

**SUPPLIER DEVELOPMENT MANAGEMENT
PRACTICES AND ORGANIZATIONAL PERFORMANCE
OF MANUFACTURING FIRMS IN KENYA**

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Performance of Manufacturing Firms in Kenya**

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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

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This thesis has been submitted for examination with our approval as University Supervisors.

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DEDICATION

I dedicate this project to my resourceful and supportive wife and children for their patience and moral support and more importantly financially while attending to my studies.

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LIST OF ABBREVIATIONS AND ACRONYMS

AHP	- Analytic Hierarchy Process
CFAR	Collaborative Forecasting and Replenishment
CMKN	Contract Monitoring Kenya Network
EABL	East Africa Breweries Limited
GDRC	Global Development Research Center,
JIT	Just In Time
KAM	Kenya Association of Manufacturers
KISM	Kenya Institute of Supplies and Management
LW	Linear Weighting
MADM	Multiple Attribute Decision Making
MP	Mathematical Programming
NCPB	National Cereal and Produce Board
PLC	Public Limited Company
QCD	Cost and Delivery
RDT	Resource Dependence Theory
ROA	Return on Asset
SCM	Supply Chain Management
SCT	Social Capital Theory
SD	Supplier Development
SME	Small and Medium Enterprise
SRM	Suppliers Relationship Management
TPS	Toyota Production Systems
TCA	Total Cost Approach
TCE	Transaction Cost Economics
TSSC	Toyota Supplier Support Centre
USA	United State of America
VMI	Vendor-Managed Inventory

OPERATIONALIZATION AND DEFINITION OF TERMS

Information Exchanges: information exchange as the relaying of business-related information in a way that enables the recipient to take action (Andrew, 2016).

Organizational Performance: refers to how well an organization achieves its objectives (Ali, Namusonge & Sakwa, 2016).

Procurement Function: is the process of finding, agreeing terms and acquiring goods, services or works from an external source, often via a tendering or competitive bidding process (Osoro et al., 2015).

Supplier Development: refers to supplier development as “A long-term cooperative effort between a buying firm and its suppliers to upgrade the supplier's technical, quality, delivery and cost capabilities and to foster ongoing improvements”. This definition deals with long term commitment and relation between supplier and buyer and as per increase in relation and commitment (Andrew, 2016).

Supplier Evaluation: Supplier evaluation is a management activity whose primary aim is acquiring information to analyze and to manage supplier relationships and supply situations (Armstrong, 2016).

Supplier Selection: Supplier selection is the process in which suppliers are inspected, evaluated and selected to eventually become part of the supply chain of an organization (Rajesh & Ravi, 2015).

Technical Capability: According to the Araz and Ozkarahan (2017), technical capability refers to factors in the supplier’s operational capacity and facilities, which acts as indicators of its ability to meet the purchaser’s current and future requirements.

Procurement Policies: are a set of rules and regulations put in place to govern the process of acquiring goods and services needed by an organization to function efficiently (Bailey, 2016).

ABSTRACT

Over the globe, the effect of supplier development management practices on organizational performance of manufacturing firms has been evolving. The specific objectives of this study were. Supplier selection, technical capabilities, information exchange and supplier evaluation. This study used descriptive research design, where both qualitative and quantitative research was applied, This type of research design was good, since they use both numerical and words. When both are applied they support each other, hence they describe the phenomena clearly. The target population of this study was 500 respondents from the following departments; procurement, finance and production respectively, these were senior officers from manufacturing industries in Kenya. A stratified random sampling technique was used to get a sample size of 399 respondents. This study used structured and semi structured questionnaires to collect data from the sampled respondents. The assistant researcher officers assisted the researcher to drop questionnaires to the respondents and they picked the same after two weeks, and where there was need an extension was given to allow the respondents to fill the questionnaires. A pilot test of 10% was done to confirm reliability and validity of the instruments prior to the actual collection of data. Where there was need adjustment was done for the purpose of clarity. The collected data was analyzed with the help of Statistical Package for Social Science version 24 and has been presented with the help of, figures, tables and histograms. The study concludes that supplier development can be enhanced by supplier selection, technical capability, and information exchange and supplier evaluation. The four variables can now contribute 65.3% of the overall performance of organizational development if it is implemented. The study recommends that the organizational performance of manufacturing firms should embrace supplier selection, technical capability, and information exchange and supplier evaluation towards the supplier development. This has enabled manufacturing firms to get the right suppliers who has led to harnessing the benefits associated with the practice that must shorten lead times towards supplier development in the manufacturing firms in Kenya

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Araz and Ozkarahan (2017) first used the word Supplier Development to define manufacturer (Buyer) attempts to boost the amount of feasible providers and enhance the efficiency of the supplier. More specifically, the development of providers has been described as any attempt by an industrial purchasing company to enhance their suppliers' efficiency or capacities (Andrew, 2016). Much of the literature on supplier growth focuses on the automotive industry in either the U.S, Europe, Japan or elsewhere and is mainly conducted on big companies. This is particularly true in the automotive industry, given that up to 75 % of a vehicle's price in the automotive industry comes from components from outside providers. Consequently, auto companies cannot be competitive on the world market unless they are dealing with providers with comparable goals and the same level of results. So to help suppliers to make them more competitive and efficient will automatically help buyers to become more competitive and efficient (Bailey, 2016).

Due to increase in competition inventory reduction and staff downsizing many buying firms are sticking only to their core competencies which in turn provide solution as outsourcing a large part of the buying firms' activities (Araz & Ozkarahan, 2017). This results in additional responsibilities of various kinds such as managing inventory for customers, earlier participation in product development, producing near-perfect quality, delivering smaller lot sizes to narrowing delivery windows, providing steady price reductions and more on the shoulders of suppliers. Supplier development refers to an organization's efforts to create and maintain a network of competent suppliers. From a narrow perspective it can be defined as identifying new sources of supply where no adequate ones exist. However supplier development also involves a long-term cooperative effort between a buying firm and its suppliers to upgrade the suppliers'

technical, quality, delivery, and cost capabilities and to foster ongoing improvements (Andrew, 2016).

Araz and Ozkarahan (2017), in their book of designing and managing the supply chain-concepts strategies and case studies categorized levels of supplier integration as none, white box, gray box, and black box as per increasing involvement[These days, most organizations have understood the significance of procurement execution in building up and keeping up their upper hand. All things considered buying research have attempted to centre around supplier development programs and investigate how these activities effect on organizational performance, which inevitably prompts organizational improvement (Ali et al., 2016). Supplier development is concerned with assisting the actual and potential suppliers produce and supply high quality inputs to their prospective clients. Suppliers help organizations to meeting their present and future requirements, since no organization is capable of satisfying all its supplies requirements from its internal sources. In most cases it involves large organizations extending a helping hand in form of resources to small vendors/small suppliers who have demonstrated willingness to meet their purchaser's requirements. It therefore involves looking at the various strengths and weakness of a supplier who is willing to supply you with the materials/services and helping them overcome these weaknesses so that they can serve you in a more efficient way (Bartik 2016).

Araz,and Ozkarahan (2017), they observed that supplier development as any movement that a purchasing firm starts with the end goal to enhance providers execution. Osoro et al. (2015) they pointed out that provider improvement might be made out of such exercises from a purchasing firm as "objective setting, supplier development, execution estimation, provider preparing and other related ones. Already Araz and Ozkarahan (2017), guaranteed that immediate inclusion as a factor of supplier development comprised of an arrangement of practices, for example, formal supplier assessment, confirmation, acknowledgment, casual supplier development, provider site visits, preparing and purchaser locales and offices visits, and in addition verbal or composed

interest for supplier development (Bartik, 2016). This arrangement of works on creating direct association demonstrates a multidimensional nature of supplier development.

Traditionally, the role of supplier in contributing to the procurement performance of the buyer has never been accorded strategic importance. This has been due to the simple reason that the inter-organizational linkages between the buyers and sellers has been of arm's length and often adversarial with individual firms in the supply chain seeking to achieve cost reduction, profitability and growth at the expense of each other (Araz, & Ozkarahan, 2017). However, researchers, such as Basheka and Tumutegyereize (2016) stated that successful buyers recognize the role working closer with their suppliers play s with regards to inventory management and handling, demand management, purchasing processing management, and achievement of success in the face of industry competition and increasing material scarcity in the global arena.

Basheka (2016) the notion of achieving effective supply chain due to investments in supplier development is not of complete novelty. Effective supply chain performance of any firm can only be achieved if there is a cordial buyer-supplier relationship focusing on the antecedents trust and commitment, communication quality, information sharing and involvement as well as feedback (Arthur, 2016). To address the challenges of relational assets assignment that buyers face, they apply a number of strategies to identify, evaluate and select suppliers with the aim of supplier base reduction, selection of key suppliers for consideration for process and product development improvements and investments and to advance buyer-supplier collaborative relationships (Basheka & Tumutegyereize, 2016).

According to Arthur (2016), examples of buyers' investments in suppliers, with reference to social capital and resource based view theory, refer to indirect and direct supplier development programs. Indirect development programs are in place when a buyer assigns only limited direct resources to a supplier. In that sense they are in line with narrow supplier development. Narrow supplier development programs represent passive programs that focus on supplier identification, supplier evaluation and supplier

selection with the goal of compliance of a supplier's offer with the buyer's needs and requirements. Indirect supplier development is at sometimes referred to supplier evaluation (Arthur, 2016).

Supplier evaluation represents a set of indicators that compose improvement requirements that suppliers need to fulfil in order to collaborate with the buyer (targets, certificates. That definition is consistent with the view of Basheka (2016). supplier evaluation and communication of the results driven by the expectations that the supplier will incorporate changes in order to improve noted deficiencies. On the contrary, broader supplier development programs represent activities undertaken by the buyer towards active supplier development (Cheptora, Osoro, & Musau, 2018). These activities are carried on with the proprietary aim to improve 'supplier capabilities' for long-term mutual benefit of both parties (Arthur 2016). The broader supplier development is aligned with the view of direct supplier development programs that are characterized by committing financial and human capital by a buyer and playing an active role in developing a supplier.

1.1.1 Global Perspective of Supplier Development Management Practices

Supplier development is the way toward working cooperatively with suppliers to enhance or grow their abilities (Bartik, 2016). Supplier development adds to the organizations as far as creation and upkeep of fitting providers, quality, detail, cost ability and conveyance with proceeds with enhancement (Arthur, 2016). Bartik (2016) depicted provider improvement as a training, responsively to manage poor provider execution, or deliberately to upgrade the long haul ability of the supply base. It is a respective exertion by both the purchasing and providing association to together enhance the provider's execution or abilities in at least one of the accompanying zones: cost, quality, conveyance, time to showcase, natural obligation, and administrative capacity and money related suitability (Arthur, 2016). Bartik (2016), his study focused on supplier development processes and they found supplier development as a four step process as, assess the supplier's readiness for change, build commitment through

collaboration, implement system-wide changes, transition out of the supplier's organization, establish follow-up and recognition procedures .

Beatty and Ritter (2016), in their article of "Avoid the Pitfalls in Supplier Development" proposed a process map for supplier development. They mentioned 7 steps for supplier development such as identify critical commodities, identify critical suppliers, form a cross-functional team, meet with supplier's top management, identify key projects, define details of agreement, monitor status and modify strategies. Provider improvement is a vital provider related movement intended to overhaul the execution level of suppliers with the end goal to make and keep up a system of skilled providers, which impacts the upper hands of a purchasing organization (Cheptora et al., 2018). Acquiring writing shows that enhancement in purchaser and provider execution happens because of actualizing powerful provider improvement programs. With expanded redistributing, purchasers must guarantee that their provider capacities coordinate their desires with the end goal to contend in the aggressive market (Basheka, 2016). Driving associations participate in provider advancement, by giving assets to enhance their provider's abilities. This regularly includes preparing providers in techniques, for example, Six Sigma or Lean, in any case, it very well may be any joint effort that makes providers more fit for increasing the value of the association (Beatty & Ritter, 2016).

Most associations have come to understand the essential job enter providers play in deciding generally speaking corporate execution. Subsequently more noteworthy accentuation has been agreed to exercises went for expanding the execution and abilities of key providers as a methodology of enhancing the purchasing firm`s generally speaking cost position, imaginative capacities and client benefit (Basheka, 2016). As per Lascelles and Dale (2015) there are reasons why supplier development has turned into a key component in keeping up or enhancing an organization's intensity which thusly prompts hierarchical enhancement. Right off the bat, innovative and focused weights have brought about a more prominent pattern towards specialization. Besides, the nature of rivalry itself has changed. Basheka (2016) among others, proposes that successful universal rivalry is a mix of rivalry in its conventional and obvious frame (item versus

item) and a similarly ground-breaking, however less unmistakable, type of rivalry including organizations' aptitude in executing and dealing with a procedure of aggregate quality administration of which providers are crucial parts.

Provider improvement is an imperative procedure for examination since it epitomizes two of the most obvious highlights of social capital: shared information and shared resource speculations. Ali et al. (2016) they observed that supplier development might be made out of such exercises from a purchasing firm as objective setting, provider assessment, execution estimation, provider preparing, and other related ones. Basheka (2016) he observed that immediate inclusion as a factor of supplier development comprised of an arrangement of practices, for example, formal provider assessment, accreditation, acknowledgment, casual provider assessment, provider site visits, preparing, and purchaser locales and offices visits, and in addition verbal or composed interest for execution enhancement. This arrangement of works on forming direct contribution demonstrates a multidimensional nature of provider improvement. The more extensive supplier development is lined up with the perspective of direct provider improvement programs that are portrayed by submitting budgetary and additionally human capital by a purchaser and assuming a functioning job in building up a provider (Cheptora et al., 2018).

Provider improvement programs speak to exercises attempted by the purchaser towards dynamic provider advancement. These exercises are continued with the restrictive intend to enhance "provider abilities' for long haul shared advantage of the two gatherings (Arthur, 2016). One method for guaranteeing sureness of provisions is by the acquiring association getting engaged with the act of provider advancement. Buying controls a major bit of the Government spending plan every year and in this manner, it would be fundamental that the gatherings included understands the quickly developing innovation, and general pattern in the development of the economy, and recognize the requirement for spending admirably (Cheptora et al., 2018). This must be finished by concurring obtaining the privilege key position and utilize acquiring experts, for powerful and proficient buying forms, and keeping away from superfluous obstruction by different

capacities in the buying capacities, which has as a rule come about to job clashes (Basheka, 2016).

Current organizations are moving from conventional obtaining to vital buying where providers, purchasers and customers are interlinked framing a store network (Basheka, 2016). The Government is gradually adjusting this idea by presenting current methods for operational principles. It is normal that buying unit must work intimately with providers and clients too, to ensure those tasks are not interfered. With the goal for firms to contend viably and get by in the worldwide market, they should keep up and fabricate associations with a fit and skillful system of providers and concentrate most extreme incentive from these connections. To make and keep up such a system and to enhance capacities that are vital for the purchasing association to address its expanding focused difficulties, the purchasing firm may participate in provider improvement (Arthur, 2016). As indicated by Osoro et al. (2015) provider improvement is one of three decisions that could be utilized to oversee issues purchasing firms may involvement in their supply systems. Issues emerging inside the store network may incorporate a present provider performing underneath desire; a non-focused provider base; current providers unfit to help a company's key development; or able providers not accessible in a specific market.

An overview consider in the USA by Arthur (2016) announced 142 assessment things/angles, which can be masterminded under 19 classifications of criteria, the initial 10 being: quality and process control; unending enhancement; office condition; conveyance; stock and warehousing; requesting; budgetary conditions; accreditations; and cost. Strangely, of the 10 classes, "quality and process control" had the most noteworthy rate making reference to i.e. 24.9% while cost had the most minimal rate making reference to i.e. 3.6%. A large portion of provider examination angles detailed by Simpson, Arthur (2016) review are flawlessly condensed by Ali et al. (2016) as the seven Cs of provider assessment. They incorporate the accompanying perspectives: competency of the provider to attempt the undertakings required; limit of the provider to meet the buyer's aggregate needs; duty of the provider to the client as far as quality, cost

driving and administration; control frameworks in connection to stock, costs, spending plans, individuals and data; money assets and budgetary steadiness; cost equivalent with quality and administration; and, consistency i.e. the capacity of the provider to convey reliably and, where conceivable, enhance levels of value and administration. Andrew (2016) review of car, synthetic, PC, development, purchaser items, resistance, gadgets, mechanical items, restorative gadget, bundling, pharmaceutical, paperboard, semiconductor, and broadcast communications businesses in the USA observed Supplier evaluation to be emphatically decidedly identified with firm development and ROA.

An investigation of high performing purchaser firms by Ali et al. (2016) uncovered the accompanying supplier development related attributes: center around key providers and foundation of long haul purchaser provider banding together understandings dependent on risk reward sharing and concentrated participation through common information sharing; presence of a formal provider improvement program to deal with the supply base; utilization of computerized procedures to track provider execution and give intermittent dashboard reports to senior administration audit; presence of a criticism circle for providers to help energize provider improvement endeavors; presence of provider handbooks that depict the joint effort and necessities of the supplier (Cheptora et al., 2018).

1.1.2 Regional Perspective of Organizational Performance

With the changing environment in which the organizations are operating in coupled with unpredictable technology development, organizations have to rethink of their relationship with their partners and more so on suppliers' development. It is widely recognized that in order to compete and survive, companies must seek, build up and maintain relationships with capable suppliers and realize the maximum value through such relationships (Bailey, Farmer, Jessop & Jones, 2016). Andrew (2016), he suggests that good supplier relationship and development programs, allow for organizations to enhance their procurement performance. Organizational performance starts from

purchasing efficiency and effectiveness in the procurement function in order to change from being reactive to being proactive to realize set performance objectives.

Bailey et al. (2016), they pointed that in most organizations external procurement expenditure accounts for 60 or 70% of the country budget. Thus, organizations have to work with suppliers to facilitate and realize substantial cost savings and cannot limit such efforts to their firm boundaries. Andrew (2016), he asserted that the specialized competencies residing with suppliers may influence a buying entity's innovativeness, performance and ability to offer high-quality products. Most of the organization that experience inconsistency in supply chain, they encounter this due to lack of trust between the supplier and buyer, low supplier's performance and inflexibility to change, lack of coordination and training, poor motivation and fragmentation of information between supplier and buyer (Ali et al., 2016). The impact of this to any organization is reduced procurement performance, high inventory, and decreased capability to meet customer needs, decreased market share, long lead times and decreased profits.

Andrew (2016) rightly pointed out that supplier development is the most influential management process for achieving continuous material supply, product quality and customer satisfaction by enhancing organizational performance. Ali et al. (2016, they observed that supplier development has a significant role on organizational performance, both in terms of effectiveness and efficiency aspects of measurement. This means that with dynamic customer tastes, world economy and the shrinking supply base, there is a drastic increase in pressure on the manufacturing firms to find new ways of building relationship with key suppliers through supplier development, find was in which they can motivate and nurture the supplier relationships (Cheptora et al., 2018).

To implement supplier development, purchasing companies need to closely monitor their supplier's performance, so that they are able to pick out those who meet their requirements. This can be in terms of quality, timeliness of deliveries, quantity and price (Bailey et al., 2016). Moreover, buying firms should continually review and evaluate the performance of their suppliers so as to find ways of improving both their business

practices, identify and seal any gaps through technical support, financial support and through training. With suppliers making a significant contribution to a company's competitive position, it would be a wrong if companies were to neglect the potential of supplier development practices as an improvement in the procurement function affects the overall performance of the organization (Cheptora et al., 2018). Therefore, for purchasing firms faced with problems of low supplier performance, they can implement a wide range of supplier development practices such as improving the supplier technical capability, leveraging supplier financial position, supplier recognition, and supplier training in order to upgrading the performance and capabilities of the weakest links in their supply chain (Araz & Ozkarahan, 2017).

Some authors like Osoro and Shale (2019) presented an example how Toyota manages their operational knowledge transfer activities via Toyota Supplier Support Centre (TSSC), which provides on-site assistance to help suppliers implement the Toyota Production Systems (TPS) and fix quality through joint problem solving. The authors have also listed the knowledge transfer topics showing that these include some Lean and Six Sigma tools. Similarly Araz and Ozkarahan (2017), conducted case studies in three leading automotive manufacturers, i.e. Honda, Nissan and Toyota; showing that transfer of organizational capabilities, in terms of knowledge of and skill in using Lean Six Sigma deployment, from the customer to the supplier company requires not only financial and resource commitment, but also a distinctive organizational and governance structure that facilitates long-term cumulative learning. Osoro and Shale (2019) suggest that Toyota has the most systematic way of sharing and learning tacit knowledge by using Jishuken (self-study groups) in comparison to Honda and Nissan. The findings also indicate that the companies started with assistance in shop floor improvements, but activities extended to areas outside the shop floor into product development processes and management systems over time.

In another study, Araz and Ozkarahan (2017), presented key elements of suppliers' development in SME's as proactive customers and suppliers, commitment to long-term relationships, continuous improvement, creating learning opportunities that are

appropriate to the smaller organizations win-win philosophy. In the USA based research Solomon and Ayebale (2017), further identified that some buying firms used minority suppliers to satisfy official government statistics rather than for genuine business reasons. Efficient supplier involvement, raising performance expectations, evaluation, exchange of personnel, information exchange among others are vital for effectiveness in procurement functions of National Cereal and Produce Board (Schiele, 2017). Osoro and Shale (2019) relates current poor procurement performance at the NCPB to inadequate support to farmers, arm's length relationship between the buying farms and international supplier, unpredictable weather conditions, escalating costs, failure to apply modern technology in operations and uncertain pricing.

Procurement policies entail a set of rules and regulations put in place to govern the process of acquiring goods and services needed by an organization to function efficiently (Schiele, 2017). Procurement policies and procedures are crucial in all supplies development practices including leasing and hiring, and may where appropriate include other activities accompanying the life cycle of goods or service contracts and the end-of-life disposal of goods which have been procured (Araz & Ozkarahan, 2017). Procurement policies involve an arrangement of principles and directions set up to oversee the way toward securing merchandise and ventures required by an association to work effectively (Solomon & Ayebale, 2017). Procurement policies and techniques are essential in all provisions advancement works on including renting and employing, and may where suitable incorporate different exercises going with the existence cycle of merchandise or administration contracts and the finish of-life transfer of products which have been obtained (Osoro & Shale, 2019).

Procurement policies applies to and ties all manager, supervisors and workers of the association in circumstance where they are engaged with an purchasing procedure, regardless of whether as requisitioners or specifiers, buyers or negotiators, or the individuals who validate or disapprove payments. Adherence to the Purchasing Policy is both an individual and a corporate duty (Araz & Ozkarahan, 2017). Procurement arrangements can empower larger and medium supply firms to compete for and win

contracts, and may likewise fuel the production of new organizations to react to the expansion sought after, yet the unintended effects of such strategies may really make a more petulant workplace for those gatherings who are intended to profit (Cheptora et al., 2018).

Understanding the concept of ethics about procurement process is significant in a bid to better understand the genuine costs involved in accomplishing any ethical procurement process Osoro and Shale (2019). Most provider procurement activities experience the ill effects of disregard, absence of open competition and transparency; contrasting levels of competition and transparency, corruption and most significantly irreconcilable conflict of interest arising from stakeholder and personnel's involved in handling a procurement process yet expected to manage such procurements in a professional, timely and cost effective manner. Viable procurement arrangements are strategies pursued when making organization purchasing decisions. Actualizing viable procurement policies altogether enhance the adequacy of purchasing decisions (Schiele, 2017). In any area, successful procurement arrangements involve processes where firms meet their need for products, services, works and utilities in a way that achieves value for cash on an entire life basis as far as creating benefits not exclusively to the organization, yet additionally to society and the economy, while limiting harm to the environment (Araz & Ozkarahan, 2017).

Procurement plans may look to a great degree intelligent on paper yet in the event that those bestowed with the obligation of usage are reluctant to actualize (Cheptora et al., 2018). Procurement process implementation process may fall flat if the strategy does not enjoy support and duty by the greater part of workers and the center administration. Shared understanding without duty would result in 'counter effort' and may adversely affect the supply chain network performance. The understanding between management and those at the operational level to top management group's strategic objectives is of prime significance to effective to supplier development practices. Osoro and Shale (2019) expressed that absence of appreciation of the procurement rules results into poor compliance levels and this prompts wastefulness which adversely influences supplier development processes.

Organizational performance refers to how well an organization achieves its objectives. Performance measures can be grouped into two basic types: those that relate to results (outputs such as competitiveness or financial performance) and those that focus on the determinants of the results (inputs such as quality, flexibility, resource utilization, innovation or operational performance) (Solomon & Ayebale, 2017). This suggests that performance measurement frameworks can be built around the concepts of results and determinants. Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Araz & Ozkarahan, 2017).

In an organization where production is dependent upon supply of raw materials and crucial services that are needed to ensure the product output, both operational and financial performance of the firm are dependent upon the supply of these commodities (Schiele, 2017). Common organizational objectives include shareholder wealth maximization, profit maximization, increased market share and customer satisfaction (Solomon & Ayebale, 2017). Any organizational initiative, including supplier development, should ultimately lead to enhanced organizational performance. Ideally, organizational performance is evaluated on the basis of the market's valuation of the firm's securities. This is because the market price per share represents the focal judgment of all financial market participants as to the value of a particular firm (Araz & Ozkarahan, 2017).

Generally, organizational performance is an accumulation of independent functional performance metrics (Osoro & Shale, 2019). In other words, for market share to grow product quality must be improved; for customer satisfaction to be achieved, quality must be improved and lead times reduced, for financial growth to be realized, product cost must be lowered since the final product price is dictated by the market forces. In this research therefore, we took a critical look at the elements of performance which were directly attributable to the operational performance parameters i.e., quality, cost, lead time, and production capacity. It is widely recognized that in order to compete and survive, companies must seek, build up and maintain collaborative relationships with

capable suppliers so as to realize the maximum value through such relationships (Schiele, 2017).

According to Osoro and Shale (2019), they observed that some of the key indicators of operational performance are production efficiency, waste reduction, improved quality of goods, decreased production defects, reduced customer complaints, reduced worker injury, improved production accuracy, decreased production cost, improved level of product completeness, reduced cycle time, improved workflow and compliance with environmental and industry regulations and requirements. Solomon and Ayebale (2017) claims that performance in all the areas of an organization is one way or the other can be affected by the kind of supplier relationship management strategies adopted by a firm. Bearing in mind that the competitive advantage in most manufacturing industries is based upon its network of suppliers, it behooves the companies to have an influence over its suppliers in ways that touch on degree and intensity; to explain this further, almost all the time, the competitive ability and performance of manufacturing firms is grounded upon the supply base thus the only way out is the designing, set up and management of the entire network of suppliers (Araz & Ozkarahan, 2017).

1.1.3 Local Perspective of Manufacturing Firms

The manufacturing sector is a major contributor of Kenya's GDP as indicated by KIPPRA (Schiele, 2017). KIPPRA's report on economic growth states that the manufacturing sector in Kenya constitutes 70 per cent of the industrial sector contribution to GDP. Much of the discussion in this part consist the research commissioned by The Overseas Development Institute (ODI) and compiled by (Araz & Ozkarahan, 2017). In his document he observes that, the manufacturing sector in Kenya grew at 3.5% in 2015 and 3.2% in 2014, contributing 10.3% to gross domestic product. On average, however, manufacturing has been growing at a slower rate than the economy, which expanded by 5.6% in 2015. While Kenya remains an attractive investment destination for manufacturing, other countries are aggressively courting such investment (Osoro & Shale, 2019). However, the good news from a regional perspective

is related to the fact that the East African Community (EAC) is aligning itself as the next global manufacturing destination. Such regional initiatives can be leveraged by the manufacturing sector in Kenya and catalyze its growth. Clearly, there is room for growth, evidenced in the fact that the combined manufacturing sector in the seven countries in Eastern Africa as a whole is only about one-third the size of the manufacturing sector in Vietnam, which has a population one-third the size of the seven countries (Araz & Ozkarahan, 2017).

