

IMPACT OF LEAD TIME MANAGEMENT TECHNIQUES ON PRODUCT QUALITY IN KENYA SEED COMPANY KITALE TOWN, KENYA

¹Kinyua, Ngunju, Lilian, ²Dr. Elizabeth, Nambuswa, Makokha,
³Prof. Gregory S. Namusonge

¹Jomo Kenyatta University of Agriculture & Technology (Msc. Procurement & Logistics)

²Jomo Kenyatta University of Agriculture & Technology (Lecturer, Ph.D).

³Jomo Kenyatta University of Agriculture & Technology (Lecturer, Ph.D).

Abstract: The purpose of the study was to determine the impact of lead time management techniques on product quality in Kenya Seed Company, Kitale Town. The study was guided by the following specific objectives; the effect of timely ordering on product quality in Kenya Seed Company; the effect of efficiency on product quality in Kenya Seed Company; the effect of product planning on product quality in Kenya Seed Company and the effect of customer satisfaction on product quality in Kenya Seed Company, Kitale town. The study was guided by the following theories; Three-factor theory, Organizational theory and Theory Assimilation-contrast theory. The study used descriptive research design. The target population was 81 Employees of Kenya seed company Kitale Town. Data was coded and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS). The research yielded both qualitative and quantitative data. The data collected was analyzed using descriptive and inferential statistics. Analyzed data was presented using charts, figures and tables. The findings of this study was a significant and vital tool in assisting government and government agencies charged with the monitoring of business operations and enforcement of regulatory frameworks in ensuring standardization in the product quality. Finally the study was of value and relevance to researchers in specific terms and academics in general. The study findings adds array of literature and information needed for decision making, research and study. The first objective results revealed that timely delivery of products is importantly effective and encourages good relationship between the company and customers. This meant that the market is full of best transporters who deliver timely goods at desired place with low cost, effectively and without any damage. In the second objective results revealed valid products are produced by the company which has led to efficiency in quality product production. This implies that products that are produced by the company are valid and good for farmer to use. The study concluded that product quality at Kenya Seed Company is affected positively by timely ordering on product quality. In the production unit raw materials are required in time so as to ensure efficiency in production that result to the quality products. Also timely delivery of products to retailers ensures trust of customers demand is protected. The study recommends that Kenya Seed Company managers should ensure that there is timely ordering of products this will enable the company to effectively manage its operations. Managers should come up with good structural plan that secures quality product. The study is significant tool in assisting government and government agencies charged with the monitoring of business operations and enforcement of regulatory frameworks in ensuring standardization in the product quality. It acquaints customers on the concept of service quality and the role of business on quality production.

Keywords: Product quality, Timely Ordering, Efficiency, Product planning and Customer satisfaction.

1. INTRODUCTION

Background of the study

Product quality is the life-support of quality control and it ensures that consumers are able to buy high quality products or services with long-lasting reliability (Cruz, 2015). Product quality attains improved processes that produce a safe uniform output of products. Processes reduce mistakes and rework, as well as reducing waste of labor, machine-time, and materials and thus increase output with less effort (Kennedy & Sobek, 2014). The trend of world markets has changed noticeably; all of the service businesses are trying their best to improve their service and product quality by doing many efforts including promotion in order to make customers satisfied with their services. Customer satisfaction, a business term, is a measure of how products and services supplied by a company meet or surpass customer expectation. In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. On the other hand the world has come full circle from selling to marketing and from seller's market to buyer's market. The customer today has the option to buy what he thinks he should and from whom, being in his best interest. Product development, technological improvement, cost optimization and excellent service facility are very important for any organization but their importance is only if the customer appreciates it (Kim & Mauborgne, 2014). It is difficult to learn how to improve the quality of goods and services to consumers through reduced lead time while boosting productivity, competitive edge, and market position in the global markets. Job experience without product cost mitigation measures and enhanced safety influences on product effectiveness cannot solely increase customer satisfaction and customer loyalty that seek to increase market share on revenue acquisitions. The relationship among quality product, product cost, product safety, and customer satisfaction enhance market share as a well-explored subject in manufacturing industry; yet, customer satisfaction and loyalty that is supposed to enhance revenue acquisitions continues to falter. This is attributed to profit maximization objectives by businesses. Foundation of these contemporary findings has long been established and argued (Christopher, 2016).

Global perspective of product quality

Product quality is one of the most important factors for a manufacturing firm to be successful in the world market. It is argued that a quality image, once obtained, can improve a firm's ability to compete, as well as its long-term opportunity for success. The business strategy development must place a high priority on product quality, which is a crucial hinge for business success or failure in today's quality performance-oriented markets. Product quality has become a major business strategy. Improving product quality is the prime objective of a firm's quality management efforts, and product quality can be used as a primary indicator of the firm's quality efforts. Increasingly, firms are recognizing the strategic importance of product quality. Product quality is increasingly viewed as a strategic asset to improve a firm's global competitiveness. The product quality has often been cited as the highest competitive priority, an issue of strategic importance and survival, and a means of competitive performance. The Japanese quality revolution opened the way for Japan to become an economic superpower (McMillan, 2012). In China, firms can assess whether their quality conforms to the established specifications. As the world's economy becomes more internationalized, conformance to specifications is increasingly important. If customers' needs and expectations are governed by specific requirements or standards, conformance to specifications is the most appropriate and easily measured definition of quality. Thus, the more subjective definitions of excellence, value, and meeting and/or exceeding customers' satisfaction become unnecessary. Quality as conformance to specifications has been used extensively in China. Every quarter, the China State Bureau of Quality and Technical Supervision samples industrial products for inspection in order to supervise firms, with the aim of improving product quality. If sampled products do not conform to product specifications, they are judged as nonconforming products. Product specifications are the only standard used for such a judgment (Zhu, Sarkis & Lai, 2011). Many quality practitioners believe that implementing TQM is an effective means of proving product quality, removing waste. It is a way of managing to improve not only product quality, but also the effectiveness, flexibility, and competitiveness of a business as a whole. It has been shown that TQM implementation leads to quality conformance and customer satisfaction. TQM implementation has an impact not only on customer satisfaction but also on product quality (Sallis, 2014). The operationalization of product quality should be based on the definition of quality: Conformance to specifications and its lead time. Thus, product quality can be measured by conformance to product specifications and other indicators that are the results of non

