ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 1, pp: (224-245), Month: January - March 2018, Available at: www.researchpublish.com

Role of Supplier Management Practices in Optimization of Operational Performance in Telecommunication Service Industry in Kenya: A Case of Safaricom Limited

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Abstract: **Multinational firms are always under pressure to find the most profitable ways to bring products to market. To effectively compete, organizations must continuously improve their performance by reducing costs, enhancing quality, and differentiating their products and services. Increasingly, this means relying on third parties management and outsourced services have to lead to a highly collaborative working relationship with their suppliers. This study therefore aimed at to determine the role of supplier management practices in the optimization of operational performance in telecommunication service industry in Kenya. A case of Safaricom Kenya. The independent variable of this study are supplier selection process, supplier involvement practices, supplier development practices, and supplier monitoring programs while the dependent variable of the study is optimization of operational performance. Theories relevant to this study were Transaction Cost Theory, Resource Dependency Theory, Social Capital Theory and Deming's theory of Total Quality Management. Study variables were discussed under the conceptual framework after that operationalized. The target population constitutes of Safaricom employees involved in procurement operation and suppliers of both at headquarters and other customer care centers with a sample size of 50 staffs and suppliers. Stratified random sampling was carried out. The research instruments that were used included printed questionnaires. Data collected were analyzed using both descriptive and inferential statistical tools, and SPSS version 21 was used to process the collected data which was then to be presented in the form of tables. Correlation analysis was conducted to describe the strength of the linear relationship between two variable which indicated that 76.2% of change of Optimization of Operational performance was explained by the four variables namely; supplier selection process, supplier development programs, supplier involvement, supplier monitoring programs and revealed that they play a significant role in optimizing of operational performance. The study recommends that management of companies in telecommunication industry should embrace overall effective and efficient supplier management practices that focus on long-term goals of the organization.**

Keywords: **Operational Performance, Supplier Selection Process, Supplier Involvement Practices, Supplier Development Practices, And Supplier Monitoring Programs.**

1. INTRODUCTION

Owing to recent dramatic changes in the current business environment, the majority of firms need to adjust. A lot of these variations are related to the rapid evolution in innovation and technology, the fast development of globalization in customer marketplaces and the tremendous changes in customer demands and preferences (Van Weele, 2009).Globalization and current market trends have made a significant impact in the sense of growth in competition between companies. The concentration of the many firms has shifted more towards core competencies while outsourcing activities of other non-core operations activities.

In some of the firms the average percentage of goods procured from external organisations in one day operation is ranging between 50 to 90 percent from the total turnover in contrast with the range figure of labour costs which is around 6 percent while for overhead expenses of 3 percent (Iloranta et al., 2008; de Boer et al., 2001). Since the competitive business environment is complex, the majority of firms depend more on their supply chain as a wellspring of competitive advantage. Suppliers tend to assume more strategic roles in organizations daily activities and are significantly engaged in creating a competitive edge with their deeds showing a positive impact on the organizations' performance (Jabbour, 2009).

As early as 1982, the father of modern management principles, Peter Drucker mentioned about the need for the positive correlation amongst the buying organization and potential suppliers (Barney, 2012). Until the late 90s, the theory of purchasing came up as a new field that was recognized by the top management within the organization. Purchasing used to take up to at least 30% of 90% of the business turnover and these were dramatically reduced in with recognition of the concept of supplier management practices performed in the buying organization. Supplier management as a new concept developed by the supply chain management principles due to the rapid development of the economy this has shown that competition is no longer the traditional competition between companies, instead is between the supply chains (Zheng, 2013).However to make sure that connection of the firms in the supply chain exists it is good for the firms to focus on strategic alliance and cooperation as the key topics in their strategic development plan. Since it is vital to maximizing the overall performance of the supplier management practices (Zheng, 2013).

1.1 Optimization of Operational Performance:

Optimization of operational performance is centered on enhancing productivity and powerful frameworks which are robust and can guarantee excellent which exceed customer expectations. To reach to such sustainable operational outcomes, operations strategy should be developed which can support the firm in ensuring the vital operational objectives of the firm are met that is cost reduction, the flexibility of the production system, speed of product development and production and quality assurance for the product (Klassen & Vachon, 2003).As business organizations contend in the marketplace where the market forces drive prices, the majority of the firms seek to device other tactics of influencing customers to purchase their products and services. This will call for strategies like bringing down item cost, reducing lead times, improving the quality of the product, indicating earnest consideration regarding security and ecological assurance and so forth.

Organizational performance is an accumulation of independent functional operational performance metrics. That is, for market share to grow, products and services quality must be enhanced; for customer satisfaction and loyalty to be accomplished, quality must be improved and lead times diminished. For financial growth to be acknowledged, product and service cost must be lowered since the final product price is read aloud by the market forces. In this research, therefore, we take a critical look at the elements of operational performance which are directly attributable to the operational performance matrix, i.e., quality, cost, lead time, and production capacity (Seuring & Müller, 2008).

1.2 A global perspective on supplier management practices:

With the current increased trend of outsourcing non-core processes as well as entering partnership agreements with a critical supplier, supplier management has become crucial for maximizing the value of those alliances and outsourcing deals. Leading organizations worldwide are implementing supplier management frameworks to provide structure, consistency, accountability, and controls over supplier management activities. The framework forms the foundation from which supplier management activities are driven, by linking strategy, policies and processes together.

Several writers in China has stated that one of the critical elements of successful international joint venture (IJV) manufacturing in China is the management of suppliers since the supply chain plays a vital role in contributing to both the quality of finished products and controlling costs. However, supplier management in Chinese international joint ventures is an under-researched area but an exploratory study of five manufacturers was conducted using a case study approach to "Managing the Transition" Supplier Management in International Joint Ventures in China by Lihong and Goffin (2001) show that the difficulties faced by International Joint Ventures in their attempts to maintain quality levels at the same time as trying to reduce costs by purchasing materials and components locally. In addition to identifying critical implications for companies, the research shows that there is a need for further investigation of the contextual aspects of proper supplier management. Since effective supplier management reduces costs (Hakansson, 2015); Christopher,(2016) and leads to higher quality (Burt, 2000; Larson, & Walker,(2010). Other benefits include better delivery performance (Christopher, 2016) and support for new product development (Ragatz et al., 2002); both of which lead to competitive advantage (Monczka et al., 2015).

In both Japanese and United States America automotive industry, supplier management remains a core area of operations, since they subcontract large portions of components design, production, or assembly and thus become heavily dependent on the engineering, manufacturing, and delivery capabilities of outside organizations. An automobile, for example in United States America, contains approximately 15,000 components. Since automakers choose not to produce many of this in-house, managers in this industry have faced critical strategic issues of whether to promote long-term relationships and mutual cooperation with suppliers extending from product development to manufacturing or rely on shorter-term contracts and competitive bidding, as well as more in-house development and manufacturing, in an attempt to lower final costs (Holweg, 2007).

In Germany, Manufacturing industry is very robust with at least 24.8 percent of the labor force working in manufacturing responsible for 25 percent of the GDP (Euromonitor Plc, 1999). These have German manufacturing industry competitiveness for many years which is subject to much different respect (Simon, 2009). However with the high cost of labor and taxes is still a challenge. Although the most view of writers in Germany is that to become more competitive in its manufacturing sector, they should adopt more ``best proactive approach" from abroad (Lay et al., 1996; Kinkel and Wengel, 1997) one best practice being supplier management practices.

1.3 Regional perspective on supplier management practices:

In Africa, little academic research work has been carried out on the supplier management practices in the telecommunication services companies. However, this does not mean that these companies do not have supplier management functions. While there is limited evidence regarding how financial services firms are conducting supplier management in Nigeria, their willingness to implementing value-added purchasing practices could not be doubted. For example, it is well-known that several public and private organizations might need to accelerate their procurement practice to withstand the current economic crisis (European Commission, 2008). Also, purchasing has evolved over the years from a clerical function into a strategic function (Ellram & Carter, 1994; Carter & Narasimhan, 1996). Even so, it looks as if companies within the Nigerian financial system is more familiar with the term outsourcing vendor management than purchasing and supply.

