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EFFECT OF QUALITY MANAGEMENT PRACTICES ON FIRM PERFORMANCE OF ANIMAL FEEDS MANUFACTURERS IN KIAMBU AND NAIROBI CITY COUNTIES

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ABSTRACT

The main objective of the study is to establish the effect of quality management practice on the firm performance, a case of animal feeds manufacturers in Kiambu and Nairobi counties. The study sought to establish the objectives of the influence of supplier management and continuous process improvement on the firm performance. The study applied the descriptive research design while a purposive sampling technique was used to gather qualitative and quantitative data from employees of the 55 licensed animals feeds manufacturers in Kiambu and Nairobi counties, with a total sample size will be 110 respondents. Primary data was collected using self-administered questionnaires through a drop and pick method to the procurement and operational managers of each of the animal feeds manufacturing firm. While secondary literature review data for the research was collected by reviewing textbooks, journals, articles. The reliability of the questionnaires was checked using Cronbach Alpha test. The study findings showed that there was a significant positive relationship between supplier management and process improvement with firm performance of animal feed manufactures in Kiambu and Nairobi counties. The study recommended that the management team from the animal feed manufactures should also continuous engage in providing innovative solutions for firms products thus to meet customer demand specifications in the market. The study also recommended that further studies be done on the impacts of effective implementation of quality management practices on firm performance of various animal feed manufacturers in the country thus to depict a reliable result that can be employed in improving the firm by focusing both negative and positive effects.

Key Words: *Quality management, Process Improvement, Firm Performance*

INTRODUCTION

Quality management practice has emerged as a high profile notion that has strategic importance to many manufacturing companies. Many manufacturing companies are taking direct steps to practice quality management initiatives thus increase non-financial and financial results (Salaheldin, 2010). Chong and Rundus (2012) highlighted that quality management practice as an effective system for integrating the quality development, quality maintenance and quality improvement efforts of the various groups in the company so as to enable production and service at the most economical levels which allows for full customer satisfaction.

Quality management practices have been investigated extensively by various researchers (Kaynak, 2013). Although a plethora of practices have been described, similarities among practices can be discerned. The distinct generic practices proposed in quality management literature are: top management commitment and support, employee training, employee participation, supplier quality management, customer focus, continuous support, and improvement of quality system, information and analysis, and use of statistical quality techniques (Kaynak, 2013).

Stein (2014) noted that quality management practices by companies include management commitment; role of the quality department; training and education; employee involvement; continuous improvement; supplier partnership; product or service design; quality policies; quality data and reporting; communication to improve quality and customer satisfaction orientation.

Implementation of quality management practices enables companies to improve their internal operations in an efficient manner; this is however considered a requirement to become competitive in the global market place. Smith (2012) pointed out that quality management practice is a major factor in the business quality revolution that has proven itself to be one of the 21 century's most powerful creators of sales & revenue growth, genuinely good new jobs, and soundly based and sustainable businesses expansion.

Valmohammadi's (2011) study on the manufacturing sector concludes that the TQM factors such as leadership, process management and customer focus affect the firm performance. Results show that there is a positive impact of these variables on the performance. Leadership enhances the performance and has a positive significant effect. Process management positively correlates with the performance.

Total quality management is the company wide process which requires changes both in production and decision making processes, employee training and development, participation as well as involvement (Jung *et al.,* 2010). Quality management practices are results oriented approaches, dealing with the product characteristics that really matter to end-users hence guarantees the customers the high quality of product they can receive during their purchase (Reyad, 2013).

Globally, the concept of quality management practices can be viewed from different perspectives. Hardie (2013) identifies the following five categories into which quality management practices can be placed; conformance to requirement, fitness for purpose, meeting customer perceptions, exceeding customer expectations and superior to competitor.

The term quality management practice has a specific meaning within many business sectors. This definition does not mainly necessary mean or assure 'good quality' from the general definition, but assure that the company products and services

is consistent with the set requirements. Rose (2010) described that quality management practices should have four main components which include quality planning, quality control, quality assurance and quality improvements.

