also, Reliability of services showed a strong, positive and significant association (r=0.531, p<0.01) with firm performance respectively.

4.8 Regression Analysis

Regression analysis deals with distribution value of a model summary with one random multivariate as any other variable held constant. The multivariate regression model is

generally used to establish whether a relationship exist between variables. This regression is specified with x value and y value of variables under study. The equation is expressed in form of mathematical values linking variables. This mathematical equation is used to explain the relationship while other variables were adjusted with random variable to predict the variations in dependent variables.

4.8.1 Model Summary

The model summary consists of R. value, R square value, Adjusted R Squared Value, and a standard error of the estimate. The values obtained were recorded in table 4.14 as shown below.

Table 4. 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.686[a]	.470	.464	.31450

Predictors: (Constant), Reliability of services, Information sharing, Quality dependability, Cost control

Source: Field data, 2020

Regression model summary was presented in table 4.14 which showed that the correlation coefficient of R was 0.686 and R square was 0.470. An R squared of .470 shows that the model of buyer-supplier relationships contributes to 47% of the performance of milk processing firms while the remaining 53% can be explained by other variables not in this study.

4.8.2 Analysis of Variance

The analysis of variance was done to generate the f- statistic which is used to test significance of R. That is, ANOVA was conducted to test goodness of fit in the model. The results are shown in table 4.15.

Table 4. 15: ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.622	4	7.655	77.396	.000[b]
	Residual	34.520	349	.099		
	Total	65.142	353			

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Reliability of Services, Cost Control, Quality Dependability, Information Sharing

Source: Field data, 2020

Table 4.15 showed the p value of F value (77.396) was 0.01 <5% which implied that the model of buyer-supplier relationship was statistically significant at 5%. The independent variables (buyer-supplier relationship was significant to improve the role of procurement Act 2015 on firm performance. The model summary was fit to predict the variations between variables.

4.8.3 Regression Coefficients

A regression analyses was done to test combined effect of the independent variables (Quality dependability, Information sharing, Cost control, Reliability of services) to the dependent variable (firm performance). The results were then presented in table 4.16 below.

Table 4. 16: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.164	.024		6.660	.000
Quality dependability	.436	.058	.370	7.492	.000
Information sharing	.198	.058	.173	3.425	.001
Cost control	.165	.038	.170	4.342	.000
Reliability of services	.335	.056	.271	5.936	.000

a. Dependent Variable: firm performance

b. Source: Field data, 2020

The results in table 4.16 show a constant term (β_0) of 0.164 and significant p value of 0.000 p<0.05. The indication of these results is that in absence of all the buyer-supplier relationship, the performance of the milk processing firms will be 16.4%. Quality dependability had a beta

coefficient (β_1) of 0.370 which was statistically significant at 5% alpha level ($p<0.05$). Increasing the quality dependability by 1 unit while all other buyer-supplier relationship is kept constant will lead to increase in firms' performance by 37%.

Information sharing had a significant beta coefficient of (β_2) of 0.173 implying that a change in one unit of Information sharing results to an increase of firm performance by 17.3%. Cost control had a beta value of (**β_3**) of 0.170 which implied that a variation in a unit of cost control would lead to an increase of firm performance by 17%. The critical value was p=-<5% which was found to be statistically significant, hence, there is significant contribution of cost control on firm performance.

Lastly, reliability of services had a beta value (**β_4**) of 0.271. This indicated that change in one unit of reliability of services causes a positive improvement in firm performance by 27.1%. The p value was 0.000 was less than the critical value 5% hence statistically significant; therefore, there is significant contribution of reliability of services on firm performance.

From the results (Table 4.16) the model was then specified as: -

$Y= 0.164+0.436X_1 +0.198X_2 +0.165X_3+0.335X_4+ \varepsilon$ .....(i)

Where the β is regression coefficients which used to measure changes in unit of variables, Y is firm performance, X_1, quality dependability, X_2 information sharing, X_3 cost control and X_4 reliability of services.

4.9 Moderating Role of Procurement Act 2015

Regression analysis was also conducted to determine whether procurement Act 2015 had significant role to predict firm performance of milk processing firms in Nairobi County. That is, to establish the moderating role of procurement Act 2015 in buyer-supplier relationship and firm performance as presented in table 4.17.

4.9.1 Model Summary

The model summary presented in Table 4.17 captures the R, R^2 where R captures the overall Pearson correlation coefficient among study variables, the R^2 captures the coefficient of determination that explains the percentage of the total variation in dependent variable explained by the model adopted.

Table 4. 17: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.686[a]	.470	.464	.31450
2	.915[b]	.837	.835	.17467

a. Predictors: (Constant), Reliability of Services, Cost Control, Quality Dependability, Information Sharing
b. Predictors: (Constant), Reliability of Services, Cost Control, Quality Dependability, Information Sharing, X1.X2.X3.X4.M

Source: Field data, 2020

Table 4.17 showed that R coefficient of .915 which implied that the role of procurement Act 2015 had a strong and positive contribution on buyer-supplier relationships and firm performance. The value of R^2 =.837 indicated that the change in role of procurement Act 2015 resulted to 83.7% variation of buyer-supplier relationship and performance of milk processing firms. The remaining percentage of 6.3% was not explained by the role of procurement Act 2015 under this study.

4.9.2 ANOVA

The study conducted ANOVA to determine the model fitness under regression analysis as presented in table 4.18.

Table 4. 18: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.622	4	7.655	77.396	.000[b]
	Residual	34.520	349	.099		
	Total	65.142	353			
2	Regression	54.524	5	10.905	357.417	.000[c]
	Residual	10.618	348	.031		
	Total	65.142	353			

a. Dependent Variable: Firm Performance

b. Predictors: (Constant), Reliability of Services, Cost Control, Quality Dependability, Information Sharing

c. Predictors: (Constant), Reliability of Services, Cost Control, Quality Dependability, Information Sharing, X1.X2.X3.X4.M

Source: Field data, 2020

Table 4.18 indicated that ANOVA in which DF=5, mean square 10.905, resulting to the calculated F= 357.417) which was significant at p=0.000 less than 5% significant level. Thus, the model was fit to predict firm performance.

4.9.3 Regression Coefficients

Regression coefficients were used to determine regression equation under the model as shown in table 4.19. The regression coefficients result is shown in table 4.19.