According to Adeleye (2002), financial services firms in Nigeria have a long history of contracting services such as training, security services, marketing and information technology to external providers. This is not unexpected because many financial service firms have contracted their non-core functions to external vendors through outsourcing agenda. For example, Bank of America contracts her human resource function to external providers or vendors (Adeleye, 2002). Similarly, Computer Science Corporation Switzerland Company (CSC) got a five-year contract worth $44 million to provide IT services for Coop Bank of Switzerland in 2001(CSC, 2000).

Mashimbi (2009) in his study on “The assessment of challenges of managing Buyer-supplier relationship in private organization,” a case study of Bugando Medical Centre (BMC) in Tanzania, Mwanza, revealed that Bugando Medical Centre and their suppliers have a minimum relationship in the process of procurement. Whereby higher percent of the respondents and the researcher do observe that productive relationship between the parties used to be in the early stages only, once it matured every part starts to operate under the principle of win-win. Bugando Medical Centre has a moderate rate of handling supplier’s claims in time because they have unsystematic payment policy, which means they have payment policy, but they do not follow it. Also, Bugando Medical Centre provides clear specifications to suppliers to make them comply accordingly in supplying the requirements with the organization.

Andrew (2009) in his study “The Impact of Buyer-Supplier Relationship in fulfilling the organizations objective,” the case study of the National Institute for Medical Research Mwanza examined that buyer-supplier relationship at National Institute for Medical Research is to some extent useful. The organization tries to maintain a buyer-supplier relationship through different ways including; supplier development and bilateral supplier meeting during contract execution. However, there are some shortcomings including; late payment of suppliers and low knowledge of the buyer-supplier relationship. These call upon little effort for making rectifications.

1.4 Local perspective on supplier management practices:

In Kenya, firms are seeking new methods of enhancing competitive advantage due to increasing competitive marketplace,(Ihiga, 2004). Currently, purchasing is becoming a strategic function and a critical factor in competitive positioning. With the consolidation of firms within industries, supplier management practices are becoming more critical in the future. The organization has realized that collaborative business relationships improve a firm's ability to respond to the new business environment by allowing them to focus on their core businesses and reduce costs in business processes

(Johnson, 2009). Although majority of surveys carried out by Kenya Scholars like Ochieng, (2014) in his master theses dissertation on role of Supplier Development In Effectiveness of Procurement Function: A Case of National Cereal And Produce Board; Anny,(2015) in her master thesis dissertation on the role of supplier management on procurement performance in the manufacturing sector in Kenya: A Case of East African Breweries, Kenya and Kivite, (2015) doctoral dissertation on Supplier development and operational performance of manufacturing firms in Nairobi city-county shows that Kenyan organizations continue to struggle with supplier management practices in optimizing their operational performance. Hence, research proposal aims at examining this gap and present findings and recommendations on how supplier management can be used to optimize operational performance in the service industry in the context of the telecommunication services sector in Kenya, A case of Safaricom Limited.

1.5 Statement of the Problem:

According to 2017 IMF Global Financial Stability Report, Multinational firms are facing slightly decline in operational performance at an alarming rate resulting to a decrease in global GDP to up to 4.7%. According to Chaganti and Mahajan,(2017), there is an emerging increase in the pressure on the multinational organization to get new innovative ways to create and deliver additional value to their customers by improving on their operational performance. Operational performance of many firms is always influenced by contingent factors that lie beyond the realm of strategy and structure. Poor operational performance can ruin overall performance hence reduce shareholder value by as much as 50 percent, or even worse in time-sensitive environments where the early market introduction is critical to success (Handfield,2007).

According to Siika et al.,(2005) Majority of Multinational Companies worldwide have now embarked on supplier management as a measure to overcome operational performance challenges and realize increased operational efficiency on overall profitability. In Kenya, telecommunication industry has been trying to meet effectiveness and efficient in serving their customers with reasonable price terms, service standards, and innovative products and services despite operational performance challenges due to lack of focus on supplier management practices. A Statistics report 2017 from the communication authority of Kenya, indicated that in the year 2016 Safaricom accumulated increase in operating activities amounting to Kshs.576 Million in the cash-flow statement dated year ending 2016 which were due to high operation activities in the firm leading to high liquidity ratio hence high-risk margin.

The abovementioned background reveals that role of supplier management practices is paramount in keeping Safaricom operational performance on the upward trend. Despite a study by Rotich, Aburi, and Kihara, (2014) on influence of specific supplier development practices on a firm's competitive advantage: A case study of Safaricom, which narrowed down on specific aspect of supplier management aspect it left a significant knowledge gap on how Safaricom should optimize it operational performance through successful implementation of overall supplier management practices. This research ought to answer questions regarding roles of supplier management practices on operational performance in Safaricom limited that is what is the role of suppliers' selection process in the optimization of operational performance in telecommunication service industry in Kenya? What is the role of suppliers' involvement in the optimization of operational performance in telecommunication service industry in Kenya? What is the role of suppliers' development in the optimization of operational performance in telecommunication service industry in Kenya? What is the role of suppliers monitoring programs in the optimization of operational performance in telecommunication service industry in Kenya?

1.6 Objective of the Study:

The general objective of this study was to determine the role of supplier management practices on optimization of operational performance in telecommunication service industry in Kenya. A case of Safaricom Limited.

The specific objectives will be:

1. To assess the role of suppliers selection process in the optimization of operational performance a case of Safaricom Limited.
2. To evaluate the role of suppliers involvement in the optimization of operational performance, a case of Safaricom Limited.
3. To establish the role of suppliers development program in the optimization of operational performance, a case of Safaricom Limited.
4. To examine the role of suppliers monitoring programs in the optimization of operational performance, a case of Safaricom Limited.

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1.7 Research Questions:

The following research questions guided the study ;

1. What are the role of suppliers' selection process in the optimization of operational performance, a case of Safaricom Limited?
2. What is the role of suppliers' involvement in the optimization of operational performance, a case of Safaricom Limited?
3. What is the role of suppliers' development in the optimization of operational performance, a case of Safaricom Limited?
4. What is the role of suppliers monitoring programs in the optimization of operational performance, a case of Safaricom Limited?

2. LITERATURE REVIEW

2.1 Introduction:

The underpinning theories of this study included; Transaction cost theory, Resource dependency Theory, Social capital theory and Deming's theory of Total Quality Management. To illustrate the fundamental concepts of Supplier management practices and Optimization of Operational Performance, a conceptual framework that integrates the independent and dependent variables was developed as shown in figure 1.

2.1.1. Transaction Cost Theory (TCT)

Chester Barnard, Ronald Coase, and Herbert Simon were amongst the early authors who pronounce the significant contributions of transaction cost theory to the existence of organization (Scott, 2003; Williamson, 2005). Transaction cost theory tries to reveal why many firms are in existence, and why firms expand or source out deeds to the firms in external environs. The transaction cost theory assumes that majority of firms attempt 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. The majority of these firms are as a result weighing the costs of switching resources with the environs, against the bureaucratic costs of performing activities in-house.

Lysons and Farrington (2006), further clarify that 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. Asymmetrical information distribution means that the parties to a transaction have uneven access to relevant information, one consequence that has led to his position as of which is that, within contractual relationships, either party may engage in post-contractual opportunism if the chance of switching to more advantageous partnerships arises (Lysons & Farrington, 2006). However, this theory is relevant to the variable one of this study that is supplier selection process since firms opt to outsource processes which can procure more cheaply from external sources as opposed to obtaining them in-house hence supplier management is vital to organizations.

2.1.2. Resource dependency Theory:

The theory is mainly concerned with how firm's daily operational performance is affected by external resources that the firm utilizes (Wachiuri, Waiganjo & Oballah, 2015). The theory keeps on maintaining that a firm's capability to collect, transform and exploit its limited resources, for example, raw material effectively and efficient than competitors endures significant strategic implications, i.e., due to its influence on the firm's competitiveness. Notably, these resources are often controlled by organizations, e.g., key suppliers, not in the control of the firm needing them. These means that strategies, like supplier management practices in the purchasing and supply management context, must be cautiously well-thought-out in order to sustain open access to resources (Inemek & Matthyssens, 2011).Dyer and Nobeoka (2000) further clarify the relevance of Resource Dependency Theory in supplier management practices through their recognition of knowledge, as a significant strategic resource of the firm and the root of competitive advantage. Hence Resource Dependency Theory thus validates that supplier management practices such as supplier involvement practices aim at leveraging suppliers' specialized competencies for greater innovativeness and the ability to offer high-quality products through greater collaboration between the buyer firm and its key suppliers.