In Africa most countries have adopted TQM in both manufacturing and service sectors but differences occur in the manner in which quality management practices is applied. Souza *et al*. (2011) assess the application of TQM in Nigeria and South Africa to investigate the relationship between national culture and the implementation of quality management practices. Their results show that in each country, several distinct relationships between the dimensions of quality management practices implementation and national culture exist. They therefore imply that the application of quality management practices should take into account different characteristics of national cultures.

Abdullah *et al.,* (2010) notes that Total Quality Management (TQM) in Africa can be implemented in any sector of the economy for instance the public sector, manufacturing, service and education. The resulting outcome is reduced costs, increased productivity, and improved financial performance. The application of quality management procedures, tools and techniques in company is becoming popular because they form a strategic foundation for generating competitive advantage and improving firm performance. Implementation of quality management requires a good strategy that is reliable to the company.

In Kenya quality management practices have been widely adopted in both the private and public sector by the official certifying body Kenya beaureu of standards among other international certifying bodies. Kenya Bureau of Standards (KEBS) was established in July 1974 to providing Standardization and Conformity Assessment services that consistently meet its customers requirements. KEBS provides the necessary resources towards the effective implementation and continual improvement of the Quality Management System that complies with ISO 9001:2008. (Kebs, 2008). The government has been in the fore front in promoting adoption of quality management practices both in the private and public sector.

Despite some attempts on the applicability of TQM practices and advanced manufacturing technologies as well as their impact on firm performance like in Kenyan manufacturing SMEs. There is a lack of systematic empirical evidence regarding the extent of TQM implementation and its effect on performance of manufacturing firms in emerging market economies like Kenya (Wamweya, 2013).

Statement of the Problem

The remarkable growth in the Kenyan economy in the last decade has been characterized by the establishment of manufacturing industries in the country with various products been introduced into the market (World Bank, 2010). Even the most experienced manufacturing companies in the world have committed quality management practices errors (Masood and Mukhtar (2012). The prescriptions have been in an attempt to reverse the trend of high failure rate in implementing quality management practices among the manufacturing industries (Chinho *et al*., (2007); Heras and Landin, 2011; Samson and Terziovski (2011). Taylor and Wright (2003) argues many firm in manufacturing sector fail because of quality management practice implementation barriers such supplier quality management and lack of continuous product improvements.

In Kenya, animal feeds manufacturing industries growth is slow yet the annually demand high which is not met (AKEFEMA, 2015). While the Kenyan consumers are becoming increasingly more enlightened and are always expecting good quality products from the manufacturers. There is evidence that successful quality management practices among the manufacturing industries is inadequate (Kibe and Wanjau, 2014).

Existing local studies such as Nyamamba (2013) and Awino *et al.* (2012) have not incorporated all the key quality management practices in a single study to comprehensively analyze the effect of quality management practices on performance, more specifically on the animal feeds manufacturers in Kiambu and Nairobi counties. Thus it`s on this background the researcher sought to investigate the effect of quality management practices on firm performance with a view in offering feasible recommendations to improve animal feed manufacturing industry in Kenya. Therefore filling the existing knowledge gap.

Objectives of the Study

The purpose of the study was to investigate the effect of quality management practice on the firm performance of animal feed manufacturers in Kiambu and Nairobi counties. The specific objectives were:

- To establish the influence of supplier quality management on the firm performance of animal feed manufactures.
- To determine the influence of continuous process improvement on firm performance of animal feed manufactures.

LITERATURE REVIEW

Theoretical Review

Knowledge Based View Theory

Spender (1996) argues that Knowledge Based View Theory (KBVT) views the firm business as a dynamic, evolving, quasi autonomous system of knowledge production and utilization. Grant (1996) state that KBV of the firm addresses the issues of the existence, the boundaries. The starting point is that knowledge is the key explanatory factor and the nature of knowledge (tacit, socially constructed) is an important determinant enhancing understanding of firm behavior.

Understanding the nature of this complex business phenomenon (Gupta *et al.*, 2000) the knowledge based view can be a useful framework in order to develop in an effective way firm innovations (Diaz *et al*., 2008). The resource base of the company consists of knowledge based assets. The KBV of the firm is an extension of the Resource Based View of the firm because it considers that companies are heterogeneous entities loaded with knowledge (Scarborough *et al*., 1999).