conformance to product specifications. According to current quality management practices in China, the finished product conformity rate is the most important index for the Chinese government to supervise manufacturing firms' product quality. If the firm's product cannot meet the requirements of product specifications, that product will be judged as a nonconforming product. Thus, the product manufacturer will be penalized by the Chinese government. In fact, one product consists of many components. Every component also has its specifications (e.g., material contents, size, weight, and hardness) according to design requirements. If a component does not conform to its specifications, the component will be judged as defective. Defective parts cannot be used for the final product. Therefore, internal defective rate is also a very important index for measuring product quality level. Due to non conformance to specifications, internal failure costs (found prior to transfer of the product to the customer) will be caused. These costs include scrap, rework, failure analysis, and downgrade among others (Phan, Abdallah & Matsui, 2011). Product quality as dominant factor of customer satisfaction and loyalty are important aspects in management theory and practice in the U.S. automobile industry (Bresnahan, 2010). In this research study, the automobile industry included U.S. brand and domestically assembled foreign vehicles. Product quality and product cost mean different things to different consumers (Kyoum, 2014). The concepts of product quality and product cost encompass a variety of drivers and implications for business performances, which are not yet fully understood. Dynamic challenges in managing automobile design, production costs, and product safety continue to emerge because consumers compare product quality, cost, and safety features of competitive offerings before acquisitions were completed (Joglekar, Davies & Anderson, 2016).

In the United States, the product quality, product cost, product safety, and customer satisfaction in automobile market has been recognized as an important subject or research problem in both management theory and practices. The best efforts within the confines of organizations alone will not lead to the proper learning that is necessary to increase business position. Golder, Mitra, and Moonman (2012) argued that top management practitioners of production lines reacted when a loss of competitiveness and market share were identified as efforts are made through various ideas to find solutions. This reactionary approach wastes energy, increases product costs, and frequently fails to yield any resolutions (Harper & Porter, 2011).

Regional perspective of product quality

In Ghana, product quality management practices have proved successful in the manufacturing industry and most of the literature is written in a factory vernacular. However, any organization that depends on success for survival can adopt same. The construction industry, however, has some significant differences compared to the manufacturing sector. Construction companies can also reap some success if these product quality management practices are adopted. Quality management in construction implies maintaining and ensuring that the required standards are achieved so as to meet customer satisfaction that will eventually bring about sustained competitiveness and financial survival. Product quality is fit for use. According to the engineering perspective quality conveys the concept of compliance with a defined requirement of value for money, of fitness for purpose or customer satisfaction. It follows that to achieve quality for a product; certain basic dimensions of quality will need to be fulfilled (Ogbari, & Borishade, 2015). Till date, there is little or no product quality model that has been constructed to suit the Nigerian environment or to explain how product quality and lead time works in the Nigerian context. These reviews have shown that there is a need to understand how the product quality and brand loyalty construct works especially in the Nigerian market. Since these models have been constructed without bearing the Nigerian market, there is a need to construct one which will suit the Nigerian market and also breakdown the quality construct into degrees and highlight other reasons that may be responsible for brand loyalty. A review of different product quality models also emphasizes the gap in models that are constructed solely to explain the degree to which product quality influences brand loyalty. This is because most of the product quality models available highlight the chain of reaction from customer expectations to brand loyalty without breaking down the quality constructs into the different degrees that may be responsible for brand loyalty. However, these models have been constructed to explain the product quality and brand loyalty process for different countries and their marketing environment (Yelibora, 2017).

The quest for increased deployment of quality programmes in the banking sector is hinged on the fact that the policy thrust of the Nigerian banking industry in recent times is anchored on the achievement of efficiency and effectiveness in

the provision of banking services that can ensure depositors' trust and confidence in the face of grave failure that characterized the banking industry in the recent past. This policy thrust can only be realized when managers and policy makers in the Nigerian banking industry employ strategies that can give them a competitive edge or comparative advantage over other global players in the industry (Adjei, Noble & Noble, 2014). If a product is found to be nonconforming after it is delivered to the customer within expected time, the firm will experience losses; namely, external failure costs. These costs would disappear if there were no defects. External failure costs include those such as warranty charges, complaint adjustment, returned materials, and allowances. In fact, product specifications have no meaning if they are not related to customer needs and expectations. Thus, product performance, reliability, and durability are also very important indices for measuring product quality (Laguna, 2013).

Local perspective of product quality

Locally, customers are economic assets who play a central role in quality management practices and performance despite the fact that they are not on the balance sheet. It is therefore important to listen to the customers and seek to satisfy their needs. The emphasis on firm performance or seeking customer-driven quality is considered by many gurus and writers on the topic of management as a major contributor to the success of the ISO certification and the attendant high performance. The organizations are striving to achieve firm performance through emphasizing quality products and services in relation to delivery time. Needless to say, competitiveness is dependent on the provision of superior quality products and services. The implementation of quality as a tool will depend on the commitment of the top management of the organization. The top management is in charge of setting the direction, providing resources, developing and maintaining systems focused on customers and performance excellence; therefore, the importance of top management to the success of an organization cannot be underestimated. Leadership is the fundamental driver of business excellence (Kerzner & Kerzner, 2017).