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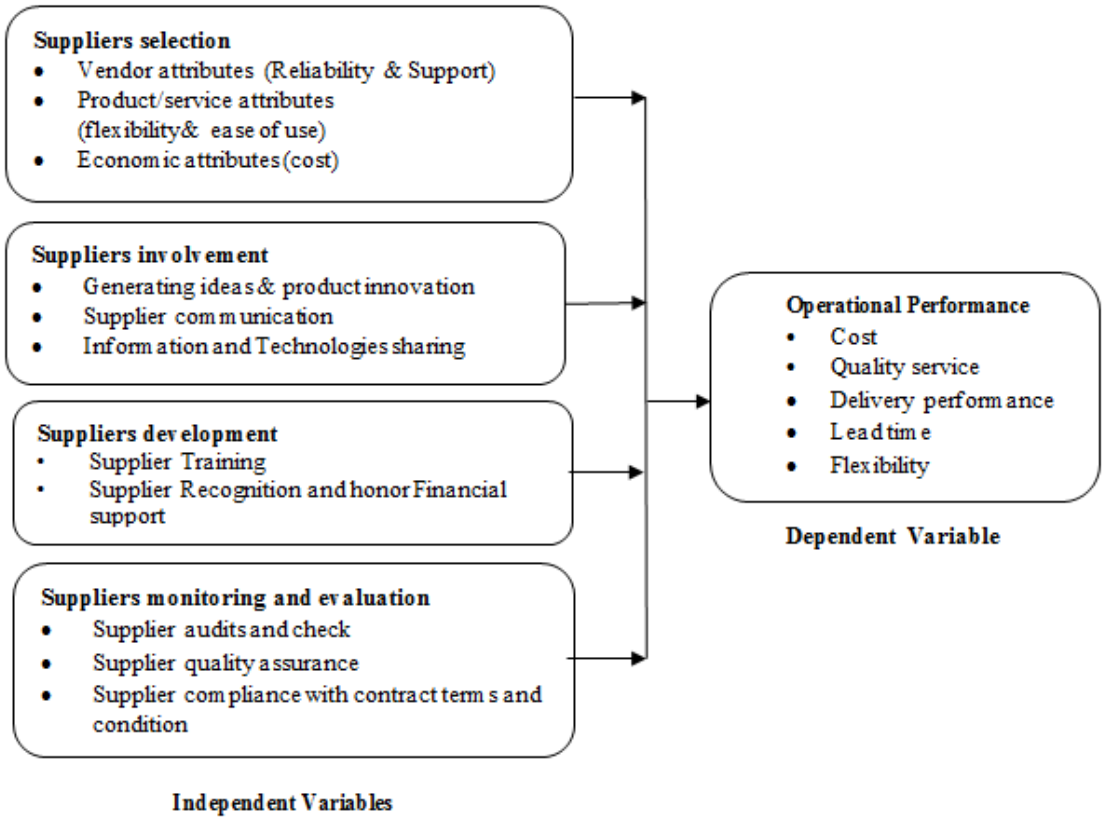
2.1.3. Social capital theory:

According to Ferragina and Arrigoni (2016), the Social capital theory is a socio-psychological and sociological perspective that clarifies that resources inherent in social relations which facilitate collective action. These resources might comprise of differents norms and culture, the level of trust, and many network links of any relationship representing any group of people who gather consistently for a common purpose. A norm of a culture which follows strongly social capital is described as reciprocity because they encourage bargaining, negotiation, compromise and pluralistic politics. In the organizational literature, it is commonly debated that social capital is one of a treasured asset that stems from access to resources made available through social relationships (Granovetter, 2010). These lead to adaptation of definition of social capital and apply it to the relationship between buyer firms and their key suppliers. In this study seeks to build on theoretical arguments put forth in the supplier management practices in particular supplier development and social capital literature to clarify the distinctive between associated with relational and structural embeddedness in the context of optimization of operational performance in telecommunication industry case of Safaricom limited. Hence this theory is relevant to variable three of the study which is supplier development.

2.1.4. Deming's theory of Total Quality Management:

Deming's theory of Total Quality Management rests upon fourteen points of management he identified, the system of profound knowledge, and the Shewart Cycle (Plan-Do-Check-Act). He is known for his Ratio - Quality is equal to the result of work efforts over the total costs. If a company is to focus on costs, the problem is that costs rise while quality deteriorates. Deming's system of profound knowledge consists of the following four points: System Appreciation – an understanding of the way that the company's processes and systems work. Variation Knowledge - an understanding of the variation occurring and the causes of the variation. Knowledge Theory - the understanding of what can be known. Psychology Knowledge - the understanding of human nature. By being aware of the different types of knowledge associated with an organization, then quality can be broached as a topic. Quality involves tweaking processes using knowledge. Plan-Do-Check-Act (PDCA) is a cycle created for continuous improvement. Hence supplier monitoring in the organization is one way of quality management. The purpose of supplier performance monitoring is to ensure that all legal and contractual arrangements are met in accordance with any agreed standard, specification, contract or order. Hence this theory is relevant to variable two of the study that is supplier monitoring

2.2. Conceptual Framework:



2.3. Empirical Review:

When viewed from the broad perspective, supplier management practices can be a strategic weapon for the purchasing organization in their daily operational performance. The point of view becomes especially crucial since manufacturing and services firms in Kenya use approximately 70% of their sales shillings on purchased goods and services (Tully, 1995). In an ideal world situation, Majority of good suppliers can help telecommunication companies during the development of new products and processes, with long-term quality improvements and cost reductions and can provide enhanced delivery performance

Therefore, for telecommunication companies "the challenge is to maximize supplier performance better than competitors (Monczka et al., 2015). Many supply chain scholars have researched the subject of supplier management subject and filed their findings. Among them are;

Plane and Green, (2012) conducted a study on Buyer-supplier collaboration and the aim of facilities management procurement. The study established that there emerged a consensus that a more relational procurement process has a positive influence on the relationship established and also that the perceived benefits of relational approaches included clarity of service requirements, value delivery, and cultural alignment. This study, however, did not show how buyer-supplier relationships affect operational performance.

Tungjitjarurn et, al. (2012) in the study of the impact of supplier development on supplier performance investigated the role of buyer-supplier commitment in supplier performance improvement in Thailand. The study revealed that the buying company would implement the supplier development strategies by focusing on buyer-supplier relationship commitment for performance improvement. The authors, therefore, recommended that managers should place a strong emphasis on developing a specific relationship with suppliers. The buying firm expected to develop the critical suppliers who have a long-term relationship with a sharing of information and benefits including joint problem-solving. However, the study did not explore the role of supplier management on the optimizing buyer firm's operational performance.

Mukasa, (2010), discussed effects of supply chain management practices on performance in the telecommunication industry in Kenya. The study found that indeed supply chain management practices affect the organizational performance. However, this study was general in referring to supply chain management practices and not specific areas of supply chain management that affect performance. The study was also particular to the telecommunication industry and hence not sufficient for generalization of its findings in all other sectors.

Kamau (2013) in the study of the relationship between Buyer-supplier relationships and business performance among large manufacturing firms in Nairobi, Kenya concluded that Buyer-supplier relationships had assisted the large manufacturing companies in enhancing the performance of their organizations. The study though pointed out that indeed a supplier relationship improved performance, it had a general application on relationships but did not focus on supplier development concepts. By maintaining healthy relationships with their suppliers, manufacturing companies ensure that they perform well and also help the suppliers themselves to perform well and also achieve their goals.

More research on other supplier management practices would be necessary to establish how such would influence operational performance.