Table 4. 19: Regression Coefficient

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.164	.024		6.660	.000
	Quality Dependability	.436	.058	.370	7.492	.000
	Information Sharing	.198	.058	.173	3.425	.001
	Cost Control	.165	.038	.170	4.342	.000
	Reliability of Services	.335	.056	.271	5.936	.000
2	(Constant)	7.368	.302		24.370	.000
	Quality Dependability	.256	.041	.217	6.294	.000

Information Sharing	.314	.037	.274	8.490	.000
Cost Control	.248	.026	.176	9.538	.000
Reliability of Services	.294	.039	.237	7.617	.000
X1.X2.X3.X4.M	.254	.031	.565	7.990	.000

a. Dependent Variable: Firm Performance

Source: Field data, 2020

Results of the regression coefficients presented in Table 4.19 show the estimates of Beta values and give the contribution of each predictor in the model with moderator. With procurement act 2015 as the moderator the Beta values for quality dependability (.217) implies that an increase of 1 unit in quality dependability leads to 0.217 units increase in firms performance holding other variables in the model constant. Information sharing (.274) implies that an increase of 1 unit in Information sharing will result in 0.274 units increase in firm's performance holding other variables in the model constant. Cost control (.176) implying that an increase of 1 unit in cost control will influence 0.176 units increase in firm performance holding other variables in the model constant and reliability of services (.237) implying that an increase of 1 unit in reliability of services will influence 0.237 units increase in firm performance holding other variables in the model constant and reliability of services. The positive B values indicate the direction of relationship between predictors and outcome. From the results in Table 4.19 the model can then be specified as: -

$Y= 7.368+0.256X_1+.314X_2+0.248X_3+0.294X_4+0.\ 254X1.X_2.X_3.X_4.M +\varepsilon$ ..... (ii)

M= is the moderating role of procurement Act 2015

T-test was then used to determine whether the predictors were making a significant contribution to the model. When the t-test associated with Beta value is significant then the predictor is making a significant contribution to the model. The results show that with a moderator quality dependability ($t =6.294$, $P<.05$), Information sharing ($t =8.490$, $P<.05$), cost control ($t =3.424$, $P<.05$), and reliability of services ($t =7.617$, $P <.05$).

4.9.4 Testing of Hypothesis

Ho_1: Quality dependability has no statistically significant effect on performance of milk processing firms. From table 4.16, quality dependability had a beta coefficient (β_1) of 0.370 which was statistically significant at 5% alpha level. Using t-test results in table 4.16, quality dependability had p-value of 0.000, < 0.05, which was shown to be significant. From these findings, the null hypothesis was rejected since p value was less than significance level. The study accepted and adopted alternative hypothesis and it was concluded that there is statistical significance between Quality dependability and performance of milk processing firms.

Ho_2: Information sharing has no statistically significant effect on performance of milk processing firms. From table 4.16, information sharing had a significant beta coefficient (β_2) of 0.173 which was statistically significant at 5% alpha level. Using t-test results in table 4.16, information sharing had p-value of 0.001 < 0.05 which was shown to be significant. From these findings, the null hypothesis was rejected since p value was less than significance level. The study accepted and adopted alternative hypothesis and it was concluded that there is statistical significance between information sharing and performance of milk processing firms.

Ho_3: Cost control has no statistically significant effect on performance of milk processing firms. From table 4.16, cost control had a beta coefficient (β_3) of 0.170 which was statistically significant at 5% alpha level. Also, t-test results in table 4.16 shows that cost control had p-value of 0.009 < 0.05 which was shown to be significant. From these findings, the null hypothesis was rejected since p value was less than significance level. The study accepted and adopted

alternative hypothesis and it was concluded that there is statistical significance between cost control and performance of milk processing firms.

Ho_4: Reliability of services has no statistically significant effect on performance of milk processing firms. Results in table 4.16 shows that reliability of services had a beta coefficient (β_4**)** of 0.271 which was statistically significant at 5% alpha level. Also, t-test results in table 4.16 shows that reliability of services had p-value of 0.000 < 0.05 which was shown to be significant. From these findings, the null hypothesis was rejected since p value was less than significance level. The study accepted and adopted alternative hypothesis and it was concluded that there is statistical significance between reliability of services and performance of milk processing firms.

Ho_5: Procurement Act 2015 has no statistically significant moderating effect in the buyer-supplier relationships and performance of Milk processing firms. Procurement Act 2015 was found to be positively moderating the buyer-supplier relationships and performance of Milk processing firm (β_5=.565, t=2.870, p=0.005< 0.05) Therefore, the introduction of Procurement Act 2015 in milk processing firms improved the firms' performance. It was concluded that Procurement Act 2015 have got significant statistical moderating influence in buyer-supplier relationships and performance of Milk processing firms.

4.10 Summary of Hypotheses Testing

Hypotheses testing results were interpreted using a significance level of 0.05. The results are shown in table 4.20.

Table 4. 20: Summary of Results for Hypotheses Testing

Hypothesis	Statements	Beta	Sig	Decision rule
$H0_1$:	Quality dependability has no statistically significant effect on performance of milk processing firms.	.370	.000	Null hypothesis rejected
$H0_2$	Information sharing has no statistically significant effect on performance of milk processing firms	.173	.001	Null hypothesis rejected
$H0_3$:	Cost control has no statistically significant effect on performance of milk processing firms.	.170	.009	Null hypothesis rejected
$H0_4$:	Reliability of services has no statistically significant effect on performance of milk processing firms.	.271	.000	Null hypothesis rejected
$H0_5$:	Procurement Act 2015 has no statistically significant moderating effect in the buyer-supplier relationships and performance of Milk processing firms.	.565	.000	Null hypothesis rejected

Source: Field data, 2020

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

An overview on objectives of the study was determined on the role of Procurement Act 2015 in the relationship between buyer-supplier relationships and performance of Milk processing firms Nairobi County. The following objectives were used; to determine the effect of quality dependability on performance of milk processing firms, to assess the effect of information sharing on performance of milk processing firms, to ascertain the effects of cost control on performance of milk processing firms, to determine the effect of reliability of services on the performance of milk processing firms and to determine the moderating role of Procurement Act 2015 on the relationship between buyer- supplier relationships and performance of milk processing firms.

5.1.1 Quality Dependability and Performance of Milk Processing Firms

The study determined the effect of quality dependability on performance of milk processing firms in Kenya. The results showed that milk processing firm were committed to ensuring quality standard through sharing skills. Further, respondents indicated that referral programs helped milk processing firms to establish long-term relations with customers and that milk processing firms shared production skills in determining quality with their key suppliers.

On correlation and regression analysis, a significant positive relationship was established between quality dependability and performance of milk processing firms in Kenya. Similar findings were obtained by Boddy (2016), Petrovic (2017), Vikas et al (2017), Kumar (2018), Basheka & Mugabira (2018), Hui (2015), Kamau (2015), Tangus (2015), Kenyanya (2013) all of which established that quality dependability has direct effect on performance of an organization.

5.1.2 Information Sharing and Performance of Milk Processing Firms

The study assessed the effect of information sharing on performance of milk processing firms. The study indicated that milk processing firms had not trusted their suppliers when in disclosing information to the public and that the firms don't respond to customer expectations by giving accurate responses to the supplier. Also, the study ascertained the effects of cost control on performance of milk processing firms and indicated that milk processing firms reduced complaints of purchasing and services for better performance and that the courier services were not fast as a way of communication in maintaining client relationships.