The KBV of the firm has attracted great interest as it reflects that academia recognizes the fundamental economic changes resulting from cumulatively and availability of knowledge in the past two decades. We are witnessing a structural change in the productive paradigm (Carneiro, 2003). The change from manufacture to services in the majority of developed economies is based on the manipulation of information and symbols and not on the use of physical products. The perspective of the KBV of the firm is consistent with the approach to company as cultures (Balogun and Jenkins, 2003).

Considering that companies are conceptualized as cultures, they are supposed to learn through

activities that involve cultural artefacts. The company learning allows it to acquire, to change and to preserve its own capabilities (Cook and Yanow, 1995). Begona (2008) describe knowledge management approaches is based on business management studies, which all see knowledge as the answer to the new competitive challenges faced by firms today. should Knowledge management practices theory provides information and knowledge creating systems, as well as strategic management and innovation. Thus knowledge management practices theory is linked to continuous process improvement variable.

Agency Theory

Agency theory has been regularly used in performance measurement research (Otley, 2002). The management of contract relationship is widely held to be in agency theory (Sappington and Stiglitz, 1987). The agency relationship arises between two parties when one, the agent, acts for, on behalf of, or as a representative for the other, the principal, in the particular domain of decision problems (Ross, 1973).

Majority of the manufacturing industries firms are faced with agency problems which adverse them from selection of low quality supplier agents which in poor performance (Moe, 1997). The main aspects of this paradigm are that efficiencies of economic company may link to human, transaction, and technology issues. Donaldson (1990) maintains that both agency theory and transaction costs economics emerged from company economics to become theoretical paradigms for management.

Eisenhardt (1989) takes a narrower view and sees the roots of agency theory in information economics. Information economics holds that market information about other parties must be acquired through expenditure on information gathering or by making inferences based on their behavior (Stiglitz, 2002). Since limited information may result in good projects being rejected and bad projects being accepted, information asymmetry is a problem within economic company design. Therefore agency theory literature is much concerned about the information asymmetry between the parties and the view that relevant information for contract arrangements may be provide a sufficient price is paid (Baiman, 1982).

Balkin and Gomez (1987) identifies two lines of agency research: the principal agent which is concerned with the general theory of the principal agent relationship, which may be applied to employer employee, lawyer client, or buyer supplier relationships. The company assumptions are held to be goal conflict among participants, efficiency as an effectiveness criterion, while information asymmetry between principal and agent (Eisenhardt, 1989). Agency theory plays an important knowledge in linking information of supplier quality management variable of the study.

Conceptual Framework

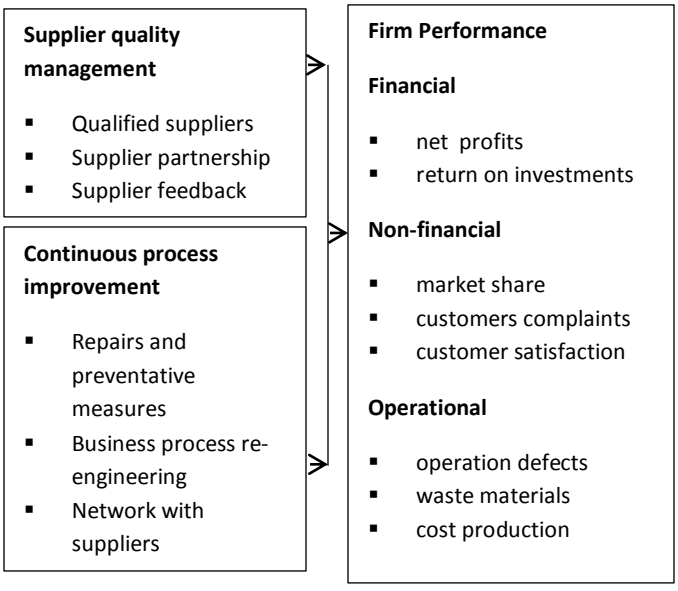

Figure 1: Conceptual Framework

Supplier Quality Management

Supply quality management implies reducing and streamlining the supplier base to facilitate managing supplier relationships. Supplier quality management enhance more of supplier partnership, product quality as the criterion for supplier selection, participation in suppliers, communication with suppliers, understanding of supplier performance and supplier quality audit (Mann and Saunders, 2008).