Njeru (2013) in her case study of Kenya power investigated factors which influence supplier development in public entities in Kenya. The study concluded that the management of KPLC recognized supplier development as a means to improving their efficiency. The researcher pointed out that for efficient supplier development process, there should be management support, commitment and proper communication channels between the two parties. Use of Enterprise Resource Programs systems should be adopted to shorten the time taken in the supplier development. However, the study was too narrow to only supplier communication as the only tool in supplier management. It also focused on public entity narrowing on a case study context of KPLC hence not enough scope to generalize on the effect of supplier management on other organizations, particularly in the private sector.

Wachiuri (2015) in a case study of East Africa Breweries limited investigated the Role of supplier development on organizational performance of manufacturing industries in Kenya. The case study was carried out to establish the effect of buyer-supplier relationships on organizational performance for East African breweries in Kenya. The study recommended that the organization should fund training programs that they administer to their suppliers to enhance better performance. Also, enhanced communication should be put into practice in the supplier development program. Insubstantial

involvement, firms ought to evaluate and give feedback to their suppliers more often. This gives suppliers an opportunity to know their shortcomings and shortfall and also change their activities to address the issues of their firms. The study recommended rewarding of firms which show significant improvement to motivate them to improve.

Kannan and Choon Tan (2006) says that businesses are increasingly exploring ways to leverage their supply chains, and in particular, to evaluate the role of suppliers in their activities systematically. Hence, it is essential to consider the issue of supplier's management practices. According to Scanell, Vickery, and Dröge (2000), this has for some companies resulted in a reduction and streamlining of the supplier base and developing closer relationships with suppliers. As Handfield and Nichols (1999) stress that without a foundation of efficient supply chain organizational relationships, any effort to manage the flow of information or materials across the supply chain is likely to be unsuccessful. Supplier management – also called supplier base management in some of the literature – is an essential issue for manufacturing companies. One author says, it is futile for big businesses to reform their manufacturing operations without the active support of suppliers (Burt,2000) another stated that they are beginning to witness the positive and strategic contribution the purchasing and sourcing process can make to a firm"s total performance (Monczka et al., 2015).

Ikram (2002) examined the relationship between power asymmetry and suppliers" performance without considering supplier management practices, while Ellitan (2003) only studied how competition intensity is linked with performance. Hoyt and Huq (2000) reviewed on how buyer-supplier relationships have evolved from transaction processes based on arms-length agreements to collaborative processes based on trust and information sharing. Their findings include the importance of considering factors such as organizational context and management practices on how they affect the buyer-supplier relations.

PohLean, Wai Peng Wong, Ramayah & Jantan (2010) examines the mediation role of supplier management practices on the influence of power asymmetry and competition intensity on supplier performances. The framework pieced together an idea from the marketing literature and organization theory. Based on the study, high involvement work practices (HIWP) in an organization are indeed important as it mediates the influence of competition intensity on supplier quality and flexibility. The study also showed that no single formula could fit all situations. Managers need to understand its supplier management practices to better leverage organizational context of competition and power in managing performance.

Frohlich and Westbrook (2001) reported a growing consensus concerning the strategic importance of integrating suppliers, manufacturers, and customers into value/supply chains. Companies need complementary cognitive competence from partners to appreciate opportunities and threats they could not have appreciated themselves. By engaging in specific investments, one may develop a unique competence value for the partner, which makes the other party dependent too.

Shalle, Guyo, & Amuhaya, I.M. (2014) Concluded that buyer/supplier collaboration enhances procurement performance hence creating a competitive advantage through sharing information making a joint decision, inter-organizational relationship. This indicates that the level of supply chain collaboration has a critical interaction effect on the relation between external resources and buying firm performance, where collaborative forms of buyer-supplier exchange facilitate greater access to external resources. The findings are a pointer to the responsiveness, flexibility, commitment and the belief of the trading partners are willing to devote energy to sustaining the relationship.

2.4. Critique of the Literature Review relevant to the Study:

The majority of the empirical literature in the context of supplier management reviewed have been carried out in the context of manufacturing firms in developed countries but not in telecommunication services industry. Because of a significant lack of descriptive studies on the importance supplier management practices in the optimization of operational performance in the telecommunication industry, there does not have a commonly recognized framework for supply chain managers to apply supplier management practices into their business agenda.

There are even critics about common frameworks for all companies, arguing that supplier management practices have multiple levels and every business should choose its ambitions level of supplier management practices within their context. The majority of these studies also focused on individual firms as in case study or product type and the most common was food industry, automotive and electrical and electronics. It is a result of these reasons that challenges that have been studied elsewhere, that is, in another country, will still be essential and will be investigated under the private sector organizations in the country, and this will inevitably create a source of viable and useful information to supplier and buyers in Kenya.

2.5. Research Gap:

From the critique of literature review provided in the preceding section, it is evident that the role of supplier management practices in the optimization of operational performance in the telecommunication industry in Kenya has yet to be conclusively empirically determined in Kenya. It is evident that studies on the subject of supplier management practices on optimization of operational performance have primarily focused on an incomplete study of the entire spectrum of supply chain processes on the Operational performance of telecommunication service industry in Kenya. The studies, especially on Kenya, have focused on a single aspect of the supply management practices in manufacturing sector only leaving service industry hanging. In these studies, the telecommunication services sector has mostly been ignored. Studies on the subject of the role of supplier management practices in the optimization of operational performance, in its entirety, in Kenya are almost non-existent as most have focused on individual supply management activities in the manufacturing industry.

The studies above have conspicuous deviations from this topic, due to their attention to individual supplier management functions as well the methodology adopted in pursuing the objectives of the study (Kilasi, Juma, & Mathooko; Maku, & Iravo,2013), rather than focusing on the entire supplier management function. Hence, the research gap which this study intends to fill. This research seeks to fill the gap of inadequate information and understanding that there is existence in relation to the role supplier management practices on the optimization of operational performance of telecommunication industry in Kenya As reflected by the presented theoretical and empirical literature there is an inadequacy of research findings on the role supplier management practices that lead to optimization of the operational performance of telecommunication industry in Kenya.

3. RESEARCH METHODOLOGY

3.1. Research Design:

This study used a descriptive case study and correlational research design to justify the relationship between the independent variables and dependent variables. The main aim for the choice of these two research designs is to allow the study to determine the strength and direction of a relationship so that later studies can narrow the findings down and, if possible, determine causation experimentally.

3.2. Target Population:

The target population of this study comprised of the major supplier within Safaricom limited like Vodafone and Huawei and Safaricom Procurement employees at all level which comprising of a total of 150 employees and suppliers.

3.3. Sampling Frame:

The sample frame for this study included employees and suppliers who are concern directly or indirectly with procurement section which will constitute Senior managers, Middle managers, junior managers, procurement officer and supplier of Safaricom Limited.

3.4. Sample Size and Sampling Techniques:

The study adopted stratified random sampling which involved sampling from the partition of a population into smaller groups known as strata. Westfall (2009) stated that stratified random sampling is used when representatives from each subgroup within the population need to be represented in the sample. According to Kothari (2004), a population is stratified based on different features of the population, and a random sample is picked from each stratum. In this sampling method, the sampling error is considerably reduced. Orodho (2003) stated that each sample needs to have a non-zero probability of selection. In this study, the non-zero probability of selection of the sample size was 0.3333 since Sample size /150=0.3333

3.5. Data Collection Instruments:

The study adopted the use of primary and secondary data. Primary data was collected directly from the respondents and used to analyze the relationships that were being examined in this study. Secondary data was used to acquire information on the operational performance of Safaricom limited. This information was obtained from previous evaluation reports carried out by the company. The data collection instruments that were used in this study was a self-administered structured questionnaire to collect quantitative data and an interview guide to collect qualitative data of the research (Kinyanjui, 2014).

3.6. Data Collection Procedure:

Data collection procedure started by obtaining a permit from the ministry of education science and technology. Primary data were collected through the administration of the questionnaires to the relevant respondents at Safaricom Limited. The researcher traveled physically to administer and distribute the questionnaires directly to the respondents. Secondary data was collected from the organization's finance managers and some supply chain managers. This included copies of delivery advice notes, inventory documents, and profitability income. Secondary data was used to validate the primary data collected, while at the same time generating additional information for the study. Data was then cleaned, sorted and collated after which it was entered into the computer for analysis and subsequent presentation.