On correlation and regression analysis, a significant positive relationship was established between information sharing and performance of milk processing firms in Kenya. Similar findings were obtained by Arrowsmith and Hartley (2016), Simchi and Kaminsky (2013), Hallikas & Vilko (2017), Manyuru (2015), Otieno & Getuno (2017), all of which established a significant positive relationship between information sharing and firms' performance.

5.1.3 Cost Control and Performance of Milk Processing Firms

The study ascertained the effects of cost control on performance of milk processing firms. The study indicated that milk processing firms reduced complaints of purchasing and services for better performance. On correlation and regression analysis, a significant positive relationship was established between Cost Control and performance of milk processing firms in Kenya. Similar findings were obtained by Schoch (2011), Todd (2017), Alkhtib (2012), Chen and Paulraji (2014), Bob (2019), Landgraf (2013), Flynn and Zhao (2010), Adhaya (2018) and Meira (2010), all of which established a significant positive relationship between cost control and performance of milk processing firms.

5.1.4 Reliability of Services and Performance of Milk Processing Firms

The study determined the effect of reliability of services on performance of milk processing firms. The results showed that milk processing firms-maintained loyalty in order to enhance

value chain made to provide services to customers. Also the respondents indicated that commitment to procurement associated activities and resources provided significance role to clients. On correlation and regression analysis, a significant positive relationship was established between reliability of services and performance of milk processing firms in Kenya. Similar findings were obtained by Abdulateef, Mokhtar & Yusoff (2013), Ponomarov (2017), Alfredo (2016), Sodhi and Son (2012), Hallikas (2017) and Cedillo & Bueno (2014), Mwale (2014) and Kamau, (2013) that showed that cooperation, mutual goals, trust, performance of suppliers and commitment led to supplier reliability of organizations.

5.1.5 Procurement Act 2015 and Performance of Milk Processing Firms

On moderating role of Procurement Act 2015 on the relationship between buyer- supplier relationships and performance of milk processing firms, the study showed that there were laws and regulations which helped procurement process in determining tendering disputes. Also, the findings indicated that PPARB generally increased compliance of rules and regulations in procurement reports. The regression analysis shows that the procurement Act 2015 play a major role in the relationship between buyer- supplier relationships and the performance. This agrees with Moore (2017) who examined the role of procurement Act and its impact on performance of Washington defense forces and established that procurement and disposal procedures comply with PPAD act, compliance with section 147, 68, 148 and 149 of public finance management Act, there is signing of all supplier contracts, authority of procurement plans demonstrates application of tenders within approved budgets. Also, these finding support earlier findings by Kosgei (2016) who analyzed the impact of procurement Act on buyer- supplier relationship in Kenya airways and found that competitive progression is based on procurement Act within high technology firms.

5.2 Conclusions

5.2.1 Quality Dependability and Performance of Milk Processing Firms

The study determined the effect of quality dependability on performance of milk processing firms in Kenya. The study found that milk processing firms were committed to ensuring quality standard through sharing skills. Further, referral programs helped milk processing firms to establish long-term relations with customers. Therefore, there was a perfect contribution of quality dependability on firm performance.

5.2.2 Information sharing and Performance of Milk Processing Firms

The study assessed the effect of information sharing on performance of milk processing firms. The study found that there was a significant contribution of information sharing on firm performance. The study concluded that milk processing firms trusted their suppliers when disclosing information to the public.

5.2.3 Cost Control and Performance of Milk Processing Firms

The study ascertained the effects of cost control on performance of milk processing firms. The firms reduced complaints of purchasing and services for better performance. Courier services were faster to client relationships. The study concluded that there was a significant contribution of cost control on firm performance.

5.2.4 Reliability of Services and Performance of Milk Processing Firms

The study determined the effect of reliability of services on performance of milk processing firms. The results found that the firms-maintained loyalty in order to enhance value chain made to provide services to customers. Commitment to procurement activities and resources provided significant role to clients. Therefore, the study also concluded that there was significant contribution of reliability of services on firm performance.

5.2.5 Moderating Role of Procurement Act 2015

The study determined the moderating role of Procurement Act 2015 on the relationship between buyer-supplier relationships and performance of milk processing firms. The study showed that there were laws and regulations which helped procurement process in determining tendering disputes and Public procurement and disposal act (PPDA) promoted good buyer supplier relationship leading to customer satisfaction. The study concluded that that procurement Act 2015 played a moderating role between buyer-supplier relationships and firm performance of milk processing firms.

5.3 Recommendations of study

5.3.1 Quality Dependability and Performance of Milk Processing Firms

The study confirmed that quality dependability had a positive significant effect on performance of milk processing firms in Kenya. However, they indicated that they don't share production skills in determining quality with their key suppliers. The study recommends that milk processing firms should be advised to embrace quality dependability in improving performance. Further, they indicated that they don't involve their suppliers in the new production processes. The study recommends that the milk processing firms should involve suppliers in any kind of decision making and share information with the suppliers in an effort to improve their performance.

5.3.2 Information Sharing and Performance of Milk Processing Firms

The study established a significant positive relationship was established between information sharing and performance of milk processing firms in Kenya. However, they indicated that they don't trust their suppliers with any information aimed at improving performance. Also, they don't respond to their customers' expectation by responding to suppliers. The study recommends that milk processing firms should respond to suppliers' complaints on time so as

to improve on their performance. In addition, they need to trust their suppliers with information related to milk processing.

5.3.3 Cost Control and Performance of Milk Processing Firms

The study established a significant positive relationship was established between Cost Control and performance of milk processing firms in Kenya. However, they indicated that though they use Courier services, the Courier services are not fast enough to maintain client's relationships. The study recommends that milk processing firms use other mode of information sharing to avert incurring expenses without corresponding output. They could stick to use of phone calls to reach far customers which has shown to be effective.

5.3.4 Reliability Services and Performance of Milk Processing Firms

The study established a significant positive relationship was established between reliability services and performance of milk processing firms in Kenya. However, they findings indicated that their commitment to procurement associated activities and resources are not significant to their clients. The study therefore recommends that milk processing firms find other ways of improving reliability services.

5.3.5 Procurement Act 2015 and Performance of Milk Processing Firms

The study showed that there were laws and regulations which helped procurement process in determining tendering disputes and Public procurement and disposal act (PPDA) promoted good buyer supplier relationship leading to customer satisfaction. However, the study established that PPARB has generally failed to improve compliance of rules and regulations procurement reports. Thus, it is recommended that milk processing firm should embrace on the role of procurement Act 2015 in the relationship between buyer-supplier relationship and firm performance.

5.4 Suggestion for Further Study

The study determined the moderating role of Procurement Act 2015 on the relationship between buyer- supplier relationships and performance of milk processing firms. Thus, another study can be conducted to examine the role of procurement Act 2015 in procurement processes and its effect on performance of public organizations.