According to the Kenya association of manufacturers (KAM, 2014) the manufacturing industry in Kenya has been implementing quality management practices to improve its product quality and processes to enhance performance. In terms of ISO positioning, Kenya is ranked highest in East Africa, as the country has the most sophisticated manufacturing firms in the region (KAM, 2014). The most common industries in Kenya are those involved in the manufacture of small-scale consumer goods (plastics, batteries, textiles, soap, cigarettes, flour), agricultural products, horticulture, oil refining, aluminium industries, steel, lead, cement and commercial ship repair. However, in order to compete in today's highly competitive business environment, firms in Kenya are forced to focus on the satisfaction of customer needs as a means of improving performance (Macharia, 2013). Kenya Bureau of Standards was established in 1960 with the aim of benchmarking the quality of products and services in Kenya as well as formulating, implementing and maintaining national standards to improve performance. This continued until 1987 when ISO 9000 certification was established, and Kenya joined the member countries, with Kenya Bureau of Standards being nominated as a certifying and auditing body on behalf of ISO certification member countries (KBS, 2014). Currently, there are two other private certifying bodies in Kenya, namely, SGS and Bureau Veritas. The manufacturing sector in this country has generally embraced quality management system ISO certification, since out of the 457 manufacturing firms in Kenya, 60 (13 percent) of them are ISO certified. According to the world economic survey (2014), the manufacturing sector in Kenya has been identified as one of the key sectors supporting the Kenya Vision 2030 strategy. Currently, Kenya is rated as the third fastest growing economy in the world after China and Philippines, which is an indication of good prospects for future growth in the performance of the manufacturing sector (World economic survey, 2014). However, the struggles to improve quality of the products through short lead time have been a big challenge and therefore the study seeks to determine the impact of lead time management techniques on product quality in Kitale Town.

Statement of the problem

In Kenya, manufacturing and processing firms are going through series of challenges over products quality and management control practices in relation to the expected lead time of the products delivery. In spite of the increasing numbers of benefits accruing from raising quality standards, the lead time management on product quality has been key challenge in many manufacturing companies and the firms (Muriu, 2015). The question whether product quality management practices actually improve business performance still remains unclear (Magutu, 2010). The Vision 2030 blue

print of Kenya has identified development and performance of manufacturing firms for up-scaling. But even with the majority of manufacturing firms adopting ISO, their performance remains uncertain (Kyalo, 2013).

The product quality in Kitale town is affected by a number of practices that slow down the movement of goods. The poor route network and the incompetent logistics principles set by several businesses managements are still wanting. The current speedy economy in Kenya is trying to improve the product quality of its services through the shortest lead time management. Consequently, firms do not necessarily find differentiation in their physical products but in services such as timely delivery, accurate information, better trained personnel and quicker resolution of complaints, which are capable of building good reputation and superior performance (Gregory, 2016). Where an industry is highly competitive, an understanding of the needs of the customers and other stakeholders is an important factor for success, growth or productivity factor. This has necessitated the move from product centeredness to customer centeredness not only in marketing circles but in business generally. This explains why Kotler (2003) asserted that delivering superior services has become one of the most important ways to gain superior profitability. This therefore suggests the need to study the impact of lead time management techniques on product quality in Kitale Town.

General objectives

The general objective of the study was to determine the impact of lead time management techniques on product quality in Kenya Seed Company Kitale Town, Kenya.

Specific Objectives

The study was guided by the following specific objectives:-

- i. To determine the effect of timely ordering on product quality in Kenya Seed Company Kitale town, Kenya
- ii. To assess the effect of efficiency on product quality in Kenya Seed Company Kitale town, Kenya
- iii. To evaluate the effect of product planning on product quality in Kenya Seed Company Kitale town, Kenya
- iv. To identify the effect of customer satisfaction on product quality in Kenya Seed Company Kitale town, Kenya

Research Questions

- i. What are the effects of timely ordering on product quality in Kenya Seed Company Kitale town, Kenya?
- ii. What are the effects of efficiency on product quality in Kenya Seed Company Kitale town, Kenya?
- iii. What is the effect of product planning on product quality in Kenya Seed Company Kitale town, Kenya?
- iv. What are the effects of customer satisfaction on product quality in Kenya Seed Company Kitale town, Kenya?

Hypotheses

H₀₁: there is no significant effect of timely ordering on product quality in Kenya Seed Company, Kitale town.

H₀₂: there is no significant effect of efficiency on product quality in Kenya Seed Company, Kitale town.

H₀₃: there is no significant effect of product planning on product quality in Kenya Seed Company, Kitale town.

H₀₄: there is no significant effect of customer satisfaction on product quality in Kenya Seed Company, Kitale town.

Significance of the Study

Policy formulation by Government agencies

The findings of this study is a vital tool in assisting government and government agencies charged with the monitoring of business operations and enforcement of regulatory frameworks in ensuring standardization in the product quality. It acquaints customers on the concept of service quality and the role of business on quality production. The study findings is significant to the business firms under the study which benefits them through utilizing the information generated on the impact of lead time management techniques on product quality in Kenya Seed Company, Kitale Town.

Researchers

The findings of this research work are of value and relevance to researchers in specific terms and academics in general. The study findings adds array of literature and information needed for decision making, research and study.

Justification

Kenya Seed Company has been through tough times in the market industry struggling to compete favourably. Slow and incompetent production techniques have greatly affected production and the product quality. The study therefore was justified to proceed in finding the impact of lead time management techniques on product quality of Kenya Seed Company in Kitale Town.

Scope of the Study

The scope of the study was to determine the impact of lead time management techniques on product quality in Kitale Town. The target population of the study was 300 respondents. The study used descriptive research design. This research was done over the months of May to September 2018.

Limitations

The study was limited to determination of the impact of lead time management techniques on product quality in Kenya Seed Company Kitale Town, Kenya. Also the study faced limitation of respondents busy schedule which led to long waiting period while collecting filled questionnaires as well some respondents feared to respond to the questions since it the information related to the company performance is shared by the top management only.

2. LITERATURE REVIEW**Introduction:**

This chapter discussed theoretical review, conceptual framework, Review of variables, Critique of the existing Literature, summary and research gap of the study.

Theoretical Review

The study was guided by the following theories; Three-factor theory, Organizational theory and Theory Assimilation-contrast theory.