Overall, it should be noted that sector strength is informed by the size of the market, both local and external. According to the Economic Recovery Strategy for Employment and Wealth Creation Report, the manufacturing sector in Kenya is a major source of growth, still with high potential for growth and investment (Cheptora et al., 2018). The role of the manufacturing sector in Vision 2030 is to create employment and wealth. The strongest subsectors in formal manufacturing include; agro-industry), firms in the Export Processing Zones (EPZs), pharmaceuticals and sectors relate to construction, such as cement and metals, and high-end furniture. The Kenya Institute of Public Policy and Analysis (Araz & Ozkarahan, 2017), says that in the past five years average growth in real terms in manufacturing has been at about 3.4%; manufacturing firms has been growing at about 6% and non- firms has been growing at about 2%. Manufacturing firms are closely linked to agro-processing.

1.2 Statement of the Problem

The problem of supplier development management practices on organizational performance in manufacturing firms in Kenya has been in existence for quite some time now. Also according to Araz and Ozkarahan, (2017), he noted that organizational performance of manufacturing firms have been facing problems due to supplier development. .In order for firms to compete effectively and survive in the global market, they must maintain and build supplier development with a capable and competent network of suppliers and extract maximum value in manufacturing firms (Cheptora et al., 2018). To develop and maintain such organizational performance and to improve

technical capabilities that are necessary for the manufacturing firm's supplier development paramount. Also according to Osoro and Shale (2019) Supplier's development plays a very vital role in the production value chain. They indirectly determine the quality of the final product. There is therefore need for the manufacturing firms to put in place measures to develop and equip suppliers with prerequisite skills in order to ensure quality supplies and this is done through supplier development. While there is every indication that supplier development is appropriate, steps of supplier development and methods of supplier development can be enhanced to achieve effective procurement functions have received considerable attention (Cheptora et al., 2018).

In Kenya, manufacturing firms continues to experience stiff competition in the market as competitors increase from both local and international enters into the industry. This has led the firms to foster supplier development and relationship mechanisms by providing technical support, financial support and training. According to Policy Research Araz and Ozkarahan (2017) supplier development is perceived to be non-viable; this not only complicates the realization of the government stated objective of seeing increased participation of local suppliers and vendors in doing business. This spurs the growth in employment opportunities across the country, but also raises concern over the social justice in the spending of government funds given the massive amounts of money involved. Many manufacturing firms are faced with the problems of supplier's inability to improve themselves. Also according to Osoro et al. (2015), Supplier development could be employed to manage problems manufacturing firms may experience in their supply networks.

According to Araz and Ozkarahan (2017), they observed that supplier development is limited research on the role of supplier development on organizational performance of manufacturing firm specifically in Kenya. Also Osoro et al. (2015), he did a study on the area of supplier development and specifically on how it impacts on buyer-supplier performance thus little has been researched on its impact to organization performance. Even though some researches have been conducted in suppliers' development, most of these studies concentrated more on how they influence supply chain management and

public institutions. Yegon et al. (2015) did their studies on the effect of supplier development on buyer performance: a survey of sugar milling firms in western region of Kenya. According to Solomon and Ayebale (2017), he did a study on role of supplier development on organizational performance of manufacturing industry in Kenya; a case of east Africa breweries limited. Thus the current study aimed to investigate effect of supplier development management practices on performance of manufacturing firms. Therefore this study was done in the Kenyan context to bridge the existing gaps by the newly created knowledge.

1.3 Objectives of Study

1.3.1 General Objectives

The general objective of the study is to investigate effect of supplier development management practices on organizational performance of manufacturing firms in Kenya.

1.3.2 Specific Objectives

The specific objectives of this study were:

- i. To determine the effect of supplier selections on organizational Performance of manufacturing firms in Kenya.
- ii. To establish the effect of technical capability on organizational performance of manufacturing firms in Kenya.
- iii. To assess the effect of information exchange on organizational performance of manufacturing firms in Kenya.
- iv. To determine the effect supplier evaluation on organizational performance of manufacturing firms in Kenya.
- v. To find out the moderating effect of procurement policies on the relationship between supplier selection, technical capability, information exchange and supplier evaluation on organizational performance of manufacturing firms in Kenya

1.4 Study Hypotheses

The study was derived from the following research hypothesis based on the specific objective above

H₀₁: Supplier selection has no significant effect on organizational performance of manufacturing firms in Kenya.

H₀₂: Technical capabilities has no significant effect on organizational performance of manufacturing firms in Kenya.

H₀₃: Information exchanges has no significant effect on organizational performance of manufacturing firms in Kenya.

H₀₄: Supplier evaluation has no significant effect on organizational performance of manufacturing firms in Kenya.

H₀₅: Procurement policies has no moderating effect on the relationship between supplier selection, technical capability, information exchange and supplier evaluation on organizational performance of manufacturing firms in Kenya

1.5 Significance of Study

The study was important because it sought to establish the effect of supplier development management practices on organizational performance of manufacturing firms in Kenya, with the understanding that performance is very critical in the functioning of these manufacturing companies where ultimate customers relies on for the supply of all products so as to mitigate often shortages in the country. The rationale also proposed ways of managing the supply chain from the upstream to the downstream, so as to smoothen the flow of fuel within links in both locally and internally markets. The study findings were beneficial to various stakeholders as follows:

1.5.1 Manufacturing Firms

The study findings was of great importance to the supply chain managers since it addressed the most critical practices pertaining to supplier development on procurement performance, this contributed to greater understanding on various challenges stakeholders face in Kenya in the manufacturing sector. Also the study was important to investors who increasingly want to make greater profits and maintain good relationship with stakeholders as well as customer loyalty as they seek ways of enhancing delivery of goods and services to the clientele.

1.5.2 Policy Makers

The study findings was of value since it was important to the government as it brought into light various policies which were detrimental to the growth of manufacturing firm in Kenya and address these issues that was identified by the research as was highlighted in the research recommendations. The study was of great importance to the researchers as it gained both theoretical and practical experience on supplier development management and how they influenced organizational performance of manufacturing firms in Kenya.

1.6 Scope of the Study

The study focused on suppliers' development management practices on performance of procurement practices in manufacturing firms in Kenya. The scope of this study covered all manufacturing firms in Kenya, especially in the areas where they are located. The study was undertaken to research on suppliers' development management practices within the scope of the factors addressed by the research's specific objectives. The study was reviewed with the past related studies and this has been explained by the literature review of the study. The study targeted large and medium manufacturing firms in Kenya.

1.7 Limitations of Study

This study was limited to the four independent variables under this study, title i.e. Effect of supplier development management practices and organizational performance of a firm in Kenya is broad. Conceptually, this study was confined to the sample size, target population, the scope, and conceptual framework.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presented various existing theoretical, theories, conceptual framework, variables, empirical review, critic of existing literature, summary and research gap.

2.2. Theoretical Review

The theoretical framework is the structure that can hold or support a theory of a research study (Solomon & Ayebale, 2017). A hypothesis can be explained as an arrangement of explanations or a standard designed to clarify a gathering of realities or wonders particularly one that has been over and over tried or is broadly acknowledged and can be utilized to make expectations about characteristic wonders or event that isn't surely known. Speculations are scientific instruments for comprehension, clarifying, and making forecasts about a given topic (Sternberg & Lubart, 1991). Speculations are syntactic in nature and are just significant when given a semantic part by applying them to some substance, that is, realities and connections of the real recorded world as it is unfurling. This examination is grounded on Gray Theory, Transaction Cost Economics theory, Resource Dependence Theory and social Capital Theory.

2.2.1 Grey Theory

Grey theory is considered relevant in understanding the effect of supplier selection on organizational performance of manufacturing firms in Kenya and hence provides the theoretical background for this study. Grey system was originally developed on the basis of grey sets, is an important methodology for solving problems which involve uncertainties and aims at handling systems with unknown or incomplete information (Sternberg & Lubart, 1991). A grey system is a system which contains both known and uncertain unknowns. According to the theory, the information is classified into three

categories (Deng, 1989). This classification depends on the degree of information obtained. It is said to be white when it is completely certain; black when it is totally unknown and grey when it is insufficient. Grey based approach is an effective mathematical means to deal with systems analysis characterized by incomplete and uncertain information. According to Sternberg and Lubart (1991) in recent years, a fuzzy-based approach has been proposed to deal with the supplier selection problem under uncertainty, but the advantage of grey theory over fuzzy theory is that grey theory also considers the condition of the fuzziness; in other words, grey theory can deal flexibly with the fuzziness situation.

According to in grey method, the buyer calculate a grey possibility degree between compared suppliers alternatives set and ideal referential supplier alternative to determine the ranking order of all alternatives of supplier and to select the ideal supplier based on grey numbers. The drawback of the method is that the negative ideal referential alternative is not considered to evaluate and rank the alternatives (Deng, 1989). Sometimes, the selected solution (candidate supplier) which has the minimum grey possibility degree from the ideal solution may also has a lower grey possibility degree from the negative ideal solution as compared to other alternatives. In manufacturing industries the raw materials and component parts can equal up to 70% of the product cost. In such circumstances the purchasing department can play a key role in cost reduction, and supplier selection is one of the most important functions of purchasing management. When a relatively few parts are procured externally, the total demand can be provided by only one supplier (Sternberg & Lubart, 1991).

Such a sole sourcing scenario appears to be tenable especially in the last decade, which has seen an important shift in the sourcing strategy of many firms, moving from the old concept of having many suppliers to rely largely on one supplier with which a long term win-win partnership is established. In this situation, the decision consists of selecting one supplier for one order in order to meet the total buyer's demand (Deng, 1989). Supplier selection is a multiple-attribute decision making problem, since it involves various criteria to be considered. Besides it includes both quantitative and qualitative

criteria which some of them may include uncertainty and sometimes they may be conflicting. In resolving such decision making problems, there are many relevant methods. The grey theory is a new and different approach which handles the uncertainty of a system. And supplier selection problem which sometimes involves uncertainty can be seen as a grey system. The importance of the attributes and the ratings of attributes can be expressed in grey numbers which gives the flexibility to express decisions more easily (Sternberg & Lubart, 1991). Grey theory model is suitable to the decision-making under more uncertain environments. Grey theory provide a viewpoint on the attribute values in rough set decision table under the condition that all alternatives are described by linguistic variables that can be expressed in grey number (Deng, 1989). The most suitable supplier can be determined by grey relational analysis based on grey number. This theory was very important and relevant in the supplier selection objective of this study

2.2.2 Transaction Cost Economies Theory

Transaction Cost Economies Theory is considered relevant in understanding the effect of technical capability on organizational performance of manufacturing firms in Kenya and hence provides the theoretical background for this study. The theory of Transaction Cost Economics (TCE) was supported by Williamson in 1979. Transaction Cost Economics (TCE) is an economic theory that offers an analytical framework to investigate the contractual relationship governance structure within a supply chain. The theory of Transaction Cost Economics (TCE) examines how company partners working together shield each other from a demanding subsidiary with different relationships (Sternberg & Lubart, 1991). It was the most significant new institutional theory that emphasizes the choice on the predicament of sourcing, whether to outsource or not. A company's sourcing situation is also defined as a company's make-or-buy choice. The two primary drivers of Transaction Cost Economics are uncertainty caused by the external environment and costs, which consist of Coordination costs and Transaction costs, uncertainty and costs, are influenced by the human agent, an individual

distinguished through bounded rationality and opportunism, in order to dissect transaction costs (Deng, 1989).

Transaction cost theory tries to reveal why many companies are in existence, and why companies expand or source out deeds to the firms in external environs. The transaction cost theory assumes that majority of firms try to reduce the costs of exchanging resources within the environment and that these firms try to curb the bureaucratic costs of exchanges within the company. Many of these companies are as a result weighing the prices of switching resources with the environs, against the bureaucratic costs of performing activities in-house. Xingxing (2012) further clarify that, the theory refers to the idea of the cost of providing for goods or services if it was purchased in the marketplace rather than from within the firm and elaborate the three concepts that underpin the theory i.e. transaction costs, asset specificity and asymmetrical information distribution. Transaction costs are comprised of search and bargain costs; bargaining and decision costs; and policing and enforcement costs. Asset specificity refers to the relative lack of transferability of assets, e.g. sites, physical assets, human assets, brand names, dedicated assets, etc., intended for use in a given transaction to other uses (Deng, 1989).

A publication of Sternberg and Lubart (1991)) points the need for further elaboration of the link between TCE and supply chain management, where TCE examines individual transactions, while supply management introduces a broader systems perspective in which groups of related transactions are managed as chains. Transaction Cost theory might be one of the most important organization theories because of the studies that have been encouraged trough it Xingxing (2012) and is one of the main perspectives in organizational studies. The vital commitment of Transaction cost economics to organization theory, resulted in a wide range of empirical contributions, using transaction cost economics, for instance as a make or buy decision help, or verification of the right contract mode.

In procurement activities, the main activities of Transaction cost economics are centered within 5 processes, namely category strategy, supplier strategy, quotation supplier selection and negotiation, operative procurement and supplier evaluation. Within the first process, the category strategy, the buyer puts equal products into one pool and can then determine a strategy for this pooled group. A strategy could vary from single vs. multiple sourcing, or international vs. national sourcing. According to Sternberg and Lubart (1991) for a supplier strategy, one might identify the purchasing volume, and level of dependency on the supplier to create a supplier strategy. For supplier selection and negotiation, one can choose between competitive bidding and negotiation. Coming to the operative procurement step, this step assists the supplier to act according to what has been negotiated beforehand. When the supplier is providing the buyer with the component, one can measure performance of the supplier, which can be indicated through quality, costs and service (Deng, 1989).

Comparing the actual performance to the required performance agreed on in the contract might also be of help. Looking at the Primary decisions of the purchasing network, it is focused on the make or buys decision, sourcing strategies, creating a supplier portfolio and supplier negotiation and contract awarding. All of those decisions can indirectly or directly be influenced by Transaction cost economics (Deng, 1989). As one analyses the decision points and possible contributions of TCE, this study arrives at the point that the make or buy decision, or in this case make, hybrid, or buy is even examined through a guideline given and therefore directly supports strategic decision making in the make or buy decision. (Xingxing, 2012) argued that the company should make a component if transaction costs cannot be kept low, use a hybrid governance approach if asset specificity is high but transaction costs can be kept low through the safeguards provided in the contract, and use the market if the component which has to be supplied has low asset specificity. Coming to the sourcing strategy, whether to use multiple suppliers or a single supplier, one might use the same approach of the human agent as being opportunistic and limitedly rational, as in the make or buy decision. Single sourcing is used when the supplier offers special technology, which can lead to a competitive

advantage of the company; however the relationship has to be safeguarded to ensure a cooperative relationship.

Multiple sourcing can be applied when the component is placed within an unassisted, highly competitive market, mostly not providing any special technology that leads to a competitive advantage (Deng, 1989). When creating a supplier portfolio the company pools suppliers with the same activities into one pool, however since there is a difference between special technology suppliers, and suppliers providing low asset specificity, one might differentiate between parts that provide a competitive advantage and parts that do not and therefore pool only suppliers with high asset specificity for components delivering a competitive advantage and pool only suppliers with low asset specificity for suppliers providing components that do not lead to a competitive advantage. Coming to supplier negotiation and contracting, the underlying assumption that the supplier tries to get the best deal because of opportunistic behavior, and differentiation between non-specific technology assets and assets with special purpose technology can contribute to the inclusion of safeguarding mechanisms within contracts (Deng, 1989). Organizations may need to choose whether to purchase a segment from a solitary supplier or from various suppliers. Transaction Cost Economics serves as assistance for that choice. Sternberg and Lubart (1991) argued new product development needs early supplier involvement and fluent exchange of information and thereby support single sourcing for those circumstances which already indicating advantages of single sourcing. Some people might see an advantage in single sourcing, which could take place in the decision to outsource a component.

The vital commitment of Transaction cost economics to organization theory, resulted in a wide range of empirical contributions. Transaction Cost Economics (TCE) inspects how business partners who collaborate with each other shield one another from harmful subsidiary with differing relationships. It has been the most important new institutional theory which puts the accentuation on the decision on the sourcing predicament, if to outsource or not (Deng, 1989). The sourcing situation of a firm is likewise described as the make-or-buy decision of a firm. The two primary drivers of Transaction Cost

Economics are uncertainty caused by the external environment and costs, which consist of Coordination costs and Transaction costs.

2.2.3 Resource Based View Theory

Resource Best View Theory is considered relevant in understanding the effect of information exchange on organizational performance of manufacturing firms in Kenya and hence provides the theoretical background for this study. Resource Best View Theory (RBVT) promoted this study of how the external resources of organizations affects the performance of the organization RBVT proposes that actors lacking in essential resources will seek to establish relationships with (be dependent upon) others in order to obtain needed resources (Deng, 1989). Also, organizations attempt to alter their dependence relationships by minimizing their own dependence or by increasing the dependence of other organizations on them. Within this perspective, organizations are viewed as coalitions alerting their structure and patterns of behaviour to acquire and maintain needed external resources. Acquiring the external resources needed by an organization comes by decreasing the organization's dependence on others and/or by increasing other's dependency on it, that is, modifying an organization's power with other organizations.

RBVT rest on some assumptions: Organizations are assumed to be comprised of internal and external coalitions which emerge from social exchanges that are formed to influence and control behavior (Deng, 1989). The environment is assumed to contain scarce and valued resources essential to organizational survival. As such, the environment poses the problem of organizations facing uncertainty in resource acquisition. Organizations are assumed to work toward two related objectives: acquiring control over resources that minimize their dependence on other organizations and control over resources that maximize the dependence of other organizations on themselves. Attaining either objective is thought to affect the exchange between organizations, thereby affecting an organization's power (Sternberg & Lubart, 1991).

Organizations, in their exchange relations, strive for competitive advantage thus becoming somewhat dependent on the other partner. RDT advocates that some firms have additional power than counterparts due to their interdependency features and their social situations. Just like buyer will depend on suppliers for external resources and sellers on buyers for precious markets (Deng, 1989). Also, organizations attempt to alter their dependence relationships by minimizing their own dependence or by increasing the dependence of other organizations on them. Within this perspective, organizations are viewed as coalitions alerting their structure and patterns of behaviour to acquire and maintain needed external resources. Acquiring the external resources needed by an organization comes by decreasing the organization's dependence on others and/or by increasing other's dependency on it, that is, modifying an organization's power with other organizations.

The procurement of external resources is an important tenet of both the strategic and tactical management of any company. Resource Best View Theory has implications in the procurement effectiveness of the buying firms especially in tapping into the relationship with suppliers as their important and dependable partners. Thus this theory props up the notion of supplier development and proposes that actors lacking in essential resources will seek to establish relationships with others in order to obtain needed resources (Deng, 1989).

2.2.4 Social Capital Theory

Social Capital Theory is considered relevant in understanding the effect of supplier evaluation on organizational performance of manufacturing firms in Kenya and hence provides the theoretical background for this study. Social capital theory was advocated (Sternberg & Lubart, 1991). Social capital refers to the norms and networks that enable people to act collectively. The principles of this theory is that, while different entities in a capitalistic society have their personal objectives and goals to focus on accomplishing, players have realized that combining efforts with likeminded partners yields better results than working in isolation. The supplier strives to sell their products to any buyer

who can offer the best price without any regard to the relationship. This theory underpins the need for establishing working relationships between a buyer and a supplier to enhance mutual benefits (Deng, 1989). This therefore calls for both firms deploying their resources in support of each other so as to realize common goals. The buyer therefore commits their firm's resources and infrastructure to support their selected suppliers to enhance their capabilities in production related activities whose effect is shared by the buying firms.

Sternberg and Lubart (1991) agreed that supplier development can be conceptualized through a social capital theory lens, and that this effort provides valuable insights into the different dimensions of social capital as they pertain to relationships between industrial buying firms and their suppliers. Likewise, Xingxing (2012) provides support for the theory that buyer commitment and social capital accumulation with key suppliers can improve buying company performance. Using a social capital lens, this study aims to better understand the value created by firms willing to commit to long-term relationships and to develop social capital with key suppliers through supplier development. The study will also try to leverage social capital theory to explain the value created for buying firms committed to supplier development (Deng, 1989).

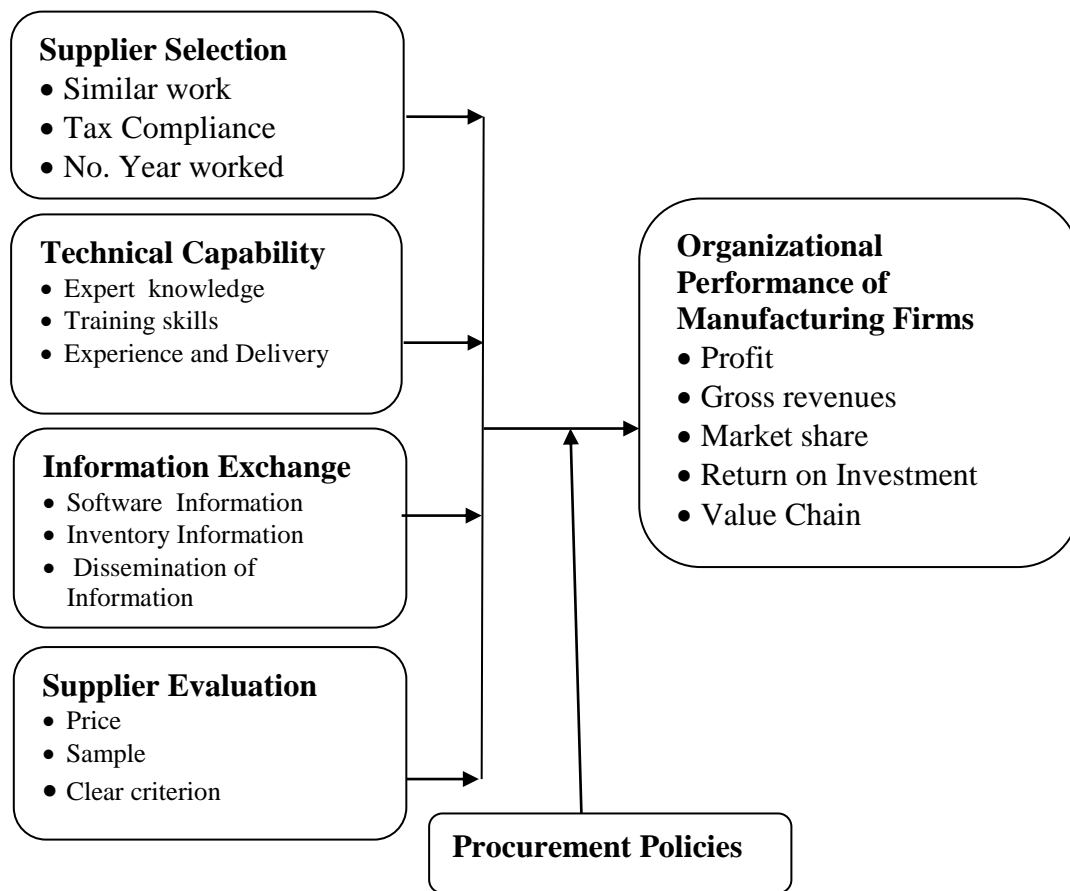
The social capital theory recognizes that relationships can be a source of physical and informational resources. Research has shown that the use of these resources can help organizations to achieve positive outcomes, such as improving organizational performance Xingxing (2012) explain the characteristics of buyer-supplier relationships and how they affect the performance of companies. However, there are benefits and disadvantages in the use of social capital in the collaborative relationship between buyer and supplier. Relationship actions involving the three dimensions of social capital (cognitive, relational, structural) most suitable to improve the buyer's operational performance (cost, quality, delivery, flexibility and innovation) of company need to be explored in the area of operations management (Deng, 1989).

Social Capital Theory is one of the approach that help to understand how firms obtain resources that exist outside their boundaries and access the benefits of developing closer ties with other parties. Social capital theory is considered one of the more useful perspectives for theorizing the nature of connection and cooperation between organizations. SCT supports the idea that people and relationships between organizations are instrumental to competitive advantage (Deng, 1989). As cooperation between buyers and suppliers increase, it is important that researchers and practitioners alike increase their awareness of social capital and how it can impact the performance of buyer-supplier relationships. Summaries the benefits of building social capital in supply chain relationships as: increased ability to create value for both parties; flexibility and speed of joint responses to market or customer; and optimization of costs and resources. They suggest that, social capital is the relational glue that underlies effective supply chains. Xingxing (2012) illustrate how social capital facilitates not only the general buyer-supplier relationship interaction process, but also specific operational metrics within the relationship. Sternberg and Lubart (1991) suggested that the collectivity and shared purpose associated with social capital help to establish appropriate practices between buyers and suppliers. An increasing amount of research suggests that by building social capital through the enhancement of supplier relationships, the performance of the entire supply chain can be improved and strengthened (Deng, 1989). However, as is the case with other forms of organizational capital, social capital will only appropriate value to a relationship if it is effectively managed and governed. In this paper, social capital theory is used to explore the contextual factors which encourage adaptability and the development of trust in the supply chain and more so between the supplier and buyer.

2.3 Conceptual Framework

Conceptual framework is a concise description of the phenomenon under study accompanied by graphical or visual depiction of major variables under. According to (Xingxing, 2012) conceptual frame work is a diagrammatical representation that shows the relationship between dependent variable performance of procurement function and

independent variable supplier development management practices. The supplier development management practices under consideration: supplier selections, technical capability, and information exchange and supplier evaluation.



Independent Variables

Moderating Variable

Dependent Variable

Figure 2.1: Conceptual Framework

2.3.1 Supplier Selection

Supplier selection is mostly seen as the most vital role of the organizational performance since the organization's suppliers can affect the price, quality, delivery reliability and availability of its products (Das & Buddress, 2017). Organizations feel that proper supplier selection would assist reduce product and material costs whilst ensuring a high degree of quality and after-sales services. The implication here is that an efficient appraisal should be in place for the successful supply chain management. The selection and evaluation of suppliers is an area which has attracted the attention of most studies, and there are several approaches to support decision making on this issue (Cheptora et al., 2018). One of the most important aspects for companies' success is the relationship between companies and their suppliers. Consequently, the way that a supplier is selected is crucial to the outcome of the business. Cheptora et al. 2018) they observed that the supplier selection problem is a multi-criteria decision-making problem in the presence of various criteria and sub-criteria, be they quantitative or qualitative. Due to this characteristic, there arises the need to use more robust tools for decision support.

Therefore, it is important to note that cost and quality dominated more in the supplier selection process. Suppliers have to be selected carefully, as they can have a very positive or a very adverse impact on the overall organization performance of manufacturing firms (Akudo, 2016). It has been reported that a majority of quality problems of an organization are due to defective material and carefully selected, competitive suppliers can go a long way in minimizing adverse impacts and in fact in enhancing positive impacts on the quality of output of an organization. Selection of the right suppliers is one of the critical strategies for enhancing the quality of output of any organization, which has a direct influence on the company's reputation since they can have a very positive or a very adverse impact on the overall performance of the organization (Das & Buddress, 2017)..

Akudo (2016), he asserts that, in the current context of globalization, companies are increasing the focus on their core business and outsourcing their other activities. This behavior increases the importance of the process for selecting suppliers. While small firms select partners based on criteria which determine the lowest costs, large companies must select their suppliers more carefully, by considering different criteria that seek a long-term relationship with their suppliers. In a supply chain, collaboration between the company and the supplier is the most important connection of the distribution channel. The global competitive environment, make the organizations highly dependent on the success of the supplier selection process. The lack of coordination or error in this process may lead to excessive delay or poor customer services. In this sense, as it has direct influence on reducing the costs, on profitability and flexibility of a business, decisions taken by the purchasing department significantly affects the efficiency and effectiveness of the business (Alatas, Banerjee, Chandrasekhar, Hanna & Olken, 2016).

Supplier selection problem is vital for a company operating in a competitive environment. Selection of suppliers is closely related to the purchasing department apart from other parts of the company. Supplier selection is a strategic decision. Because of the strategic importance, the risk and the uncertainty it involves, it requires the participation of decision-makers from marketing, finance and from the other departments such as production in the selection process besides the purchasing department. With this aspect it is a group decision-making process (Das & Buddress, 2017). Supplier selection is a problem which includes both quantitative and qualitative criteria. Some of these measures may include uncertainty and sometimes they may be conflicting. While some of the criteria can be measured numerically, some of them can be expressed verbally as they may involve uncertainty (Alatas et al., 2016).