REFERENCES

Abdullateef, A. O., Mokhtar, S. S. M., &Yusoff, R. Z. (2013). Linkages between CRM technologies, knowledge applications and first call resolution in inbound call centers in New Delhi. *International Journal of Electronic Customer Relationship Managemen*t, 7(1), 68 -86

Adhaya, Z. (2017). *Cost control and Supply chain management practices of agricultural sector parastatals in Kenya* (Unpublished MBA thesis), University of Nairobi

Alfredo B. S., Miguel G., Cedillo C., José M., Velarde C., (2016) Reliability of the Supply Chain: Method of Self-Assessment as a First Step to Building Resilient Systems, *International Journal of Combinatorial Optimization Problems and Informatics,* 7(1), 3-9.

Al-Ma'aitah, N. (2018). The role of justice in achieving long-term buyer-supplier relationship: the case of Jordanian manufacturing sector. *International Review of Management and Marketing, 8*(2), 109-117.

Amoako-Gyampah, K., Boakye, K. G., Adaku, E., & Famiyeh, S. (2019). Supplier relationship management and firm performance in developing economies: A moderated mediation analysis of flexibility capability and ownership structure. *International Journal of Production Economics, 20* (8), 160-170.

Andhov, M., Caranta, R., & Wiesbrock, A. (Eds.). (2019). *Cost and EU Public Procurement Law: Life-cycle Costing for Sustainability*. New York: NY Routledge,

Awan, U. (2019). Effects of buyer-supplier relationship on social performance improvement and innovation performance improvement. *International Journal of Applied Management Science*, *11*(1), 21-35.

Basheka, B. C. & Mugabira, M. I. (2018). Measuring perceived quality Professionalism Variables and their Implication to Procurement Outcomes in Uganda. The 3rd *International Public Procurement Conference Proceedings.*

Berut, Z. J. (2020). *Influence of Supply Chain Collaboration on Performance of Dairy Processing Firms in Kenya* (Doctoral dissertation, JKUAT).

Blessley, M., Mir, S., Zacharia, Z., & Aloysius, J. (2018). Breaching relational obligations in a buyer-supplier relationship: Feelings of violation, fairness perceptions and supplier switching. *Industrial Marketing Management*, 7(4), 215-226.

Boddy, D., Cahill, D., Charles, M., Fraser-Kraus, H., and Macbeth, D. (2016). Quality dependability, Success and Failure in Implementing Partnering. *European Journal of Purchasing and Supply Management, 8* (4) 55-67.

Butt, A. S. (2019). Absence of personal relationship in a buyer-supplier relationship: case of buyers and suppliers of logistics services provider in Australia. *Heliyon*, *5*(6), 67-99

Cedillo, M.G, and Bueno, A., (2014). Dynamic impact on global supply chains performance of disruptions propagation produced by terrorist acts. *Journal of Logistics and Transportation,* 61(5) 1-12.

Chemirmir, J. E., & Ndeto, C. (2021). Effect of Supply Chain Management Practices on Performance of Milk Processing Firms in Kenya. *International Journal of Supply Chain Management*, *2*(2), 28-48.

Chen, M., Smith, P. M., & Thomchick, E. (2017). Qualitative insights into buyer–supplier relationship attributes in the US biofuels industry. *Renewable Energy Focus*, *2* (*2*), 1 9.

Chen, I. J. and Paulraj, A. (2014). Towards A Theory of Supply Chain Management: The Constructs and Measurements, *Journal of Operations Management* 5(3) 342-356

Chiou, J.S., Droge, C., Hanvanich, S. (2012). Does Customer Knowledge Affect How Loyalty is Formed China? *Journal of Service Research, 5*(2), 113-124.

Cousins, P. D, Lawson & Squire, (2008). Performance measurement in strategic buyer supplier relationships, *International journal of operations and production management*, 8(3), 238-258

Danoshana, S., & Ravivathani, T. (2019). The impact of the corporate governance on firm performance: A study on financial institutions in Sri Lanka. *Journal on Banking & Insurance Research*, *8*(1), 62-67.

Dries, L., Gorton, Urutyan, V. and White, J. (2014). Supply chain relationships, supplier support programmes and stimulating investment: evidence from Armenian dairy sector', Supply Chain Management: *An International Journal*, *19*(1), 98-107.

Fawcett, S.E., Magman G. M., and McCarter, M. W., 2007, Benefits, barriers, and bridges to effective supply chain management: Supply Chain Management: *An International Journal*, *13*(4), 35-38

Flynn, B. B., Huo, B., & Zhao, X. (2010). The impact of supply chain integration on performance: a contingency and configuration approach. *Journal of operations management*, *28*(1), 58-7

Forslund, H., 2014. Performance gaps in the dyadic order fulfilment process. *International journal of physical distribution and logistics management, 36*(5), 580-595.

Fowowe, B. (2017). Access to finance and firm performance: Evidence from African countries. *Review of development finance, 7*(1), 6-17.

Gavrea, C., Ilies, L. & Stegerean, R. (2011). Determinants of organizational performance: The case of Romania. *Management & marketing*, *6*(2), 285-300.

Gonzalez R., Jiménez, J.E. Bueno, A., Cedillo, M.G., Pérez, G., (2014). Supply chain disruptions propagation caused by criminal acts. *Journal of Applied Research and Technology*, *12*(4), 684-694.

Government of Kenya, (2013) Public Procurement Policy in Kenya" The need for a Coherent *Policy framework. Policy brief* no.3/2012

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). New Jersey: Prentice Hall.

Hair, J.F., Anderson, R.E., Tatham, R.L. and Black, W.C., 2011. *Multivariate data analysis with readin*gs. 3rd ed. New York, NY: Macmillan.

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, New Jersey: Prentice Hall.

Hallikas P.P, & Vilko J.M., (2017), Risk assessment in multimodal supply chains, *International Journal of Production Economics*, *4* (5),44-57.

Hassan, R., Habib, A., and Khalid, M. (2014). Role of buyer-supplier relationship on buying firm's performance in chemical sector of Pakistan. *European Journal of Business and Management, 6*(28), 51-55

Heikkila, J. (2002). From supply to demand chain management: efficiency and customer satisfaction. *Journal of Operations Management, 20*(6), 747-7. http://dx.doi.org/10.1016/S0272-6963(02)00038-4

Hsu, C.C., Kannan, V.R., Tan, K.C., Leong, G.K., 2008. Information sharing, buyer—supplier relationships and firm performance – A Multi-region analysis. *International Journal of Physical Distribution and Logistics management 3*(8), 296-310

Hui, W. S., Othman, R. O., Normah, O., Rahman, R. A. & Haron, N. H. (2015). Procurement issues in Tanzania. *International Journal of Public Sector Management, 24*(6), 567- 593.

Joshi, S. P., Shitole, P., Chavan, R., & Joshi, P. P. (2018). Strategies for buyer supplier relationship improvement: scale development and validation. *Procedia Manufacturing*, *2*(1), 470-476.