Three-factor theory

Three-factor theory was developed by Kano in 1984. This model distinguishes between different qualities attributes types. Kano's model divides product or service quality attributes into three distinct categories must be, one-dimensional and attractive, each of which influences customer satisfaction differently. Service attributes have two key characteristics in three-factor theory. First, the importance of a basic or excitement attribute is based on its performance. Basic attributes are crucial when performance is low and are non-crucial when performance is high. Assumption of the theory states that excitements factors are critical when performance is high and are uncritical when performance is low. Second, the relationship between attribute performance and overall customer satisfaction is not always linear and symmetrical. Matzler, et al (2004) expounded on these three factors. Basic factors dissatisfies are minimum requirements that produce consumer dissatisfaction when not fulfilled, but do not result in customer satisfaction when fulfilled or exceeded; that is, negative performance for these attributes has a greater impact on overall satisfaction than positive performance. Excitement factors satisfiers are attributes that increase customer satisfaction when delivered, but causes no dissatisfaction when not delivered. That is, positive performance for these attributes has a stronger influence on overall consumer satisfaction than negative performance. Performance factors produce satisfaction when performance is high and dissatisfaction when performance is low. The relationship between customer attribute performance and overall customer satisfaction is non-linear and asymmetrical for basic and excitement attributes (Caber, 2013). This theory is important to the study since it supports timely order variable. This theory therefore supports the first objective and the third objectives of the study. The dimensions and the customer service quality instrument are formed and the basis for a considerable

amount of research and application in the field of service management. Although the customer service quality instrument allows users to include relative weightings for the dimensions, there is some uncertainty about their relative importance. Regardless of the service being studied, reliability on timely ordering is the most critical dimension, followed by responsiveness, assurance and empathy on customer satisfaction. The tangibles are of least concern to service customers, while one could argue that tangibles are not a quality dimension but an element of the service itself, whereas the reliability or functionality, for example, of the tangibles are quality dimensions, it seems evident that in some service situations, such as retailing, the tangibles constitute the core purchase (Zhao, 2012).

Organizational theory

Organizational theory was postulated by Jonathan Murphy and Hugh Willmott in 2010. The organizations are defined as social units of people that are structured and managed to meet a need, or to pursue collective goals. Theories of organizations include rational system perspective, division of labour, bureaucratic theory, and contingency theory. Assumptions of the theory notes that, in a rational organization system, there are two significant parts: Specificity of Goals and Formalization. The division of labor is the specialization of individual labor roles, associated with increasing output and trade. Modernization theorist Frank Dobbin states that modern institutions are transparently purposive and that we are in the midst an evolutionary progression towards more efficient forms. Organizational theory supports the effect of product quality variable. Developments in theory and prescriptions for practice show disagreement about the purposes and uses of a theory of organization, the issues to which it should address itself (such as supervisory style and organizational culture), and the concepts and variables that should enter into such a theory (Jack, 2016). Critic of Dwight Waldo noted in a review of field work in 1978 that Organization theory is characterized by vogues, heterogeneity, claims and counterclaims and even greater differentiation in theory and practice have developed since then. Organization theory certainly cannot be described as an orderly progression of ideas, or a unified body of knowledge in which each development builds carefully on and extends the one before it. Max Weber's conception of bureaucracy is characterized by the presence of impersonal positions that are earned and not inherited, rule-governed decision-making, professionalism, chain of command, defined responsibility, and bounded authority. The contingency theory holds that an organization must try to maximize performance by minimizing the effects of varying environmental and internal constraints (Hatch, 2018).

Assimilation-Contrast Theory

Assimilation-contrast theory was introduced by Anderson in 1973. The context of post-exposure product performance based on Sherif and Hovland's (1961) discussion of assimilation and contrast effect show that assimilation-contrast theory suggests that if performance is within customers' latitude (range) of acceptance, even though it may fall short of expectation, the discrepancy will be disregarded assimilation will operate and the performance will be deemed as acceptable (Oghojafor, 2014). Assumptions states that if performance falls within the latitude of rejection, contrast will prevail and the difference will be exaggerated, the produce/service deemed unacceptable. The assimilation-contrast theory has been proposed as yet another way to explain the relationships among the variables in the disconfirmation model. This theory is a combination of both the assimilation and the contrast theories. This paradigm posits that satisfaction is a function of the magnitude of the discrepancy between expected and perceived performance. As with assimilation theory, the consumers will tend to assimilate or adjust differences in perceptions about product performance to bring it in line with prior expectations but only if the discrepancy is relatively small (Aigbavboa, 2013). Assimilation-Contrast theory suggests that if performance is within customers' latitude (range) of acceptance, even though it may fall short of expectation the discrepancy will be disregarded – assimilation will operate and the performance will be deemed as acceptable. If performance falls within the latitude of rejection (no matter how close to expectation), contrast will prevail and the difference will be exaggerated, the product deemed unacceptable (Esu, 2014).

Conceptual framework

The study adopted the following conceptual framework to understand the interaction between the independent and the dependent variable of the study. The independent variable of the study is lead time management techniques while the dependent variable is product quality.