3.7. Pilot study:

Cooper and Schindler,(2011) as cited by Nemuel,(2017) state that pilot test is conducted to detect weaknesses in research design, instrumentation and to provide proxy data for selection of probability sample. The procedures which were used in pre-testing the questionnaire was identical to those that were used during the actual study or data collection. The study used five employees of Safaricom shop at Moi Avenue in procurement department to carry out the pilot study of which these were part of the sampled population. This represented 10% of the accessible population. This is supported by social scholars such as Mugenda and Mugenda (2003) who indicate that successful pilot study uses 1% to 10% of the actual sample size.

3.8. Data Analysis and Presentation:

3.8.1. Data Analysis:

Data analysis is the application of reasoning to understand the data that have been gathered with the aim of determining consistent patterns and summarizing the relevant details revealed in the investigation. (Zikmund et al., 2012) Data processing entails editing, classification, and tabulation of data collected so that they are amenable to analysis (Kothari, 2009). Data entry converts information gathered by secondary or primary methods to a medium for viewing and manipulation. In this study, the quantitative data were collected and analyzed by calculating response rate with descriptive and inferential data analysis such as mean, median, standard deviation and proportions using Statistical Package for Social Sciences (SPSS) version 24 and Microsoft Excel. Quantitative data analysis was carried out by the use of factor analysis and correlation analysis to determine the strength and the direction of the relationship between the dependent variable and the independent variables.

3.8.2. Data Presentation:

Data was presented using statistical techniques, graphical techniques or a combination of both to come up with general conclusions (Kombo & Tromp, 2006). Quantitative data were presented using statistical techniques such as tables while qualitative data presented descriptively in this study.

3.8.3 Statistical models:

The study used multiple regression models to measure the role of supplier management practices on optimization of operational performance in telecommunication service industry in Kenya. There will be five (5) independent variables in this study thus: the multiple regressions used:

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

Where Y was the dependent variable, (operational performance) β_0 was the regression coefficient while $\beta_1, \beta_2, \beta_3, \beta_4,$ and β_5 will be the slopes of the regression equation.

X_1 is the independent variable (Suppliers selection process)

X_2 is the independent variable (Suppliers involvement)

X_3 is the independent variable (Suppliers' development program)

X_4 is the independent variable (Suppliers monitoring and evaluation)

ε is an error term distributed about a mean of 0 and for purposes of computation, is assumed to be 0.

The error term is the part of the statistical equation that indicates what remains unexplained by the independent variable.

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 1, pp: (224-245), Month: January - March 2018, Available at: www.researchpublish.com

4. RESEARCH FINDINGS AND DISCUSSION

4.1. Response Rate:

The total number of questionnaires distributed were fifty (50). These questionnaires were self-administered to employees of Safaricom Company limited and seven selected suppliers. A total of 48 questionnaires were significantly returned adequately completed (Table 4.1). This represented an overall response rate of 96% (Table 4.1). According to Kothari (2007), a response rate of 50 percent is acceptable to analyze and publish, 60 percent is good, 70 percent is excellent, and beyond 80 percent is an excellent response rate.

Table 4.1: Response rate Pilot Study Results

Response rate	Sample size	Percentage (%)
Returned questionnaires	**48**	**96**
Un-returned questionnaires	**2**	**4**
Total	**50**	**100**

4.2. Reliability Results:

Cronbach's Alpha was used to test the reliability of the questionnaire. Since the research instrument yielded reliability coefficient of more than 0.7 on suppliers selection process, suppliers involvement, suppliers collaboration, and suppliers development program. It can be concluded that the research instrument was adequate for subsequent analysis.

Table 4.2: Cronbach Alpha for Reliability Assessment

Variables	Number of Items	Cronbach Alpha	Remarks
Supplier selection process	8	0.713	Accepted
Suppliers involvement	7	0.708	Accepted
Suppliers development program	8	0.810	Accepted
Suppliers monitoring and evaluation	7	0.620	Questionable
Operational Performance	9	0.960	Accepted

4.3. Validity Results:

Bartlett's test of sphericity was applied to test whether the correlation between the study variables exists while Kaiser-Mayor-Oklin measures of sampling adequacy (KMO) as shown in Table 4.3. The Kaiser-Mayor-Oklin measures of sampling adequacy show the value of test statistic as 0.640 and p-value <0.05. Bartlett's test of sphericity had a chi-square value of 9606.959 p-values of 0.000. Since the p-value is less than 0.05, then it implies that there exists a relationship between the study variables, therefore, providing a ground for further statistical analysis to be conducted.

Table 4.3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.640
Bartlett's Test of Sphericity	Approx. Chi-Square	9606.959
	Df	300
	Sig.	.000

4.3. Descriptive Statistics:

The main aim of descriptive statistics is to allow the researcher to obtain clear meaningfully describe a distribution of measurements or scores using statistics or index. The kind of indices or statistics used depends on the types of variables in the study and the scale of measurements. The study analyzed descriptive statistics for the following observed variables: Supplier selection Process, Supplier involvement practices, Supplier development program, supplier monitoring and evaluation and Operational performance.

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 1, pp: (224-245), Month: January - March 2018, Available at: www.researchpublish.com

4.3.1. Supplier selection Indicators and Operational Performance:

The fourth question respondents were asked to indicate the extent to which they agreed with the role of supplier selection process in influence optimization of operational performance in telecommunication service industry. This section was in a Likert scale form with the possible answer to choose like: not at all, small extent, moderate, large extent, and very large extent. Thus, in this study, the scale of not all and small extent meant disagree while large and very large extent meant agreed.

The study found out that 56.25% of the respondents in this study agreed that Safaricom Limited Supplier selection processes help in resource allocation, 41% of the respondents indicated the moderate and small number of respondents disagreed. In addition to the majority of respondents (47.91%) agreed that Supplier Selection process can obtain the best value for money in its supplies and a small number of respondents (35.42%) disagreed with the statement then 16.67% were moderate. Also, 81.25% of the respondents agreed that product procured met necessary quality assessments and register's low number of product defects, 12.5% of the respondents indicated moderate, and 6.25% of the respondents disagreed. About service levels, the majority of respondents 45.83% agreed that most of their suppliers offer better service levels that are warranties, after-sales service while 31.35% of the respondents disagreed and 22.92% of the respondents were moderate. In line with performance and litigation history on supplier's profile is a determinant factor in Supplier selection 64.58% of the respondents agreed with the statement while only 18.75% disagreed it leaving only 16.67% respondents indicating moderate. Also, 66.66% of the respondents agreed that supplier's overall price that is product & distribution cost has an impact on selection sourcing while remaining 18.75% and 14.58% disagreed and remain moderate respectively. However, 43.75% of the respondents agreed that Safaricom selected suppliers based on the technology adopted by suppliers, 27.08% of the respondents indicated moderate, and 29.17% of the respondents disagreed. Lastly, 54.17% of the respondents agreed that Supplier's Selection process exhibit honesty and accountability, 18.75% of the respondents indicated moderate and 27.08% of the respondents disagreed.