Anzette (2016) pointed that supplier selection is often a complex process as this process is under the influence of a number of unforeseen factors and uncontrollable factors which affect the decisions to be taken. Supplier selection is a Multiple Attribute Decision Making (MADM) problem that is affected by several quantitative and qualitative factors, some of which may conflict. The decision making preferences always

expressed on alternatives or on the attributes of suppliers that can be used to help rank the suppliers. Generally, the input information, DMs' judgments, is often uncertain and cannot be estimated by an exact mathematical value. Thus, supplier selection problem has many uncertainties and becomes more difficult. To overcome this drawback, Alatas et al. (2016) proposed a new grey based approach to deal with the problem of selecting suppliers under an uncertain environment (Das & Buddress, 2017).

Supplier development programme has primarily two objectives. First is to reduce the problems of supplier by making immediate changes in the supplier's operations and second is try to increase suppliers capability in such a way that supplier will be able to make its own improvements . Later on this study used by Alatas et al. (2016) in their study of Process oriented supplier development. They focused on 2nd objective and found positive result for supplier development. Many supplier development programs are results-oriented and focused on solving specific problems of suppliers. These results-oriented programs will make improvements in their suppliers' quality and cost. Results oriented supplier development increases the performance of supplier but not helps supplier to increase their capabilities for continuous improvement. From the graph we can easily conclude that process oriented programmer is for continuous improvement of supplier over result oriented programmer (Das & Buddress, 2017). Result oriented programmer also have certain advantages like fast implementation of proven process, quick identification of problem and quick solution which will give buyers side team rich experience to solve successive problems of suppliers selection but this will have disadvantages like less commitment from suppliers side, limited transfer of continuous process knowledge to suppliers and less improvement in suppliers capability to solve problems on their own (Alatas et al., 2016).

2.3.2 Technical Capability

Technological capability is critically important to the future competitiveness of manufacturing industry. Anzette (2016) describe a typology of small and medium sized manufacturing suppliers, where the technology specialists and problem-solving suppliers

are likely to be the most critical in terms of their technological contribution to the end product. It is crucial for their customers that these suppliers maintain and develop their technological capabilities, regardless of the size of the supplier company. Improving suppliers' technological capabilities obviously requires a long-term focus. Technical capability relates to engineering issues and the supplier's capability to meet performance and technical specifications and requirements (Das & Buddress, 2017). Activities related to the provision of technical support are fundamental to suppliers' performance. This technical support might consist of direct investment in equipment and personnel of the suppliers, evaluation of supplier performance and sharing feedback on the evaluation results, visiting suppliers' plants, and supplier certification.

Technical capability refers to factors in the supplier's operational capacity and facilities, which acts as indicators of its ability to meet the purchaser's current and future requirements (Basheka, 2016). The technical or operational capability factors that a buyer needs to take into account when appraising suppliers include: age and maintenance of plant and machinery, capabilities in operational areas such as engineering, innovation, design, reverse logistics JIT, late customization, and recycling, capability of plant and machinery to produce items within the tolerance set by specifications, volume that supplier may handle and whether the supplier can produce the kind of items required (Anzetse, 2016).

Suppliers' need competent technical ability to provide high quality product or service, ensure future a rise in performance and promote successful development efforts. This is very important when the firm's strategy included the development of a new product or technology or access to proprietary technology (Basheka, 2016). These technical criteria insist company to shift into the global market place. This factor has been measured on the basis of the importance of the following technical areas: compliance with quantity, compliance with due date, compliance with packaging standard, production planning systems of suppliers, maintenance activities of suppliers and plant layout and material. The potential production capability of each supplier should be analyzed to meet a specified Production plan and also to develop a new product according to the market

demand. Therefore the production facilities and ability of the supplier to improve its capacity should also be taken into account in order to Judge the best one (Das & Buddress, 2017).

The need for advancement in the technological capabilities of suppliers has been identified in the supplier development literature, , although improving quality, cost and delivery (QCD) performances clearly remain priority goals of Supplier development (Christianne, 2016). Improving supplier technical capability and enhancing supplier product development capability have been ranked 5th and 6th respectively, but despite this relatively low ranking, companies in the US still aportion improvements in access to new technologies to their SD effort. Technological capability has been linked to SD as part of a vision of integrative development (development aimed at achieving a globally aligned supplier network. This includes the integration of suppliers in new product and process development, and considers issues such as outsourcing design, sharing technology roadmaps, and supplier co-location. Very few companies have made any inroads at this advanced level of supply base management (Das & Buddress, 2017).

Christianne (2016) pointed that there is no organization better than its workforce. A buyer should therefore consider the following when appraising employee capability: the degree to which employees are committed to quality, the overall skills and abilities of the workforce, employee-management relations, worker flexibility, employee morale, workforce turnover, willingness of employees to contribute to improved operations, days lost due to industrial dispute and worker representation and recognized trade unions among others (Das & Buddress, 2017). Technical aid from the buyer towards supplier can increase knowledge transfer between two parties involved in a transactional relationship. Example of technical support could be by sending engineers from buying companies to suppliers with the goal to increase its efficiency (Drechsler, 2016). Technical support is one category of investment that can be done by buying firms because buyer's investments could be by investing directly in a supplier capital or by investing in supplier technical support or training.

Buyer assistance towards suppliers can take several forms, for example, efforts done by buying companies in order to help supplier's to solve problems, also to improve performance and capabilities. Supplier development can take several aspects including providing equipment or capital. Das and Buddress (2017) added that supplier development by equipping supplier by technological support, equipment, or even by direct investments. Based on Drechsler (2016) findings, transfer of capital resources is much less compared to transfer of human resources from a buyer company towards suppliers. He also found that transfer capital from a buyer to a supplier is quite rare.

2.3.3 Information Exchange

Effective information exchange communication is demonstrated throughout the literature as essential to successful supplier development by creating rich knowledge. Drechsler (2016) discussed the critical nature of information sharing due to the necessity of providing the firm's data to their supply chain partners in order for "operational connectivity" of an activity to occur. Strategic firm partners must provide each other with a landscape of data such as inventory levels, forecasts, sales promotion strategies, production runs, marketing plans and feedback to suppliers from supplier evaluation in order to reduce uncertainty between each other and to properly plan for their own business needs (Das & Buddress, 2017). Information sharing contributes to the improvements in visibility between firms, production planning, inventory management, product quality as well as creating easier transitions when engaging in new supplier development projects, encourages commitment and cooperation and helps the buyer and seller through the adaptation of processes. Drechsler (2016) affirm in their own research that the sharing of information results in increased commitment between supply chain partners. Most of the available empirical literature has concentrated on developed countries. Such studies in developing countries such as Kenya are needed also.

The exchange of information with supply chain partners is critical to the success of the supply chain. Information exchange is described by Erik and Vennström (2016) as "frequent information updating among the chain members for effective supply chain

management.” In this dynamic and unpredictable world, an organization’s capability to access the right information at the right time holds the key to sustenance and longevity. As the suppliers are important and integral part of supply chain management and supplier management an important part of any organization’s performance, having the right information on suppliers and supplier’s performance becomes imperative. Effective inter-organizational communication could be characterized as frequent, genuine, and involving personal contacts between buying and selling personnel (Das & Buddress, 2017).

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Inventory information is one of the types of information that supply chain members like to share the most. For example, one of the most discussed systems for improving supply chain efficiency is the Vendor-Managed Inventory (VMI) system for exchanging inventory information. The establishment of VMI system usually requires partnership between supply chain members, in which the supplier makes replenishment decisions based on the buyers specific inventory and the specific policies agreed on both members. Therefore, it clearly indicates that in order to make replenishment decisions, suppliers need to be clear about both their own stocking point and the customer’s receiving point. Gogtay and Thatte (2016) argued that in a general customer-supplier interface, orders

from downstream are always taken as demand information and further critical for upstream companies to make future decisions, however it cannot replace sales data. Firstly, orders are processed or based on information made by the downstream companies with their ideas or bias, can no longer truly demonstrate the demand of the marketplace. This is because the variance of orders tends to amplify when it moves upstream (Das & Buddress, 2017).

In contrast to sales data, sales forecast refers to the data that shows future demand of the marketplace made or calculated by companies. Traditionally it is always considered that only retailers are responsible for making sales forecasting because they are closer to the market, however it is necessary to have a 'collaborative forecasting' in which different actors combine their forecasting efforts. For example, when a manufacturer can make more accurate forecasting based on its comprehensive knowledge, it would be a pity for retailers if the manufacturer did not give this information. Gogtay and Thatte (2016) pointed out that under a situation where the manufacturers and retailers both hold their sales forecasting, manufacturers have to calculate forecasts 'blindly' and the retailers cannot improve their forecasting ability. Thus, the collaborative forecasting and replenishment (CFAR) can be a solution to this problem, which requires both customers and suppliers to exchange information towards developing and forecasting together (Das & Buddress, 2017).

According to Gordon (2016) order information has two aspects: the order details in terms of type and quantity of products, and the order status for tracking and tracing. For the former aspect, it means customers have to give the related information when placing an order. As for the latter aspect, claimed that the estimated delivery time and place, and delivery performance in terms of on-time delivery are also included in it. Thus, suppliers need to inform customers about this related information when they sending out an order. Lacking of this aspect of order information can easily lead to misunderstanding and dissatisfaction from customers, because they do not know exactly where the products are and when they can be delivered (Gordon, 2016). This problem is even more evident under the trend of companies outsourcing non-core business such as delivery activities

to stay competitive. Product information not only includes the details of product itself, but also includes production schedule, producing ability and the exploitation information of new products (Gross & Soriano, 2016). This type of information is always considered given by the manufacturer between customer-manufacturer interfaces. Therefore the customers need the details of products to make ordering decisions. Besides, they also need production schedule and producing ability of the manufacturer to ensure a reliable delivery. Furthermore, in order to launch new products to market, it also requires the manufactures to give exploitation information about the new product. Despite the importance of information sharing among the firms, the extent of benefits of information to different organizational entities is not well quantified. Thus the current study aims to investigate the influence of information exchange on performance of procurement function in manufacturing firms in Kenya context (Das & Buddress, 2017).

2.3.4 Supplier Evaluation

First step of supplier development is supplier's evaluation because after this buyer can identify areas of supplier where improvement is needed. This step helps to point out exact cause of problem i.e. whether the problem is in material or in design or in production process or in workmanship (Gross & Soriano, 2016). Suppliers basically get evaluated on the basis of parameters like technical capabilities, quality, cost, delivery, managerial capabilities. On basis of these parameters suppliers are classified in to groups. So supplier evaluation is integral part of supplier development which serves as a platform for launching supplier development programm. This phase will mention problem of supplier which will be basically related with product, process and operating system. Combining supplier's problem and supplier development programmer a matrix will form which will give guideline that which supplier development plan is necessary for which problem. Gordon (2016) in his study of buyer- supplier's relationship and its outcome on performance found that supplier evaluation provides a better view to buyer regarding which suppliers are doing well and which are not (Das & Buddress, 2017). This also helps buyer to identify where a particular supplier is weak to make improvements.

Evaluation also helps buyer to create long-term relationships with suppliers who are doing well and this long term relationship helps for continuous improvement to remain competitive. Basic parameters for evaluation are quality of product, price delivery, service and support. Judith, Bich and Per (2017), they worked on performance evaluation in a large multinational organization. Here they evaluated suppliers based on parameters like on time delivery, quality and total cost. He gave 40 % weight to on time delivery, 40% weight to quality (Parts per million) and 20 %weight to total cost. Then found the total score by adding score of these 3 parameters and rank suppliers (Kakwezi & Nyeko, 2016). On Time Delivery (OTD) =Number parts received on time / Number of total parts expected *(100) Parts Per Million (PPM) = 1000000/ Parts Received * (Parts Returned) Total Cost =1-(cost of quality /cost of materials received for the period) After evaluation, based on these parameters they have reduced their supplier from 23,225 to 8,024 which helped buyer to found best performing suppliers and to eliminate those not doing well. So as supplier base got reduced it helped buyer to come closer to suppliers to build long term relationship. Result of reducing the number and improving the quality of suppliers resulted in increased quality, reduced lead time and reduction in the number of errors and defects (Kerzner & Kerzner, 2017).

Das and Buddress (2017) in their study of Supplier evaluation processes found that there should be shaping and reshaping of supplier performance to raise quality and to remain competitive. They mentioned 13 different factors on which supplier's evaluation can be sharpened. Factors shaping the design of supplier evaluation systems are evaluation group structure, decision-making authority, performance complexity, assessability/ measurability of data. Then factors shaping the implementation of supplier evaluation systems are rating/translation models on supplier performance, buyer logic on how to motivate suppliers, instability of supplier evaluation system, resource consumption in updating data. Then factors shaping the use of supplier evaluation systems are addition of information, failure to benchmark supplier performance, failure to relate to buying company performance, unwillingness to inform suppliers, re-communicating performance data (Kerzner & Kerzner, 2017). Again they classified these 13 factors into a

set of five generic dynamics as representing, reducing, amplifying, dampening and directing. Representing is act of speaking on behalf of supplier performance. As part of the design phase, representation issue plays a major role in shaping supplier performance. Reducing is act of making an object smaller or less in amount. Here object of reduction is data for evaluation of supplier (Judith et al., 2017).

This information is useful in directing supplier's effort. Amplification is act of making an object more marked or intense. Here buyer amplifies drawbacks of suppliers for improvement. This step should be handled in such a way that supplier should not get demotivated (Kerzner & Kerzner, 2017). Dampening is an act of restraining or depressing an object. By dampening the signal buying company may succeed to some extent in restoring face and goodwill but can create confusion for evaluated suppliers in terms of accuracy, reliability and seriousness of the entire evaluation exercise. Directing is act of assigning a route for an object. If directing goes in correct direction then it can create drastic performance improvement in supplier. Das and Buddress (2017) in his study of benefiting from supplier operational innovativeness with the influence of supplier evaluations and absorptive capacity found that supplier evaluation programme (SEP) and absorptive capacity are both means to increase operational innovativeness (OI) of supplier.

Supplier evaluation programme by buyer with good direction helps to encourage operational innovativeness of supplier which helps buyer to remain competitive. Author used evaluation parameters as product development and quality, manufacturing design and capability, manufacturing and design capacity (Krause, Handfield & Tyler, 2017). Operational innovation mainly relates with process improvement, new tool with higher speed, new product development and new concept. He also found absorption capacity influences operational innovativeness. Absorption capacity mainly includes routine search, new technology, learning from supplier and customer, communication and personal adequacy. For increasing innovativeness of supplier evaluation should be effective. Effective evaluation should have incentives i.e. for suppliers who are doing good innovation buyer should recognize and reward to increase confidence and

motivation of supplier. Also effective evaluation should have proper assessment (Judith et al., 2017).

2.3.5 Organizational Performance of Manufacturing Firms

Organizational Performance should not be the concern of the buying firm only. Krause (2017) his research on relationship management and organization performance concluded that trust is also essential and advantageous to the supplier firm, which has to make efforts to establish, extend, and retain the buying firm trust, especially when such trust can lead to more benefits for the supplier. It also concluded that although trust building is a costly, difficult, and time consuming procedure, it leads to strong, successful, and long-term buyer-seller relationships (Das & Bুদ্ধ, 2017).

Krause (2017) studied the Effect of Supplier development Management Practices on performance on Manufacturing Firms in Kisumu County, Kenya. Her study found out that trust is a critical factor fostering commitment among supply chain partners. She further discovered that the presence of trust improves measurably the chance of successful supply chain performance. A lack of trust among supply chain partners often results in inefficient and ineffective performance as the transaction costs (verification, inspections and certifications of their trading partners) mount. Although the literature often mentioned a relationship between trust and commitment, there was a lack of empirical testing of such relationship in the supply context. The study attempted to fill the gap between the theoretical argument and empirical testing. Results using a comprehensive survey of supply chain practitioners indicated that a firm's trust in its supply chain partner is highly associated with both sides' specific asset investments (positively) and behavioral uncertainty organizational Performance (Das & Bুদ্ধ, 2017).

In order to face with globalization and increase the competitive edge, manufacturing companies are becoming more horizontal integrated. Therefore, manufacturing companies focus on its core competencies and outsource other supplies (Krause, 2017).

In this regards, performing well from suppliers is an important issue to meet the manufacturers' expectation. Having a network of capable suppliers is necessary for the buying companies in the competitive marketplace. Such a network can be maintained by set up a supplier development to boost up the performance and capabilities of the respective suppliers in ever-increasing demand environment. A supplier development is playing crucial role in the supply chain, therefore it is difficult to disregard its importance. Supplier development contributes the companies in terms of "creation and maintenance of appropriate suppliers, quality, technicality, cost capability and delivery with continues improvement". According to Das and Buddress (2017) main purpose of supplier development is long-term contract in mutual benefit along with enhancing insufficient supplier's performance. Locke and Latham (2016) refer to supplier development as a strategic asset, in order to achieve higher efficiency. The requirement of long-term mutual commitment between buyers and suppliers is also necessary in this regards. Thus, companies have understood the benefit of the supplier development and focus to improve the supplier's performance through supplier development program.

Potential factors that impact on organizational performance have also received attention from a corporate governance perspective. Krause (2017) assessed the effect of corporate governance in Sugar manufacturing firms on their performance. The study used manufacturing firms drawn from Western Kenya and correlation analysis to show that corporate governance practices have positive correlations with organizational performance. Specific practices that come to focus here include characteristics of the board; top management, and stakeholder communication Locke and Latham (2016) identify strategic leadership variables such as human capital, ethical practices, and strategic direction as relating positively with organizational performance in the case of the not for profit organizations. On the other hand Masinde and Osoro (2019) investigated employee empowerment and how it impacts on organizational performance. The study explored the case Tata chemicals in Magadi Kenya and found out that employee empowerment through information sharing and training tended to have a moderate impact on organizational performance. Das and Buddress (2017) contends that

in order for any responsive organization to meet its desired procurement goals such as the transformation of: functions to processes; inventory to information; products to customers; profit to performance and transactions to relations, there is need to continuously monitor the key measures of procurement performance.

It is argued that despite the wide array of measures that can be deployed to measure procurement performance, the success of the measurement relies basically on a few indicators which can be determined by use of the balanced score card (Masinde & Osoro, 2019). The balanced scorecard takes cognizance of the procurement goals which are often a mix of the organizations internal measures for managing resource utilization and total quality measures expected by customers. Moreover, observations have been made to the effect that adherence to supply chain practices has potential to reduce operational costs and result in outputs that match organizational goals. More evidence on the importance of supply chain practices is attributed to Das and Buddress (2017), they argues that satisfactory procurement performance has a direct impact on firm profitability, supplies, quality and competitiveness. There is no doubt therefore that use of appropriate supply chain practices remains the panacea to challenges facing the textile industry in Kenya

2.4 Empirical Review

2.4.1 Supplier Selection

Before selecting suppliers, a firm must decide whether to use single sourcing or multiple suppliers. The selection of suppliers is done using a variety of mechanisms including offline competitive bids, reverse auctions, or direct negotiations. No matter what mechanism is used, the selection should be based on the total cost of using a supplier and not just the purchase price. Masinde and Osoro (2019) points out that supplier selection is one of the most important decision making problems, since selecting the right suppliers significantly reduces the purchasing costs and improves corporate competitiveness. However, supplier selection decision-making problem involves trade-

offs among multiple criteria that involve both quantitative and qualitative factors, which may also be conflicting.

In other words, buyer supplier relationships based on only the price factor has not been appropriate in supply chain management recently. Considerations have been given also to the other important strategic and operational factors such as quality, delivery, flexibility, etc. Supplier selection decisions must include strategic and operational factors as well as tangible and intangible factors in the analysis. Das and Buddress (2017) explained that an ideal supplier is defined by the procuring enterprise which fixes the ideal scores (e.g. the best performing suppliers in the market of every relevant criteria. The rating team should consist of several departments of the enterprise such as procurement, production, controlling. He also agrees that the best suppliers should be selected on the main criteria of price, quantity, quality, logistics and service. In accordance with relevant logistics literature, these criteria are of great importance for supplier selection. The price i.e. the offer price including discounts and payment terms. Quantity refers to the ability of a supplier to deliver small amounts as well as large amounts of the goods, while quality focuses on the product attributes, e.g. failure rate and durability. Logistics summarizes all delivery performances and service includes additional items such as after-sales service (Masinde & Osoro, 2019).

It is worth noting that the suppliers have to be fully engaged in the organizations' total quality management systems so as to make quality management complete Monczka, et al. (2016). This will make the suppliers fully understand what their clients want and the kind of conformance they are expected to adhere to. Before selecting suppliers, various methods can be used to evaluate their performance, the most common being the compilation of supplier profiles. This involves the identification of Key Performance Indicators (KPIs) such as service level, quality of products, delivery reliability and price competitiveness. These are then weighted or prioritized to signify their overall importance to the firm. The suppliers rating on a standard scale over the identified KPI is then conducted and its weighted score summed to arrive at the total supplier evaluation score (Das & Buddress, 2017).

2.4.2 Technical Capability

Supplier development can include providing technical and capital support to suppliers. This will result in improving supplier performance and capabilities. Technical support will increase the knowledge transfer; technical support could be sending engineers to supplier's site. Capital support could be done in form of direct investment or through technical support or training to suppliers by the buying companies (Newman, 2016). Willo, Acoma and Alpha do not provide capital support to their suppliers. Willo suppliers are already specialist so Willo only have some technical dialog with them. On the other hand Arcoma provide technical support in the form of testing and evaluation of prototypes to its suppliers (Alpha in some way provides technical support to their suppliers. Das and Buddress (2017) concern about the economic condition of its suppliers as it will have impact on manufacturing firms, the company can have some capital support to its suppliers in some special cases. Masinde and Osoro (2019) observed that do not provide any type of support to their suppliers. The studied companies are aware of the outcome of the support to their supplier for improving supplier's performance as also argued. The empirical findings show that companies provide more technical support than capital. This was also argued by Newman (2016) that companies provide technical support more than direct invest to suppliers. Not providing capital support could also be linked with firm's financial limitations as mentioned by to European commission (2008) that firms faces financial challenges.

2.4.3 Information Exchange

Information sharing supports knowledge transfer and also helps to understand each other's perspective. Supplier development requires effective communication with the suppliers. Ineffective communication is the barrier to supplier development. Performance improvement is related to effective communication. Das and Buddress (2017) they wanted to have good effective communication with their suppliers as it helps them to solve the problem at the initial stage and for understanding of each other's perspectives. From Newman (2016) his point of view supplies delay can be caused by

lack of communication which will result some disturbances in production process. Meeting with critical suppliers can improve communication process. Cheptora et al. (2018) believes that mainly lack of communication can arises in new product development and with new suppliers, this could cause quality problems and here using appropriate documentation could fulfill the communication gap. Alpha also insisted on having documentation for solving communication problems.

Communication could be through a formal and informal way. Communication could be categorized into a traditional and advanced communication method. Traditional communication is through e-mail, mail phone and face to face (Cheptora et al., 2018). While advanced communication is through systems like enterprise resource planning (ERP), electronic data interchange (EDI) and other systems. Manufacturing firms mainly utilizes traditional communication methods for their daily communication with suppliers like email, mail, telephone, fax, meetings as argued by all the studied companies. However in addition to traditional 73 communication methods advanced communication tools are also being used at limited level which include usage of electronic data interchange (EDI) system through Scale system and enterprise resource planning (ERP) .

As strategic partners, buyers and suppliers openly share information and communicate frequently. For example, manufacturers and retailers share customer order, production, and planning information with their key suppliers. They also align their efforts by measuring progress toward meeting jointly agreed-upon goals. Strategic partners may collaborate on mutually beneficial projects (Cheptora et al., 2018). Now suppliers into the design process very early to ensure that designs take into account the cost of manufacturing. Innovative buyers and key suppliers sometimes form joint teams to pursue improvements throughout the supply chain. Partners also share personnel across their contractual boundaries. Some suppliers are invited to place personnel at buyer locations to work with product design teams, to place orders as needed, or to manage supplier inventory at the buyer's location. For example, Motorola has an engineering exchange program through which supplier personnel literally take up residence at

savings and performance improvements, he predicted that firms will be increasingly willing to undertake supplier development activities (Das & Buddress, 2017). Supply chain management (SCM) integrates purchasing, materials management, quality management, demand management, distribution planning, and manufacturing planning.

Information systems have gained in relevance particularly in contemporary economic environment. It is argued that most organizations have transformed their way of operating leading to intensive competition among industries and even Governments (Das & Buddress, 2017) . Information systems have therefore been seen as the solution to the support organizations require in terms of decision making, organizational agility and competitiveness. The need to evaluate information systems as used in supply chains therefore becomes ever more necessary. Cheptora et al. (2018) they noted that evaluation of information systems in enterprises is a process that ensures that decisions are made compatible with the organization's defined risks, benefits and costs, and also highlights backlash that arise from investment in information systems. Information systems play the role of instigating change within organizations leading to increased responsiveness while decreasing overheads in the supply chain.

2.4.4 Supplier Evaluation

With regarding to innovation of supplier Odero and Shitseswa, (2017) in their study of supplier innovativeness and supplier pricing found that technical capability of supplier affects greatly on innovation. Regarding pricing policy they found that when supplier is having awareness of his innovation and capabilities than he might charge unfair price to buyer while preferred customer status may change this behavior and lead to more benevolent supplier pricing behavior so they state that preferred customer status has positive impact on supplier innovativeness (Njogu & Gichinga 2016). Their parameters for preferred customer were like this supplier has made sacrifices for us in the past, supplier cares for us, supplier has gone out on a limb for us in case of shortages, we feel this supplier is on our side, the best resources of this supplier work for us. Prior to this Njeri and Were (2017) in their study of pool effect of dyad based capabilities on seller

firms" innovativeness found that as relationship goes on increasing with increased trust and resource interdependence which has started from contracts leads to encourage the exchange of knowledge, specialized resources and specific investments. Due to this effect firms come closer with committed relationship which leads to innovation Cheptora et al. (2018). They found that for improving supplier innovation investment in specific assets for the customer-supplier relationship is more effective i.e. as exchange of knowledge, investment in specific assets and efforts to pool resources, increases trust, interdependence and commitment which lead to innovation (Das & Buddress, 2017).

Suppliers' performance affects the company's performance in terms of delivery performance, quality and cost. Company follows its own model to evaluate the supplier's performance. Company communicates performance evaluation with their suppliers twice a year. Company's quality and purchasing department conducts annual internal review of supplier's performance and investigates quality and service level of the suppliers. If supplier performs out of agreement then company asks them to follow the contract, if it happens continuously, company will continue with new supplier. Masinde and Osoro (2019) has specific division for technical purchases which is divided in two groups; one is responsible for buying equipment while other is responsible for measuring supplier performance. Das and Buddress (2017) has up-to-date balance scorecard that reviews monthly supplier delivery and quality performance. The important aspect while evaluating supplier performance is stable suppliers with good economy. Supplier must have company structure that can meet requirements (Njeri & Were, 2017). Arcoma considers supplier's feedback for improvements. For the company quality is the most important followed by delivery and price.

2.4.5 Organizational Performance of Manufacturing Firms

Organizational performance comprises the actual output or results of an organization as measured against its intended outputs or goals and objectives. Different researchers have proposed different variables as being the fundamental variables that ensure good buyer-supplier relationships (Njeri & Were, 2017). Performance, a quality of any company, is

achieved by valuable outcomes such as higher returns, level of competitiveness and brand presence. It can also be measured by the levels of operational efficiency and this can be analyzed by a variety of methods, such as the parametric (stochastic frontier analysis) and non-parametric (data envelopment analysis) (Cheptora et al., 2018). The management of any company would like to identify and eliminate the underlying causes of inefficiencies, thus helping their firms to gain competitive advantage and attain sustainable competitive advantage, or at least, withstand the challenges from others. Overall organizational performance can be divided in to three parts: financial performance, product performance, and operational performance (Das & Buddress, 2017).