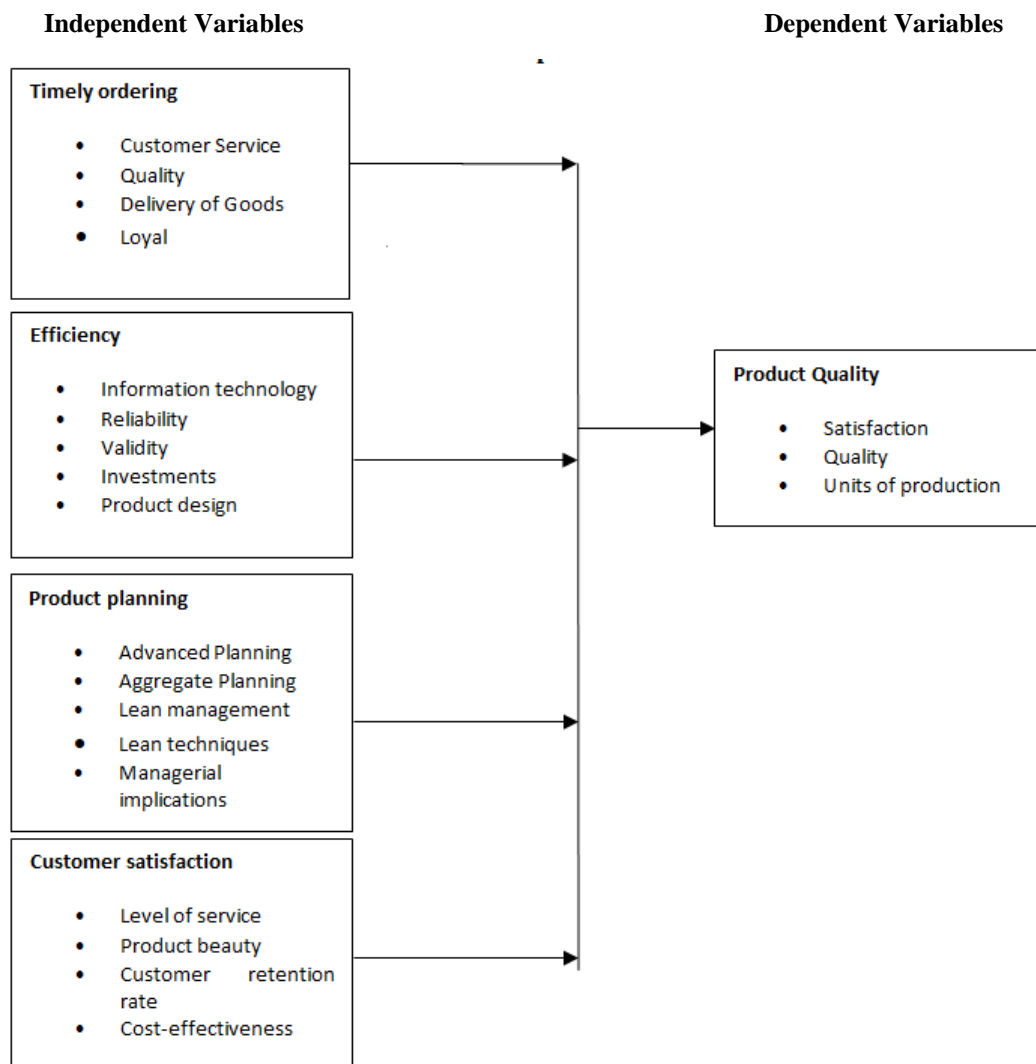


Figure 2.1 Conceptual framework

Review of variables:

Effect of timely ordering on product quality

Evans and Lindsay (2013) on the topic managing for quality on timely ordering and performance excellence found that the results of the survey reveal that while a good percentage of Norwegians are satisfied with online shopping only less than half of them stay loyal to their online sellers. However, on the long run, these customers will be loyal and can be retained only when online businesses constantly satisfy them by providing detailed product information on websites, superior customer service, quality and timely delivery of goods and importantly effective website designs. The professional transporters have experts who well understand various custom laws and resolves all the issues related to the custom at Singapore and Malaysia border. Thus, enjoy delivery from Singapore to Klang Valley of various goods without much involvement, as experts are there to take care of it. Thus, if a business is small, medium or large, the logistic company holds expertise in meeting the entire transportation requirement at these important locations. Thus, hire the professional and experienced transporter and enjoy hassle free transport service. The trained staff at these transporting companies always emphasis on building best relations with customers by delivering satisfactory services. Maslak (2018) examined timely delivery of products. Results showed that every business runs on the mutual trust of customers and service providers. Thus, companies make various promises to their customers and they are made to be fulfilled to exist in market. Hence, if individual or a company wishes to avail goods delivery from Singapore to Kuala Lumpur, an individual need to have an internet as the best supporter. Here almost all the professional and licensed transportation companies are listed. They can be contacted at any time through the phone call, email or by visiting the dedicated website. Entrepreneur

can get best quotes for your transportation along with terms and conditions. Avail the service of transporter that delivers your goods with utmost safety, timely and at low cost. Monczka, Handfield, Giunipero and Patterson (2015) in the study Purchasing and supply chain management found that online shopping offers the customer a wide range of products and services wherein he is able to compare the price quoted by different suppliers and choose the best deal from it. Internet marketing is conceptually different from other marketing channels and internet promotes a one to one communication between the seller and the end user with round the clock customer service. Today, business internet marketing is the fastest growing segment of online commerce. The major difference between traditional and online selling is the extent of interaction between the consumer and the seller. There is much more electronic interactivity with the consumer in the form of emails and FAQs. Through FAQs, the consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively. Flouris and Oswald, (2016) on Designing and executing strategy in aviation management results show that with respect to Norway, e-commerce has grown tremendously in the recent years. This is one of the reasons that motivated us to specifically choose Norway for our research. According to OECD Science, technology and industry scoreboard, 2007, Norway has recorded 47 percent of adults using internet for online shopping. According to the survey results conducted effective website design, detailed product information and quality and timely show that it is very important for businesses to understand the customer satisfaction and loyalty because customer satisfaction and loyalty are two required things for the wellbeing, prophet and long term growth of the firms. In other words we could say that to measure how successful the businesses are it is considered in terms of how satisfied and loyal their customers are.