Table 4.4: Supplier selection Indicators and Operational Performance

1-Very large extent 2-Large extent 3-Moderate 4-Small extent 5-Not at All

Supplier Selection Process Indicator	**5-** %	**4-**%	**3-**%	**2-**%	**1-**%	**Mean**	**Std. Deviation**
Supplier Selection Processes helps in resource allocation	18.75%	12.5%	12.5%	25%	31.25%	2.6250	1.51060
Supplier Selection process is able to obtain the best value for money in its supplies	16.67%	18.75%	16.67%	27.08%	20.83%	2.8333	1.40415
The procured products meet necessary quality assessments & register's low no. of product defects	2.08%	4.17%	12.5%	31.25%	50%	1.7708	.97281
The Safaricom's suppliers offer better service levels (warranties, after sales service)	10.42%	20.83%	22.92%	20.83%	25%	2.7083	1.33621
The performance and litigation history of supplier's profile is a determinant factor in Supplier selection	8.33%	10.42%	16.67%	18.75%	45.83%	2.1667	1.34217
The supplier's overall price (product & distribution cost) has an impact on selection sourcing	6.25%	12.5%	14.58%	20.83%	45.83%	2.2292	1.24182
The Safaricom limited pays attention to supplier's who have invested in IT	12.50%	16.67%	27.08%	31.25%	12.50%	3.1458	1.22021
The Supplier's Selection process exhibit honesty and accountability	14.58%	12.50%	18.75%	43.75%	10.42%	2.7708	1.24182

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 1, pp: (224-245), Month: January - March 2018, Available at: www.researchpublish.com

4.3.2. Supplier Development Programs and Operational Performance:

The study revealed that 77.08% of the respondents agreed that they were aware of supplier development programs offered by Safaricom Limited, 12.5% of the respondents indicated the moderate and small number of 10.41% respondents disagreed. Also, the majority of respondents (47.91%) agreed that supplier development programs are necessary for optimization of operational performance and a small number of respondents (35.42%) disagreed with the statement then 16.67% were moderate. In contrary, 62.50% of the respondents disagreed that Safaricom company always trains key suppliers on best management practices, 10.42% of the respondents indicated moderate, and 27.08% of the respondents disagreed. About whether the management is keen on enhancing specific supplier attributes, the majority of respondents 45.83% disagreed while 31.25% of the respondents agreed and 22.92% of the respondents were moderate. In line with whether giving financial support to suppliers has improved our operational performance 42.67% of the respondents disagreed with the statement while only 39.59% agreed it is leaving only 18.75% respondents indicating moderate. Also, 62.50% of the respondents agreed that Safaricom Company gives recognition to outstanding supplier management performance while remaining got both 18.75%. However, 43.75% of the respondents agreed that conducting training programs for key suppliers has improved our operational flexibility, 27.08% of the respondents indicated moderate, and 29.17% of the respondents disagreed.This findings was full supported by Eamon et al., 2008 who recommended that the right type of training could automatically lead to an increase in overall performance for the supplier. Lastly, 49.50% of the respondents agreed that rewarding suppliers' performance had improved our operational flexibility, 16.67% of the respondents indicated moderate, and 33.33 % of the respondents disagreed.

Table 4.5: Supplier Development Programs and Operational Performance:

1- Very large extent 2-Large extent 3-Moderate 4-Small extent 5-Not at All

Supplier development	5	4	3	2	1	Mean	Std Deviation
I do understand the supplier development concept	8.33%	2.08%	12.5%	14.58%	62.50%	1.7917	1.25407
In my opinion, supplier development is necessary in optimization of operational performance	16.67%	18.75%	16.67%	27.08%	20.83%	2.8333	1.40415
Company trains key suppliers on best management practices	16.67%	45.83%	10.42%	8.33%	18.75%	3.3333	1.37351
The management is keen on enhancing specific supplier attributes	25%	20.83%	22.92%	20.83%	10.42%	3.2917	1.33621
Giving financial support to suppliers has improved our operational performance	10.42%	31.25%	18.75%	22.92%	16.67%	2.9583	1.28756
The company gives recognition to outstanding supplier management performance	4.17%	14.58%	18.75%	16.67%	45.83%	2.1458	1.27145
Conducting training programs for key suppliers has improved our operational flexibility	12.50%	16.67%	27.08%	31.25%	12.50%	2.8542	1.22021
Rewarding suppliers' performance has improved our operational flexibility	14.58%	18.75%	16.67%	41.17%	8.33%	2.8958	1.24182

4.3.3. Supplier Involvement Indicator and Operational Performance

The study revealed that 79.16% of the respondents agreed that they do understand the supplier involvement concept, 12.5% of the respondents indicated the moderate and small number of 8.34% respondents disagreed. Also, the majority of respondents 52.08% agreed that supplier involvement programs are necessary for optimization of operational performance

and only 35.42% of respondents disagreed with the statement then 12.50% were moderate. In contrary, 52.09% of the respondents disagreed that Safaricom Company involves key suppliers on best management practices, 12.50% of the respondents indicated moderate, and 35.42% of the respondents agreed. About whether the Safaricom involvement with key suppliers has reduced our product cost in term of technology, the majority of respondents 45.83% disagreed while 33.33% of the respondents agreed and 20.83% of the respondents were moderate. In line with whether Safaricom company communicates to the suppliers about operational performance and customer feedback, 41.67% of the respondents disagreed with the statement while only 41.67% agreed it is leaving only 16.67% respondents indicating moderate. Also, 54.17% of the respondents agreed that Safaricom involvement with key suppliers had improved our operational flexibility while remaining got both 18.75% and 27.08 that is moderate and disagree respectively. Lastly,62.50% of the respondents agreed that Safaricom involvement with key suppliers had improved our product quality, 18.75% of the respondents indicated moderate, and 18.75 % of the respondents disagreed.

Table 4.6 Supplier Involvement Indicator and Operational Performance

1-Very large extent 2-Large extent 3-Moderate 4-Small extent 5-Not at All

Supplier Involvement Indicator	**5**	**4**	**3**	**2**	**1**	**Mean**	**Std Deviation**
I do understand the supplier involvement concept	4.17%	4.17%	12.50%	68.75%	10.41%	2.2292	0.85650
In my opinion, supplier involvement is necessary in optimization of operational performance	16.67%	18.75%	12.50%	27.08%	25.00%	2.7500	1.45134
Safaricom Company involves key suppliers on best management practices	10.42%	41.67%	12.50%	25.00%	10.42%	3.1667	1.22619
Safaricom involvement with key suppliers has reduced our product cost in term of technology	27.08%	18.75%	20.83%	14.58%	18.75%	3.2083	1.47256
The company communicates with the suppliers about operational performance and customer feedback	10.42%	31.25%	16.67%	22.92%	18.75%	2.9167	1.31818
Safaricom involvement with key suppliers has improved our operational flexibility	14.58%	12.50%	18.75%	43.75%	10.42%	2.7708	1.24182
Safaricom involvement with key suppliers has improved our product quality	4.17%	14.58%	18.75%	16.67%	45.83%	2.1458	1.27145

4.3.4. Supplier Monitoring and evaluation and Operational Performance

The study revealed that 50% of the respondents agreed that they do understand the supplier monitoring concept, 20.83% of the respondents indicated the moderate and small number of 29.17% respondents disagreed. Also, the majority of respondents 81.25% agreed that supplier monitoring and evaluation are necessary for optimization of operational performance and only 8.33% of respondents disagreed with the statement then 20.83% were moderate. In contrary, 52.08% of the respondents disagreed that Safaricom Company always checks key suppliers if they comply with contract terms and condition even after prequalification, 16.67% of the respondents indicated moderate and 31.25% of the respondents disagreed. About whether the auditing and checks of key suppliers activities have improved our product quality, 22.92% respondents disagreed while 62.50% of the respondents agreed and 14.58% of the respondents were moderate. In line with whether auditing and checks of key suppliers activities have improved our operational flexibility 18.75% of the respondents disagreed with the statement while only 62.50% agreed it is leaving only 18.75% respondents indicating moderate. Also, 54.17% of the respondents agreed that auditing key suppliers had reduced our product cost while remaining got both 29.16% and 12.50% that disagrees and moderate respectively. Lastly,54.16% of the respondents agreed that Safaricom company does occasional monitoring and evaluation their supplier to ensure they maintain expected standards, 12.50% of the respondents indicated moderate, and 33.33 % of the respondents disagreed

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 1, pp: (224-245), Month: January - March 2018, Available at: www.researchpublish.com