Kale, E., Aknar, A., & Başar, Ö. (2019). Absorptive capacity and firm performance: The mediating role of strategic agility. *International Journal of Hospitality Management*, *7*(8), 276-283.

Kamau, I. (2013). *Buyer-Supplier relationships and organizational performance among large manufacturing firms in Nairobi-Kenya* (Unpublished MBA thesis, University of Nairobi).

Kamau, I.N (2015) *Buyer supplier relationship and organizational performance among large manufacturing firms in Nairobi, Kenya* (Unpublished MBA project School of Business, University of Nairobi).

Kaufmann, L., Esslinger, J., & Carter, C. R. (2018). Toward relationship resilience: managing buyer-induced breaches of psychological contracts during joint buyer–supplier projects. *Journal of Supply Chain Management*, *54*(4), 62-85.

Kenyanya, N. P., Francis, W. M. and Onyango, O. J. (2013). *Submission Evaluation of the Influence of the Public Procurement Regulations on Procurement Practices among Secondary Schools in Mosocho Division, Kisii County* (Unpublished MBA Project, Kenyatta University. Nairobi).

Kiarie, J. W. (2017). *The Influence of supplier relationship management practices on operational performance of large manufacturing organizations in Kenya* (Unpublished Thesis, Strathmore University).

Kim, D., Kumar, V. and Kumar, U., (2010). Performance assessment framework for supply chain partnership, Supply Chain Management: *An International Journal*, *15*(3), 187-95.

Kim, S. (2010). An investigation on the direct and indirect effect of supply chain integration on firm performance. *International Journal of Production Economics*, *33*(10), 328-346.

Kimiti, P. G., Muathe, S. M., & Murigi, E. M. (2020). Nexus between Cost Leadership Strategy and Performance: Fact or Fallacy in Milk Processing Firms in Kenya. *International Business Research*, *13*(10), 1-1.

Kosgei, R. C & Gitau, R., (2016) Effect of Supplier Relationship Management on Organizational Performance's case study of Kenya Airways Limited. International *Academic Journal of Procurement and Supply Chain Management*, 2 (2&3) 134-148.

Kosgei, R. C. & Gitau, R. (2016). Effect of procurement act and buyer supplier relationship management on organizational performance: A case study of Kenya Airways Limited. *International Academic Journal of Procurement and Supply Chain Management*, *2* (2), 134-148

Kothari C.R. & Garg G., (2014), *Research Methodology*, Third Edition, New. Age International Publishers, New Delhi.

Koufteros, X., S. K. Vickery, and C. Dröge, (2012), The effects of strategic supplier selection on buyer competitive performance in matched domains: does supplier integration mediate the relationships? *Journal of Supply Chain Management, 4*(8), 93-115.

Kros, J. F., Kirchoff, J. F., & Falasca, M. (2019). The impact of buyer-supplier relationship quality and information management on industrial vending machine benefits in the healthcare industry. *Journal of Purchasing and Supply Management*, *25*(3), 100-506.

Kumar, V. (2018). *An Empirical Investigation of the Linkage between Dependability, Quality and Customer Satisfaction in Information Intensive Service Firms* (PhD Thesis, Exeter University).

Lai, J. Y. and Yang, C. C. (2018). Effects of employees perceived dependability on success of enterprise applications in e-business, *Industrial Marketing Management,* 38 (3), 263-274.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T.S., & Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, *34*(2), 107-124.

Li, Y., (2010). Formal Control and Social Control in Domestic and International Buyer – supplier Relationships. *Journal of Operations Management* 28 (4), 333-44.

Lysons, K. & Farrington, B. (2016) *Purchasing and Supply Chain Management*, (6th ed.). Prentice Hall: Financial Times.

Manyuru, J.P (2015) *information sharing and corporate governance and organizational performance: The Companies quoted at the Nairobi Stock Exchange* (Unpublished MBA Project), University of Nairobi.

Maradze, A. (2019). *Public procurement law and regulations effectiveness in enhancing ethical procurement practices in Zimbabwe's state universities* (Doctoral dissertation, BUSE).

Mark W., & Ram R., (2019), Enabling lean reliability in procurement act: a consolidation model for small- and medium-sized enterprises, *Journal of Manufacturing Technology Management*, *20* (6), 817 – 833.

Matasio, F. H. (2017). *The effect of public procurement and asset disposal act 2015 on the relationship between procurement planning practices and service delivery in Kenya state owned corporations in the road sector* (Doctoral dissertation, University of Nairobi).

Meira, J., Kartalis, N.D., Tsamenyi, M., Cullen J., 2010. Management controls and inter-firms' relationships: a review. *Journal of Accounting and organizational change 6* (7),149-169.

Mohammed K. (2013), Green S C Management and Performance for Manufacturing firms in Mombasa, Kenya. *Journal of Supply Chain Management*, *4*(5),34-55.

Moore, N. (2017). *Procurement act and Supplier Relationship Management at Army Life Cycle Management Commands: Gap Analysis of Best Practices*. Washington DC: Rand Corporation.

Mugadza, W. T. (2018). *Combating corruption in public procurement in developing countries: a legal analysis* (Doctoral dissertation, North-West University).

Munyao, K. V., & Moronge, M. (2017). Effect of public procurement framework on disposal of obsolete stock in the public sector in Kenya: A Case of the Judiciary of Kenya. *The strategic Journal of Business and Change Management*, *2*(37), 660-675.

Munyede, P., & Mapuva, J. (2020). Exploring Public Procurement Reforms in Rural Local Authorities in Zimbabwe. *Journal of Public Administration and Governance*, *10*(1), 116-116.

Mutangili, S. K., Awuor, E., & Cheluget, J. (2020). Relationship between International Procurement Practices and Supply Chain Performance of Energy Development Agencies in Kenya. *Journal of Procurement & Supply Chain*, *4*(1), 1-17.

Mwale H., (2014). *Supply Chain Management Practices and Organizational Performance of Large Manufacturing Firms in Nairobi, Kenya* (Unpublished MBA Project), University of Nairobi.

Mwangi, E. W., & Gakobo, J. (2018). *Growth strategies and performance of selected milk processing companies in Kenya* (Unpublished MBA Thesis), Kenyatta University.

Mwirigi, M., Fred. (2011). Role of Supply chain relationships in the growth of small firms in Kenya. *International Journal of Social Sciences and Entrepreneurship*, 1(5), 415-434.

Nair, A. (2005), Linking Manufacturing Postponement, Centralized Distribution and Value Chain Flexibility with Performance, *International Journal of Production Researc*h, *43*(3), 447-463.

Najib, M. F., Kartini, D., Suryana, Y., & Sari, D. (2017). Market orientation, buyer-supplier relationship and firm performance with dynamic capabilities as an intervening variable: a research model. *International journal of business and globalisation*, *19*(4), 567-582.