Supply chain management practices have become widely recognized as an important contributor to strategic success, helping firms meet the challenges of an increasingly competitive and dynamic environment (Njeri & Were, 2017). These pressures have driven companies toward forming closer relationships with a smaller number of suppliers who have become increasingly involved in many aspects of strategy making and day-to-day operations (Masinde & Osoro, 2019). Such relationships are highly interactive and require constant monitoring and inter-personal liaison between employees of both parties in order to be effective. The question of how firms manage these collaborative supplier relationships, through the use of performance measurement systems and the development of social networks is an important avenue of research. Traits such as coordination, collaboration, commitment, communication, trust, flexibility and dependence, are widely considered to be central to meaningful relationships (Das & Buddress, 2017).

Organizational performance remains a central theme in extant literature focusing on the Kenyan context. Scholars continue to ventilate on various factors that inform performance in diverse organizations. Odero and Shitseswa (2017) for instance focuses on examining the role organizational structure plays in the performance of large firms in the manufacturing sector in Kenya. Her study uses the cross-sectional survey of large manufacturing firms to show that non-financial measures such as customer satisfaction,

internal firm processes and firm image influences performance among large manufacturing firms. On the other hand, Das and Bুদ্ধress (2017) they contended that strategic innovation has potential to impact positively on the performance of public universities in Kenya. The influence of human capital on organizational performance has also been investigated. Njeri and Were (2017) they focused on analyzing the effect the investment in human capital has on organizational performance from a pharmaceutical perspective. Using the inferential tests of association, the study revealed that organizational performance was associated with investment in quality, relevance, and reliability in the human capital. Odero and Shitseswa (2017) while focusing on internal organizational environment in the context of community-based organizations specializing in HIV and AIDS, established that the organization's internal environment tends to impact on relevance, efficiency and effectiveness of organizations.

2.5 Critique of Existing Literature

Even though for over a decade, the researchers and scholars have studied the supplier development practices on the supply chain performance, they argued that supplier development requires both the supplier and buyer to commit maximum efforts to achieve the greatest results out of the program (Masinde & Osoro, 2019). Even though both sides agree that a strong commitment is required, there is still no guarantee that the supplier development will be successful. One reason for the increased importance of supplier development is that many manufacturers are concentrating on their core competences, moving away from vertical integration, and therefore need to gain a competitive edge from the supply side of their operations.

Reviewed literature reveals the benefits of practicing supplier development to be enormous to companies. Although literature provides indepth support for the assertions that supplier development is an integral means of achieving and sustaining competitive advantage through improved overall performance in business organizations (Odero & Shitseswa, 2017). Supplier development is the process of working collaboratively and in partnership with suppliers to improve or expand their capabilities. Supplier development

enhances the company's capability in terms of creation and maintenance of the right suppliers, quality, technicality, cost capability and delivery with continues improvement. It is a bilateral effort by both the buying and supplying organization to jointly improve the supplier's performance or capabilities in one or more of the following areas: cost, quality, delivery, time to market, environmental responsibility, and managerial capability and financial viability. According to Das and Buddress (2017) firms have to work through suppliers to facilitate and realize significant cost savings and therefore, they can no longer limit their development efforts to their firm boundaries, they have to expand their strategies and share their vision with their suppliers.

Good suppliers can help manufacturers during the development of new products and processes, with long-term quality improvements and cost reductions and can provide enhanced delivery performance (Odero & Shitseswa, 2017). Therefore, for manufacturers the challenge is to maximize (supplier) performance better than competitors. For companies spending a high percentage of their revenue on parts and materials, savings are particularly important. In these cases, a saving of one percent on purchasing costs can have the same effect on profit as an 8-10 percent increase in sales. Close cooperation with suppliers quickly brings lower unit costs and longer-term, even greater quality at lower cost.

2.6 Summary of Literature

The chapter has discussed the concept of supplier development, theories about it, the process and best practices for implementation of supplier development in organization. The researcher has also dwelt on the processes and different approaches to supplier development. It has analyzed several studies about the concept done by different authors with critical focus on their findings, recommendations and the research gaps noted in the previous studies. In the advent of intense business competitive environment, business organizations are relying more on their supply chain as a source of competitive advantage. According to Das and Buddress (2017), they observed that in order to enhance the supplier development needs an inventory network should accomplices a

noteworthy prerequisite of any modern inventory aggressiveness in nature of the present software center. Because of this expansion in aggressiveness, organizations are likewise embracing methodologies to focus on their center business by re-appropriating different exercises identified with the business (Njeri & Were, 2017). Hence, the connection among organizations and their providers is increasing expanding significance, just like the qualities of the association essential for the inventory network. In this way, the manner in which that an organization chooses its providers affects the aftereffects of all organizations in the chain.

Providers assume vital role of supplier selection, technical capability, information exchange and supplier evaluation toward the development of suppliers in Kenya. With the goal for firms to contend adequately and make due in the worldwide market, they have to create operational technique to guarantee they keep up and construct associations with a proficient and capable system of providers and concentrate most extreme incentive from these connections (Odero & Shitseswa, 2017). To make and keep up such a system and to enhance capacities that are essential for the purchasing association to address its expanding aggressive difficulties, the purchasing firm may need to take part in provider improvement (Njeri & Were, 2017).

2.7 Research Gap

The empirical study indicates that it is evident that research in the area of effect supplier development management practices on organizational performance in the manufacturing firms has not been done and if, not in a comprehensive approach so as to enhance reliability (Das & Buddress, 2017). Also according to Cheptora et al. (2018) Supplier development requires corporate responsibilities from all stakeholders by committing their maximum efforts to achieve the greatest results out of the program. Even though both sides agree that a strong commitment is required, there is still no guarantee that the supplier development will be successful. Most of the available studies have paid a lot of attention on supply chain management practices such as suppliers' relationship,

suppliers' development, selection and evaluation in diverse context at the expense of supplier development.

According to Mukhwana, (2016), the effects of supplier development management practices on organizational performance manufacturing firms in Kenya, Thirty years ago, true supply chain management was almost unknown within Kenyan industry. Manufacturers usually made most of the parts that went into their finished products. When they needed to buy materials or services, they relied on purchasing departments that were seen primarily as order takers and order placers. These departments had little visibility, had little perceived value to the bottom line, and enjoyed little respect from other parts of the organization (Das & Buddress, 2017). Purchasing development activities expanded to include: development and negotiation of contracts, market research and intelligence, assistance with supplier management, management/integration of supply base/chain, supplier development, implementation of internet based e-commerce, purchasing personnel include experts on, contracting, provider industries, internal and supplier technical, functional issues (Njeri & Were, 2017).

In view of the foregoing, most of the available studies are from developed countries hence the need to do a study in the Kenyan context so as to bridge the existing by the newly created knowledge. From the finding of this study, now scholars can have consensus on the effect of supplier development management practices on organizational performance of manufacturing firms. Because the researcher endeavored to examine this gap and has presented his findings and recommendations on how supply development management practices can be used to enhance performance of organizational manufacturing firms in Kenya in future.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research methodology, research design, target population, data collection procedure, Research Instruments, data collection procedures, sampling frame, sample and sampling techniques, pilot test, validity and reliability, data analysis and presentation and various statistical testing methods after analyzing the findings .

3.2 Research Design

Research design is a roadmap of how one goes about answering the research questions and it can be ontological, epistemological and methodological. Newman (2016) stated that a good research design has a clearly defined purpose, and has consistency between the research questions and the proposed research method. The design enabled the study to combine both qualitative and quantitative research approaches. Qualitative approaches enables collection of data form of words rather than numbers. It provides verbal descriptions rather than numerical. This finding is in line with Njogu and Gichinga (2016), who established that qualitative methods can be used to gain more in depth information that, may be difficult to be conveyed quantitatively. Quantitative approach strives for precision by focusing on items that can be counted into predetermined categories and subjected to statistical analysis. This is in line with the findings of Pernecky (2016) who observed that the use of these two approaches reinforces each other. The research used this approach because the data collected used the main questionnaire was quantitative and was analyzed using statistics. Qualitative on the other hand involve interpretation of phenomena without depending on numerical measurement or statistical methods. As noted in Newman (2016), that mixed research is an approach that combines or associates both qualitative and quantitative research methods: Enables mutual corroboration each other via the use of

multiple sources of collecting data, contextualizes the analysis by providing richer details and initiates new lines of thinking through attention and surprises, turning ideas around and providing fresh insights.

It serves a variety of research objectives such as descriptive of phenomenon or characteristics associated with a subject population, estimates of proportions of population that have these characteristics and discovery of associations among different variables (Pernecky, 2016). The study explored the actual position of manufacturing firms and the effect of supplier development management practices on organizational performance of manufacturing firms in Kenya leading to unpredicted forecasting the firm industry. In trying to investigate the effect of the independent variables on the dependent variable, the study did not manipulate the supplier selection, technical capability, information exchange and supplier evaluation and organizational performance of manufacturing firms; the independent and dependent variables

3.2.1 Research Philosophy

A research Philosophy is a belief about the way in which data about a phenomenon should be gathered, analyzed and used. There are two major research philosophies have been identified in the western tradition of science, namely positivist such as building scientific philosophy and Phenomenology such as explore theory. The belief that science sometimes incorporates new ideas that are discontinuous from old ones; the belief that science involves the idea of the unity of science, that there is, underlying the various scientific disciplines, basically one science about one real world. The belief that the science is nature and nature is science and out of that all theories and postulates get evolved and applied. Positivist philosophy is considered relevant in understanding the challenges affects positivist on performance of supply chain systems in the petroleum industry in Kenya and hence provides the philosophical background for this study. According to Pernecky (2016) Positivism believes that reality is stable and can be observed and described from an objective

viewpoint, without interfering with the phenomenon being studied. The belief that science is markedly cumulative; The belief that science is predominantly transcultural; The belief that science rests on specific results that are dissociated from the personality and social position of the investigator; The belief that science contains theories or research traditions that are largely commensurable; The belief that science sometimes incorporates new ideas that are discontinuous from old ones; The overriding concern for any research is to ensure that the research should be both relevant to the research hypothesis..

Positivism is a philosophy of science based on the view that information derived from logical and mathematical treatments and reports of sensory experience is the exclusive source of all authoritative knowledge, and that there is valid knowledge (truth) only in scientific knowledge. According to Pernecky (2016) substantiated data received from the senses are known as empirical evidence. This view holds that society, like the physical world, operates according to general laws. Introspective and intuitive knowledge is rejected. Although the positivist approach has been a recurrent theme in the history of Western thought, the modern sense of the approach was developed by the philosopher and founding sociologist Auguste Comte in the early 19th century. Comte argued that, much as the physical world operates according to gravity and other absolute laws, so also does society. In view of this, the intent of the researcher believes that a positivist philosophy was required for this purpose; where the researcher uses the old and new knowledge of science to bridge the existing gap.

3.3 Target Population

Osoro et al. (2015) defines population as a larger collection of all subjects from where a sample is drawn. The unit of analysis was defined Pernecky (2016) is the individual participant or the object on which the measurement is taken. Since the variables under study were dependent on the individual firms within a supply chain, the unit of observation in this study would be a firm. The study only targeted 500 respondents from the following departments; procurement, finance and production department, especially

senior officers those who handled raw materials, those in production at multiple stages/organizations and those at distribution channels and key persons with performance information. This reduced complexity, time and costs in terms of research.

3.4 Sampling Frame

The sampling plan described the sampling unit, sampling frame, sampling procedures and the sample size for the study. The sampling frame described the list of all population units from which the sample was selected. The head of human resource availed the list of the respondent from the three departments, since he was the custodian of all employees in the manufacturing firm (Pernecky, 2016). The study was employed Stratified random sampling technique in coming up with a sample size of 399 respondents from a total of 500 in specific department within the manufacturing firms.

3.5 Sample and Sampling Techniques

The researcher used Stratified random sampling techniques to pick respondents from each stratus which was heterogeneous population into homogenous subsets then making a selection within the individual subset from each stratum. In stratified random sampling subjects were selected in such a way that the existing sub-groups in the population were more or less represented in the sample. Also, it ensured that all sections were represented that deal with procurement matters. According to Pernecky (2016) an optimum sample was the one that fulfilled the requirements of efficiency, representativeness, reliability and flexibility. In arriving at adequate sample size, Yamane (1967) formula was used as follows to arrive on the number of respondents to be sampled:

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

Where;

N= Population;

e = margin of error or significance level at 0.05,

n = sample size

Therefore,

$$= 500/[1+495(0.05^2)]$$

$$= 399 \text{ Respondents}$$

3.6 Research Instruments

The study analyzed supplier development management practices and on organizational performance of manufacturing firms in Kenya. The study was based on the guidelines, books and other documents already published about supply chain practices and sustainable supply chain performance. Pernecky (2016) defines data collection as a means by which information was obtained from the selected subjects of an investigation. The primary research data was collected from the staffs in manufacturing using a questionnaire and supported by interview guide which was administered through interviews as this was considered cheap. Interviews were useful for getting the story behind a participant's experiences. The interviewer can pursue in-depth information around the topic. Interviews were useful as follow-up to certain respondents to questionnaires, example to further investigate their responses (Wu et al.,2017). For more insight on data collection, the interviewer was administered a questionnaire and have the advantage of the interviews by probing for more precise details.

3.7 Data Collection Procedures

The researcher was obtained an introduction letter from the University and a permit from the ministry of education science and technology as Permission to collect data from all registered manufacturing firms ((Wu et al., 2017). Both structured and unstructured questionnaires were used for heads of the departments representing the manufacturing firms. The main research instruments to be used in this study were the set of questionnaires. In developing the questionnaire items, both closed ended and open ended formats of the item were used. The aim of the questionnaire was to collect information relating to the effect of supplier development management practices on organizational performance in manufacturing firms in Kenya. The instruments were addressed to the line managers of the manufacturing firms firms in, Kenya or their designated back-ups. The drop and pick later method was used in the administration of the questionnaires.

3.8 Pilot study

Pilot testing involved conducting a preliminary test of data collection tools and procedures to identify and eliminate problems, allowing programs to make corrective changes or adjustments before actually collecting data from the target population (Pernecky, 2016). Pilot test is an activity that assists the research in determining if there are flaws, limitations, or other weaknesses within the interview design and allows him or her to make necessary revisions prior to the implementation of the study. A pilot test of 10% was undertaken on the respondents to test the reliability and validity of the questionnaire. The rule of thumb is that 1% of the sample should constitute the pilot test. The proposed pilot test was within the recommendation (GDRC, 2015). The pilot study was conducted using the same instrument that was administered to the respondents prior to the main study.

Two employees from each department not included in the sample were given the questionnaire to fill. Test retest method was used to attest the reliability of the instrument. Finally, the pilot survey was expected to draw responses from the

interviewees on the design and content of the instrument and suggestions for more efficient and practical way of administering it. The pilot testing was re-run until the researcher was satisfied with the data collection instruments. Pernecky (2016) the value of the alpha coefficient ranged from 0-1 and was used to describe the reliability of factors extracted at 0.5 significance level, from dichotomous to multi-point formatted questionnaires or scales. A higher value showed a more reliable generated scale had indicated 0.7 to be an acceptable reliability coefficient.

3.8.1 Reliability of the Research Instrument

Reliability is an extent to which a questionnaire, test, observation or any measurement procedure produces the same results on repeated trials. In short, it was the stability or consistency of scores over time or across raters. Pernecky (2016) Reliability is the degree to which a test consistently measures whatever it measures. Internal consistency is a measure of the precision between the measuring instruments used in a study. It thus helps researchers interpret data and predict the value of scores and the limits of the relationship among the variables. Internal consistency of the instrument will be tested at above 0.7 by computing Cronbach's alpha reliability coefficients as per Sekeran standards (GDRC, 2015).

3.8.2 Validity of the Research Instrument

According to Pernecky (2016), Validity is the extent to which a test measures what it is supposed to measure. The question of validity is raised in the context of the three points, the form of the test, the purpose of the test and the population for whom it is intended. The question to ask is "how valid is this test for the decision that I need to make?" or "how valid is the interpretation I propose for the test?"

3.9 Data Processing and Presentation

According to Pernecky (2016), data analysis procedure included the act of packaging the collected information putting in order and structuring its main components in a way that

the findings can be easily and effectively communicated. The researcher perused completed questionnaires and document analyzed recorded sheets. Quantitative data which was collected was analyzed using descriptive statistics running it in a software Statistical Package for Social Science (SPSS) version 24 and presented through frequencies, percentages, means and standard deviations, tables, graphs, Pie Charts and histograms (GDRC, 2015). A multiple regression equation was used to measure the relationship between the dependent and independent variables. The regression model will be as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_z Z + \beta_{1z} X_1 Z + \beta_{2z} X_2 Z + \beta_{3z} X_3 Z + \beta_{4z} X_4 Z + \varepsilon$$

Where;

Y = dependent variable (Organizational performance of Manufacturing Firms),

β_0 = Constant intercept,

$\beta_1, - \beta_4$ = regression coefficients of the four variables which are;

X_1 = supplier selections,

X_2 = technical capability,

X_3 = information exchange and

X_4 = supplier evaluation

ε = error term.

Z = the hypothesized moderate variable (Procurement policy)

β is the coefficient of $X_i Z$ the interaction term between performance and each of the independent variables for $i = 1, 2, 3, 4$

While: ε is the error term.

This model was used to test hypothesis H_{01} , H_{02} , H_{03} , and H_{04}

Inferential statistics such as non-parametric test which include analysis of variance (ANOVA) was used to test the significance of the overall model at 95% level of significance. According to Pernecky (2016) analysis of variance was used because it makes use of the F – test in terms of sums of squares residual.

3.9.1 Test for Outliers

Pernecky (2016) defines an outlier as an observation that is distant from other observations. He further explains that such a case may occur as a result of among other reasons; variability in the measurement, error in experiment, or as a result of heavy-tailed distribution. Statistical scholars explained that making interpretations based on data with outliers can be misleading and therefore compromise the quality of the research output (Wu et al., 2017). While there are a myriad ways of testing for presence of outliers, recommended the use of a box plot as a convenient way of graphically presenting groups of data using quartiles. Box plot indicated variability of observations outside the upper or lower quartiles thus outliers can easily be observed and removed for a good analysis. In this study, box plot was used to check for presence or absence of outliers.

3.9.2 Multicollinearity Test

Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated. Among other consequences of multicollinearity is that the estimate of one variable's impact on the dependent variable while controlling the others tends to be less precise than if predictors were uncorrelated Pernecky (2016). Scholars recommended the use of Variance Inflation Factor (VIF) method to test for multicollinearity. Using this method, if the $VIF=1$, it will indicate no correlation, if the $1 < VIF < 5$, it will indicate moderate correlation and if, $VIF > 5$ to 10,

then it will be highly correlated. Pernecky (2016) contends that if there are two or more variables that will have VIF of around or greater than 5, one of such variables must be removed from the regression model as this indicates the presence of multicollinearity. This will be tested to ascertain the absence of multicollinearity.

3.9.3 Autocorrelation Test

Autocorrelation is defined as the correlation between members of a series of observations ordered in time or space (Wu et al., 2017). A Durbin-Watson test will be used to detect the presence of autocorrelation between variables. According to Pernecky (2016), the Durbin-Watson statistic ranges in value between 0 to 4. A value near 2 indicates non-autocorrelation; a value closer to 0 indicates positive correlation while a value closer to 4 indicates negative correlation and this will be tested.

3.9.4 Heteroscedasticity Test

Heteroscedasticity refers to “differing variance Pernecky (2016)”, asserts that the existence of heteroscedasticity can be a concern in the application of regression analysis as it can invalidate statistical test that assume the modeling error are uncorrelated and normally distributed. In order to check for heteroscedasticity, the study will use scatter plots method as presented by Wu et al. (2017) to observe for systematic pattern of scatter points in the scatter plots.

3.9.5 Normality Test

Table 4.45 indicates, the test for normality, the Shapiro-Wilk test shows that the Standardized residuals are significantly normally distributed with a significance 0.118 which is greater than 0.05. The findings proof that the independent variable, supply chain systems has a strong effect on performance of supply chain systems in the oil industries. This finding is in line with the findings of Dametew *et al.* (2018), who established that the null-hypothesis of this test is that the population is normally distributed. Thus if the *p*-value is less than the chosen alpha level, then the null

hypothesis is rejected and there is evidence that the data tested are not from a normally distributed population. In other words, the data are not normal. On the contrary, if the p -value is greater than the chosen alpha level, then the null hypothesis that the data came from a normally distributed population cannot be rejected. For example an alpha level of 0.05, a data set with a p -value of 0.02 rejects the null hypothesis that the data are from a normally distributed population. This finding is in tandem with the findings of Watiri and Kihara (2017) who observed that, since the test is biased by sample size, the test may be statistically significant from a normal distribution in any large samples.

3.9.6 Normality Test on the Dependent Variable

In order to make inferences, from an analysis, assumption of normally distributed dependent variable is important. One of the methods used to check for normality is Q-Q test. According to Pernecky (2016), a Q-Q test is a plot of percentiles of a standard distribution against the corresponding percentiles of the observed data. When conducting Q-Q test, the resulting plot should show an approximately straight line with a positive slope of normality and this will be tested.

3.9.7 Principal Component Factor Analysis

In this study, factor analysis was done using principal component analysis. The aim was to identify the least number of factors that account for common variance in a set of variables Wu et al. (2017). All variables in the study were subjected to SPSS version 24 for factor analysis and the outputs summarized in the tables. Pernecky (2016) assert that researchers should use a factor loading threshold of 0.4 given that any higher loading than this may not be met in real life data.

3.9.8 Correlation Analysis

The research topic, Effect of supplier development management practices on organizational performance of manufacturing firms in Kenya, had variables as proposed in the

regression model. Wu et al. (2017) explains that in a multiple regression model, data is plotted as points on the graph. This method allowed for drawing of a graph especially linear graphs to determine the best fit so as to ascertain how well the data collected matches with the line of best fit. In this study, as already stated, the equation was modeled using a Variable Y and other variables as X. Pernecky (2016) argues that the use of scatter plots is appropriate and this was done on each variable under investigation in order to establish the nature of relationships between the independent variables and the dependent variable.

3.9.9 Test of Hypotheses

A statistical hypothesis is defined as an assumption about a population parameter (Pernecky, 2016). This assumption may be true or not. Wu et al. (2017) argues that hypothesis testing refers to the formal procedures used by statisticians and researchers to accept or reject statistical hypotheses. A hypothesis testing was done using the p-value for this research. A *p*-value (typically ≤ 0.05) indicated strong evidence against the null hypothesis, so the null hypothesis was rejected and *p*-value (> 0.05), it indicates weak evidence against the null hypothesis, so null hypotheses was accepted. For this study, if the $p\text{-value} > 0.05$, then it was considered insignificant.

3.10 Operationalize and Measurement of Variables

The measurement of variables provides a basis of variable definition in the context of the research for the purpose of operationalizing the key concepts of the research.

Performance: A company that deploys effective supplier performance management ensures that a supplier's performance meets the expectations defined in the contract and against market norms ((Pernecky, 2016). This measurement of the organizational performance in the supply chain had seven indicators: On-time delivery/Order cycle time variability, Response time, Customer satisfaction, Total delivered costs, innovation

product quality. Research instrument will use a Likert of 1-5 where 5=very large extent, 4=large extent, 3=moderate extent, 2=small extent and 1=no extent

Supplier Selections: One of the most important aspects for companies' success is the relationship between companies and their suppliers. Consequently, the way that a supplier is selected is crucial to the outcome of the business Wu et al, (2017). The tool research instrument had a total of eight question items that was to measure the suppliers selection, this included; Supplier's track record, suppliers certification, market attractiveness, service levels, risk factor, quality assessment, organization profile and cost criteria. Research instrument will use a lickert of 1-5 where 5=very large extent, 4=large extent, 3=moderate extent, 2=small extent and 1=no extent.

Technical Capability: Technological capability is critically important to the future competitiveness of manufacturing industry (Pernecky, 2016). Improving suppliers' technological capabilities obviously requires a long-term focus. This measurement of the technical capability had seven indicators: innovativeness, technical knowledge, operation skills, technical capability and technical support. Research instrument used a Likert of 1-5 where 5=very large extent, 4=large extent, 3=moderate extent, 2=small extent and 1=no extent.

Information Exchange: The main premise of SCM is that information exchange for goal sharing and process integration between trading partners in a supply chain, can reduce total logistics costs and enhance the value delivered to the customers (Pernecky, 2016). This measurement of information exchange had six indicators; inventory, information, sales data, sales forecast, order information, product information and capacity status. Research instrument used a Likert of 1-5 where 5=very large extent, 4=large extent, 3=moderate extent, 2=small extent and 1=no extent.

Supplier Evaluation: Supplier evaluation is a management activity whose primary aim is acquiring information to analyze and to manage supplier relationships and supply situations (Pernecky, 2016). The process entails the simultaneous consideration of a

number of critical supplier performance features that include price, delivery lead-times, and quality Wu et al. (2017). This measurement of the technical capability had seven indicators: performance Goals, supplier certification, supplier qualification, competitive bidding and financial conditions. Research instrument used a Likert of 1-5 where 5=very large extent, 4=large extent, 3=moderate extent, 2=small extent and 1=no extent.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter sought to give results based on research objectives. This chapter includes response rate, demographic information on the respondent and analysis results based on specific objectives which included effects of; supplier selection, technical capabilities, information exchange, supplier evaluation and the moderating role of procurement policies on organizational performance in manufacturing firms. Additionally, there is factor analysis, reliability, descriptive, regression and their interpretation.

4.1.1 Response Rate

The researcher circulated 399 questionnaires to respective respondents for this study. Out of 399 (100%) questionnaires only 340 (85.21%) respondents filled and returned questionnaires for this study. This response rate indicates a reasonable representation of the sample and nearly the entire population. Therefore, 85.21% response rate in this study is adequate for analysis. These results echo the findings of Ogachi (2016) who observed that the response rate as the extent to which the final data set includes all sample members and it is calculated as the number of people with whom interviews are completed divided by the total number of people in the entire sample, including those who refused to participate and those who were unavailable. This was deemed excellent and in tandem with Cooper (2016) who assert that a response rate of 50% (48) is adequate for analysis and reporting; that of 60% (57) is good and, a response rate of 70% (67) and over is excellent. The high response rate was attributed to the fact that the researcher had a good network in the study area which facilitated data collection process as well as carrying out a sensor survey due to the small number of target population.

Table 4.1: Response Rate

Questionnaires	Frequency	Percent (%)
Returned	340	85.21
Unreturned	59	14.79
Total	399	100

4.3 Reliability Analysis

This study undertook a pilot test of the research instruments in a view to determine reliability of the data collection instruments, also known as the questionnaires. The Cronbach's alpha was used to measure internal consistency of the operation under this study. According to Cooper (2016) the Alpha value threshold results at 0.7 and above is good. Alpha values greater than 0.9 ($\alpha \geq 0.9$ is Excellent) can be considered excellent, $\alpha \geq 0.7$ but < 0.9 , considered good, $\alpha \geq 0.6$ but $\alpha < 0.7$ considered acceptable, $\alpha \geq 0.5$ but < 0.6 considered poor, while alpha values less than 0.5 ($\alpha < 0.5$) are considered unacceptable. This is in line with the findings of Dametew, Ebinger and Beshah (2018) they observed that the study benchmarked its reliability test against these alpha values for all the variables under this study.

The results are shown in table 4.2 below, all the variables were found acceptable with alpha levels above the 0.7 threshold. More specifically, supplier evaluation had the highest reliability ($\alpha=0.893$) followed by technical capability ($\alpha=0.804$) then supplier selection ($\alpha=0.791$), then information exchange ($\alpha=0.742$) and organizational performance was ($\alpha =0.731$) had the lowest respectively. This finding is in line with the findings of Osoro et al. (2015). The study found that the analysis was reliable and could be used for further investigation.