Effect of efficiency on product quality

Freeman, Herriges and Kling, (2014) on The measurement of environmental and resource values found that by imposing enough structure on the production function and the demand system, it is possible to measure product quality and marginal costs at the plant level and to relate the evolution of these variables to firms' activity histories. Doing so, the authors find strong firm-level persistence in both quality and marginal costs. But in most industry or country panels that they study, past international activities help little in predicting current performance once past realizations on quality and marginal cost are controlled for. That is, activities do not typically Granger-cause performance. Interestingly, in the minority of cases where significant associations emerge, international activities appear to move costs and product quality in the same direction. So the net effect on profits in these cases is not immediately apparent. Second, several basic patterns emerge with respect to the determinants of international activities. Most fundamentally, activities are highly persistent, even after unobserved heterogeneity is controlled for. That suggests that firms incur sunk threshold costs when they initiate or cease activities, so temporary policy or macroeconomic shocks may have long-run effects on the patterns of activities observed in a particular country or industry. Lindlof and Taylor, (2017) on Qualitative communication research methods found that activities tend to go together, so that studies that relate firms' performance to one international activity and ignore the others may generate misleading conclusions. But the bundling of activities seems to mainly reflect unobserved plant characteristics, such as managerial philosophy, contacts, product niche, and location. Once these are controlled for, there is little evidence that engaging in one international activity increases the probability that a firm will engage in others in the future. However, using a closed-form analytical model we challenge this underlying assumption and demonstrate that investments in certain efficiency-enhancing technologies may be expected to decrease the productivity of profit-maximizing firms. More specifically, the study demonstrate that investments in technologies that reduce the firm's fixed overhead costs do not affect the firm's product quality and pricing decisions but do increase profits and improve productivity. In addition, we demonstrate that investments in technologies that reduce the variable costs of designing, developing, and manufacturing a product encourage the firm to improve product quality and to charge a higher price. Although this adjustment helps the firm to capture higher profits, the study show that it will also increase total production costs and will, under a range of conditions, decrease firm productivity. Finally, the study show that the direction of firm productivity following such investments depends upon the relationship between the fixed costs of the firm and the size of the market. Charter (2017) on greener marketing avers that to ensure delivery of advertising claims, companies must build quality into their products or services. From a production perspective, this means a companywide commitment to eliminate errors at every stage of the product development process product design, process design, and manufacturing. It also means working closely with suppliers to eliminate defects from all incoming parts. Equally important yet often overlooked are the marketing aspects of quality-improvement programs. Companies must be sure they

are offering the benefits customers seek. Quality should be primarily customer-driven, not technology-driven, production-driven, or competitor-driven.

Effect of product planning on product quality

Hugos (2018) on the Essentials of supply chain management found that Aggregate Planning is a part of the supply chain that determines capacity levels, production, subcontracting, inventory, stock outs and pricing with the goal of maximizing profits while satisfying customer demand. It is used as a blueprint for operations like determining total production levels in a production plant for a given month, campaign or product family without determining the total quantities for each stock keeping unit. Fleischmann, Meyr & Wagner, (2015) on advanced planning found that advanced Planning supports decision making by identifying alternatives to future activities and selecting good one. According to the planning horizon there are three levels of planning, long-term, mid-term and short-term planning. Toyota was the first to implement lean practices in their manufacturing process. Their definition of lean management is elimination of waste and respect for humanity (Ohno, 1988). According to Wolmack and Ross (1990) lean practices provide a corporate culture where respect for the employees is significant. The goal of a Lean production system is cost reduction, waste elimination and control, quality assurance and respect for humanity (Shahand Ward, 2007). Standardization of processes, systematic problem solutions, different mindset for problem solving and improvement opportunities is essential part of lean management. Faulkner & Badurdeen, (2014) on Sustainable Value Stream Mapping concluded that Value Stream Mapping (VSM) is used to identify opportunities from various lean techniques. It is a collection of all value and non-value added activities of the production system. From raw material to the customer, identifying and eliminate all types of waste in the supply chain. Orel & Kara (2014) on Supermarket self-checkout service quality, customer satisfaction, and loyalty concluded that increasing attention on the role played by product quality on desirable customer behavioural outcomes has been empirically examined over the past decades. Nevertheless, there are significant issues yet to be addressed and resolved, one of which relates to the influences of the quality of electronic gadgets on students' perceived value, trust and their intention to purchase. In view of this research gap, five posited hypotheses are empirically tested using a sample of 151 in South Africa. The result supports all the posited hypotheses except hypothesis four which although positive as postulated, is insignificant. Managerial implications of the findings are discussed and limitations and future research directions are indicate

Effect of customer satisfaction on product quality

Christopher (2016) on Logistics & supply chain management found that the level of service, product beauty, received quality and the dimensions of the dependent variable, which include market share, customer retention rate, attract new customers, cost-effectiveness and the number of consumer products that are consumed by the customer elevating of the number of customers. The study found most important results as the quality is considered as the source basic and important as it leads to pleasing the customer and increase loyalty and increases the degree of profitability in the medium and long term in the organization. Masika (2014) on effect of service quality and customer satisfaction on Customer loyalty found that the quality lead to complacency and satisfaction leads to loyalty and allegiance to lead to profitability. While it was one of the important conclusions is that the services provided to customers have a positive effect and thereby get the organization on the customer's confidence because there is a strong relationship between the quality of services and the rate of return the customer of the institution. And customer loyalty Private Label product-specific trade is consider as a declaration taken from the customer's mouth and dissemination of experience with people and instruct them to buy. The study recommended the need to establish a new culture of quality within the company. Focusing on a set of values makes it imperative for all employees in the company's commitment to achieving continuous improvement.

Tikhonov, Goncharsky, Stepanov & Yagola, (2013) on Numerical methods for the solution of ill-posed problems aver that external customer satisfaction is considered a foundation in organizations, and it's the path to cement their position in a competitive environment on which only those a with competitive background that cannot be cloned can survive in the current competitive environment it is necessary for the organization not to suffice with only customer satisfaction but also to measure it to identify its level.