Ndambuki D., (2013). *Supply chain integration and supply chain performance of international humanitarian organizations in Kenya* (Unpublished MBA Project), University of Nairobi.

Ntayi, J. & E., S. (2012). Collaborative relationships, procurement practices and 39 supply chain performance: The case of small and medium enterprises in Kampala - Uganda. *Journal of Public Procurement, 11* (1), 1-22.

Ochieng, V. (2014). Role of Supplier Development in Effectiveness of Procurement Function: A Case of National Cereal and Produce Board. *International Research Journal of Business and Management, 34*(3),34-56.

Odero, J. A., & Ayub, S. E. (2017). Effect of procurement practices on procurement performance of public sugar manufacturing firms in Western Kenya. *International Journal of Management Research and Reviews, 7*(4), 521-544.

Odhambi, W., P. (2013). *Public Procurement: Lessons from Kenya, Tanzania and Uganda.* Kampala: Government press.

Omolo, J. A., & Akinyi, E. J. (2019). The national treatment rule and the regulation of public procurement under the East African Community Common Market Protocol. *Journal of Corporate and Commercial Law and Practice, 5*(1), 115-135.

Omondi D. E., (2015). *Perceived Buyer -Supplier Relationships and Performance Among Large Scale Retail Outlets in Kisumu, Kenya* (Unpublished MBA Project), Nairobi University.

Ondiek, J. N. & Oteki, E.V. (2014). Effect of supplier relationship management on the effectiveness of supply chain management in the Kenya public sector, *International Journal of Managing Value and supply Chains, 6*(1), 25-32.

Ondieki, J.N. & Oteki, E.V. (2014). Effect of supplier relationship management on the effectiveness of supply chain management in the Kenya public sector, *International Journal of Managing Value and Supply Chains 6*(1), 25-32.

Otieno O., & Getuno p., (2017) Effects of Procurement Regulations on Performance of Public Secondary Schools in Nairobi City, County, Kenya. *International Journal of Innovative Social Sciences & Humanities Research 5*(3) 50-68.

Petrovic L., (2017). *Quality perceptions on the Supply Chain Management Practices and Supply Chain Performance in the Australian Manufacturing Industry* (Master's Thesis, Australia, Monash University).

Ponomarov S.Y., (2017) Holcomb Understanding the concept of supply chain resilience, The *Int. Journal of Logistics Management, 20*(1) 201-223.

Rosenzweig, E.D. and Roth, A.V. (2014) Towards a Theory of Competitive Progression: Evidence from High-Tech Manufacturing. *Production and Operations Management*, 13 (4), 354-368

Samolejová; J Feliks; R. Lenort; Besta P., (2012) A Hybrid Decision Support System for Iron Ore Supply. Metalurgija, *International journal of business and innovations*, *51*(1), 91-93.

Schoch, R. (2011). *Cost reduction strategies for education agencies, a productive of the PASBO*, Benchmarking committee, Scotland Press.

Scuotto, V., Caputo, F., Villasalero, M., & Del Giudice, M. (2017). A multiple buyer supplier relationship in the context of SMEs' digital supply chain management. *Production Planning & Control*, *28*(16), 1378-1388.

Simatupang, T.M. and Sridharan, R. (2002). The collaborative supply chain, *International Journal of Logistics Management*, 13(1),15-30.

Simatupang, T.M., & Sridharan, R. (2005). An integrative framework for supply chain collaboration. *International Journal of Logistics Management*, *16*(2), 257-274.

Simchi-Levi, D., Kaminsky, P. & Simchi-Levi, E. (2017), *Designing and Managing the Supply Chain –Concepts, Strategies and Case Studies.* Ethiopia: McGraw-Hill

Sodhi, M., Son, B.G. (2012), Researchers' Perspectives on Supply Chain Risk Management", *Production and Operations Management*, 1(21),1-13.

Srinivas, S.: Sethia, N.K., and Sheth, J.N., (2016). Mindful Consumption: A Customer Centric Approach to Sustainability. *Journal of Academy of science and Marketing*. 39(1), 21–39.

Srinivas, S.: Sethia, N.K., and Sheth, J.N., (2016) Mindful Consumption: A Customer Centric Approach to Sustainability. *Journal of the Academy of Marketing Science*. 39(1, 21–39.

Storey, J., Emberson, C., and Reade, D., (2015). The Barriers to Customer Responsive Supply Chain Management, *International Journal of Operations & Production Management*, *4* (5),34-56.

Tahira R. H., Abirah H; and Maria K., (2014) Role of Buyer-Supplier Relationship on BuyingFirm's Performance in Chemical Sector of Pakistan. *European Journal of Business and Management*, *6* (8), 45-67.

Teller, C., Kotzab, H. and Grant, D.B. (2012), Improving the performance of supply chain management in organizations, *International Journal of Production Economics, 140* (2), 713-720.

Terpend, R., Tyler, B.B., Krause, D.R., Handfield, R.B., (2008). Buyer–supplier relationships: derived value over two decades. *Journal of Supply Chain Management 44* (2), 28–55.

Terpend, R., Tyler, B.B., Krause, D.R., Handfield, R.B., (2008). Buyer – supplier relationships: derived value over two decades. *Journal of Supply Chain Management, 44*(2), 28-55.

Todd Duell. (2011). *A practical cost reduction strategy for inventory management*. New Deli India: Japur Publishers.

Vijayakumar, Y., Rahim, S. A., Ahmi, A., & Rahman, N. A. (2019). Investigation of supplier selection criteria that leads to buyer-supplier long term relationship for semiconductor industry. *International Journal of Supply Chain Management*, *8*(3), 982-993.

Vikas K., Archana K., Jose A. G., and Ming L., (2017). *Dependability a Key Element for Achieving Competitive Advantage: A Study of Information Service Firms Dublin City* (Master's Thesis, University of Delhi).

Womack, J., P., Jones, D., T., Roos, D., (2016). *The machine that changed the world*. New York: Macmillan Publishing Company.

Yang, Z., Jiang, Y., & Xie, E. (2019). Buyer-supplier relational strength and buying firm's marketing capability: An outside-in perspective. *Industrial Marketing Management*, *8*(2), 27-37.

Yang, Z., Zhang, H., & Xie, E. (2017). Relative buyer-supplier relational strength and supplier's information sharing with the buyer. *Journal of Business Research*, 7(8), 303-313.

Yeung, J.H., W. Selen, M. Zhang, and B. Huo, (2009). The effects of trust and coercive power on supplier integration, *International Journal of Production Economics, 120* (1), 66-78.

Yoo, S. H., Rhim, H., & Park, M. S. (2019). Sustainable waste and cost reduction strategies in a strategic buyer-supplier relationship. *Journal of Cleaner Production*, *237*, (11), 77-85.