Table 4.2: Reliability Coefficients

Variable	Cronbach's Alpha
Supplier Selection	0.791
Technical Capability	0.804
Information Exchange	0.742
Supplier Evaluation	0.893
Organizational Performance of Manufacturing firms	0.731

4.2 Demographics

The study sought to analyze the background information of the respondents in order to understand organizational performance in manufacturing firms in Kenya. The study conducted background information of the respondents. These findings are presented on table 4.3 below;

Table 4.3: Gender Information of the Respondents

	Frequency	Percent
Female	125	42.4
Male	225	57.6
Total	340	100
Age		
	Frequency	Percent
Below 20	31	7.9
20-29	46	11.8
30-39	107	27.6
40-49	102	38.9
50 and above	54	13.8
Total	340	100
Education		
	Frequency	Percent
No education	115	29.6
Primary education	54	13.8
Secondary education	60	15.8
Collage Education	210	28.1
University education	70	12.8
Total	340	100
Experience		
	Frequency	Percent
Between 3-5 Years	204	52.31
Between 6-10 Years	111	31.03
Over11 years	25	5.90
Total	340	100

The findings on the gender of the respondents indicated that the majority of the respondents who participated 57.6% were male while 42.4% of the staffs who participated in the study were female. This reveals that, the staffs employed in the study were male depicting a more representation of the male in the manufacturing firms of the manufacturing firms industry in Kenya

The findings on the age of the respondent indicated that the majority of the staffs 52.31% were of between 3-5 years experiences, 31.03% were between 6-10 years experiences 10.77% were below 2 years experiences and 5.90% were over 11 years

experiences. This implies that the researcher considered of respondents with different level of experience. The findings on the education level of the respondents indicated that 29.6% were not educated, 28.1% were college graduates, 15.8% were done with their secondary education, 13.8% were done with their primary education, and 12.8% were university graduates. This implies that the researcher considered the opinion of all respondents irrespective of their level of education. This finding is in line with the findings of Wabuti and Kioko (2016). Therefore the biasness caused by education level where eliminated in the study. The study also conducted Reliability Statistics for dependent Variable. These findings are presented on table 4.4 above;

Table 4.4: Reliability Statistics for Supplier Selection Measure

Reliability Statistics	
Cronbach's Alpha	N of Items
.816	9

The finding indicated that Cronbach’s Alpha value of reliability was 0.816 which was an acceptable reliability value because it was above the 0.7 value criteria recommended for data to be considered reliable. This is in line with the findings of Watiri, and Kihara (2017). The study conducted Reliability Statistics for Technical Capabilities Measure. These findings are presented on table 4.6 above;

Table 4.5: Reliability Statistics for Technical Capabilities Measure

Reliability Statistics	
Cronbach's Alpha	N of Items
.880	9

The Cronbach’s Alpha value of reliability was 0.88 which was an acceptable reliability value because it was above the 0.7 value criteria recommended for data to be considered reliable. This finding is in line with the findings of Velnampy (2016). The study conducted Reliability statistics for Information Exchange. These findings are presented on table 4.5 above;

Table 4.6: Reliability statistics for Information Exchange

Reliability Statistics	
Cronbach's Alpha	N of Items
.848	9

The finding indicated that Cronbach’s Alpha value of reliability was 0.848 which was an acceptable reliability value because it was above the 0.7 value criteria recommended for data to be considered reliable. This echoes the findings of Velnampy (2016). The study conducted Reliability Statistics for Supplier Evaluation. These findings are presented on table 4.6 above;

Table 4.7: Reliability Statistics for Supplier Evaluation

Reliability Statistics	
Cronbach's Alpha	N of Items
.890	9

The Cronbach’s Alpha value of reliability was 0.890 which was an acceptable reliability value because it was above the 0.7 value criteria recommended for data to be considered reliable. This echoes the findings of Vachon, and Klassen (2016). The study conducted Reliability statistics for moderating variable. These findings are presented on table 4.7 above;

Table 4.8: Reliability Statistics for Moderating Variable

Reliability Statistics	
Cronbach's Alpha	N of Items
.888	9

The Cronbach's Alpha value of reliability was 0.888 which was an acceptable reliability value because it was above the 0.7 value criteria recommended for data to be considered reliable. This echoes the findings of Vachon and Klassen (2016). Refer table 4.8 above;

Table 4.9: Reliability Statistics for Dependent Variable

Reliability Statistics	
Cronbach's Alpha	N of Items
.917	3

The Cronbach's Alpha value of reliability was 0.917 which was an acceptable reliability value because it was above the 0.7 value criteria recommended for data to be considered reliable. The study conducted Reliability Statistics for Supplier Selection Measure. These findings are presented on table 4.9 above;

4.4 Analysis of Specific Objectives

The purpose of this study was to investigate the effect of supplier development management practices on organizational performance in manufacturing firms in Kenya. The specific objectives were: to determine the influence of supplier selection on performance, to establish the influence of technical capability on performance, to determine the influence of information exchange on performance and to determine in what extent self-evaluation affect performance. This is in line with the findings of

Toroitich et al. (2017).The study used descriptive analysis to determine the results from these objectives as presented below.

4.4.1 Effect of Supplier Selection of Manufacturing Firms

The study conducted Descriptive Statistics for Supplier Selection Measure. These findings were presented on table 4.10 below;

Table 4.10: Supplier Selection Descriptive Statistics Data

Descriptive Statistics	M	SD
Selected suppliers' are only the ones who can meet quality standards of the firm	4.01	1.01
Assessment process has always identified suppliers meeting firms quality standard	3.32	1.20
Supplier selected are the only one who possess positive market reputation	3.88	1.04
The criteria for firm selection ensures that only suppliers with high performance reputation are contracted	3.28	1.21
Suppliers selected are the once who meets the least cost criteria of the firm	3.91	1.05
The determination of the supplier has always been guided by least cost consideration	3.36	1.18

The findings demonstrated that mean of 4.01 of the respondents were of the supposition that the Selected providers' are just the ones who can meet quality measures of the firm while mean of 3.91 of the respondent were of the view that Suppliers chose are the once who meets the minimum cost criteria of the firm mean of 3.88 held that provider chose are the special case who have positive market notoriety, mean of 3.36 held that the assurance of the provider has dependably been guided by slightest cost thought, mean of 3.32 held that evaluation procedure has constantly recognized providers meeting firms quality standard and mean of 3.28 held that the criteria for firm choice guarantees that just providers with elite notoriety are contracted. This is in line with the findings of Dametew et al. (2018) they observed that the fundamental discoveries along these lines

shown that the best provider determination measures as per the respondents were generation of value standard items by providers, increment in expense and providers great market notoriety as they are firmly related.

4.4.2 Descriptive Results of Supplier Selection

Supplier selection was assessed by two measures namely, supplier selection and selection criteria. Descriptive data shown on Table 4.13 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree). The study's findings are presented on table 4.11 below;

Table 4.11: Supplier Selection Descriptive Results

	Mean	Std. deviation	N
Organizational performance	2.1814	.84837	390
Supplier selection	3.5777	.81059	390
Selection criteria	3.1128	1.00581	390

The descriptive statistics indicated that responses by respondents on performance of was (mean= 2.1814). They also indicated that supplier selection of a firm was (mean=3.5777) and also selection criteria (mean=3.1128). This is in line with the findings of Dametew et al. (2018) they observed that Cronbach's alpha was used to test the reliability of the proposed constructs (Ali et al., 2016). The findings indicated that Supplier selection had a coefficient of 0.81059 while Selection criteria had a coefficient of 1.00581. Supplier selection (Supplier selection and Selection criteria) depicted Cronbach's alpha of 0.816 which above the suggested value of 0.7 hence the study was reliable.

The findings showed that quality standard is a decent marker of supplier choice. Quality guidelines are critical in choosing the supplier since quality suppliers means that the nature of products that they supplier is of high standards . It likewise guarantees the organization can get the most proficient items conceivable. This is in line with the findings of Dametew et al. (2018) they observed that Quality measures of the suppliers give products that are free from any assembling imperfection, insufficiency or critical variety. Quality guidelines of supplier s might be imperative on the grounds that there might be sure measures that are set that indicate the nature of merchandise and furthermore with the goal that consistency is accomplished in the whole arrangement of items being provided. It might be additionally because of the realities that the firm need certain standard of merchandise with the points of interest that they indicate so the provided item can meet the quality and the motivation behind the item in the firm.

This finding are in agreement with the assertions of Marie Butler-Knight Safty, (2015) who said that, firms use quality standard to give details of the requirements, specifications, the various guidelines and characteristics to be able to meet the quality needs of the product, the purpose of the product, process and or the service. According to Marie Butler-Knight Safty, (2015) manufacturing firms should provide minimum standards which will explain acceptable set of quality standards for the goods and services that they need. Quality of supplier is not all about how the firm can incur profit or loss but it is the safety and usability of the product to the company and the satisfaction of its end user customers. According to Ogachi (2016) some supplier who cannot meet the set standards of the firm are prone to supplying good which may end up not being able to meet the production needs of the company or may bring more problems and wastage in the long run. If supplies can meet the quality standards the manufacturing firm will reap better profits and reduce losses of high quality products. According to Cooper (2016) companies have the set standards for the quality of suppliers which vary from one firm to another. The quality of raw materials supplied to the company determines the quality of final products. However, quality can be an obscure concept at first because what one might see as quality someone else may not. This is because those

that exceed quality standards stand out above their competitors and more importantly their potential for profit and consumer loyalty. The quality standard of suppliers makes it easier for companies to meet quality needs of their raw materials.

The study findings indicated that market reputation affect supplier selection. This may be because firm's belief that supplier with high reputation have better terms of chance of supplying the products. Buyers who are more exposed to the supplier of high quality products may be conversant with the trends in the supply chain. Their knowledge in the nature of the materials enables the supplies to come up with a strategy that ensures that they can supply the products constantly in the market (Galloway, 2017). This is in line with the findings of Toroitich et al. (2017), supplier market reputation is among the most familiar but least understood of a firm's assets. Black and Carnes (2016) argued that suppliers reputation contribute to supplier selection because the reputation of a supplier determine their nature and reliable. According to Henderson, & Evans, (2015 suppliers with higher market reputation are always reliable by proving that they are more consistent. The more predictable the supplier is enables, the firm to correctly plan on ensuring their requirements are met. The firm will be able to forecast their product demand in terms of quantity and then project what they require from their suppliers, which allows them to prepare for the demands of the industry at large.

According to Ogachi (2016) he noted that it is important that manufactures consider supplier's market reputation since it is essential in diversifying supply position to maintain our customer service levels by quality production. Market reputed suppliers remain resilient and always expect the unexpected, and are prepared to respond proactively to any situation. Some firms fail in selecting the more reputable supplier and this forces them to create a dual supply for parts and raw materials, so that if one supplier is unable to meet our requirements, the other can. This is in line with the findings of Toroitich et al. (2017) they believed it is important to develop trust with the suppliers, and not to overload them and create an unmanageable workload, or set unrealistic deadlines. Their business is important too, and we want to see them be just as successful. We have to be equitably transparent with them and offer them correct

information which will then enable them to respond to our needs appropriately. This is in line with the findings of Toroitich et al. (2017), they observed that the opinion of any manufacturing firm is only as strong as its weakest link, and as a supplier market reputation depend on reliability. In order to meet the demands of customers firms depends on supplier's ability to meet their demands.

The study findings also indicated that cost affects the firm supplier selection. Cost of supplying the goods by supplier will make decision on willingness and the ability of the firms to pay supplies and the balance they want to strike between cost, reliability, quality and service. This is in line with the findings of Dametew et al. (2018) they observed that Manufacturing firms should consider to pay more for a more reliable supplier as compared to a cheap supplier whose reliability is in question. Reliability and quality from suppliers, depends on the firms decision on payment. Manufacturing firms consider paying more for the supplier of materials as a way of ensuring that there will be a constant stream of materials to the firm without shortage. This will ensure that supplier are able to supplier the materials no matter the season and time because they are able to purchase the materials and still make some profit. This is in line with the findings of Toroitich et al. (2017) a strategic approach to choosing suppliers can also help to understand how firms own potential customers weigh up their purchasing decisions. The lowest price is not always the best value for money.

This is in line with the findings of Tobias (2017) who observed that the opinion of a suppliers offering a fair price provide the benefit of cost reduction to the manufacturing firms , while also providing themselves with a fair profit. A mutually beneficial price allows suppliers to remain profitable and continue business hence there will be continuous supply. Firms that earn extremely low profit margins relative to their competitors are likely to either cut corners on quality or to exit the relationship by buying cheaper materials. According to Drumwright (2016) firms and suppliers share pricing information, whereby the elements of both company's profit margins are revealed, so that both can reap benefits.

According to Edvinsson and Malone (2015) a massive commitment is required by both manufacturing firms and suppliers in order to achieve a truly valuable partnership. As a result firms consider the cost of their product because it gives information on the level of commitment of the suppliers added. In addition, firms can become captive to their strategic supply partners, due to excessive switching costs. This is in line with the findings of Tobias (2017). Finally, firms run the risk of partners leaking information gained in a long-term buyer-supplier relationship to competitors or using the information themselves to forward integrate and become a potential competitor. The study conducted Rotated Factor Matrix for Supplier Selection Measures. These findings are presented on table 4.12 below;

Table 4.12: Rotated Factor Matrix for Supplier Selection Measures

	Rotated Component Matrix^a	
	Supplier selection	Component Selection criteria
Selected suppliers' are only the ones who can meet quality standards of the firm	.815	.023
Firms selection criteria ensures only suppliers meeting firms standards are selected	.272	.656
Assessment process has always identified suppliers meeting firms quality standard	.615	.335
Supplier selected are the only one who possess positive market reputation	.749	.226
The criteria for firm selection ensures that only suppliers with high performance reputation are contracted	.608	.090
The selection process has often identified suppliers with the history of high performance	-.013	.879
Suppliers selected are the once who meets the least cost criteria of the firm.	.828	.115
Supplier selection should be guided by the least cost suppliers	.527	.269
The determination of the supplier has always been guided by least cost consideration	.747	.073

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 3 iterations.

All the variables of Supplier Selection Measures had a factor loading of higher than 0.4 as shown in Table 4.13. Ogachi (2016) showed that each individual variable must have value of 0.4 and above for it to be considered to have loaded. Therefore, the component values indicate that they are highly interrelated with each other. The factor loadings from the factor analysis revealed that the items to retain on component one were; Selected suppliers' are only the ones who can meet quality standards of the firm,

Assessment process has always identified suppliers meeting firms quality standard, Supplier selected are the only one who possess positive market reputation, the criteria for firm selection ensures that only suppliers with high performance reputation are contracted, This is in line with the findings of Dametew et al.(2018) they observed that Suppliers selected are the once who meets the least cost criteria of the firm, supplier selection should be guided by the least cost suppliers and the determination of the supplier has always been guided by least cost consideration. On component two the items to retain were: firms selection criteria ensure only suppliers meeting firms' standards are selected and he selection process has often identified suppliers with the history of high performance. The study conducted Correlation analysis for Supplier Selection Measure. These findings are presented on table 4.13 below;

Table 4.13: Correlation Analysis for Supplier Selection Measure

		Correlations		
		Organization Performance	Supplier Selection	Selection Criteria
. Correlation is significant at the 0.05 level (2-tailed).	Pearson Correlation	1	.118	-.078
	Sig. (2-tailed)		.020	.126
	N	340	340	340
. Correlation is significant at the 0.01 level (2-tailed).	Pearson Correlation	.118*	1	.357
	Sig. (2-tailed)	.020		.000
	N	340	340	340
Selection criteria	Pearson Correlation	-.078	.357**	1
	Sig. (2-tailed)	.126	.000	
	N	340	340	340

The correlation results indicated that there was a significant relationship between organizational performance and supplier selection ($p=0.020$). The study also indicated that there was no significant relationship between organizational performance and selection criteria ($p=0.126$). This is in line with the findings of Dametew et al. (2018) they observed that Supplier selection and improving supplier performance using the quality and production capacity criteria can lead to the resultant reduction in supplier quality problems eliminates wasteful steps in a firm's own processes and at the same time helps improve understanding of supplier performance and supplier's business policies and processes and thus assisting the buyer help suppliers drive waste and inefficiency out of procurement, resulting in higher-quality suppliers and lower costs which in turn improves the profitability of the buyer. This is in line with the findings of Tobias (2017). The study conducted Linear Regression analysis for supplier selection measure. These findings are presented on table 4.14 below.;

Table 4.14: Linear Regression Analysis for Supplier Selection Measure

Model Summary						
Model	R	R²	Adjusted R²	Std. Error of the Estimate		
1	.174 ^a	0.03	0.025	0.0062		
a. Predictors: (Constant), selection criteria, supplier selection ANOVA^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	8.458	1	4.229	6.028	.003 ^a
	Residual	271.52	339	0.702		
	Total	279.978	340			
a. Predictors: (Constant), selection criteria, supplier selection						
b. Dependent Variable: Organizational performance						
Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.918	0.204		9.391	0
	Supplier evaluation	0.174	0.056	0.167	3.108	0.002
	Selection criteria	-0.116	0.045	-0.137	-2.557	0.011
a. Dependent Variable: Organizational						

The study findings on coefficients indicated that supplier selection had a significant effect (0.002) on organizational performance $p > 0.05$ and also selection criteria had a significant effect (0.011) on organization performance. Therefore the regression model shows variable relationship was;

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 + \epsilon$$

Where; y = Organizational performance

x_1 = Supplier selection

x_2 = Selection criteria

$$Y = 1.668 + 0.154x_1 - 0.116x_2$$

This may be because organizations do not know the facts about how their suppliers are performing; supplier management tends to be based on guesses. Supplier selection enables organizations to remove hidden waste and cost drivers in supply chain. Through supplier evaluation organizations can set a threshold for its suppliers that can lead to higher-quality results. Supplier evaluation is ethical practice and ideally, suppliers should run their business in alignment with their customers and expect similar standards of excellence. Additionally supplier selection improves performance because it leads to constant improvement.

Supplier selection is largely seen as the most vital role of the procurement function since the organization's suppliers can affect the price, quality, delivery reliability and availability of its products. Organizations feel that proper supplier selection would assist reduce product and material costs whilst ensuring a high degree of quality and after-sales services. The implication here is that an efficient appraisal should be in place for the successful procurement. This is in line with the findings of Tobias (2017). Selection of appropriate suppliers is one of the fundamental strategies for enhancing the quality of output of any organization, which has a direct influence on the company's reputation since they can have a very positive or a very adverse impact on the overall performance of the organization. Cooperation between buyer and supplier is the starting point to establish a successful supply chain management and a necessary, but insufficient condition. The next level requires coordination and collaboration between buyer and suppliers.

There are a number of benefits of supplier appraisal these include ability to harness the strengths and skills of suppliers to the advantage of buyers improved quality and process performance and continuous cost reductions among others. This is in line with the findings of Tobias (2017) noted that supplier selection is also important in strategic sourcing, supplier management and the achievement of competitive advantage. Firms that selecting their suppliers discover that they have improved visibility into supplier

performance, unmask and deal with hidden cost drivers, lower risk, increase competitive advantage through reducing order cycle times and stock, have insight on how to best leverage their supply base, and align practices between themselves and their suppliers (Gordon, 2016).

Gordon (2016) added that organizations pursuing supplier selection to improve in supplier performance metrics such as on-time delivery, quality, and cost. Procurement can be full of inefficiencies some due to poor policies and strategies at the supplier's, that results to hidden costs such as stock-outs, carrying costs of overstocking, incorrect payments of invoices, slow acknowledgement and reporting of shipment and lost sales which in turn affects productivity, quality issues, increased wasteful costs and slow movement of goods which can be improved by supplier evaluation and better communications between buyers and suppliers. This is in line with the findings of Tobias (2017). This may be because the goals of every enterprise are to utilize limited resources in the most efficient manner so as to realize its objectives with minimal costs. This necessitates the selection criteria is to ensure that an institution gets the best contracts in terms of quality, costs, flexibility and reliability. Organizations therefore select the best criteria for selecting suppliers which quantifying the abilities of the supplier and the buying institution conducts evaluation to stimulate the behavior of the supplier. Selection criteria support the organization to realize its interests with regard to purchasing.

The study findings is in agreement with Cooper (2016) who noted that supplier selection criteria ensure compatibility between buyer and supplier in terms of shared business ethics, standards of excellence, commitment to continuous improvement are important in performance of suppliers. Compatibility is of concern especially in adoption of procurement best practices such as lean enterprise or any high performance system that drives shorter delivery times, higher quality, and lower prices which could actually have an adverse effect on a supplier who is not aligned with these practices. This is in line with the findings of Tobias (2017), a supplier who is unused to pursuing

continuous improvement may be unable to keep up with its buyers" increasing requirements for better, cheaper, faster goods and services.

A supplier selection criterion is therefore important to ensure compatibility and reduce risk of failure of supplies. Some of the supplier risks that supplier selection can mitigate on include: financial, operational, increased geographic distance and the performance of sub-tier suppliers whom the prime supplier has no contact with or knowledge of. The quality criteria help selecting the best supplier and also help in the supplier in performance improvement. This is in line with the findings of Dametew et al. (2018) they observed that the criteria of supplier appraisal can give an important insight into supplier performance and supplier business practices which help reduce business risk, especially given firms' increasing dependence on its key suppliers. Ohlson (2015) says that it is important that the procurement function identifies and analyses the supplier related factors that affect the performance of the procurement function. Procurement professionals acknowledge that combinations of value, service, and price are not often exactly equivalent. This is in line with the findings of Tobias (2017) he ascertained that if quality and price are identical, then supplier should be preferred solely on the basis of service. Service is rarely the same and in many cases it is a supplier's capabilities that are being purchased, not commodities. The study conducted Descriptive Statistics for Technical Capabilities Measure. These findings are presented on table 4.15 below;

Table 4.15: Descriptive statistics for Technical Capability Data

Descriptive Statistics		
	M	SD
The selected supplier is the one having special capabilities that meets the technical requirement of the firm.	3.83	1.23
The process of supplier determination has been always based on the suppliers having the right product/service information	3.15	1.24
Supplier identification criteria ensure that only those suppliers with technical capability are selected	3.77	1.24
The process of supplier determination has always identified those suppliers who meet the firms technical capability	3.25	1.21
Firm selection criteria ensure that suppliers selected are those that are able to reengineer their product and service over times	3.25	1.23
The process of supplier selection is always guided by the ability of the supplier to reengineer its product/process	3.76	1.21
The selected supplier is the one having special capabilities that meets the technical requirement of the firm.	3.36	1.18
The process of supplier determination has been always based on the suppliers having the right product/service information	3.05	1.24

The findings indicated that mean of 3.83 held that supplier identification is always guided by supplier product and service information of the respondents, mean of 3.77 held that the selected supplier is the one having special capabilities that meets the technical requirement of the firm mean of 3.76 held that firm selection criteria ensure that suppliers selected are those that are able to reengineer their product and service over times, mean of 3.36 held that the process of supplier determination has always identified those suppliers who meet the firms technical capability mean of 3.30 held that the process of supplier determination has been always based on the suppliers having the right product/service information and mean of 3.30 held that supplier identification criteria ensure that only those suppliers with technical capability are selected. This is in line with the findings of Tobias (2017), he observed that while mean of 3.15 held that

the process of supplier determination has been always based on the suppliers having the right product/service information and mean of 3.02 held that the process of supplier determination has been always based on the suppliers having the right product/service information. The main findings therefore indicated that the best technical capability measures according to the respondents were satisfactory supplier product, supplier special abilities and reengineering of suppliers because they have the highest mean.

4.5.1 Descriptive Results of Technical Capabilities

Technical capabilities was assessed by one measure namely, Technical capabilities. Descriptive data shown on Table 4.16 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.16: Technical Capabilities Descriptive Results

Descriptive Statistics			
	Mean	Std. Deviation	N
Performance	2.1814	.84837	390
Technical capabilities	3.3288	.87187	390

The descriptive statistics indicated that responses by respondents on performance of was (mean= 2.1814). They also indicated that Technical capabilities of a firm was (mean=3.3288). This is in line with the findings of Dametew et al. (2018) they observed that Cronbach's alpha was used to test the reliability of the proposed constructs (Ali et al., 2016). The findings indicated that Technical capabilities had a coefficient of 0.87187. Technical capabilities depicted Cronbach's alpha of 0.880 which was above the suggested value of 0.7 hence the study were reliable.

The study findings indicated that supplier product/service information affect technical capability. Suppliers /products and services is important in the technical capability of the firm because the supplier must meet the quality requirement of the manufacturing firm. Some suppliers may supply goods and services that the company cannot process because technical materials that are used in processing the products. Products and services that the supplier supply determines affect the technical capabilities of the firm. A firm cannot give order to a supplier who supplies goods that do not meet the technical aspects that the system must fulfill. This is in line with the findings of Araz and Ozkarahan (2017) who observed that suppliers offering unique goods and service and information provide firms with the ability to continuously improve their products in terms of quality and performance. Caves, and Porter, (2015) noted that firms that lead in technical capabilities are more likely to continually improve their products and equipment. Contracting suppliers that are technology leaders rather than followers translates into the ability for the manufacturing firm to be a leader in technology.

According to Ogachi (2016) suppliers who supply quality products which are processed using technology and in a way that it meets the technical requirement of the manufacturing firms. Also Ohlson, (2015) noted that products/ service technical issues are a must be considered for successfully operation of a firm. This is in line with the findings of Araz and Ozkarahan (2017) who agreed that when a firm discovers a new technology that allows it to produce at a lower cost, they will prefer to obtain their goods from suppliers whose goods are inline to their technology. A technological improvement that reduces costs of production will shift manufactures to suppliers who produce good that are in line theirs so that they improve the quality of their products

The study also indicated that the supplier special capability is a good indicator of technical capability. Supplier special capabilities help suppliers in determining the appropriate production schedules and inventory levels that are required to demands for direct materials. This is in line with the findings of Araz and Ozkarahan (2017) who observed that the ability of suppliers to meet the requirements of a lead firm or buying firm including specifications about quality, timely delivery and environmental and safety

standards and technological requirement. The suppliers' capabilities (flexibility, responsiveness and modularity) directly impact buyer responsiveness but that the level of buyer-supplier collaboration moderates this relationship. The relationship between suppliers' special capabilities and technical capability is directly related to firms' responsiveness, whereby there is an optimal point beyond which returns on the relationship decline.

Davis and Mentzer (2016) concurs with the study finding and says that special capability of a supplier touch on every part of a business and ensures that the firm can run as it should, it needs to ensure the seamless flow of goods and products. Should a supply chain fail firm's stand to accrue substantial losses. Therefore they aver that to limit financial, business and reputational risk, it's crucial for firms to properly manage their suppliers. Consequently, special capabilities among supplies enable firms to drive service excellence, control costs, and mitigate risks to gain increased value from their suppliers throughout the deal life cycle. This is in line with the findings of Araz and Ozkarahan (2017), however were of the opinion that to effectively managing suppliers is a challenge, especially when the company is strict on this capabilities. Therefore, to get the most from suppliers and hold them to account, it's important to track and measure their special capabilities.

The study findings indicated that suppliers reengineering affect the technical capability of a manufacturing firm. Reengineering of supplier implies that they can rethink on how their can meet the technical capabilities of the firm. This is in line with the findings of Dametew et al. (2018), they observed that suppliers reengineering allow suppliers to change their way of supply and products to suit the technical requirement of manufacturing firms. The Suppliers' business objectives and how processes related to them, encouraging full-scale recreation of processes rather than iterative optimization of sub-processes are achieved by being flexible on supply. Suppliers restructuring is the practice of rethinking and redesigning the way work is done to better support the firms' mission and reduce costs. Supplier reengineering starts with a high-level assessment of the organization's mission, strategic goals, and customer needs.

According to Morgan, Jeffrey (2015) suppliers restructuring allows innovation and may be applied in computerized or technological way by adapting the digital way. The availability of modern design, systems provide industry with high ability to bring products to market faster and ensure that they conform to specifications. This is in line with the findings of Araz and Ozkarahan (2017) who noted that reengineering is a vital step in the product design cycle. However, major problems with current reverse in technology are the inefficient surface rebuilding process, lack of digitizing exactness control in the data digitization process, and bottle necks resulted from enormous amounts of digitized surface points in the surface modeling process. This is in line with the findings of Araz and Ozkarahan (2017) who argued that this limitation, modern concurrent engineering concepts are difficult to apply for obtaining optimal product design. According to Cheng and Grimm (2016) the opinion that reengineering came at a time when many other waves of managerial technique had already crashed on the rocky shores of corporate bureaucracy.