Supplier quality management practices by the company helps in establishing a long term relationship with the key suppliers of goods and services to enhance more of loyalty and trust. It is also very important for a company to establish an effective supplier information feedback system, which can be used for giving feedback to suppliers about their product performance (Krause, 2007).

Supply quality management implies reducing and streamlining the supplier base to facilitate managing supplier relationships, developing strategic alliances with suppliers, working with suppliers to ensure that expectations are met (Watts and Hahn, 2006). A revolution in the relationship between buyers and suppliers has emerged in the form of supplier partnership Hackman and Wageman (2005) stated developing partnerships with suppliers is one of the major quality management implementation practices.

Supplier quality management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistic activities. Krumwiede and Charles (2006) argued that it is more importantly for manufacturing firms to engage in coordination and collaboration with channel partners, which can be suppliers, intermediaries, third part service providers, or customers thus to enhance their improvement of operational performance.

Continuous Process Improvement

Continuous process improvement refers to certain unique combinations of machines, tools, methods, materials, and people engaged in production. Continuous process improvement outlines the role of business process re-engineering which is aimed to help companies fundamentally rethink how they do their work in order to dramatically improve customer service, cut operational costs, and become world-class competitors ((Feigenbaum, 2009).

Continuous process improvement also involves firm's to be involved in functions such as technical design, R&D, manufacturing, management and business process re-engineering. Business Process Re-engineering (BPR) is a business management strategy that focus on the analysis and design of workflows and business processes within the firm (Byrd and Davidson, 2003). BPR is aimed to help the firm fundamentally rethink how they do their work in order to dramatically improve customer service, cut operational costs, and become world-class competitors.

Oke *et al*. (2007) stated that continuous process improvement concerns with the creation of improvement in techniques and the development in process or system. For instance in technology, skill, techniques, system and procedure, which is used in the process of transforming input into output. Crucial to the manufacturing industry, continuous process improvement should be emphasized by a firm as its primary distinctive competence for competitive advantage (Nemetz and Fry, 2007).

Summers (2000) highlighted that continuous process improvement as a philosophy that focuses on improving processes to enables manufacturing companies to provide customers what they want the first time and every time. The

author also continues to assert that this customer focused, process oriented approach to doing business results to increased satisfaction and delight for both customers and employees.

(Morone and Testa, 2008) proposed that process improvement is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment, installation of new or improved manufacturing technology, such as automation equipment or real-time sensors that can adjust processes, computer-aided product development.

Firm Performance

Parameter (2010) proposed that performance evaluation enables the firm to assess its efficiency and effectiveness over a period of time by comparing with its objectives or with market leader to overcome its weaknesses. Firm performance involves doing today what leads to measured value outcomes tomorrow. Performance evaluation enables the firm management to assess its efficiency and effectiveness over a period of time by comparing with its objectives or with market leader to overcome its weaknesses.

Wallsten (2007) pointed out firm performance can be measured in terms of financial, non-financial and operational. Financial performance can be measured using profits, return on assets, return on investment, product market performance and total shareholder return. While non-financial can be measured using sales margin, market share, customer satisfaction. Operational performance is measured by operation defects, waste materials and cost production of products.

Chong and Rundus (2004) identified that return on investment, sales and market growth and profits are important factors that can be used to measure firm performance. Delaney *et al*. (2006) asserted that firm performance can be evaluated by quality service and products, satisfying customers, market performance service innovations, margin on sales, capacity utilization, customer satisfaction and product quality.

Richard *et al*. (2009) proposed that firm performance encompasses three specific areas of firm outcomes: financial performance (profits, return on assets, return on investment), product market performance (sales, market share) and shareholder return (total shareholder return, economic value added). Well performing companies often enjoy a competitive advantage over the rest in the industry and are able to deliver on quality and superior products and services. The resource based theory explains that firm performance is a function of how well managers build their comapny around resources that are valuable (Barney, 2007). Performance measurement systems assume that managers can use the information to make better decisions.