Yu, Z.X., H. Yan, and T. C. E. Cheng (2010); Benefits of Information Sharing with Supply Chain Partnerships. *Industrial Management and Data Systems*, *101*(3), 114-119.

Zhang L., M.K. Lee, Z. Zhang, and P. Banerjee (2012), Critical Success Factors of Enterprise Resource Planning Systems Implementation Success in China, *IEEE Computer Society, 44*(5),56-87.

Zhu et al., 2010 So, S. and Sun, H. (2010), Supplier integration strategy for lean manufacturing adoption in electronic-enabled supply chains, Supply Chain Management: *An International Journal*, *15*(6), 474-87.

APPENDICES

Appendix I: Data Collection Introduction Letter

I am a master's Student of Procurement and Logistics Management of Kisii University. The requirement for masters is to write a Research Project and submit. The topic of the study is ROLE OF PROCUREMENT ACT 2015 IN THE BUYER-SUPPLIER RELATIONSHIPS AND THE PERFORMANCE OF MILK PROCESSING FIRMS: A CASE OF NAIROBI COUNTY. I will appreciate your assistance in completing this questionnaire to collect data. The information provided in this research will be used for academic use only and be confidential. There is no need to indicate your name on the questionnaire

Thank you in advance

Yours faithfully

KENNEDY ONYANGO OWAGO

Appendix II Questionnaires

QUESTIONNAIRE NO :……..

SECTION A: Background information (Tick as applicable)

1. What is the name of your firm.....?
2. Kindly indicate your Gender

   Male [ ] female [ ]
3. Age of the firm (number of years in operation)

   [ ] Less than 5 year's [ ] (5-10) [ ] (11-15) [ ] 16-20 [ ] more than 20 years
4. Level of Education

   KCSE [ ] Other courses [ ] Undergraduate [ ] Postgraduate [ ]
5. How long have you worked in this firm?

   [ ] Less than 5 year's [ ] (5-10) [ ] (11-15) [ ] Over 15

SECTION B: QUALITY DEPENDABILITY AND PERFORMANCE

The following statements are about quality dependability in buyer supply relationships, please use tick to indicate your level of agreement.

5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1=Strongly Disagree

	QUALITY DEPENDABILITY	**5**	**4**	**3**	**2**	**1**
1	We share production skills in determining quality with our key suppliers					
2	Our firm is committed to quality standards through sharing skills on product					
3	Our firm involves all suppliers in quality design					
4	Our firm help our suppliers to enhance product quality in supply chain					
5	We normally get referrals from our supply chain to the buyers					
6	Our firm is committed to efficiency to maintain clients					
7	We solve quality complaints with our suppliers so as to maintain efficiency					
8	We involve our suppliers with new production					

	processes					
9	We normally get referred by our supply chain customers' needs through quality production					
10	Referral programs help us to establish long-term relations with customers					

SECTION C: INFORMATION SHARING AND PERFORMANCE

In this section the study is interested in your view on information sharing. Read each of the statements and answer by ticking in the appropriate category that best fits your opinion. The categories are:

5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1=Strongly Disagree

No	**Information sharing**	**5**	**4**	**3**	**2**	**1**
1.	Trusting our suppliers with any information improves performance					
2.	We disclose truthful information to our customers					
3.	We trust our suppliers in disclosing information to the public					
4.	Responding to suppliers needs improve credibility in supply chain					
5.	We determine our customer expectation by responding to suppliers					
6.	We request our supplier to supply to us in time					
7.	Information request by supplier improves accuracy					
8.	The information is exchanged within suppliers in a timely manner					
9.	We interact with our clients to ensure shared ideas					
10.	We determine our customer expectations frequently					

SECTION D: COST CONTROL AND PERFORMANCE.

In this section the study is interested in your view of cost control. Rate the following statements and answer as appropriate by ticking the best.

5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1=Strongly Disagree

No	Cost Control	5	4	3	2	1
1.	Our firms phone call cost is reduced from suppliers ordering cost					
2.	We use phone calls to reach far customers					
3.	We use Mail services to cut travelling expenditure					
4.	Our mail services are cost effective than other supply chain					
5.	We use courier services to control cost of enquiry					
6.	Courier services is faster to our client's relationships					
7.	Our way of handling client complaints control costs					
8.	We reduce complaints of purchasing and services for better performance					
9.	Our administrative expenses are less in handling complaints					

SECTION E: RELIABILITY OF SERVICES AND PERFORMANCE

The following statements are about reliability of services in supply chain management, please use tick to indicate your level of agreement.

5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1=Strongly Disagree

No	Statement	5	4	3	2	1
1.	We trust our suppliers in delivery of quality products					
2	We trust our suppliers in the procurement process					
3	We maintain loyalty in order to enhance our value chain to make and provide our customer services					
4	Our acquisition of goods to make products are timely					
5	We support timeliness for fairness and transparency of procurement activities in our firm					
6	We maintain timeliness in delivery within time frame to ensure performance					
7	Our commitment to inspections is based on acceptance of purchasing decisions					
8	Our commitment to procurement associated activities and resources provides are significance to clients					

SECTION F: FIRM PERFORMANCE

Below is statement about achievement of firm performance according to the best of your view. Tick where appropriate

5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1=Strongly Disagree

No	Statement	5	4	3	2	1
1.	Our lead time is efficient to meet customer expectations					
2.	Our lead time focuses on quality of goods procured					
3.	Our performance is enhanced through customer satisfaction					
4.	There is improvement of customer satisfaction in our firm					
5.	Our efficiency in procurement process increases profits					
6.	Our profits level depends on buyer supplier relationships					

SECTION G: PROCUREMENT ACT 2015

Below is statement about the moderating effect of procurement Act 2015 between buyer-supplier relationships and firm performance according to the best of your view. Tick where appropriate

5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1=Strongly Disagree

No	**Statement**	**5**	**4**	**3**	**2**	**1**
1.	Public procurement and disposal act (PPDA) promote good buyer supplier relationship leading satisfaction					
2.	Our firm's associated activities are regulated by public procurement and disposal act regulations (PPDA)					
3.	We are recognized as a procuring entity and our procurement functions are regulated by PPARB regulations					
4.	PPARB generally improves compliance of rules and regulations in procurement reports					
5.	Laws and regulations monitor and review procurement system for entities					
6.	Laws and regulations help procurement process of determining tendering disputes					

Appendix III Letter from the University

KISII UNIVERSITY

Telephone : 020 2610479
Facsimile : 020 2491131
Email :fcommerce@kisiiuniversity.ac.ke

P. O. Box 408-40200
KISII, KENYA.
www.kisiiuniversity.ac.ke

SCHOOL OF BUSINESS AND ECONOMICS

OFFICE OF THE COORDINATOR, POST-GRADUATE PROGRAMMES

Ref: KSU/SBE/ CBM15/10568/16

Tuesday, 27TH June, 2019

The Director,
National Commission for Science, Technology &
Innovation (NACOSTI)
NAIROBI.