The study conducted Rotated Factor Matrix for Technical capabilities. These findings are presented on table 4.17 below;

Table 4.17: Rotated Factor Matrix for Technical Capabilities

Component Matrix^a	Component Technical capabilities
Supplier identification is always guided by supplier product and service information	.567
The selected supplier is the one having special capabilities that meets the technical requirement of the firm.	.832
The process of supplier determination has been always based on the suppliers having the right product/service information	.788
Supplier identification criteria ensure that only those suppliers with technical capability are selected	.803
The process of supplier determination has always identified those suppliers who meet the firms technical capability	.804
Firm selection criteria ensure that suppliers selected are those that are able to reengineer their product and service over times	.928
The process of supplier selection is always guided by the ability of the supplier to reengineer its product/process	.533
Extraction Method: Principal Component Analysis.	
a. 1 components extracted.	

The factor loadings from the factor analysis revealed that the items to retain on component one were; Supplier identification is always guided by supplier product and service information, the selected supplier is the one having special capabilities that meets the technical requirement of the firm, the process of supplier determination has been always based on the suppliers having the right product/service information, supplier identification criteria ensure that only those suppliers with technical capability

are selected, the process of supplier determination has always identified those suppliers who meet the firms technical capability, firm selection criteria that ensure suppliers selected are those that are able to reengineer their product and service over times and the process of supplier selection is always guided by the ability of the supplier to reengineer its product/process. This is in line with the findings of Dametew et al. (2018).

The study conducted Correlation analysis for Technical Capabilities Measure towards organizational performance of manufacturing firms. These findings are presented on table 4.18 below;

Table 4.18: Correlation analysis for Technical Capabilities Measure

		Correlations	
		Performance	Technical Capabilities
Performance	Pearson Correlation	1	.159**
	Sig. (2-tailed)		.002
	N	340	340
Technical capabilities	Pearson Correlation	.159**	1
	Sig. (2-tailed)	.002	
	N	340	340

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

The correlation coefficient results indicate that there was a significant relationship (0.002) between technical capabilities and organizational performance. The study conducted Linear Regression analysis for Technical Capabilities. These findings are presented on table 4.19 a bellow;

Table 4.19: Linear Regression Analysis for Technical Capabilities

Model Summary						
Model	R	R²	Adjusted R²	Std. Error of the Estimate		
1	.159 ^a	0.025	0.023	0.83871		
a. Predictors: (Constant), technical capabilities						
ANOVA^b						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	7.044	1	7.044	10.014	.002 ^a
	Residual	272.933	339	0.703		
	Total	279.978	340			
a. Predictors: (Constant), Technical capabilities						
b. Dependent Variable: Organizational performance						
Regression Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
1	(Constant)	B	Std. Error	Beta		
	Technical capabilities	1.668	0.168	0.159	9.937	0
		0.154	0.049		3.165	0.002
a. Dependent Variable: Organizational performance						

The study findings on coefficients indicated that supplier selection had an effect on organizational performance $p > 0.05$. Therefore the regression model shows variable relationship was;

$$Y = \beta_0 + \beta_1 x_1 + \epsilon$$

Y = Organizational performance

x_1 = Technical capabilities.

$$Y = 1.668 + 0.154x_1$$

The study also indicated that the supplier special capability is a good indicator of technical capability. This is in line with the findings of Dametew et al. (2018), they observed that supplier special capabilities help suppliers in determining the appropriate

production schedules and inventory levels that are required to demands for direct materials. The ability of suppliers to meet the requirements of a lead firm or buying firm including specifications about quality, timely delivery and environmental and safety standards and technological requirement. This is in line with the findings of Cheptora et al. (2018) they observed that the suppliers' capabilities (flexibility, responsiveness and modularity) directly impact buyer responsiveness but that the level of buyer-supplier collaboration moderates this relationship. The relationship between supplier's special capabilities and technical capability is directly related to firm's responsiveness, whereby there is an optimal point beyond which returns on the relationship decline.

4.6 Effect of Information Exchange on Manufacturing Firms

The study conducted Descriptive Statistics for Information Exchange. These findings are presented on table 4.20 below;

Table 4.20: Descriptive statistics for Information Exchange Data

Descriptive Statistics		
	M	SD
Supplier determination criteria ensure that only suppliers that are able to estimate future market changes in demand are selected.	2.90	1.50
Supplier selected are the once able to meet current and future market demand.	3.24	1.45
Supplier identification is always based on the ability of the supplier to meet current and future raw material demand of the firm.	3.96	1.35
The criteria for firms' identification ensure that only those who meet firm's specification are selected.	4.09	1.32
Supplier determination process has always identified the suppliers who meet firms' specification.	3.34	1.49
Suppliers in our firm are identified based on their ability to estimate the demand in the market of the buyer.	4.00	1.341

The findings indicated that mean of 4.09 held that the criteria for firms' identification ensure that only those who meet firm's specification are selected, mean of 4.00 held that suppliers in our firm are identified based on their ability to estimate the demand in the market of the buyer and mean of 3.96 held that supplier identification is always based on the ability of the supplier to meet current and future raw material demand of the firm. This is in line with the findings of Dametew et al. (2018), they observed that a mean of 3.34 held that supplier determination process has always identified the suppliers who meet firms' specification, mean of 3.24 held that supplier selected are the once able to meet current and future market demand and mean of 2.90 held that supplier selected are the once able to meet current and future market demand. The main findings therefore indicated that the best information exchange measures according to the respondents were suppliers' knowledge of demand estimation substitute products and specification of firm's product as they had the highest mean value and are close related.

4.6.1 Descriptive Results of Information Exchange

Information Exchange was assessed by two measures namely, Information Exchange and Supplier identification. Descriptive data shown on Table 4.21 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.21: Information Exchange Descriptive Results

	Descriptive Statistics		N
	Mean	Std. Deviation	
Organizational performance	2.1814	.84837	390
Information Exchange	3.5179	1.17271	390
Supplier identification	2.3885	1.08317	390

The descriptive statistics indicated that the responses by respondents on organizational performance of the firm were (2.1814). They also indicated that demand information exchange of the firm was (3.5179) and that supplier identification of a firm was (mean=2.3885). Cronbach's alpha was used to test the reliability of the proposed constructs (Ali et al., 2016). This is in line with the findings of Dametew et al. (2018), they observed that the findings indicated that demand information exchange of the firm had a coefficient of 1.17271 while Supplier identification had a coefficient of 1.08317. Demand Information Exchange (Information Exchange and Supplier identification) depicted Cronbach's alpha of 0.848 which above the suggested value of 0.7 hence the study was reliable. The study findings indicated that demand estimation is a good indicator of information exchange. This is in line with the findings of Cheptora et al. (2018) that this may be because the estimate of demand is typically confined to a particular period of time, such as a month, quarter or year. Demand estimation information assist firms in pricing. When the supplier has an idea of what the demand will be for the product, they can easily approximate the cost of their products so that they can avoid overpricing their product and alienating some customers and leaving money on the table. Additionally demand estimation is important on information exchange helps on deciding on products to supply.

KAM (2015) they noted that when making business decisions using demand estimation, it is important to remember that these estimations are only educated guesses as to what the demand for a product or service will be. This is in line with the findings of Cheptora et al. (2018) who observed that if you have a high-quality product that people want, you may not be able to manufacture them fast enough to meet demand. An organization faces several internal and external risks, such as high competition, failure of technology, labor unrest, inflation, recession, and change in government laws in its effort to meet the ever changing customer demand. Therefore, most of the business decisions of an organization are made under the conditions of risk and uncertainty given the reality of the nature of demand. An organization can lessen the adverse effects of risks by determining the demand or sales prospects for its products and services in future. This is in line with the findings of Das and Buddress (2017) who observed that demand

estimation is a systematic process that involves anticipating the demand for the product and services of an organization in future under a set of uncontrollable and competitive forces

There is great importance of demand analysis for any business activity. This is in line with the findings of Das and Buddress (2017) who observed demand estimation analysis is very essential to suppliers because the objective should be the optimization for profit with efficient allocation of limited resources. Supplier aim at optimizing supply with systematic utilization of available resources and maximize profits. All these things depend upon the demand analysis. This is in line with the findings of Ogachi (2016), he noted that the demand analysis helps in finding out the optimum different quantities to be supplied in different markets, places for the establishment of business firms The demand for different goods in the market and the situation of the substitute goods can be known from the demand analysis. It is very essential for a supplier to know about the policies to be undertaken in order to maximize the profit on goods and services supplied.

The study findings also indicated that firm product specification indicates information exchange. This is because a suppliers need to quick assess if the item supplied is the same as the expected product one because if not the product could be potentially non-compliant, because of a design or material. This is in line with the findings of Dametew et al. (2018), they observed that the information needed for critical decision making include; identification of the manufacturer; a list of rules, bans and standards that apply to the item; design specifications and product images that visually illustrate the product and note distinguishing characteristics. Also some firms produce documented product and their features, which is a useful screening tool to identify when a pre-production product differs from the one available on the market.

Decisions regarding the product, price, demand are based on the elements of the market mix that the manufacture needs. It can be argued that supply decisions are probably the most crucial as the product is the very epitome of marketing planning. This is in line with the findings of Doney and Cannon (2017) who observed that many product

decisions lie between these two extremes. These can include the imposition of a global standardized product where it is inapplicable. Cognizance has also to be taken of the stage in the international life cycle, the organization's own product portfolio, its strengths and weaknesses and its global objectives. Unfortunately, most developing countries are in no position to compete on the world stage with many manufactured value-added products. Quality, or lack of it, is often the major letdown. The study conducted Rotated Factor Matrix for Information Exchange. These findings are presented on table 4. 22 below;

Table 4.22: Rotated Factor Matrix for Information Exchange

	Rotated Component Matrix^a	
	Demand information sharing	Component Supplier identification
Supplier determination criteria ensures that only suppliers that are able to estimate future market changes in demand are selected	.757	.019
Supplier selected are the once able to meet current and future market demand	.879	.006
Supplier identification is always based on the ability of the supplier to meet current and future raw material demand of the firm	.066	.797
Supplier identification criteria ensure that those selected meet the current and future demand of the buyer.	.153	.671
Supplier identified are those one who can meet the firms product specifications	.755	.336
The criteria for firms' identification ensure that only those who meet firm's specification are selected.	.858	.170
Suppliers in our firm are identified based on their ability to estimate the demand in the market of the buyer	.769	.299

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

a. Rotation converged in 3 iterations.

The factor loadings from the factor analysis revealed that the items to retain on component one were; Supplier determination criteria ensures that only suppliers that are able to estimate future market changes in demand are selected, Supplier selected are the once able to meet current and future market demand, supplier identified are those one who can meet the firms product specifications, The criteria for firms' identification ensure that only those who meet firm's specification are selected and suppliers in our firm are identified based on their ability to estimate the demand in the market of the buyer. This is in line with the findings of Dametew et al. (2018), they observed that a component two the items to be retained were; supplier identification is always based on the ability of the supplier to meet current and future raw material demand of the firm and supplier identification criteria ensure that those selected meet the current and future demand of the buyer. The study conducted Correlation Statistics for Information Exchange. These findings are presented on table 4.23 below;

Table 4.23: Correlation Statistics for Information Exchange

		Correlations		
		organizational performance	Demand Information Exchange	Supplier identification
Organizational performance	Pearson Correlation	1	.475**	.245**
	Sig. (2-tailed)		.000	.000
	N	340	340	340
Demand Information Exchange	Pearson Correlation	.475**	1	.324**
	Sig. (2-tailed)	.000		.000
	N	340	340	340
Supplier identification	Pearson Correlation	.245**	.324**	1
	Sig. (2-tailed)	.000	.000	
	N	340	340	340

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

The study findings indicated that there was significant relationship ($p=0.000$) between demand information exchange and organizational performance, and between supplier identification (0.000) and organizational performance of manufacturing firms.

The study conducted linear regression Analysis for Information Exchange. These findings are presented on table 4.24 below;

Table 4.24: Linear Regression Analysis for Information Exchange

Model Summary				
Model	R	R²	Adjusted	Std. Error of the Estimate
1	.485 ^a	0.235	0.231	0.7438

a. Predictors: (Constant), supplier identification, supplier selection.

ANOVA^b

Model	Sum of	Df	Mean Square	F	Sig.	
1	Regression	65.875	2	32.937	59.536	.000 ^a
	Residual	214.103	339	0.553		
	Total	279.978	340			

a. Predictors: (Constant), supplier identification, supplier selection.

b. Dependent Variable: organizational performance

Coefficients^a						
Model		Unstandardized		Standardized		
		Coefficients		Coefficients	t	Sig.
		B	Std.	Beta		
1	(Constant)	0.865	0.129		6.71	0
	Information exchange	0.32	0.034	0.442	9.415	0
	Supplier identification	0.08	0.037	0.102	2.162	0.031

a. Dependent Variable: Organizational Performance

The study findings on Regression coefficients indicated that information exchange had a significant effect (p=0.000) on organizational performance and supplier identification had significant effect (p= 0.031) on organization performance p<0.05. Therefore the regression model shows variable relationship as;

$$Y = +\epsilon \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \epsilon$$

; Y = Organizational performance

x₁= Information exchange

X₂= Supplier Identification

Y= + 0.865 +0.32 Information exchange + 0.08 Supplier Identification

The study findings indicated that information exchange affect organizational performance. This may be because the estimate of demand is typically confined to a particular period of time, such as a month, quarter or year. Demand estimation assist firms in pricing. This is in line with the findings of Doney and Cannon (2017) who observed that when the supplier has an idea of what the demand will be for the product, they can easily approximate the cost of their products so that they can avoid overpricing their product and alienating some customers and leaving money on the table. Additionally demand estimation is important on information exchange helps on deciding on products to supply.

The study findings indicated supplier identification affect organizational performance. This is because a suppliers need quick assess if the item supplied is the same as the expected product because if not the product could be potentially non-compliant, because of a design or material. This is in line with the findings of Dametew et al. (2017), they observed that a firms have Product Specification which gives provides critical information about a product and can include identification of the manufacturer; a list of rules, bans and standards that apply to the item; design specifications and product images that visually illustrate the product and note distinguishing characteristics. Also some firms produce documented product and its features, which is useful screening tool to identify when a pre-production product differs from the available.

4.7 Effect of Supplier Evaluation on Manufacturing Firms

The study conducted Descriptive y Statistics for Supplier Evaluation. These findings are presented on table 4.25 below;

Table 4.25: Descriptive Statistics for Supplier Evaluation Data

Descriptive Statistics	M	S.D
Firms' evaluation criteria are always guided by the suppliers' ability to meet buyers' objectives.	3.04	1.62
The process of supplier evaluation is always determined by supplier ability to meet buyer objectives.	3.00	1.62
Suppliers selected are the once who are satisfied by ISO standards.	4.36	1.22
Suppliers selection criteria is based on supplier ISO certification	4.43	1.18
The process of supplier selection is always based on those suppliers who meet ISO certification	3.03	1.64
The process of supplier selection is determined by the financial stability of the supplier to meet the buyer demand.	4.43	1.17

The findings indicated that mean of 4.4 held that the process of supplier selection is determined by the financial stability of the supplier to meet the buyer demand, mean of 4.43 held that suppliers selection criteria is based on supplier ISO certification and mean of 4.36 held that suppliers selected are the once who are satisfied by ISO standards. This is in line with the findings of Doney and Cannon (2017), they observed that the mean of 3.04 is held that firms evaluation criteria is always guided by the suppliers ability to meet buyers objectives, mean of 3.03 held that the process of supplier selection is always based on those suppliers who meet ISO certification and mean of 3.00 held that the process of supplier evaluation is always determined by supplier ability to meet buyer objectives.

4.7.1 Descriptive Results of Supplier Evaluation

Supplier evaluation was assessed by two measures namely, Supplier evaluation and Supplier financial evaluation. Table 4.26 presents descriptive data as shown on the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.26: Supplier Evaluation Descriptive Results

Descriptive Statistics			
	Mean	Std. Deviation	N
Organizational Performance	2.1814	.84837	390
Supplier evaluation	3.1017	1.24924	390
Supplier financial evaluation	4.4051	1.16430	390

The descriptive statistics indicated that responses by respondents on performance of the firm was (mean=2.1814). They also indicated that supplier evaluation of a firm were (3.1017) are and also supplier financial evaluation of a firm were (4.4051).

Cronbach's alpha was used to test the reliability of the proposed constructs (Ali et al., 2016). This is in line with the findings of Zong (2016), he observed that Supplier evaluation had a coefficient of 1.24924 while Supplier financial evaluation had a coefficient of 1.16430. Supplier evaluation (Supplier evaluation and Supplier financial evaluation) depicted Cronbach's alpha of 0.890 which was above the suggested value of 0.7 hence the study was reliable.

The study indicated that the financial position of the supplier is a good indicator of supplier evaluation. Manufacturing firms are required to evaluation the financial position of their suppliers to mitigate any financial related risks. The financial position of suppliers are indicated by the supplier's turnover, profits, cash flow issues and loan capital level and suppliers' level of financial dependency on their clients which manufacturing firms use to evaluate their supplier's. This is in line with the findings of Schiele (2017) he observed that most of the manufacturing firms in Kenya evaluate the financial position of supplier to check if they are other debts in the balance sheet example because it can be alarming for the manufacturing firms to see that the supplier

has a significant amount of liabilities; if they run into problems with cash down the road, the manufacturing firm will have to compete with all those other liabilities to claim the payments due to the supplier. Evaluating suppliers' financial capacity protects manufacturing organizations from potential risks associated with a supplier and protects the organization from costs and financial risks.

The study findings indicated that financial position of supplier is a good indicator of supplier evaluation which was contradicted by who noted that past financial is not a guarantee of future results but the warning is apt for business owners in evaluating potential trade supplier' creditworthiness, too. Just because a potential supplier paid bills promptly in the past, it doesn't guarantee that they have sufficient resources to pay them in the future. It is quite complicated to figure out the real financial situation of the supplier in many cases due to the various types of assets that own by supplier. This is in line with the findings of Doney and Cannon (2017), they agreed with the findings that evaluation teams typically evaluate the different financial ratios that determine whether a supplier can invest in resources, pay its suppliers and its workforce, and continue to meet its debt and financial obligations. These elements are important in determining whether the supplier will continue to be a reliable source of supply, and that supply will not be disrupted. Evaluation of financial position of suppliers by the company ensures that they are in a much better position to weather the ups and downs of an uncertain economy. The study indicated that quality of supplier service is a good indicator of supplier evaluation in manufacturing firms; this is because customers of the firm expect high quality of products from the manufacturing firms. Quality supplies from the suppliers reduce rework, scrap, testing, and inspection which take long time and reduce weakness that can lead to operational failure. This is in line with the findings of Ogachi (2016), he observed that supplier evaluation by manufacturing firms can facilitate quality improvements through the exchange of best practices among partners, which can enhance understanding and provide examples of proven techniques.

Also according to cheptora et al., (2018) they agreed with this study's findings that indicated that quality of supplier service is a good indicator of supplier evaluation.

Quality of service consists of qualitative methods such as; continuous improvement programs, total quality management, six sigma, quality of customer and support services, certifications, technical and design level, capability and capacity of handling abnormal quality, and ease of repair. Quality of service also consist of quantitative methods including reliability, rate of rejects of parts and processes, yield rate, process capability indices, and loss functions deployment all which are used in evaluating suppliers in business. There are some quality certifications, such as ISO 9000, focused on the quality management of suppliers in organizations. This is in line with the findings of Doney and Cannon (2017), they observed that these quality systems can be chosen in order to evaluate the quality supplier service of an organization, but they cannot be an appropriate representative of the quality of the products. Quality of customer and support services is another criterion in order to evaluate the quality of suppliers. This criterion is a sign of implementing customer-based systems in organizations, but customers just with considering this factor cannot assure the quality of the products. Quality of customer and support services is another criterion in order to evaluate the quality of suppliers. This criterion is a sign of implementing customer-based systems in organizations, but customers just with considering this factor cannot assure the quality of the products. Some organizations may show off their responsibility and hide their weak points with a flashy customer and support service.

The study indicated that supplier efficiency in delivery and service is also a good indicator of supplier evaluation. This is because some suppliers can deliver goods within a very short time and when the order is set by the manufacturing firms while others take a lot of time before delivering their goods for sale. This is in line with the findings of Osoro et al. (2015) they observed that a responsible supplier has to be in charge of receiving goods and a necessary packing list which accompanies orders being received in evaluating the suppliers. This is in line with the findings of Doney and Cannon (2017) who observed that the packing list has to be matched first to the purchase order and then to the items being received. In some manufacturing firms, evaluation of efficiency of suppliers delivering goods, it may be necessary to inspect goods for before accepting.

For example, in the manufacturing firms industry, it is customary to check the manufacturing and expiry dates of manufacturing firmss while receiving.

According to cheptora et al. (2018), they agreed with this study's finding that supplier efficiency in delivery and service is also a good indicator of supplier evaluation. Efficiency of service delivery by the suppliers can be evaluated through the supplier willingness to work with the company to optimize lead times, supplier who allows order flexibility within acceptable limits, the supplier consistency in meeting delivery goals, the supplier having a business system in place which accurately schedule product and procure materials in an economical manner and the supplier who is willing and able to notify the buyer in case there are delays in delivery of goods and explain the reason as to why they have been delayed.

It is quite complicated to figure out the real financial situation of the supplier in many cases due to the various types of assets owned by the supplier. This is in line with the findings of Doney and Cannon (2017) they agreed with the findings of this study that evaluation teams typically evaluate the different financial ratios that determine whether a supplier can pay its suppliers and its workforce, invest in resources, and continue to meet its financial and debt obligations. These elements are important in determining whether the supplier will continue to be a reliable source of supply, and that supply will not be disrupted. Evaluation of financial position of suppliers by the company ensures that they are in a much better position to manage the ups and downs of an uncertainty associated with economy.

The study conducted Rotated Factor Matrix Supplier Evaluation. These findings are presented on table 4. 27 below;

Table 4.27: Rotated Factor Matrix Supplier of Evaluation

Rotated Component Matrix	Component	
	ISO certification	Finance
Firms evaluation criteria is always guided by the suppliers ability to meet buyers objectives	.704	.228
suppliers are evaluated based on their ability to achieve buyer objectives	.228	.964
The process of supplier evaluation is always determined by supplier ability to meet buyer objectives	.662	.215
suppliers selected are the once who are satisfied by ISO standards	.881	.193
Suppliers selection criteria is based on supplier ISO certification	.881	.193
The process of supplier selection is always based on those suppliers who meet ISO certification	.694	.193
Supplier selection is based on the financial stability status of supplier	.270	.927
Supplier identification criteria ensure that only those suppliers whose financial position is strong are selected	.228	.964
The process of supplier selection is determined by the financial stability of the supplier to meet the buyer demand	.726	.142

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

The factor loadings from the factor analysis revealed that the items to retain on component one were ; firms evaluation criteria is always guided by the suppliers ability to meet buyers objectives the process of supplier evaluation is always determined by supplier ability to meet buyer objectives, suppliers selected are the once who are

satisfied by criterion set standards, This is in line with the findings of Kakwezi and Nyeko (2016), they observed that suppliers selection criteria is based on the procuring entities criterion, the process of supplier selection is always based on those suppliers who meet ISO certification and the process of supplier selection is determined by the financial stability of the supplier to meet the buyer demand. While the factor loadings from the factor analysis revealed that the items to retain on component two were; suppliers are evaluated based on their ability to achieve buyer objectives.

The study conducted correlation analysis for Supplier Evaluation. These findings are presented on table 4.28 below;

Table 4.28: Correlation Analysis for Supplier Evaluation

		Correlations		
		Organizational performance	ISO certification	Finance evaluation
Organizational performance	Pearson Correlation	1	.511**	.225**
	Sig. (2-tailed)		.000	.000
	N	340	340	340
ISO certification	Pearson Correlation	.511**	1	.478**
	Sig. (2-tailed)	.000		.000
	N	340	340	340
Finance evaluation.	Pearson Correlation	.225**	.478**	1
	Sig. (2-tailed)	.000	.000	
	N	340	340	340

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

The study findings also indicated that there was a significant relationship ($p=0.000$) between ISO certification and organizational performance, and between supplier financial evaluation (0.000) and organizational performance. The study conducted Linear Regression for Supplier Evaluation. These findings are presented on table 4.29 below;

4.8 Analysis of the Dependent Variable

The study conducted performance descriptive statistics. These findings are presented on table 4.29 below;

Table 4.29: Performance Descriptive Statistics Data

Descriptive Statistics	Mean	SD
We have had to retrench workers within the past three years	3.00	1.62
Our firm has witnessed an increase in the number of new members in the last three years	1.96	1.43
The firm has entered in new markets with its products/services.	2.31	1.19
The number of Assets has increased in the last three years	4.21	1.28
The amount of profits has been on the increase in the last three years	4.08	1.63
The volume of sales has been on the increase in the last three years	3.05	1.61
The market share has increased in the last three years	1.99	1.14
Operating costs have been on the decline in the last three years.	4.27	1.42
Dividends payout have been increased in the last three years	3.10	1.64
Salaries have been on the increase in the last three years	2.33	1.41
The firm has been in operation for over 10 years	2.13	1.45
The firm has an increased number of related products	2.18	1.31
There has been a significant decrease of liabilities in the last three years	2.14	1.35
There has been an increase in the number of business units	2.59	1.38

The findings indicated that mean of 4.27 of the respondents were of the opinion that operating costs have been on the decline in the last three years, mean of 4.26 the amount

of profits has been on the increase in the last three years and mean 4.13 held the amount of profits has been on the increase in the last three years. While mean of 3.10 held that the dividends payout have been increased in the last three years, mean of 3.05 held that the volume of sales has been on the increase in the last three years, mean of 3.00 held that we have had to retrench workers within the past three years and mean of 2.59 held that there has been an increase in the number of business units.

The main findings therefore indicated that the best performance measures according to the respondents were profitability, market share and dividends as they had the highest mean value and are closely related. It also implies that the manufacturing firm's performance was best depicted by the firms' profits. This echoes the findings of Cheptora et al. (2018). This is because the company's financial position at a specific point in time as recorded by the financial statements which shows how the cooperatives it is performing of its profits. Profits can be seen as the lifeblood of a successful and valuable business venture. A business that fails to achieve profit and instead suffers sustained losses will struggle to survive. Profits is measured annually, quarterly or semi-annually depending on the manufacturing policy to gauge the performance therefore it helps in concluding if the firm is making progress or not. When manufacturing firms are making profit they motivate the employees to increase their performance at work in order to keep the profit margin higher than their competitors.

This study finding is in agreement with Tylor (2015) his findings which concluded that high profit in an organization is a sign of high organizational performance in the manufacturing firms. This is because profit indicates high return which is the organizational measure of performance and growth. It is an insufficient measure that does not give the full picture of the performance of a business. Profits are short term in nature hence they do not provide a clear picture of performance of business. Even when a cooperative generates a profit, it can go bankrupt if it has big expenses due in the short term and has no money to pay them. Duke (2016) also noted that businesses which record high profits significantly are performing higher than their competitors. Profits show that the business takes initiative to improve.

Market share is also a good indicator of performance because it depicts the dominance of the manufacturing firms in terms of sales hence the resultant profitability in the cooperative. Therefore when the firm has a large market share and ranked in the top two best products, then it has a market influence and is more likely to be recording best performance. A high market share means that a manufacturing firm is doing more business and it allows them to quantify the impact the strategies and tactical execution on their business results, and ask questions of the performance that were previously not obvious to ask. Market share enables market executives to single out key trends in consumer behavior and see their market potential and market opportunity as they increase their performance level.