Empirical Literature

Supplier Quality Management

A study by Ghaith and Hamdan (2014) revealed that the buying firm will improve its firm performance by managing relationships with its current suppliers. The study also indicates that the supplier firm may modified its process and operations so that to be capable of meeting the buying firm's requirements in terms of technical specification, quality, cost, flexibility, and others. The author recommended that supplier firm has to become more responsive in terms of supplying frequent flexible deliveries.

Wisner (2009) study found that supplier quality management and customer management strategies have both positive influences on company performance in terms of increase of sales level. His empirical results were achieved using a data from 350 US and European manufacturing firms.

Continuous Process Improvement

Roberts (2009) study recommends that continuous process innovation should involve the implementation of a new or significantly improved production or delivery method. Thus the operational managers of manufacturing firms should be make significant improvement changes by installation of new or improved manufacturing technology, such as automation equipment or real-time sensors that can adjust processes, computer-aided product development. A study by Morone and Testa (2008) revealed that continuous process improvement practice by firm management is positively associated with better firm growth in terms of profitability.

Samson and Terziovski (2011) analyzed the relationship between continuous process improvement practices on operational performance of service companies in Indian. The data was collected from a sample of 600 respondents who were working in healthcare, banking, information and communication technology and hospitality sector. The study found that total quality management practices relates positively to quality performance. The study recommended that future studies should look into the possible inclusion of continuous process improvement in the manufacturing sector. Thus why this study incorporated a continuous process improvement as a variable.

Firm Performance

Performance measures commonly used in this area of quality management practices are quite diverse. Most of recent publications included financial performance measures (Choisne and Grosbois, 2009); (Gadenne and Sharma, 2012). Researchers are often found to use different terms while measuring level of satisfaction such as employee, customer and supplier satisfaction (Joiner, 2007). In addition, the researchers also used different groupings of performance measures, in terms of business performance often included many other performance categories such as financial performance and sales performance.

In measuring the impact of implementation of quality management practices on company performance it is important to have balanced performance measurement frameworks (Lakhal and Limam, 2006). Using balanced scorecard allows executives to avoid improving one performance at the expense of another (Kaplan and Norton, 2008). Neely (2005) stated that the BSC scratched spread around the balance between short-term goals and long term, between financial measures and non-financial, between lagging and leading indicators and between internal and external performance perspective.

RESEARCH METHODOLOGY

The study applied descriptive research design, the object of descriptive research is to portray an accurate profile of persons, events or situations (Robson, 2002). The descriptive design was found to be consistent with the general objective of the study, which sought to investigate the effect of quality management practice on firm performance of the animal feeds manufactures', a case of Kiambu and Nairobi counties. The target population of the study comprised all the licensed animal feed manufacturers listed in the company

registrar of Kiambu and Nairobi counties. The data findings was collected both from the operational and procurement managers of each of the 55 animal feed manufacturers firms located in Kiambu and Nairobi counties. The study used a census survey technique. Thus the study sampled 2 respondents each from the 55 different animal feed manufacturing firms located in the Kiambu and Nairobi counties. Thus making a total sample size of 110 respondents. The data findings were collected mainly from the procurement manager and the operational manager mainly because they had more relevant knowledge information on this area. This enabled the researcher to gather more collective information to assist in analysis and arriving at accurate results. A sample size of 110 respondents was adequate to research the effect of quality management practices on firm performance of animal feed manufacturers in Kiambu and Nairobi counties. Both primary data and secondary literature data gathering methods were used for the purposes of this research. Primary data was collected by administering both open ended and Likert scale style type of questions to respondents working as the procurement manager and the operational manager of each the animal feed manufacturers located in Kiambu and Nairobi Counties. The respondents were administered questionnaire through drop and pick method. A pilot study was conducted with 8 respondents been given questionaries' of study before the final survey was undertaken. The reliability of the questionnaires was improved through pretesting of pilot samples from lecturers in academic. This enabled the rephrasing of some questions. The Statistical Package for Social Science (SPSS) version 20 was used to analysis quantitative data. The study used both descriptive and inferential analysis. While Microsoft Excel 2013 was used to analyze the open ended questions of the study.