Dupeyras & MacCallum (2013) on the Indicators for measuring competitiveness found that measuring market share is linked with the work progress with its clients and its variation for every single client, this proportion can shrink in case of customer dissatisfaction and vice versa; Keeping customer rate Customer keeping ratio can be measured through the rates of activity done with the current clients; Bringing new clients In order to increase the level of activity, the organization

exert maximum efforts to widen its base with clients or to count the total work done with the new clients; Profitability can be gauged through measuring profit from every client; Quantity of products consumed by the client If the clients has more than one product of the same company in a non-monopolistic environment this is a fair example on his satisfaction with the organization and its products; Evolving the clients number If the clients number is constantly increasing, this is a sign that the products or services suffice or exceed the client's expectations which generates a feeling of satisfaction. There are also other alternative measuring methods: Repurchase agreement rate, Loyalty rate, Number of clients' complaints, the quality and quantity of financial returns.

Oliver (2014) on Satisfaction: A behavioural perspective on the consumer noted that Customer satisfaction prioritized as a strategic working tool. Customer satisfaction has a positive impact on the company's profit. Customer satisfaction is the foundation of every successful work, since customer satisfaction leads to repurchasing customer loyalty for the trademark, and sharing positive feedback with other people to buy the product Services presented for the customer has a positive impact thus, the organization gets the customer trust there is a close relation between service quality and the rate at which customers return to the company.

Scott & Davis (2015) on the organizations and organizing found that quality represents an important scale for organization's success, survival and continuity. Although there is a clear contrast on the opinions of the specialists and scholars about the characteristics that distinct high quality organization and their studies there is wide agreement on the importance of the role it plays in the success of these organizations and its distinction from traditional organizations Although lately many organization realized the importance of quality, some didn't get the dimensions of the methods that enables them to put this concept under execution. The organization tends to rate the feeling of the consumer on the level of their product quality without rating their feelings on the organization itself.

Product Quality

According to product based approach, the quality is the root of economics and the variation in quality of product are the reflection for differentiation in quality. Product quality is one of the important tools to maintain the competitive advantage in market which is designed to undergo the product development process to achieve the consumer satisfaction and upgrade the quality in performance. To be more specific and precise, further study from different researcher shows that along with the competitive advantage the product quality is also a basis for strategic advantage, which implies that an enhanced performance can be determined when a product quality is improved. Ultimately, this suggests that a real product quality is/should be visible in an improved quality performance (Hauge & Power, 2013).

The study of a product quality and its extrinsic influential characteristic with reference to customer retention, the image of product itself is more essential than the physical quality of product. Moreover, they note in their findings that a better and a good customer relationship is stronger when there is a product awareness and these both factors are critically important for shaping the customer perception. According to Zeithaml (1981), search properties include such traits like colour, style, price, fit, and smell. Here, search properties those characteristics of product and service attributes which can be easily compared and observed by the customers before they make the purchase of product or services. Moreover, he finds that products (e.g. goods) have more search qualities than services, with more experience and credence qualities. Here, credence properties are those characteristics of product and service attributes that cannot be differentiated even after the product, or service, has been purchased and consumed. Similarly, experience properties are those characteristics of product and service attributes, which can only be evaluated after purchase and use of the product, or the actual consumption of the service is done (Hussain & Ranabhat, 2013).

Critique of the Existing Literature

Evans & Lindsay (2013) on the topic managing for quality on timely ordering and performance excellence found that the results of the survey reveal that while a good percentage of Norwegians are satisfied with online shopping only less than half of them stay loyal to their online sellers. However, on the long run, these customers will be loyal and can be retained only when online businesses constantly satisfy them by providing detailed product information on websites, superior customer service, quality and timely delivery of goods and importantly effective website designs. Lindlof and Taylor (2017) on Qualitative communication research methods found that activities tend to go together, so that studies that relate firms' performance to one international activity and ignore the others may generate misleading conclusions. But the bundling of activities seems to mainly reflect unobserved plant characteristics, such as managerial philosophy, contacts,

product niche, and location. Once these are controlled for, there is little evidence that engaging in one international activity increases the probability that a firm will engage in others in the future.

Fleischmann, Meyr & Wagner, (2015) on advanced planning found that advanced Planning supports decision making by identifying alternatives to future activities and selecting good one. According to the planning horizon there are three levels of planning, long-term, mid-term and short-term planning. Toyota was the first to implement lean practices in their manufacturing process. Their definition of lean management is elimination of waste and respect for humanity (Ohno, 1988). According to Wolmack and Ross (1990) lean practices provide a corporate culture where respect for the employees is significant. The goal of a Lean production system is cost reduction, waste elimination and control, quality assurance and respect for humanity (Shahand Ward, 2007). Standardization of processes, systematic problem solutions, different mindset for problem solving and improvement opportunities is essential part of lean management. Masika (2014) on effect of service quality and customer satisfaction on Customer loyalty found that the quality lead to complacency and satisfaction leads to loyalty and allegiance to lead to profitability. While it was one of the important conclusions is that the services provided to customers have a positive effect and thereby get the organization on the customer's confidence because there is a strong relationship between the quality of services and the rate of return the customer of the institution. And customer loyalty Private Label product-specific trade is consider as a declaration taken from the customer's mouth and dissemination of experience with people and instruct them to buy. The study recommended the need to establish a new culture of quality within the company. Focusing on a set of values which makes it imperative for all employees in the company's commitment to achieving continuous improvement.

Research Gaps

Corporate executives and consumers have in recent years adopted divergent views of product quality. Several recent surveys indicate how wide the quality perception gap is: Three out of five chief executives of the country's largest 1,300 companies said in a 1981 survey that quality is improving; only 13 percent said it is declining.¹ Yet 49 percent of 7,000 consumers surveyed in a separate 1981 study said that the quality of U.S. products had declined in the past five years. In addition, 59 percent expected quality to stay down or decline further in the upcoming five years. It is difficult to learn how to improve quality products, productivity, and competitive position via job experience alone (Beckford, 2016). However, these factors still mean different things to different researchers and consumers. Nonetheless, there is little to academic research analyzing the relationship between these predictors and customer satisfaction in the manufacturing environment (Natarajan, Soundararajan & Jayakrishnan, 2013). From the stated gap the study seeks to determine the impact of lead time management techniques on product quality in Kenya Seed Company, Kitale Town.