These findings were in agreement with the findings of Cooper (2016) determined in his works when he said that market shares also indicate the performance of organizations because it is proportional to the return on investment of the firm. As a market share increases a business is likely to record a higher performance margin, a declining purchase to sales ratio, a decline in marketing costs relative to sales, higher quality and product prices. Market share is one of the most notable determinants of company performance because in a majority of circumstances, companies that have attained a more significant share of the market their service are substantially more improved than those commanding a smaller share. Companies with greater market share also possess a higher market power that allow them to bargain more successfully (administer prices), which translates to greater performance of a certain product Market share and return of investment (ROI) are strongly correlated. A variance of 10 percent in market share is accompanied by a variance of around 5 percent in the rate of return before tax.

The study findings depicted that dividends paid to shareholders is also a good indicator of revenue performance in the manufacturing firms because dividends are paid out of earnings, their rate of growth tells us something about what management believes to be the real, sustainable earnings of the company. A manufacturing firm's willingness and ability to pay steady dividends over time and its power to increase them provides good clues about the financial performance. The dividend paid to shareholders increases with

increase in performance within the comparatives therefore when the comparatives are performing well, the shareholders are more likely to be paid in large amount. Hence, the study findings were in agreement with Toroitich, Mburugu and Waweru (2017) findings which concluded that dividends are used as organizational financial performance indicator. One of the most powerful ways for manufacturing firms to communicate their financial well-being and shareholder value is to pay dividends. Dividends are the portion of a company's profit independent of share price that is shared among shareholders. Companies that pay out dividends are considered of fine financial health. By paying dividends an enterprise sends clear messages about future projections and performance, it provides indications of the effectiveness of its business strategies and fundamentals. If a company cannot be able to pay dividends or its dividend yield is low compared to other company in the same industry, it may mean that it is in financial trouble and cannot afford to pay them. According to Ogachi (2016) a high dividend relative to the price of a firm's stock can provide a warning that the share price is depressed for performance reasons, meaning the dividends will be cut, so it acts as an indicator of a company's survival and anticipated growth prospects.

This is in line with the findings of Toroitich et al. (2017). The study conducted Rotated factor loading for Dependent Variable. These findings are presented on table 4.30 below,

Table 4.30: Rotated Factor Loading for Dependent Variable

Component Matrix^a	
	Component Revenue
The number of Assets has increased in the last three years	.601
Dividends payout have been increased in the last three years	.684
The firm has an increased number of related products	.454
There has been a significant decrease of liabilities in the last three years	.703
Extraction Method: Principal Component Analysis.	

a. 1components extracted.

The factor loadings from the factor analysis revealed that the items to retain on component one were; the number of assets have increased in the last three years, dividends payout have been increased in the last three years and there has been a significant decrease of liabilities in the last three years.

Table 4.31: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.512 ^a	0.262	0.258	0.73083

a. Predictors: (Constant), supplier financial evaluation, supplier evaluation.

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	73.276	1	36.638	68.596	.000 ^a
	Residual	206.702	338	0.534		
	Total	279.978	340			

a. Predictors: (Constant), supplier financial evaluation, supplier evaluation

b. Dependent Variable: Organizational Performance

Model		Coefficients ^a			t	Sig.
		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta		
1	(Constant)	1.16	0.148		7.847	0
	ISO certification	0.355	0.034	0.523	10.52	0
	Supplier evaluation	-0.018	0.036	-0.025	-0.5	0.617

a. Dependent Variable: Organizational performance

The study findings on coefficients indicated that ISO certification was significant (p=0.000) on organizational performance and also supplier evaluation had no significant effect (p= 0.617) on organizational performance. The regression model shows variable relationship was;

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \epsilon$$

Where; y = Organizational performance

$$x_1 = Y = + 1.160 + 0.355 \text{ supplier evaluation} - 0.018 \text{ supplier financial evaluation}$$

The study indicated that the financial position of the supplier is a good indicator of supplier evaluation. Manufacturing firms are required to evaluate the financial position of their suppliers to mitigate any financial related risks. The financial position of suppliers are indicated by the supplier's turnover, profits, cash flow issues and loan capital level and suppliers' level of financial dependency on their clients which manufacturing firms use to evaluate their supplier's. Most of the manufacturing firms in Kenya evaluate the financial position of supplier to check if they are other debts in the balance sheet example because it can be alarming for the manufacturing firms to see that the supplier has a significant amount of liabilities; if they run into problems with cash down the road, the manufacturing firm will have to compete with all those other liabilities to claim the payments due to the supplier. This is in line with the findings of Kakwezi and Nyeko (2016) who observed that evaluating suppliers' financial capacity protects manufacturing organizations from potential risks associated with a supplier and protects the organization from costs and financial risks. The study findings indicated that financial position of supplier is a good indicator of supplier evaluation which was contradicted by who noted that past financial is not a guarantee of future results but the warning is apt for business owners in evaluating potential trade supplier' creditworthiness, too. Just because a potential supplier paid bills promptly in the past, it doesn't guarantee that they have sufficient resources to pay them in the future.

The study indicated that quality of supplier service is a good indicator of supplier evaluation in manufacturing firms; this is because customers of the firm expect high quality of products from the manufacturing firms. Most manufacturing firms evaluation process require that suppliers have a carefully reasoned and executed quality plan that includes concerted efforts to provide levels of quality appropriate to the market being served. This is in line with the findings of Hunja (2016), who observed that evaluation of suppliers require quality product from suppliers, at a minimum, well established and well documented manufacturing processes and controls that meet impartial standards

and customer requirements. Quality supplies from the suppliers reduce rework, scrap, testing, and inspection which take long time and reduce weakness that can lead to operational failure. Supplier evaluation by manufacturing firms can facilitate quality improvements through the exchange of best practices among partners, which can enhance understanding and provide examples of proven techniques.

The study indicated that supplier efficiency in delivery and service is also a good indicator of supplier evaluation. This is because some suppliers can deliver goods within a very short time and when the order is set by the manufacturing firms while others take a lot of time before delivering their goods for sale. This is in line with the findings of Galloway (2017) he observed that a responsible supplier has to be in charge of receiving goods and a necessary packing list which accompanies orders being received in evaluating the suppliers. The packing list has to be matched first to the purchase order and then to the items being received. In some manufacturing firms, evaluation of efficiency of suppliers delivering goods, it may be necessary to inspect goods for before accepting. For example, in the manufacturing firms industry, it is customary to check the manufacturing and expiry dates of manufacturing firms while receiving.

4.9 Analysis of Procurement Policies

The study conducted Descriptive statistics for moderating variable. These findings are presented on table 4.32 below:

Table 4.32: Descriptive Statistics for Procurement Policies Data

Descriptive statistics	Mean	Std Deviation
Transparency among manufacturing firms.	4.08	1.61
Satisfactory allocation.	2.80	1.60
Equal distribution of resources.	2.82	1.61
Effective public accountability.	2.87	1.65
Fair competition among manufacturing firms.	4.32	1.65
Decrease in conflicts of interest.	4.32	1.69

The findings indicated mean of 4.32 held that there is decrease in conflicts of interest, mean of 4.32 held that there is fair competition among manufacturing and 4.08 held that firms transparency among manufacturing firms. While mean of 2.87 held that effective public accountability mean of 2.82 held that there is equal distribution of resources and mean of 2.80 held that there is satisfactory allocation. The main findings therefore indicated that the best procurement policies according to the respondents fair competition and conflict of interest as they had the highest mean value and are close related.

The study indicated that conflict of interests has a mediating influence on organizational performance. This is because if they are not recognized and controlled appropriately, they can undermine the fundamental integrity of officials, decisions making, and organization resource allocation and organization performance. Conflict of interest in most manufacturing firms in Kenya arises when the top manager of the manufacturing firm has private-capacity interests which could improperly influence the performance of the organization official duties and responsibilities. This is in line with the findings of Erik and Vennström (2016) who observed that the new forms of partnership between manufacturing firms and the suppliers and increasing engagement by competitor firms with suppliers, mean that conflicts of interest take new forms, presenting new challenges to managers. Conflict of interest situations cannot be avoided by simply prohibiting all managers interests on the part of manufacturing firms, instead, mangers must take personal responsibility for identifying and resolving problem situations, and institutions must provide realistic policy frameworks, set enforceable compliance standards, and establish effective management systems. The management of manufacturing firms also provides training, and ensures that the suppliers actually comply with the letter and the spirit of such standards.

According to Erik and Vennström (2016) they agreed with this study's findings that conflict of interest is a good moderator of organization performance. This is because it provides foundation of identifying and managing potential and actual conflicts of interest involving the principles which can embed organization performance. A conflict

of interest may be actual, potential or perceived and may be financial or non-financial. This is in line with the findings of Eisenhardt (2016), he observed that a conflict of interest occurs when a person's personal interests conflict with their responsibility to act in the best interests of a business organization they work for. Personal interests include direct interests as well as those of family, friends, or other organizations a person may be involved with or have an interest in (for example, as a supplier). It is the policy of the management as well as a responsibility of the board, that ethical, legal, financial or other conflicts of interest be avoided and that any such conflicts do not conflict with the obligations to the organization. Consequently, organizations manage conflict of interest by requiring board members to identify and establish a system for identifying, disclosing and manage any conflict of interest, and also monitor the compliance of the policy annually in order to increase organization performance. When properly managed by the company's board members, it will contribute to overall productivity of the company.

The study indicated that fair competition is a moderating influence on the organizational performance. This shows that the manufacturing firms in Kenya must ensure that whenever they engage in trading activities, they do so in a way that reflects its commitment to fair competition while not compromising the achievement of its purpose. Fair competition enables manufacturing a firm to concentrate on its strength and amend its weaknesses towards improving the organization performance. This is in line with the findings of Davis and Mentzer (2016), they observed that fair competition among manufacturing firms enables them to be able to acquire quality products, have loyal, efficient and timely suppliers and ensure they meet their customers' demands. Fair competition among the manufacturing firm ensures that suppliers selected meet the standards needed and can deliver goods as per the contract signed because they would not feel the need of switching to another manufacturing firm.

According to Edvinsson and Malone (2015), 'the Board of Trustees recognizes that the company's brand, status and activities could have an impact on competition in the markets in which it operates but is committed to conduct all its activities in a fair and reasonable manner which is in line with its charitable objectives and which avoids

negative impact upon competition, it ensures its activities do not jeopardize its reputation and brand, effective procedures are in place to ensure financial separation between funds granted by the company itself, from profits made and those received from other sources, it provides independent fair competition complaints procedure. This finding is in line with the findings of Eisenhardt (2016) he observed that transparency among manufacturing firm is often high and on the other hand disagrees with the findings that fair competition policy influences organization performance because most business tend to relax and produce products that does not meet the required standards because there is no competition. Competition makes manufacturing firms to out-do each other in resource allocation, number of suppliers, number of products produced and the increase in customer satisfaction.

The study conducted Rotated factor loading for moderating Variable. These findings are presented on table 4.33 below:

Table 4.33: Rotated Factor Loading for Moderating Variable

	Rotated Component Matrix^a	
	Component Procurement Policy	Component Efficiency Measures
Transparency among manufacturing firms.	.806	.202
Transparency among suppliers.	.063	.934
Satisfactory allocation.	.705	.118
Equal distribution of resources.	.736	.157
Effective public accountability.	.780	.176
Cost effectiveness.	.282	.941
Fair competition among manufacturing firms.	.840	.156
Health competition among manufacturing firms.	.282	.941
Decrease in conflicts of interest.	.839	.183

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 3 iterations.

The factor loadings from the factor analysis revealed that the items to retain on component one were; transparency among manufacturing firms (0.806), Satisfactory allocation (0.705), equal distribution of resources (0.736), effective public accountability

(0.780), fair competition among manufacturing firms (0.840) and decrease in conflicts of interest (0.839). This finding is in line with the findings of Eisenhardt (2016) he observed that transparency among manufacturing firm is often high.

The study conducted Correlation Analysis for moderating variable. These findings are presented on table 4.34 below;

Table 4.34: Correlation Analysis for the Moderator

		Correlations		
		Organizational Performance	Procurement Policy Measure	Efficiency Measures
Organizational performance	Pearson Correlation	1	.574**	.244**
	Sig. (2-tailed)		.000	.000
	N	340	340	340
Procurement policy	Pearson Correlation	.574**	1	.409**
	Sig. (2-tailed)	.000		.000
	N	340	340	340
Efficiency measures	Pearson Correlation	.244**	.409**	1
	Sig. (2-tailed)	.000	.000	
	N	340	340	390

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

Correlation coefficient r indicated that there is weak positive correlation (Pearson correlation= 0.574) organizational performance and procurement policy and partial correlation (Pearson correlation= 0.244) on organizational performance and efficiency measures. This finding is in line with the findings of Drumwright (2016) he observed that While partial correlation (Pearson correlation= 0.478) on procurement policy and efficiency measures toward organizational performance of manufacturing firms. The study findings also indicated that there is significant relationship ($p=0.000$) between organizational performance procurement measures and efficiency measures significant relationship (0.000) between organizational performance and efficiency measures and also significant relationship (0.000) between procurement policy measures and efficiency measure.

The study findings imply that there is partial correlation between efficiency and procurement policies. This may be attributed to the fact that procurement policy go hand in hand with efficiency. Application of appropriate procurement policy increases the level of efficiency in supply chain. This is because procurement policy minimizes possible risk associated with procurement by ensuring that there is proper procurement procedure in an organization. The study findings were in agreement with Drumwright (2016) who also concluded that using efficiency for benchmarking relies on arbitrary choices about techniques and variables and that it can create unrealistic expectations among customers without taking into account the cost of improving performance. The use of benchmarking and the publication of results should therefore be done in a careful manner so as to not be counter-productive.

A company is in a constant struggle to balance efficiency and effectiveness, it is a delicate balance to achieve because overall performance of an organization is measured by customer satisfaction. Therefore efficiency and effectiveness play second fiddle to customer satisfaction. This is in line with the findings of Doney and Cannon (2017), they observed that balancing efficiency depend largely on procurement policies that are deliberately imposed and applied in organizations. If a company decides that there are too many layers, for example, in the labor force, jobs could be eliminated to improve efficiency, but might result in a reduction in the company's ability to effectively serve the needs of their customers.

The study conducted linear regression Analysis for moderating variable. These findings are presented on table 4.35 below;

Table 4.35: Model Summary Linear Regression Analysis

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.575 ^a	0.33	0.327	0.69616

a. Predictors: (Constant), procurement policy, Efficiency measures

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	92.423	1	46.212	95.353	.000 ^a
	Residual	187.555	339	0.485		
	Total	279.978	340			

a. Predictors: (Constant), procurement policy measures, efficiency measures

b. Dependent Variable: Organizational performance

Model		Regression Co-efficients ^a			t	Sig.
		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta		
1	(Constant)	1.073	0.126		8.514	0
	Procurement policy measures	0.371	0.03	0.57	12.497	0
	Efficiency measures	0.007	0.03	0.011	0.245	0.807

a. Dependent Variable: organizational performance

The study findings on coefficients indicated that procurement policy have significant (p=0.000) on organizational performance and also efficiency measures have no significant effect (p= 0.617) on organizational performance. The regression model shows variable relationship was;

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \epsilon$$

Y = Organizational performance

x₁ = Procurement Policy

x₂ = Efficiency measures

$$Y = + 1.160 + 0.355 \text{Procurement policy} + 0.018 \text{Efficiency measures}$$

This implies that there is significant relationship between procurement policy and organizational performance. This may be because procurement policy enables organizations to keep low inventory without affecting operations in an organization. Procurement policies are applied in organizations to give guidance on matters related to procurement. These policies also enable the organization to manage applications of procurement procedures. Procurement helps organizations in making decisions on the products purchased. This finding is in agreement with the findings of Bailey (2016), who noted that procurement policies entail a set of rules and regulations put in place to govern the process of acquiring goods and services needed by an organization to function efficiently.

Procurement is the process in which public or private organizations buy supplies or services to fulfill various requirements such as shelter, transport and need for infrastructures, among many others. Through procurement the organization facilitates the achievement of its own policy goals such as sustainable development and product scheduling needs. This findings is in agreement with the findings of Arthur (2016), who observed that the exact process seeks to minimize expenses associated with the purchase of those goods and services by using strategies such as volume purchasing; the establishment of a set roster of vendors, and establishing reorder protocols that help to keep inventories low without jeopardizing the function of the operation. Both small and large companies as well as non-profit organizations regularly design and apply procurement policies to guide on procurement matters. Procurement policies are thus a set of rules and regulations that are designed by organizations to govern on application of various procurement procedures this is in line with the findings of Arthur (2016), who observed that procurement rules to follow to enhance organizational performance in manufacturing firms.

4.10 Overall Regression

The study conducted Overall Regression without Moderating Variable. These findings are presented on table 4.36 below;

Table 4.36: Overall Regression Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.539 ^a	0.29	0.277	0.72136

a. Predictors: (Constant), Selection criteria, supplier evaluation, technical capabilities, supplier identification, Information Exchange, supplier selection.

ANOVA Test

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	81.20	1	81.20	22.293	.001 ^a
	Residual	198.7	339	0.52		
	Total	279.9	340			

a. Predictors: (Constant), Selection criteria, supplier evaluation, technical capabilities, supplier identification, Information Exchange, supplier selection.

b. Dependent Variable: Organizational Performance

Model		Regression Coefficients ^a			T	Sig.
		Unstandardized Coefficients	Standardized Coefficients			
		B	Std. Error	Beta		
1	(Constant)	0.897	0.23		3.898	.000
	Supplier selection	0.019	0.061	0.02	0.317	0.751
	Technical Capabilities	0.126	0.059	0.174	2.133	0.034
	Information Exchange	0.009	0.039	0.011	0.228	0.820
	Supplier evaluation	0.243	0.059	0.359	4.156	0.010
	Organ. Performance	0.126	0.04	-0.126	-2.683	0.008

a. Dependent Variable: Organizational performance

The study findings on coefficients indicated that there is significant relationship between information exchange and organizational performance (0.009) and also there is significant relationship between (0.243) supplier evaluation and organizational performance. The study findings also indicated that there is significant relationship (p=0.126) between technical capabilities and organizational performance, Supplier

information and organizational performance ($p=0.820$), there is no significant relationship ($p=0.725$) supplier financial evaluation and organizational performance and also there is no significant relationship ($p=0.112$) between supplier selection and organizational performance. This is in line with the findings of Armstrong (2016), who observed that organizational performance in manufacturing firms can have the same effects.

The regression model shows relationship between variables as follows;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where; Y = Organizational performance of manufacturing firms

X₁ = Supplier selection

X₂ = Technical Capabilities

X₃ = Information Exchange

X₄ = Supplier Evaluation

ε = Error term

Y = supplier selection - 0.107 + 0.897 + technical capabilities 0.019 + information exchange 0.126 + Supplier evaluation 0.243 + ε .

4.11 Overall Model Regression

The study conducted Overall regression with the Moderating Variable. These findings are presented on table 4.37 below;

Table 4.37: Overall Model Summary

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.694 ^a	0.653	0.637	0.49058

a. Predictors: (Constant), supplier selection, supplier financial evaluation, supplier identification, supplier

ANOVA^b

Model		Sum of	Df	Mean	F	Sig.
1	Regression	8.755	1	10.973	23.009	.000 ^a
	Residual	1.323	339	0.477		
	Total	10.078	340			

a. Predictors: (Constant), supplier selection, supplier financial evaluation, supplier identification, supplier selection, information

b. Dependent Variable: Organizational performance

Coefficients^a

Model		Unstandardized B	Std. Std.	Standardized Beta	t	Sig.
1	(Constant)	0.976	0.252		3.866	0
	Supplier selection	0.015	0.059	0.016	0.26	0.795
	Technical capabilities	0.088	0.057	0.122	1.544	0.124
	Information exchange	-0.02	0.038	-0.026	-0.545	0.586
	Supplier evaluation	-0.014	0.071	-0.021	-0.196	0.844
	Organ. Performance	-0.004	0.036	-0.006	-0.125	0.901

a. Dependent Variable: organizational performance

The regression model shows variable relationship was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where; Y = Organizational Performance

X₁ = Supplier selection

X₂= Technical Capabilities

X₃= Information Exchange

X₄ = Supplier Evaluation

ε =Error term

Y= 0.091 Supplier selection +0.976+0.015 technical capabilities+ 0.0.088 information exchange + - 0.014 Supplier evaluation -0.004 + Error term

4.12 Hypothesis Testing

The study Hypothesis was Summarized in table 4.38

Table 4.38: Summary for All Hypothesis Testing and their Findings

Hypothesis	Comment
There is no significant relationship between supplier selection on organizational performance of manufacturing firms in Kenya	The null hypothesis was rejected and the alternative hypothesis is accepted.
There is no significant relationship between technical capabilities on organizational performance of manufacturing firms in Kenya.	The null hypothesis was rejected and the alternative hypothesis is accepted.
There is no significant relationship between information exchanges on organizational performance of manufacturing firms in Kenya.	The null hypothesis was rejected and the alternative hypothesis is accepted.
There is no significant relationship between supplier evaluations on organizational performance of manufacturing firms in Kenya.	The null hypothesis was rejected and the alternative hypothesis is accepted.
The moderating has no significant relationship between independent and dependent variables	The null hypothesis was rejected and the alternative hypothesis is accepted

On supplier selection, the null hypothesis, ‘There is no significant relationship between supplier selection on organizational performance of manufacturing firms’ was rejected since the sig. was 0.03 p-value <0.05 hence, the alternative hypothesis accepted. This is in line with the findings of Araz and Ozkarahan (2017), who observed that at that level

the alternative hypothesis must be taken On the second null hypothesis, 'There is no significant relationship between technical capabilities on organizational performance of manufacturing firms in the organizational performance' the null hypothesis was rejected since the sig. level was 0.02 p-value <0.05 hence, the alternative hypothesis was accepted. On the third null hypothesis 'There is no significant relationship between information exchanges on organizational performance of manufacturing firms in Kenya, the null hypothesis was rejected since the sig. was 0.000 p-value <0.05 hence, the alternative hypothesis was accepted and finally on the fourth null hypothesis, 'There is no significant relationship between supplier evaluations on organizational performance of manufacturing firms in Kenya,' the hypothesis was rejected since the sig. was 0.000 p-value <0.05 hence, the alternative hypothesis was accepted. This is in line with the findings of Andrew (2016), who observed that at that level the alternative hypothesis must be taken.

OPTIMAL MODEL

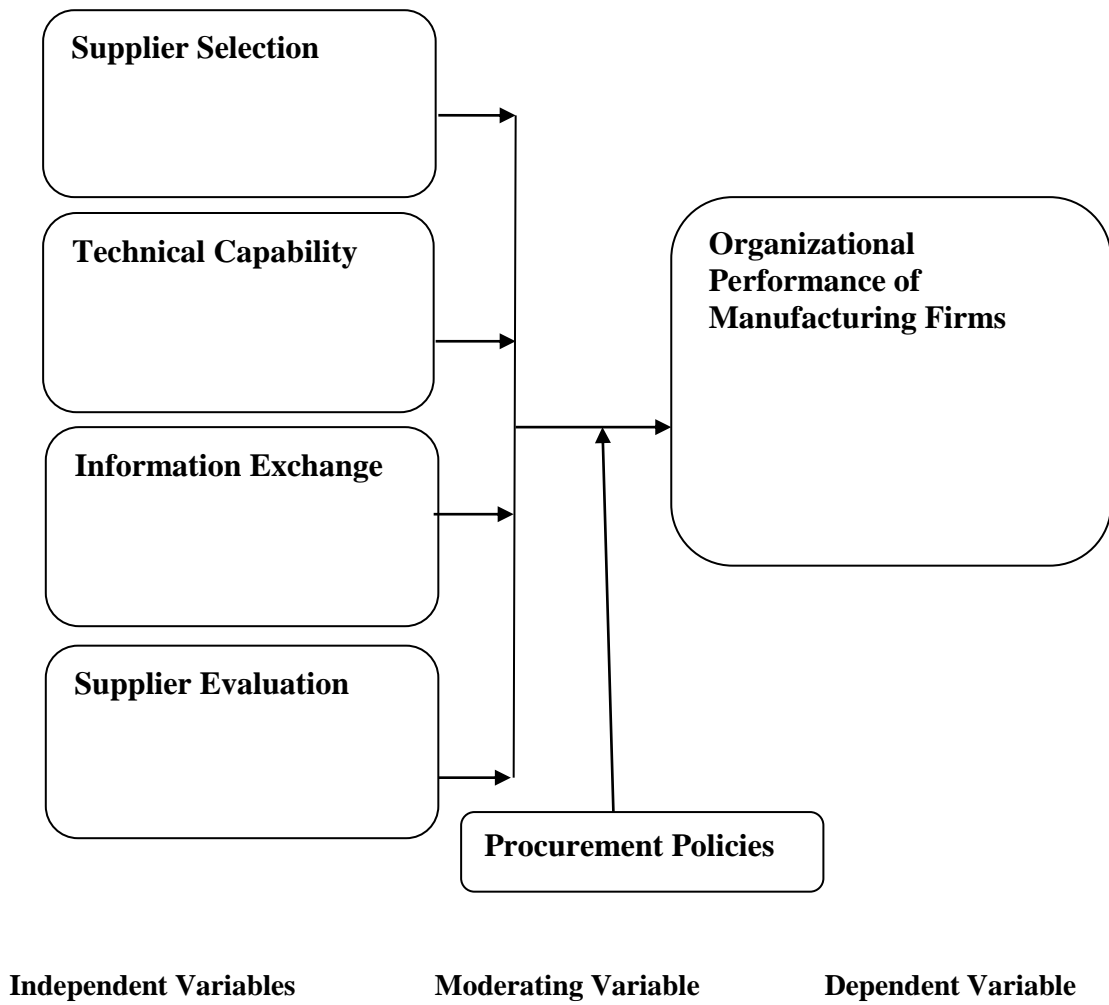


Figure 4.1: Optimal Model

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter discusses the Summary of findings, conclusion and recommendation derived from the study, the contribution to new knowledge and suggestion for further studies.

5.2 Summary

World over, organizations have discovered the significance of organizational performance in maintaining their supplier development. Literature indicates that Supplier's development is one of the key aspects that were geared towards enhancing organizational performance of the manufacturing firms which in due course result to effective supply development. This study was anchored on the fundamental reasoning that supplier development management practices on organizational performance of manufacturing firms. Therefore, this study investigated the effect of supplier development management practices on organizational performance in manufacturing firms in Kenya. The study determined the effect of supplier selections, technical capability, and information exchange and supplier evaluation on organizational performance in manufacturing firms in Kenya. The study employed a mixed research design.

The target population of this study was 500 respondents from manufacturing firms industry which operated in Nairobi and practices procurement functions. Stratified random sampling was employed to select a sample frame of 399 respondents. The study used primary data which was collected using questionnaire for measuring each construct and analysis was done. A questionnaire was used to collect data and the data collected was coded and analyzed through a statistical package for social sciences (SPSS) version 24 to test for content, construct, and criterion-related validity, as well as reliability

analyses. Further, a structural equation model was used to test the relationships between the variables. In addition, regression analyses and ANOVA was also used to analyze the effects of various relationships at the sub-construct level as well at item level.

Objective 1: Effect of Supplier Selections on Organizational Performance of Manufacturing Firms

The researcher established that selected suppliers' are only the ones who can meet quality standards of the firm, meets the least cost criteria of the firm; possess positive market reputation, meets firms quality standard and firm selection ensures that only suppliers with high performance reputation are contracted. The correlation results indicated that there was a significant relationship between organizational performance and supplier selection. The study findings on coefficients indicated that supplier selection had a significant effect on organizational performance and also, selection criteria had significant effect on organization performance. Supplier selection criteria and supplier involvement are used by manufacturers firm for the development of suppliers in future.

It also provides support for the claim that firms employing these practices have enhanced supplier and manufacturing performance. Most firms regard the use of supplier selection criteria as an important part of their supplier selection process. Supplier involvement in product design activities and continuous improvement efforts is much lower than the use of supplier selection criteria. The product quality and product performance dimensions of supplier selection criteria plus all of the dimensions of supplier involvement and supplier performance are positively correlated with manufacturing performance; supplier selection can be a tool that provides useful information for potential efficiency gains and enhanced competitiveness, at the current level of resources and technology.