Dear Sir,

REF: APPLICATION FOR A RESEARCH PERMIT FOR KENNEDY ONYANGO OWAGO, REG. NO. CBM15/10568/16

The above named is a Masters student in our institution who intends to carry out a Research. The intended study is titled; **"The Role of Procurement Act 2015 in the relationship between Buyer-Supplier relationships and the Performance of Milk Processing firm: A Case of Nairobi County."**

The purpose of this letter is to request you to give him a research permit to enable him conduct the research.

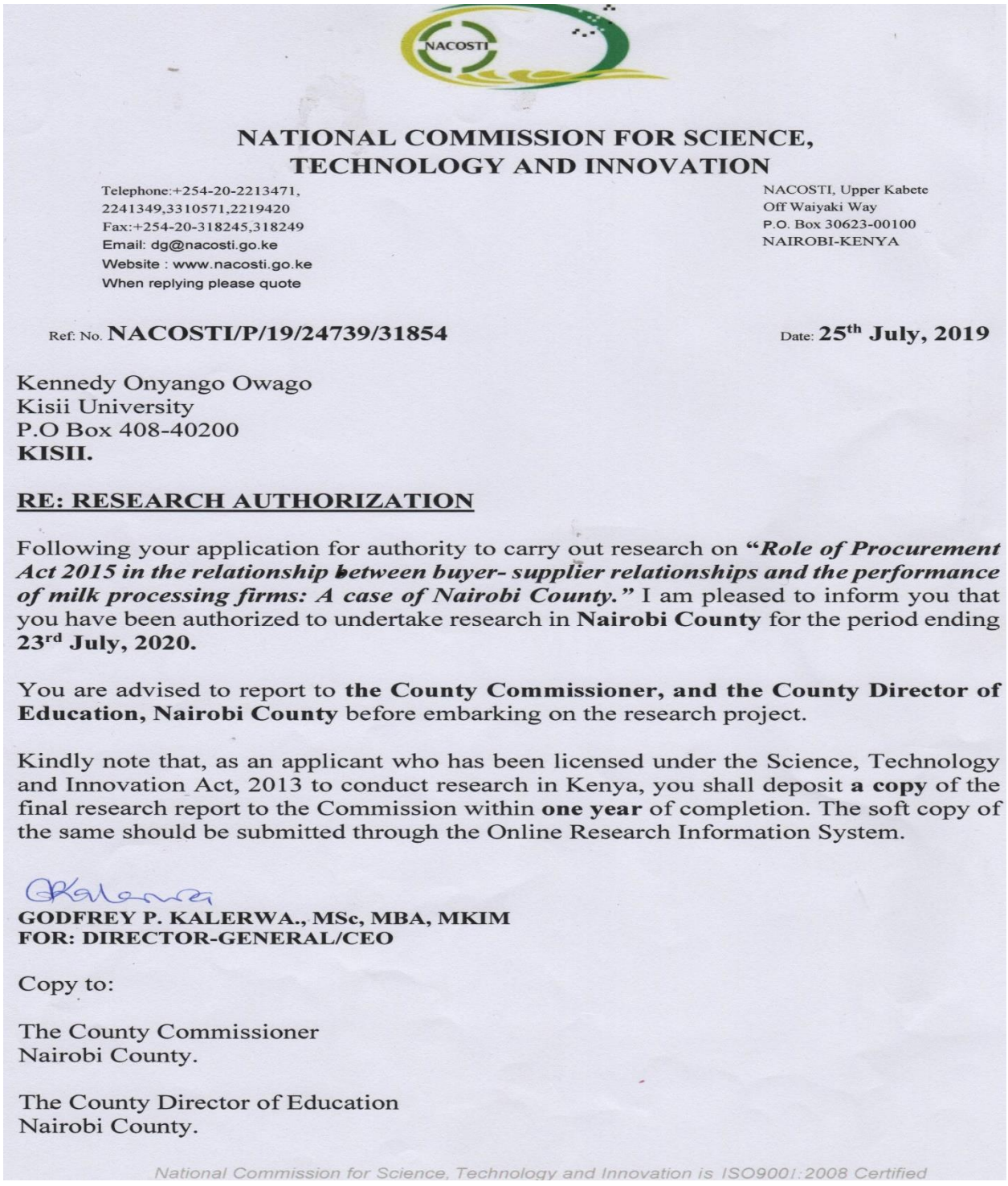
Thank you.

KISII UNIVERSITY
COORDINATOR, POST-GRADUATE PROGRAMMES
27 JUN 2019
P.O. Box 408-40200, KISII-KENYA

Dr. Joshua Wafula, PhD
COORDINATOR, POST-GRADUATE PROGRAMMES

WJC/pa

Appendix IV letter from Nacosti



NACOSTI

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471, 2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/24739/31854**

Date: **25th July, 2019**

Kennedy Onyango Owago
Kisii University
P.O Box 408-40200
KISII.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Role of Procurement Act 2015 in the relationship between buyer- supplier relationships and the performance of milk processing firms: A case of Nairobi County."*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **23rd July, 2020.**

You are advised to report to **the County Commissioner, and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA., MSc, MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

National Commission for Science, Technology and Innovation is ISO9001:2008 Certified

Appendix V Research Permit Passport from NACOSTI

THIS IS TO CERTIFY THAT:
MR. KENNEDY ONYANGO OWAGO
of KISII UNIVERSITY, 408-40200
KISII,has been permitted to conduct
research in *Nairobi County*
on the topic: *ROLE OF PROCUREMENT ACT 2015 IN THE RELATIONSHIP BETWEEN BUYER- SUPPLIER RELATIONSHIPS AND THE PERFORMANCE OF MILK PROCESSING FIRMS: A CASE OF NAIROBI COUNTY*
for the period ending:
23rd July,2020

Permit No : NACOSTI/P/19/24739/31854
Date Of Issue : 25th July,2019
Fee Recieved :Ksh 1000

.....
Applicant's Signature

.....
Director General
National Commission for Science, Technology & Innovation

THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.

CONDITIONS

1. **The License is valid for the proposed research, location and specified period.**
2. **The License and any rights thereunder are non-transferable.**
3. **The Licensee shall inform the County Governor before commencement of the research.**
4. **Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.**
5. **The License does not give authority to transfer research materials.**
6. **NACOSTI may monitor and evaluate the licensed research project.**
7. **The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.**
8. **NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.**

National Commission for Science, Technology and innovation
P.O. Box 30623 - 00100, Nairobi, Kenya
TEL: 020 400 7000, 0713 788787, 0735 404245
Email: dg@nacosti.go.ke, registry@nacosti.go.ke
Website: www.nacosti.go.ke

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

RESEARCH LICENSE

Serial No.A 26051

CONDITIONS: see back page

Appendix VI Letter from Nairobi County

Appendix VIII Publication

Appendix IX Plagiarism Report