FINDINDS

Questionnaires were used to seek perceptions of the employees working as the role of procurement manager and operational manager of the various animal feed manufacturers in Kiambu and Nairobi counties. The researcher distributed 110 questionnaires out of which 70 were received, 3 questionnaires were rejected due to improper incompletion. Thus 67 questionnaires were accepted as correctly filled which represent a response rate of 61 %.

Based on nature of the firm, majority of the animal feeds firms in the Kiambu and Nairobi counties had Kenya Bureau of Standards certification with a representation of 71.5% while only 28.5% had no Kenya Bureau of standards certification. Thus majority of the animals feed manufacturers have Kenya Bureau of standards certification. From the findings 32.7% of the firms always performed internal audits of its quality system and are results documented, 56.9% sometimes and 10.4% never performed any internal audits of quality system none of the results are documented. Thus majority of the animals feed manufacturers have implemented the internal audits.

11.4 % of animal feeds manufacturers in Kiambu and Nairobi counties had less than 20 employees, 27.3% had employees ranging between 21-40, 43.6% of the firms had employees range of 41-60 and while only 17.7% had above 61 employees. Thus majority of the animals feed manufacturers in Kiambu and Nairobi city counties had less 60 employees. From the findings majority of the animal feeds manufacturers in Kiambu and Nairobi counties 56.9 % of them showed that they were in sole proprietorship ownership, 25.3 % of the respondent firms were in partnership and while 17. 8% are private limited. This shows that most animal

feeds manufacturers in Kiambu and Nairobi counties are in sole proprietorship ownership.

Supplier Quality Management

Table 1 illustrates the level of supplier quality management by animal feed manufacturers in Kiambu and Nairobi Counties. The results indicate an overall mean of 3.73 in supplier quality management of the animal feed manufactures in Kiambu and Nairobi counties. 43.3% of the respondents agreed stating that their firms worked more close collaboration with suppliers to facilitate in improving production processes, while only 4.5% disagreed, 35.8% neutral and only 16.4% strongly agreeing with the statement. 58.25% of the respondents agreed with the statement which indicated that their firm purchases raw materials only from qualified suppliers, while only 14.9% were more neutral and 37.3% agreed with that statement.

The findings revealed that 55.2% of respondents agreed that supplier materials are conducted inspection examination before installation obtained, while 7.5% disagreed and 37.3% strongly agreeing. Categories suppliers thus to dealing with the first category of high quality standard received a medium rating of 40.3%, while 4.5% disagreed, and only 14.9 strongly agreed with statement. From the findings 50.7% agreed stated that their respective firms had entered into a strategic partnership with supplier thus encouraged mutual planning and problem solving efforts, 1.5% disagree, 32.8% neutral and only 14.9% strongly agreed.

Most respondents with 49.3% were agreed that product quality is the important factor while selecting the suppliers, while 9% disagree, 34.3% neutral and only 7.5% stronly agreed with that statement. Lastly 43.3% of the respondents were neutral that their respective firms had incorporated in providing feedback on the performance of suppliers' products, 1.5% strongly disagreed, 26.9% disagreed, 22.4% agreed and only 6% strongly agreed with that statement.

The findings were consistence with Krumwiede and Charles (2006) that the manufacturing firms which engage in coordination and collaboration with channel partners, which can be suppliers, intermediaries and third part service providers, enhance their improvement of operational performance. Krause *et al.* (2007) found that commitment of the buying firm to long-term relationships with major suppliers, shared goals and values with suppliers, and the involvement in supplier development initiatives were positively associated with the buying firm competitive performance in US automotive and electronics industries.

Phan *et al.* (2011) found that firms which involved more suppliers in their product development teams achieved considerable improvements compared to those who didn't. They also concluded that understanding suppliers.