Objective II: Effect of Technical Capability on Organizational Performance of Manufacturing Firms

The study findings indicated that technical capability was always guided by supplier product and service information; special capabilities and reengineer their product. The correlation coefficient results indicated that there was a significant relationship between technical capabilities and organizational performance. The study findings on coefficients indicated that supplier selection had an effect on organizational performance. The researcher found out that special capability among supplies enable firms to control costs, drive service excellence and mitigate risks to gain increased value from their suppliers throughout the deal life cycle. The researcher found out that, to get the most from suppliers and hold them to account, it's important to track and measure their technical capabilities. Unfortunately, implementing the concept is not very simple and over the years, companies have crumbled due to failure to master the best practices in supplier development management. Practices such as measuring the performance of suppliers, engaging suppliers in quality management systems, supplier audits, supplier development, integration and competitive supplier selection are a great opportunity to improve organizational performance in all manufacturing firms.

Thus, when searching for new suppliers firms are increasingly seeking out those that meet their technical and commercial requirements. The study also was in agreement with findings of the Chartered Institute of Purchasing and Supplies (2012) who avers that financial status and stability are measured by factors such as profitability, cash flows management, assets owned, and debts owed among other factors. They also posited that the financial stability will reflect on the ability of suppliers to meet the current contract with the purchaser and to ensure a secure future flow of supplies to manufacturing firms.

Objective III: Effect of Information Exchange on Organizational Performance of Manufacturing Firms

The main findings therefore indicated that the best information exchange measures according to the respondents were suppliers' knowledge of demand estimation substitute

products and specification of firm's product as they had the highest mean value and are close related. The correlation coefficient results indicated that there was a significant relationship between demand information exchange and organizational performance, and supplier identification was also significantly related to organizational performance. The study findings on coefficients indicated that demand information exchange had a significant effect on organizational performance and supplier identification have significant effect on organization performance. The researcher found out that, demand Information sharing contributes to the improvements in visibility between firms, production planning, inventory management, product quality as well as creating easier transitions when engaging in new product development that encourages commitment and cooperation and helps the buyer and seller through the adaptation of information exchange in the process of supplier development management practices towards organizational performance of manufacturing firms...

Objective IV: Effect of Supplier Evaluation on Organizational Performance of Manufacturing Firms

The researcher's findings indicated that the supplier evaluation measures by respondents were ISO certification, and financial evaluation of the suppliers towards supplier development management practices was so vital. The correlation coefficient results indicated that there was a significant relationship between ISO certification and organizational performance, and between supplier financial evaluation and organizational performance of manufacturing firms. The study findings on coefficients indicated that supplier evaluation had a significant on organizational performance and also supplier financial evaluation had no significant effect on organizational performance. The researcher found that supplier financial evaluation is important in supplier evaluation. This is because financial is the most crucial factor on evaluating supplier and it also determines organizational performance. According the researcher's evaluation consideration for supplier evaluation attributes is an essential ingredient in any successful organizational performance of manufacturing firms. There is no universally accepted definition of supplier attributes. However, most scholars regard

supplier evaluation attributes as the key characteristics or features that make suppliers suitable or not suitable for selection. In general, best suppliers are those that offer products or services, which match or exceed the expectations of the organizational.

5.3 Conclusion

The researcher aimed at investigating the effect of supplier development management practices on organizational performance in manufacturing firms in Kenya. The study generally concluded that the results were significantly of good degree of prediction of the outcome variable. Selection criteria, supplier evaluation, technical capabilities, supplier identification, Information Exchange and supplier selection is significant were significant to organizational performance. The researcher further concluded that Selected suppliers' were the only the ones who can meet quality standards of the firm, supplier identification is always guided by supplier product and service information, firms' identification ensured that only those who met firm's specification were selected and process of supplier selection was determined by the financial stability of the supplier towards the development of suppliers in the manufacturing firms.

Objective I. Effect of Supplier Selections on Organizational Performance of Manufacturing Firms

Based on the researcher's findings of this study, the study concludes that supplier selection affected organizational performance. The nature of the relationship was strong. Supplier selection enables organizations to remove hidden waste and cost drivers in supply chain. Through supplier selection organizations can set a threshold for its suppliers that can lead to higher-quality results. Supplier selection is ethical practice and ideally, suppliers should run their business in alignment with their customers and expect similar standards of excellence. They also posited that the financial stability will reflect on the ability of suppliers to meet the current contract with the purchaser and to ensure a secure future flow of supplies. The researcher's finding is also supported by the most common organizational performance of supplier selection during the criteria formulation

used when preparing bid documents to analyze the supplier development management practices. ISO 1400 certification covering such aspects as supplier selection criterion are very vital at this stage in time.

Objective II. Effect of Technical Capability on Organizational Performance of Manufacturing Firms

Based on the researcher's findings, the study concludes that technical capability had an effect to organizational performance of manufacturing firms in the industry in Kenya. There was significant relationship between technical capabilities and organizational performance and the nature of the relationship was strong. Supplier's special technical capabilities can help supplier's development management practices in determining the organizational performance of manufacturing firms, as its appropriateness to production schedules and inventory levels that are required to growth of organizational.

Objective III: Effect of Technical Capability on Organizational Performance of Manufacturing Firms

Based on the researcher's findings the study concludes that the ability of technical capability of a suppliers to meet the requirements of a lead firm or buying firm including specifications about quality, timely delivery and environmental and safety standards and technical capability requirement. The suppliers' technical capabilities such as flexibility, responsiveness and modularity can directly impact buyer responsiveness to deliver of goods for scheduled production programs. The relationship between supplier's special capabilities and technical capability was directly related to firms' responsiveness, whereby there was an optimal point beyond which returns on the relationship decline, which may affect the supplier development management practices on organizational performance of manufacturing firms.

Objective III: Effect of Information Exchange on Organizational Performance of Manufacturing Firms

Based on the researcher's findings, the study concluded that information exchange affects organizational performance of all manufacturing firms. There was a significant relationship between information exchange and organizational performance of manufacturing firms. The estimate of demand is typically confined to a particular period of time, such as a month, quarter or year. Demand estimation assist firms in pricing, planning and scheduling of products towards meeting customer needs on organizational performance of manufacturing firms. When the suppliers have an idea of what the demand will be for the product, they can easily approximate the cost of their products so that they can avoid overpricing their product and alienating some customers and leaving money on the table without achieving organizational performance of manufacturing firms. Additionally demand estimation is important on information exchange helps on deciding on products to supply. Information exchange plays a vital role towards supplier development management practices on organizational performance of manufacturing firms. Information exchange can unearth the causes of performance difficulties; improve understanding of business operations; cultural factors and the leadership at the supplier which lead to follow-up activities, such as information exchange and supplier development, management practices on organizational performance of manufacturing firms. The corrective actions that deal with information exchange to hence coming up with the best ways to obtain measurable and positive results which will at the end improve supplier development, management practices on organizational performance of manufacturing firms

Objective IV: Effect of Supplier Evaluation on Organizational Performance of Manufacturing Firms

Based on the researcher's findings, the study concluded that supplier evaluation affected organizational performance of manufacturing firms in the industry in Kenya. There was a significant relationship between supplier evaluation and organizational performance.

Manufacturing firms were required to evaluate the financial position of their suppliers to mitigate any financial related risks. The financial position of suppliers are indicated by the supplier's turnover, profits, cash flow issues and loan capital level and suppliers' level of financial dependency on their clients which manufacturing firms use to evaluate their supplier's. Most of the manufacturing firms in Kenya evaluate the financial position of supplier to check if they are other debts in the KRA debts remittance example because it can be alarming for the manufacturing firms to see that the supplier who has not complied with tax payment, he can run into problems with cash flow, the manufacturing firm will have to compete with all those other liabilities to claim the payments due to the supplier. Evaluating suppliers' financial capacity protects organization's performance of manufacturing firms from potential risks associated with a supplier poor quality of goods, late delivery partial delivery, pilferage, failure to give credit and protects the organization production schedule.

Objective V: Moderating Effect of Procurement Policy on Organizational Performance of Manufacturing Firms

Based on the researcher's findings, the study concluded that procurement policy affected organizational performances of manufacturing firms in the industry in Kenya. There was a significant relationship between procurement policy and organizational performances. This may be because procurement policy enables organizations to keep low inventory without affecting operations in an organization. Procurement policies are applied in organizations to give guidance on matters related to procurement. These policies also enable the organization to manage applications of procurement procedures. A procurement policy helps an organization in making decisions on the products purchased. There is no significant relationship between technical capabilities and organizational performance, there is no significant relationship between information exchange and organizational performance of manufacturing firms, there is no significant relationship between supplier identification and organizational performance, there is no significant relationship between supplier evaluation and organizational performance, there is no significant relationship supplier financial evaluation and

financial performance and also there is no significant relationship between efficiency measures and organization performance. There was a significant relationship between procurement policy and organization performance of manufacturing firms.

5.4 Recommendation

The study makes the following recommendation to help the manufacturing firms in Kenya to improve their performance.

Objective 1: Effect of Supplier Selections on Organizational Performance of Manufacturing Firms

From the researchers' findings it is recommended that the government should develop a clear policy framework to guide supply development initiatives on supplier selections, technical capability, and information exchange and supplier evaluation. Specifically, government procurement policy should target the major areas identified in the study including supply identification, removal of hidden waste and cost drivers in a supply chain. Others include policy to determine supplier special capabilities which will help suppliers in determining the appropriate production schedules and inventory levels. Policy will establish demand estimation to assist firms on pricing and financial dependency on their clients which manufacturing firms use to evaluate their supplier's. On supplier selection, supplier selection the manufacturing firms should train their supplier on quality standards. The training should also target the selection committees or procurement managers on how best to select the suppliers. On technical capability, management should ensure close sharing of technical product/service information between the manufacturing firms and the supplier.

Objective III: Effect of Information Exchange and Organizational Performance of Manufacturing Firms

Based on the researchers findings the study recommends that information exchange ensure steady flow of products and increase in sales volume which increases the

performance level of the firm on information exchange, Management should ensure close sharing of demand estimation information exchange between the manufacturing firms and the suppliers. The supplier development management practices on organizational performance of manufacturing firms should communicate to the suppliers, the raw material that they require for future production, the firms and specify the products they need to be delivered in line to the customers taste and preference and inform the suppliers of the changes in market which will enhance organizational performance of manufacturing firms. Procurement policy has been shown as a key moderator which can have a bigger impact into how supplier selection affect performance how technical capability affects performance, how information exchange affects performance and how supplier evaluation affect performance. The procurement policy has shown positive influence on supplier selection, technical capability, information, and exchange and supplier evaluation especially for considering that without the effect of the moderator the values were not significant.

Objective IV: Effect of Supplier Evaluation and Organizational Performance of Manufacturing Firms

Based on the researchers findings the study recommends that supplier evaluation, management needs to ensure that competent personnel are in place to manage supply chain processes in the organizations. This would be facilitated through training of all the staffs total quality management in an effort to meet ISO certification requirement for all businesses. Management also needs to offer training on organizational performance of supplier management practices in the manufacturing firms. Management for the manufacturing firms in Kenya also needs to effectively evaluate the most effective evaluation criteria that would facilitate its organizational performance of supplier management practices in the manufacturing firms. Having effective supply chain management will determine the ability of the organizational performance of supplier management practices in the manufacturing firms.. This study besides showing the effect of supplier selection, technical capability, information exchange and supplier evaluation on organizational performance of supplier management practices in the

manufacturing firms, it has shown how procurement policies can be used to influence relations between this items and performance of manufacturing firms.

5.6 Areas for Further Studies

The study recommends further research should be conducted in the following areas to enrich the existing literature in this field. More manufacturing firms such as; textile, chemical among others so as to validate these findings and arrive at a consensus on the effect of supplier selection and customer satisfaction on the relationship between supplier development management practice and performance of firms, Effect of policies on the relationship between supplier evaluation and performance of manufacturing firms in Kenya, The relationship between supplier identification criteria and organization performance of manufacturing firms in Kenya.

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APPENDICES

Appendix I: Letter of Introduction

Duncan Nyakundi Nyaberi

P. O Box 3347-30200

Kitale

Tel: 2547255386672

Dear Sir/Madam

Subject: Doctoral Thesis Research Questionnaire, Data Collection

My name is Duncan Nyakundi Nyaberi. I am a Ph.D. student at Jomo Kenyatta University of Agriculture and Technology, and I am currently doing research for my thesis on Effect of Supplier Development Management Practices on organizational Performance in Manufacturing Firms in Kenya to fulfil the requirements for the Award of Degree of Doctor of Philosophy in Business Administration (supply chain management option).

The data gathering of my research requires your collaboration in filling out this questionnaire. It takes an average of 10 minutes.

I would really appreciate your help. Your response is extremely valuable for my thesis. Please take the time to complete the questionnaire, and if you have any questions, please contact me. Your response will be treated with utmost confidentiality and will be used only for research purposes of this study. In case of any query kindly don't hesitate to contact me using this No. 0725538672 or duncannyaberi@gmail.com

Thank you in advance for your attention and response.

Yours Faithfully,

Duncan N Nyaberi

Appendix 1I: Guidelines and Instructions

Effect of Supplier Development Management Practices on Organizational Performance in Manufacturing Firms in Kenya

General Instructions and Information

- This questionnaire is to collect data for purely academic purposes.
- This survey is being conducted by Duncan Nyakundi Nyaberi, a Ph.D. candidate, Jomo Kenyatta University of Agriculture Technology
- This research will study effect of supplier development management practices on performance of procurement function.
- We hope to determine various supplier development management practices on procurement function in manufacturing firms.
- Please answer **all** questions. There is no right or wrong answer. Please provide your **BEST** estimate.
- If you would like to get a copy of the executive summary of results, please provide the information requested on the last page of the questionnaire.
- If you have any questions, please contact:

All responses will be kept confidential. Data will be used for statistical analysis only

Appendix III: Questionnaires

This questionnaire is meant to gather information regarding supplier development management practices on performance of procurement function in manufacturing firms in Kenya.

Confidentiality Clause:

All information gathered will be for the purpose of this study **ONLY** and will be strictly confidential.

Instructions

Please tick and fill in to which applies to you as read through each part.

SECTION A: DEMOGRAPHIC DATA

1. Kindly indicate your gender: Male Female

2. Kindly indicate your highest level of formal education?

No formal education Primary level

Secondary level College University level

3. How many years has this manufacturing company been operational?

Less than 2 years 3 to 5 years 6-10 years Over
11 years

SECTION B: SUPPLIER SELECTIONS

4.Does your organization practice suppliers’ selection in supplier development in your firms? Yes [] No []

5.Kindly indicate your level of agreement to the statement below relating to the how supplier selections practices enhance organizational performance in your organization. Using a scale of **1-5**, where: **1- Strongly Disagree**, **2- Disagree**, **3- Neutral**, **4- Agree**, **5- Strongly Agree**.

Supplier Selection	1	2	3	4	5
Selected suppliers’ are only the ones who can meet quality standards of the manufacturing firm					
Firms selection criteria ensures only suppliers meeting firms standards are selected					
Assessment process has always identified suppliers meeting firms quality standards					
Supplier selected are the only one who possess tax compliance					
The criteria for firm selection ensures that only suppliers with high performance indicators are contracted					
The selection process has often identified suppliers with the history of high performance					
Suppliers selected are the once who meets the least cost criteria of the firm.					
Supplier selection should be guided by the least cost suppliers					
The determination of the supplier has always been guided by least cost consideration					

14. What are the other suppliers' selection practices that your organization offer in order to enhance performance of the suppliers as well as enhancing your organizations performance?.....

...15. In your own opinion, indicate the extent does suppliers' selection practices influences organizations performance of your firm? To a very low extent [] To a low extent [] To a moderate extent [] To a very great extent [] To a great extent []

SECTION C: TECHNICAL CAPABILITY

16. Does your organization offer suppliers development practices through technical capability support? Yes [] No []

17. Kindly indicate your level of agreement to the statement below relating to the how technical capability practices on suppliers development enhance organizational performance in your organization. Using a scale of **1-5**, where: **1- Strongly Disagree**, **2- Disagree**, **3- Neutral**, **4- Agree**, **5- Strongly Agree**.

Technical Capability	1	2	3	4	5
Selected suppliers are the once who have right information about product or service					
Supplier identification is always guided by supplier product and service information					
The selected supplier is the one having special capabilities that meets the technical requirement of the firm.					
The process of supplier determination has been always based on the suppliers having the right product/service information					
Supplier identification criteria ensure that only those					

suppliers with technical capability are selected					
The process of supplier determination has always identified those suppliers who meet the firms technical capability					
Firm selection criteria ensure that suppliers selected are those that are able to reengineer their product and service over times					
The process of supplier selection is always guided by the ability of the supplier to reengineer its product/process					
Selected suppliers are the one who reengineer their product/processes to meet buyers expectations					

26. What are other technical capability practices that your organization offer in order to enhance performance of the suppliers as well as enhancing your organizations performance?.....
.....

...27. In your own opinion, indicate the extent does technical capability influences organizations performance in your firm? To a very low extent [] To a low extent [] To a moderate extent [] To a very great extent [] To a great extent []

SECTION D: INFORMATION EXCHANGE

28. Is information sharing with suppliers encouraged by your organization? Yes []
No []

29. Kindly indicate your level of agreement to the statement below relating to how information exchange practices on suppliers development enhance organizational performance in your organization. Using a scale of **1-5**, where: **1- Strongly Disagree**, **2- Disagree**, **3- Neutral**, **4- Agree**, **5- Strongly Agree**

Information Exchange	1	2	3	4	5
Suppliers in our firm are identified based on their ability to estimate the demand in the market of the buyer					
Supplier selection process is always determined by the suppliers ability to estimate future demand changes of the buyer					
Supplier determination criteria ensures that only suppliers that are able to estimate future market changes in demand are selected					
Supplier selected are the once able to meet current and future market demand					
Supplier identification is always based on the ability of the supplier to meet current and future raw material demand of the firm					
Supplier identification criteria ensure that those selected meet the current and future demand of the buyer.					
Supplier identified are those one who can meet the firms product specifications					
The criteria for firms' identification ensure that only those who meet firm's specification are selected.					
Supplier determination process has always identified the suppliers who meet firms' specification					

38. What are other information are shared by your organization with the supplier in orders to enhance performance of the suppliers as well as enhancing your organizations performance?.....

39. In your own opinion, indicate the extent does information sharing practices influences organizations performance in your firm?To a very low extent [] To a low extent [] To a moderate extent []To a very great extent [] To a great extent []

SECTION E: SUPPLIER EVALUATION

40. Are supplier evaluation practices encouraged by your organization?

Yes [] No []

41. Kindly indicate your level of agreement to the statement below relating to how supplier evaluation practices on suppliers development enhance organizational performance in your organization. Use a scale of 1-5, where 1- strongly disagree, 2- disagree, 3- neutral, 4- agree, 5- strongly agree.

Supplier Evaluation	1	2	3	4	5
Firms evaluation criteria is always guided by the suppliers ability to meet buyers objectives					
suppliers are evaluated based on their ability to achieve buyer objectives					
The process of supplier evaluation is always determined by supplier ability to meet buyer objectives					
suppliers selected are the once who are satisfied by ISO standards					
Suppliers selection criteria is based on supplier ISO certification					
The process of supplier selection is always based on those suppliers who meet ISO certification					
Supplier selection is based on the financial stability status of supplier					
Supplier identification criteria ensure that only those suppliers whose financial position is strong are selected					
The process of supplier selection is determined by the financial stability of the supplier to meet the buyer demand					

50. What are others supplier evaluation practices carried out by your organization with the supplier in order to enhance performance of the suppliers as well as enhancing your organizations performance?.....

51. In your own opinion, indicate the extent does supplier evaluation practices influences organizations performance in your firm? To a very low extent [] To a low extent [] To a moderate extent [] To a very great extent [] To a great extent []

SECTION F: MODERATING VARIABLE

Procurement Policy	1	2	3	4	5
Transparency among manufacturing firms.					
Transparency among suppliers.					
Satisfactory allocation.					
Equal distribution of resources.					
Effective public accountability.					
Cost effectiveness.					
Fair competition among manufacturing firms.					
Health competition among manufacturing firms.					
Decrease in conflicts of interest.					

SECTION G: ORGANIZATIONS OF PERFORMANCE OF MANUFACTURING FIRMS

60. To what extent do the suppliers’ development practices enhance organization performance in your firm? Using a time series scale of a **3years - 5 years**

Statement	2015	2016	2017	2018	2019
Indicate the years where Return on investment has improved for the last five years					
Indicate the years where manufacturing firm has witnessed an increase in the number of new members in the last three years					

Indicate the years where manufacturing firm has entered in new markets with its products/services.					
Indicate the years where the number of Assets has increased in the last three years					
Indicate the years where the number of profits has been on the increase in the last three years					
Indicate the years where The volume of sales has been on the increase in the last three years					
Indicate the years where the market share has increased in the last three years					
Indicate the years where Operating costs have been on the decline in the last three years					
Indicate the years where there has been an increase in the number of business units					

THANK YOU FOR YOUR PARTICIPATION

Appendix IV: Attach List of Large Manufacturing Firms

1. 42 Geomatic Services Ltd.
2. Abu Engineering Ltd
3. Acme Container Ltd
4. Adhesive Solutions Africa Ltd
5. Africa Kaluworks (Aluware) Division K
6. African Cotton Industries Ltd
7. Africa Oil Kenya B.V
8. Agni Enterprises Ltd
9. Ali Glaziers Ltd
10. Alpha Dairy Products Ltd
11. Alpha Fine Foods Ltd
12. Apex Steel Ltd
13. AquaSanTec
14. Aquva Agencies Ltd -Nairobi
15. Arrow Rubber Stamp Company Ltd.
16. Artech Agencies (KSM) Ltd
17. Ashut Quality Products
18. ASL Ltd – HFD
19. Athi River Mining Ltd
20. Atlas Copco Eastern Africa Ltd
21. Bamburi Special Products Ltd
22. Beta HealthCare
23. BIDCO Oil Refineries Limited
24. Bilco Engineering
25. biodeal laboratories ltd
26. blowplast
27. Blowplast Limited
28. Blue Ring Products Ltd
29. Blue Triangle Cement
30. Bobmil Industries Limited
31. Bogani Industries Ltd
32. Bosky Industries Ltd
33. British American Tobacco Kenya Ltd
34. C. Dormans Ltd
35. Chandaria Industries Limited
36. Chemplus Holdings LTD
37. Chevron Kenya Ltd
38. Chloride Exide Kenya Limited
39. Climacento Green Tech Ltd
40. Colgate-Palmolive(East Africa) Ltd
41. Collis F B

42. Commercial Motor Spares Ltd
43. Cosmos Limited
44. Creative Fabric World Co Ltd
45. Creative Innovations Ltd.
46. Crown-Berger (K) Ltd.
47. Cuma Refrigeration EA Limited
48. Doshi Group of Companies
49. East Africa Glassware Mart Ltd
50. East African Breweries Limited
51. East African Cables Ltd.
52. East African Cables Ltd.
53. East African Portland cement
54. Eastern Chemical Industries Ltd
55. Eco Consult LTD
56. Ecolab East Africa (K) Ltd
57. Ecotech Ltd
58. Energy Pak (K) Ltd
59. Energy Regulatory Commission
60. Equatorial Tea Ltd
61. Eveready East Africa Limited
62. Excel Chemical Ltd.
63. Fairdeal Upvc, Aluminium and Glass Ltd
64. Famiar Generating Systems Ltd
65. Farmers Choice Ltd
66. Flexoworld Ltd
67. Foam Mattress Ltd.
68. Forbes Media Electronic Advertising Solutions
69. furnmart furnishers
70. Gahir Engineering Works Ltd
71. goldrock international enterprises
72. Goods Chemistry Practise & Allied Cert. Corp L.T.D
73. Guan Candle Making Machine Co.,Ltd.
74. Heluk International Limited
75. Hills Converters [K] Ltd
76. Hydraulic Hose & Pipe Manufacturers Ltd
77. Imani Workshops
78. JET Chemicals (Kenya) Ltd
79. Kapa Oil Refineries Limited
80. KAPA OIL REFINERIES LTD
81. KAPA OIL REFINERIES LTD
82. Kenbro Industries
83. Kenya Association of Manufacturers
84. Kenya Electricity Generating Company Limited.
85. Kenya Fluorspar Company Ltd (KFC)
86. Kenya Grange Vehicle Industries Ltd

87. Kenya Petroleum Refineries Ltd
88. Kenya Power and Lighting Company Ltd
89. Kenya Solar
90. Kiesta Industrial Technical Services Ltd
91. Kim-Fay E.A Limited
92. KingSource Plastic Machinery Co.,Ltd.
93. Lake Turkana Wind Power Limited
94. Magadi Soda
95. Makiga Engineering Service Limited
96. Manufacturers & Suppliers (K) Ltd -Head Office
97. Manzil Glass & Hardware Ltd
98. Mather & Platt Kenya Ltd
99. Maweni Limestone Ltd
100. Mellech Engineering & Construction Ltd.
101. Metal Crown Ltd
102. Metsec Ltd.
103. MGS International (K) Ltd
104. Microsoft East Africa
105. Mjengo Limited
106. Mohajan Trade International
107. Mombasa Canvas Ltd
108. Ndugu Transport Co Ltd
109. New Ruaraka Hardwares
110. New World Stainless Steel Ltd
111. Njoro Canning Factory Ltd
112. Octagon Express (kenya) Limited
113. Orbit Chemical Industries Ltd
114. Orpower 4, Inc
115. Packaging Industries Ltd
116. Patco Industries Ltd
117. Pelican Signs Ltd
118. Petmix Feed
119. Platinum Packaging Limited
120. Polythene Industries Ltd
121. Print Fast Kenya Ltd.
122. Protec
123. Protocols Microcomputer Applications
124. Pudlo Cement Company (PCC)
125. Pwani Oil products Limited
126. PZ Cussons East Africa Ltd.
127. Quad cypher systems
128. Raghad Enterprises
129. Ramco Printing Works Limited
130. Redsea Chemist
131. Reesi Hospitality Ventures

132. Regional Centre for Mapping of Resources for Development – RCMRD
133. Reliable Concrete Works Ltd
134. Renscope Scientific Kenya
135. Rhino Special Products Ltd
136. Rock Plant Kenya Ltd.
137. ROM East Africa Limited
138. ROSEWOOD OFFICE SYSTEMS LIMITED
139. Rotam Sub-Saharan Africa
140. Rupa Cotton Mills EPZ Ltd
141. Rural Electrification Authority
142. Sameer Group
143. Sanpac Africa Ltd
144. Shade Systems(E.A)Ltd
145. Shadetents And Exquisite Designs
146. Shamas Motor Spares
147. Shankan Enterprises Ltd
148. Sigma Engineering Co. Ltd
149. Simco Auto Parts Ltd
150. Slumberland Kenya Ltd
151. Solarworks East Africa
152. South Hill Motor Spares Ltd
153. Stainless Steel Products Ltd
154. Stamet Products (K) Ltd
155. Statpack Industries Limited
156. Steel Structures Limited
157. Sudi Chemical Industries Limited
158. Sunrays Solar Ltd
159. Superfit Steelcon Ltd
160. Tamoil Africa Holdings Limited
161. TARPO Industries Limited
162. Tenacity Locks Ltd
163. The Kensta Group
164. Tianjin Haopu Chemical Co. Ltd
165. Top Tank
166. Tripac Chemical Industries Ltd
167. Unga Farm Care (EA) Ltd
168. Unga Group Ltd.
169. Unighir Ltd.
170. Unilever Kenya Limited
171. Universal Ponds Kenya Limited
172. Warren Concrete Ltd
173. Wartsila Eastern Africa Ltd
174. Welfast Kenya Ltd
175. Welrods Limited
176. Wigglesworth Exporters Ltd

- 177. Williamson Power Ltd
- 178. Wines Of The World Limited
- 179. Zena.net Services