Table 4.7: Supplier Monitoring and evaluation and Operational Performance

1-Very large extent 2-Large extent 3-Moderate 4-Small extent 5-Not at All

Supplier Monitoring and evaluation Indicator	5	4	3	2	1	Mean	Std Deviation
I do understand the supplier monitoring concept	12.50%	16.67%	20.83%	27.08%	22.92%	2.6875	1.33936
In my opinion, supplier monitoring and evaluation is necessary in optimization of operational performance	2.08%	6.25%	10.42%	22.92%	58.33%	1.7083	1.03056
Company always checks of key suppliers if they comply with contract terms and condition even after prequalification	27.08%	25%	16.67%	18.75%	12.5%	3.3542	1.39130
Auditing and checks of key suppliers activities has improved our product quality	10.42%	12.50%	14.58%	12.50%	50%	2.2083	1.44338
Auditing and checks of key suppliers activities has improved our operational flexibility	4.17%	14.58%	18.75%	22.92%	39.58%	2.2083	1.23699
Auditing of key suppliers has reduced our product cost	14.58%	14.58%	12.50%	31.25%	27.08%	2.5833	1.41170
The company does occasional monitoring and evaluation their supplier to ensure they maintain expected standards	10.42%	22.92%	12.5%	41.66%	12.5%	2.7708	1.24182

4.3.4. Measurement of Operational Performance:

According to Operational Performance, the study revealed that 47.92% of the respondents agreed that procurement costs had gone down because of supplier management practices, 29.17% of the respondents indicated the moderate and small number of 22.91% respondents disagreed. Also, the majority of respondents 50% agreed that inventory levels had reduced adequately because of these practices. Moreover, only 22.91% of respondents disagreed with the statement then 27.08% were moderate. In contrary, 58.33% of the respondents agreed that production costs had gone down because of these practices, 16.67% of the respondents indicated moderate, and 25.0% of the respondents disagreed. About whether the Order fulfillment cycle time has improved, 54.17% respondents agreed while 22.92% of the respondents disagreed and 22.92% of the respondents were moderate. In line with whether inventory turnover has improved 58.34% of the respondents agreed with the statement while only 22.92% disagreed it leaving only 22.92% respondents indicating moderate. Also, 56.25% of the respondents agreed that on-time-delivery has greatly improved while remaining got both 20.83% and 22.92% that disagrees and moderate respectively. Also, on whether the product rejection rate has gone down 60.42% of respondents agree with the statement leaving 20.83% to disagree and remaining 20.83% stating moderate. On the statement stating Our customers are more satisfied than before 56.25% of the respondents agreed while only 18.75% disagree leaving the rest 25% moderate Lastly, 62.50% of the respondents agreed that the number stock-out has reduced, 12.50% of the respondents indicated moderate, and 25% of the respondents disagreed.

Table 4.8: Measurement of Operational Performance

1-Very large extent 2-Large extent 3-Moderate 4-Small extent 5-Not at All

Operational performance	5	4	3	2	1	Mean	Std Deviation
Procurement costs have gone down	10.42%	12.50%	29.17	37.50%	10.42%	2.7500	1.13924
Inventory levels have reduced adequately.	8.33%	14.58%	27.08%	35.42%	14.58%	2.666	1.15470
Production costs have gone down	12.50%	12.50%	16.67%	39.58%	18.75%	2.6042	1.28394

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 1, pp: (224-245), Month: January - March 2018, Available at: www.researchpublish.com

Order fulfillment cycle time has improved	4.17%	18.75%	22.92%	31.25%	22.92%	2.5000	1.16692
Inventory turnover has improved	10.42%	8.33%	22.92%	35.42%	22.92%	2.479	1.23753
On-time-delivery has greatly improved.	12.50%	8.33%	22.92%	37.50%	18.75%	2.5833	1.25195
The product rejection rate has gone down	8.33%	12.50%	20.83%	37.50%	22.92%	2.4792	1.22021
Our customers are more satisfied than before.	8.33%	10.41%	25.00%	33.33%	22.92%	2.4722	1.20265
The number stock-out has reduced	10.42%	14.58%	12.5%	35.42%	27.08%	2.4583	1.32019

4.4 Inferential Analysis:

4.4.1.Correlation Analysis:

According to Orodho, (2003) the term correlation refers to the strength of a relationship between two variables. The stronger correlation between two or more variables the stronger relationship with each other and the weaker the correlation means that the variables, the harder to relate. The correlation coefficient can range from -1.00 to +1.00.

The study findings indicated that there was a significant positive relationship between supplier selection process and operational performance (rho=.021, p-value <0.05). This implies that a unit change in supplier selection process increases operational performance by 2.1%.

Secondly, there was a positive and significant relationship between supplier development and operational performance (rho =0.067, P value <0.05). This implies that a unit change in supplier development increases operational performance by 6.7%.

Thirdly there was a positive and significant relationship between supplier involvement and operational performance (rho =0.279, P value <0.05). This implies that a unit change in supplier involvement increases operational performance by 27.9%.

Lastly, there was a positive and significant relationship between supplier monitoring and operational performance (rho =0.453, P value <0.05). This implies that a unit change in supplier involvement increases operational performance by 45.3%

Table 4.9: Correlation of the study Regression

		supplier selection	**supplier development**	**supplier involvement**	**supplier monitoring**	**operational performance**
supplier selection	Pearson Correlation	1	.159	.058	-.023	**.021**
	Sig. (2-tailed)		.282	.695	.878	**.890**
	N	48	48	48	48	**48**
supplier development	Pearson Correlation	.159	1	.322*	-.012	**.067**
	Sig. (2-tailed)	.282		.026	.938	**.650**
	N	48	48	48	48	**48**
supplier involvement	Pearson Correlation	.058	.322*	1	.361*	**.279**
	Sig. (2-tailed)	.695	.026		.012	**.055**
	N	48	48	48	48	**48**
supplier monitoring	Pearson Correlation	-.023	-.012	.361*	1	**.453****
	Sig. (2-tailed)	.878	.938	.012		**.001**
	N	48	48	48	48	**48**
operational performance	Pearson Correlation	.021	.067	.279	.453**	**1**
	Sig. (2-tailed)	.890	.650	.055	.001	

ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 1, pp: (224-245), Month: January - March 2018, Available at: www.researchpublish.com

	N	48	48	48	48	**48**
***. Correlation is significant at the 0.05 level (2-tailed).**						
****. Correlation is significant at the 0.01 level (2-tailed).**						

The results show that the overall model was efficient because it conforms to the coefficient of determination which 0.762 that is mean all the independent variables play 76.2% role on the variation in the dependent variable

Table 4.10: Overall regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.873[a]	.762	.734	.20243	.873[a]

In Table below the ANOVA was used to show the overall model significance. Since the p-value is less than the 0.05, then overall independent variables had a significant explanatory power on operational performance (F = 3.061 and a p-value <0.05).

Table 4.11: Overall ANOVA Analysis

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.770	4	2.943	3.061	.026[b]
	Residual	41.341	43	.961		
	Total	53.111	47			
a. Dependent Variable: operational performance						
b. Predictors: (Constant), supplier monitoring, supplier development, supplier selection, supplier involvement						

The findings on the regression coefficient performed and in the table below reveals that there exist a significant relationship between the dependent variable operational performance and the independent variables: supplier selection, supplier development, supplier involvement and supplier monitoring. From the study, overall model is computed as

$Y=0.418+0.026X_1 +0.038X_2+0.165X_3+0.605\ X_4 + \varepsilon$

Beta coefficients of 0.418, 0.026, 0.038, 0.165 and 0.605 respectively justify the relevance of the model findings. The results indicate that a change in either if the variables will certainly lead to a positive change in operational performance of Safaricom limited.

Table 4.12: Overall Coefficients

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.418	.842		.497	.622	-1.279	2.116
	supplier selection	.026	.195	.018	.133	.895	-.367	.418
	supplier development	.038	.181	.031	.210	.834	-.327	.403
	supplier involvement	.165	.213	.120	.777	.441	-.264	.594
	supplier monitoring	.605	.215	.410	2.812	.007	.171	1.038
a. Dependent Variable: operational performance								

5. SUMMARY

5.1. Role of supplier's selection process in the optimization of operational performance:

Supplier's selection process is one of a major part of supplier management in line with the optimizing operational performance of an organization. In this study Supplier's selection process was measured using this indicator; Supplier attributes on Reliability & Support, Product and service attributes on flexibility& ease of use, and Economic attributes (cost). The study established that supplier's selection process as part of supplier management practices helps in the allocation of limited resources through careful examining the market for prioritizing their needs in order to obtain the best

value of money of its supplies. Also, supplier's selection process as part of supplier management practices helps to procure products which meet necessary quality assessment with better services levels that are product and distribution cost and warranties after sales services hence registers a low number of product defects. However, it was determined that Safaricom limited pays more attention to supplier's who have invested in information and technology a lot and supplier who exhibit some level of honesty and accountability in their business activities and also with outstanding performance and low litigation history on their profiles to avoid disruption in their operations.