Table 1: Supplier Quality Management

	SD %	D %	N %	A %	SA %	Mean
Close collaboration with suppliers to improve production processes	0	4.5	35.8	43.3	16.4	3.72
Purchases raw materials only from qualified suppliers	0	1.5	14.9	58.2	25.4	4.07
Supplier materials are conducted inspection examination before installation	0	0	7.5	55.2	37.3	4.30
Categories suppliers thus to dealing with the first category of high quality standard	0	4.5	40.3	40.3	14.9	3.66
Strategic partnership with supplier has encouraged mutual planning and problem solving efforts	0	1.5	32.8	50.7	14.9	3.79
Product quality is the important factor while selecting the suppliers	0	9	34.3	49.3	7.5	3.55
Provides feedback on the performance of suppliers' products	1.5	26.9	43.3	22.4	6	3.04
Average						**3.73**

Continuous Process Improvement

Table 2 illustrates the level of continuous process improvement by animal feed manufacturers in Kiambu and Nairobi Counties. The results indicate an overall mean of 3.86 in continuous process improvement of the animal feed manufactures in Kiambu and Nairobi counties.

From the findings 29.9% of the respondents agreed stated they respective firms are more effectively and frequently measuring its quality performance process in while in production, while 6% strongly

disagreed, 22.4% disagreed, 23.9% neutral and 17.9% strongly agreed with statement. 49.3% of the respondents agreed indicating that their respective firms had continuously engages in business process re-engineering, while 7.5 % disagreed, 20.9% neutral and 22.4% strongly agree with statement.

Majority of respondents 38.8% agreed that of their respective firms provides innovative distributing methods to enhance its product to be more accessible in the markets 9% disagreed, 31.3% neutral and only 20.9% strongly agreeing with the statement. The findings revealed that, 53.7% of the respondents strongly agreed that their respective firms makes continuous adoption of repair and preventive maintenance to minimize poor quality products, 14.9% disagreed, 7.5% neutral and 23.9% strongly agreeing with the statement.

Lastly, 53.7% agreed indicating that their firm have an effective communication process with the external network of suppliers, 6% disagreed and 40.3% strongly agreeing with the statement. Thus effective communication process with the external network of suppliers among the animal feeds manufactures received the highest rating practices.

A study by Nemetz and Fry (2007) concluded that continuous process improvement through the practice of business process re-engineering should be emphasized by manufacturing firms as its primary distinctive competence for gaining competitive advantage in terms of improvement of customer satisfaction. The study findings are also consistence with Morone and Testa (2008) who established that continuous process improvement practice by firm management is positively associated with better firm growth in terms of profitability. Bayus *et al*. (2003) asserts that continuous process improvement had positive and significant link with firm performance in terms of improving sales growth and market share.

Table 2: Continuous Process Improvement

	SD %	D %	N %	A %	SA %	Mean
Firm is more effectively and frequently measuring its quality performance	6	22.4	23.9	29.9	17.9	3.31
Firm continuously engages in business process re-engineering 0	7.5	20.9	49.3	22.4		3.87
Firm provides innovative distributing methods to enhance its product to be more accessible in the markets 0	9	38.8	31.3	20.9		3.64
Firm make continuous adoption of repair and preventive maintenance to minimize poor quality products	0	14.9	7.5	23.9	53.7	4.16
Firm has effective communication process with the external network of suppliers 0	0	6	53.7	40.3		4.34
Average						**3.864**

Firm Performance

Table 1 illustrates the level of firm performance by animal feed manufacturers in Kiambu and Nairobi Counties. The study measured the level of performance in terms of net profits, return on investment, market share, and reduction of customers' complaints, reduction of the operation defects, reduction in waste materials and reduction of the cost production. The results indicate an overall mean of 3.53 in the level of performance of the animal feed manufactures in Kiambu and Nairobi counties. The findings indicate 35.8% of the respondents were moderate with firm improvement in net profits over the last 5 years, while 11.9% disagreed, 28.4% agreed and 23.9% strongly agreed.

There is a strong indication that there is less level of performance in terms of increase of return on investments over the last 5 years by animal feeds manufacturer with moderate rate of 55.2%, while 28.4% disagreed and 16.4% agreed with the statement. A moderate response of 47.8% stated that there was increase of its market share growth over the past 5 years, while 3% strongly disagreed, 28.4% disagreed, 14.9 agreed and 6% strongly agreed with the statement.