Moreover, the study revealed that there was a positive significant linear relationship Between supplier's selection process as part of supplier management and operational performance at Safaricom limited. Hence this implied that there was a strong relationship between supplier management and operational performance at Safaricom limited. Thus, when supplier selection process focuses on supplier attributes on reliability & support, product and service attribute on flexibility& ease of use, and economic attributes (cost) can optimize operational performance in telecommunication service industry in Kenya.

5.2. Role of supplier's Involvement in the optimization of operational performance:

Concerning the role of supplier's Involvement in the optimization of operational performance, it was measured using the following parameters; Generating ideas & product innovation, Supplier communication, Information, and Technologies sharing. The study revealed that supplier involvement programs as part of supplier management practices are necessary in the optimization of operational performance, but Management of Safaricom Company did not take too much concern to involve key suppliers on best management practices. With regard to whether the Safaricom involvement with key suppliers has reduced our product cost in term of technology, the majority of respondents disagreed with the statement In line with whether Safaricom company communicates to the suppliers about operational performance and customer feedback the response was neutral both agree and disagree scoring. Also, the majority of the respondents agreed on the statement that Safaricom involvement with key suppliers had improved our operational flexibility. Lastly, the majority of the respondents agreed that Safaricom involvement with key suppliers had improved our product quality.

Moreover, the study revealed that there was a positive significant linear relationship between supplier's involvement programs as part of supplier management practices and operational performance at Safaricom limited. Thus, when supplier involvement focuses on generating ideas & product innovation, Supplier communication, Information and Technologies sharing can optimize operational performance in telecommunication service industry in Kenya.

5.3. Role of supplier's development programs in the optimization of operational performance:

The study revealed that Majority of the respondents agreed that they were aware of supplier development programs offered by Safaricom Limited. Also, the majority of respondents agreed that supplier development programs are necessary for optimization of operational performance. In contrary, the majority of the respondents disagreed that Safaricom company always trains key suppliers on best management practices, About whether the management is keen on enhancing specific supplier attributes, the majority of respondents disagreed. In line with whether giving financial support to suppliers has improved our operational performance majority of the respondents disagreed with the statement. Also, the majority of the respondents agreed that Safaricom Company gives recognition to outstanding supplier management performance. However, the majority of the respondents agreed that conducting training programs for key suppliers has improved our operational flexibility. Lastly, the majority of the respondents agreed that rewarding suppliers' performance had improved our operational flexibility.

Hence, the study revealed that there was a positive significant linear relationship between supplier's development programs as part of supplier management practices and operational performance at Safaricom limited. Thus, when supplier development focus on Supplier Training, Supplier Recognition and honor and supporting suppliers financially can optimize operational performance in telecommunication service industry in Kenya.

5.4. Role of supplier's monitoring programs in the optimization of operational performance:

The study revealed that majority of the respondents agreed that they do understand the supplier monitoring concept. Also, the majority of respondents agreed that supplier monitoring is necessary for optimization of operational performance. In contrary, Majority of the respondents disagreed that Safaricom Company always checks key suppliers if they comply with

contract terms and condition even after prequalification. About whether the auditing and checks of key suppliers' activities have improved our product quality majority of the respondents agreed. In line with whether auditing and checks of key supplier's activities have improved our operational flexibility majority of the respondents agreed with the statement. Also, the majority of the respondents agreed that auditing key suppliers had reduced our product cost. Lastly, the majority of the respondents agreed that Safaricom Company does occasional monitoring and evaluation their supplier to ensure they maintain expected standards.

Hence, the study revealed that there was a positive significant linear relationship between supplier's monitoring programs as part of supplier management practices and operational performance at Safaricom limited. Thus, when supplier monitoring focuses on supplier audits and check, level of Supplier compliance with contract terms and condition and supplier quality assurance can optimize operational performance in telecommunication service industry in Kenya.

6. CONCLUSION

From the findings of the study, it could be concluded that supplier selection role had a positive significant influence in the optimization of operational performance with a relatively smaller coefficient of determination of 0.0421% which means much more need to be done during supplier selection process to gain an optimum solution to operational performance. On supplier Involvement role it was concluded that it had a positive significant influence in the optimization of operational performance with a slightly relative smaller coefficient of determination 7.8% which means that management should put more effort on supplier involvement to obtain an optimum solution to operational performance. On Supplier Development role it was concluded that it had a positive significant influence in the optimization of operational performance with a coefficient of determination 0.5% which indicate there is supplier development done by Safaricom but much need to be done in term of training of supplier and even recognition. Lastly, on supplier monitoring program, it indicates that it had a positive significant influence in the optimization of performance with a coefficient of determination of 20.5% which was highest since it should be done on a regular basis to achieve optimum operational performance.

7. RECOMMENDATION

The study recommends that Safaricom management should put more focused on supplier management practices regarding the following recommendations to optimize operational performance. During supplier selection process the procurement manager and user department should consider the things like Reliability of the supplier because if they let down procurement department of Safaricom, it might have replica effect down to the customer hence reduction in profit margin. Also the quality of supplies needs to be consistent because at the end of day final customers will associate poor quality with the management, not suppliers. On Strong service and clear communication, the company needs to select suppliers who can deliver on time, or honest and give plenty of warning if they cannot. Since the best suppliers will always want to talk with company regularly to find out what needs they have and how they can serve them better. On the financial security, Safaricom management should make sure that supplier has the sufficiently strong cash flow to deliver what they want when they need it. A credit check will help to reassure Safaricom that they will not go out of business when they need them most. Lastly, on value for money Safaricom management should consider several factors before selecting a supplier like for example If they want reliability and quality from their suppliers, they need to decide how much they are willing to pay for supplies and the balance they want to strike between cost, reliability, quality, and service.

The study further recommends that supplier involvement practices should be done as early as new product development, so that take advantage of future threat of competition to reduce costs and improve performance but before doing this, tactics to control early supplier involvement should be put in places like the following: Making cost of data Sharing mandatory that is for the privilege of their involvement in development, a supplier should be required to break down its quoted price into its component costs and profit margin. Minimize The Overhead Percentage that is Safaricom need to scrutinize how overhead is calculated by re-identifying overhead costs as direct costs make it easier to jointly reduce those costs later. Understand All Assumptions. There are always assumptions built into a supplier's cost structure. For example, a supplier may base its labor costs on an assumed production rate (e.g., 100 units per hour). Document all of these assumptions and have a technical team member evaluate their accuracy. Agree To The Right Terms that are Suppliers who overestimated their costs (or intentionally quoted them higher) should not benefit. So pricing should be based on a cost plus fixed fee scheme. Suppliers must agree to share accounting records of their work. Moreover, Safaricom should

agree on the terms that can change if the volume exceeds their estimates. Audit the Supplier's Books before involvement and regularly. Safaricom technical team must audit the supplier's records to compare actual costs versus estimated costs and those assumptions documented earlier with actual results. Where costs were lower than estimated or actual performance was better than assumed, a price adjustment is warranted.

Proper intervention in protecting Safaricom procurement department against inappropriate information offered by fraudulent suppliers should be put in place, emphasizing on operational performance measurement should be put in place and laying down proper checks for all contracts, Safaricom should set up proper supplier selection structures that avoid political interference and augmenting of supplier relationship management practices to ensure supplier and the firm work towards the same goal. On supplier development, these approaches should be made include rewarding performance to best-performing suppliers, penalizing poor performance, on-going detailed assessment, and feedback on a day to day activities

Areas for Further Research:

Since this study only with Role of supplier management practices in optimization of operational performance in telecommunication service sector in Kenya, further research is needed to compare performance in other telecommunication service sector and investigate their effect on operational performance and or establish the effect of supply base reduction on improving long-term relationships / collaboration with suppliers for the purpose of mutual gains.

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