43.3% of the respondents agreed that there was a reduction of customer's complaints over past 5 years on their respective firms, while, 1.5% disagreed, 20.9% neutral and 34.3% strongly agreed with the statement. Reduction of the operation defects over the past 5 years had a rating of 36.9%, while 4.5% disagree, 31.8% neutral and 26.9% strongly agreed with statement.

Reduction in waste materials over the past 5 years had a moderate rating of 35.8%, while 6% disagreed, 29.9% agreed and 28.4% strongly disagreed. Lastly, the results findings revealed 41.3% of the respondents were neutral stating their firms had experienced in the reduction of the cost production over the last 5 years, while 5% disagreed, 32.8% agreed, 20.9% strongly agreed with the statement.

The firm performance variable was divided into three measure parts, these included the financial, non-financial and the operational performance measure`s. Financial performance had average (mean = 3.215), non-financial had average (mean= 3.515) and while operational performance had average (3.753). Thus the average mean of operational performance measure faired the overall best than both financial and non-financial.

The findings are consistent with those of a study by Choisne and Grosbois (2009); Lakhal and Limam (2006) which revealed positive relationship between the presence of quality management practices and firm performance, which in turn leads to appreciation of profits and sales returns levels.

Table 3: Firm Performance

	SD	D	N	A	SA	Mean
Improvement in net profits over the last 5 years	0	11.9	35.8	28.4	23.9	3.64
Increase in return on investments over the last 5 years	0	28.4	55.2	16.4	0	2.79
increased its market share growth over the past 5 years	3	28.4	47.8	14.9	6	2.93
Reduction of customers complaints over past 5 years	0	1.5	20.9	43.3	34.3	4.10
Reduction of the operation defects over the past 5 years	0	4.5	31.8	36.9	26.9	3.76
Reduction in waste materials over the past 5 years	0	6	35.8	29.9	28.4	3.81
Reduction of the cost production over the last 5 years	0	5	41.3	32.8	20.9	3.69
Average						**3.53**

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of Findings

The first objective of the study was to establish how supplier quality management influenced firm performance of animal feed manufactures. From the findings of the study they indicate that supplier quality management had a positive effect on the firm performance of animal feed manufactures (β_1=0.337). Meeting supplier quality management practices was one of key success factor of implementation of quality management practices by a manufacturing fims.

The second objective of the study was to determine the influence of continuous process improvement on firm performance of animal feed manufactures. From the findings of the study they indicated that continuous process improvement had significant positive effect on firm performance of animal feed manufactures (β_2=0.321). Continuous process improvement practice by firm management was positively associated with better firm growth in terms of profitability.

Conclusion on the Study

The study established that supplier quality management had a positive effect on the performance of animal feed firm manufactures. The study findings showed that the firm's procurement department team should provide more feedback on the performance of supplier's products which have been purchased. The study concludes that inspection of materials before production and purchase of raw materials only from qualified suppliers in animal feeds manufactures enhance

more in improvement of performance level. The study results showed that supplier quality management was the most important quality management practice for enhancing firm performance

The study established that continuous process improvement had a positive effect on the performance of animal feed firm manufactures. The study findings revealed that most animal feeds manufactures firms have effective communication process with the external network of suppliers. The continuously engagement in business process re-engineering by among firms has a more positive influence in increase level of performance.

Recommendation of the Study

There is a need for the procurement managers in the animal feed industry to provide feedback on the performance level of suppliers' who supply them with various products and services thus enhance the supplier relationship management. The procurement managers in animal feed industry should implement product quality is the important factor while selecting their various suppliers.

The animal feed manufactures should implement more in business process re-engineering thus to speed up the firm operation more significantly thus leading improvement operational performance.

Recommendations for Further Research

The study mainly utilized both the quantitative and qualitative methods in the research, thus the researcher suggest that more future studies should employ mainly quantitative methods in order to obtain greater insights into the supplier quality management and continuous process improvement from operational managers from all the animal feed manufacturers in the country.

The researcher recommends further studies should be done be done on the impacts of effective implementation of quality management practices on firm performance of various animal feed manufacturers in the country thus to depict a reliable result that can be employed in improving the firm by focusing both negative and positive effects.

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