Summary

In summary the concept of quality is difficult to study, because people perceive quality differently. Some scholars have focused on combined or assimilated design of products and services Zaifang and Xuening noted that due to the absence of a focus on integrated design of products and services, top management seek help from professional managers and academic researchers (Cruz, 2015). The explanation of philosophical views on different approaches to improving product quality given the investment needed to enhance product quality is significant to the body of academic research. Consequently, middle management and line workers become confused with ever changing directives from the upper management. There are several factors that influenced consumers brand loyalty towards certain brands. The factors are: brand name, product quality, price, promotion and service-quality. Other scholars and experts have also come up with factors that influence brand loyalty and one thing remains common with them; they believe that product quality or perceived product quality plays a role in customer brand loyalty however, a review of literature on the relationship between product quality and brand loyalty has highlighted the gap in literature that critically analyzes the product quality and brand loyalty construct or the degree of effect that product quality has on brand loyalty (Hudson, 2015)

3. RESEARCH METHODOLOGY

Introduction

In this section, the methodological procedures used in data collection and analysis are discussed. Describe herein is the research design used, the target population, the sample Size and sampling procedure, type of data to be used, data collection instruments for procedures, data analysis and presentation, validity and reliability of the research instruments.

Research Design

According to Mugenda and Mugenda (2003) descriptive research design was used to obtain information concerning the current status of the phenomena to describe what exist with respect to variables or conditions in a situation. The study used descriptive research design. The study considered this design to be appropriate since it facilitated gathering of reliable and accurate data that indicated impact of lead time management techniques on product quality in Kenya Seed Company.

Target Population

The target population was 81 Employees of Kenya seed company Kitale Town. According to Cooper and Schindler (2003) target population was defined as the total collection of elements about which the study make inferences. According to Frederic (2010) it is the universal set of the study of all real or hypothetical set of people, events, or objects to which an investigator wishes to generalize the result. Target population included the following departments recorded in the table on the next page.

Table 3.1 Target Population

Department	Numbers
Department of Human Resource	5
Department of Marketing	11
Department of Planning and Strategy Manager	7
Department of Security	20
Department of Internal Audit	7
Department of Production	15
Department of Finance	7
Department of Sales	9
Total	81

Sample Size and Sampling Technique

The sample sizes of the study were 81 employees. The study applied census that is working with the entire population of 81 respondents from Kenya Seed Company Kitale Town. Respondents of the study have the similar characteristics and the probability of being chosen is equal. The sample frame included officers from department of Human Resource, department of Marketing, department of Planning and Strategy, department of Security, department of Internal Audit, department of Production, department of Finance and department of Sales. The sampling technique of the study was Census Inquiry. According to Kothari (2004) Census inquiry is the study of every one, every unit or everything in a population. It is known as a complete enumeration which means complete count. Census provides a true measure of the population for example no sampling error. Benchmark data may be obtained for future studies and detailed information about small sub-groups within the population is more likely to be available. The study adopted census in collecting data from 81 respondents which was a small population.

Data Collection Instruments and Procedure

Data collection instrument for the study was questionnaires which were designed using the variables identified as the objectives of the study. Closed-ended questionnaires were administered to the respondents. The questionnaire was used since it is easy to administer and after obtaining data it was easy to analyse, (Mugenda and Mugenda, 2003). A 5-point Likert scale questionnaire was the main instrument of data collection for the study. The questionnaire was administered using a drop and pick later method. The respondents in the questionnaire were 81 employees. The primary source of data collection method to be used was questionnaire that was used to source for crucial information from the company. The

questionnaire to be used included closed ended questions in order to enable effective data collection to be filled in the questionnaire. The secondary data was attained from the written materials which included the journals and other past studies and relevant books. This therefore enabled the researcher to compare the data from the questionnaires with the written materials.

Pilot Study

In order to ascertain validity and reliability of the research instruments, the researcher piloted research instruments in Unga Limited Eldoret, which was not be part of the target population of this study. The pilot respondents represented less than 15 percent of the sample size to be precise 10 percent of the sample size. The results of the piloted research instruments enabled the researcher to determine the consistency of responses to be made by respondents and adjust the items accordingly by revising the document.

Validity of the Instrument

The research purposes to ensure validity of research instruments by using simple language free from jargon to make it easily understood by the respondents. To test validity, the research instruments to be used in the study was availed to the supervisors and other specialized lecturers in the field of study in the School to review the test items to ensure that they are based on the content area before commencing on the real data collection. The researcher also intends to seek the opinion of individuals who can render intelligent judgment about their adequacy (Sayer, 2011). The researcher therefore gave to the supervisor and other research experts to ensure that the questions test or measure what they are supposed to measure. Content validation measure was used in the study which is usually subjective thorough and it is the representative of the wider body of material that the research is trying to assess.

Reliability of the Instrument

According to Creswell (2000) poses a question to researchers that if you administer a test to a subject twice, do you get the same score on the second administration as you did on the first? The reliability of test is the answer to this question Kombo and Tromp, (2006). Data collected from the pilot study was used to compute the reliability of the instruments' items. The Cronbach's alpha was applied on the results obtained to determine how items correlate among themselves in the same instrument. Cronbach's Alpha of more than 0.7 was taken as the cut off value for being acceptable which enhanced the identification of the dispensable variables and deleted variables. However, the Cronbach's coefficient alpha that is less than 0.7 implies that the research instruments are not reliable and the researcher would make necessary corrections before using the instruments to collect data. The test re-test technique was used to estimate the reliability of the instruments. This involved administering the same test twice to the same group of respondents who have been identified for this the study research.

Data Analysis and Presentations

Data analysis and presentation is to describe, discuss, evaluate and explain the content and characteristics of the data that has been collected in a research study. After all data has been collected, the researcher conducted data cleaning, which involved identification of incomplete or inaccurate responses and correct to improve the quality of the responses. The data was coded and entered in the computer for analysis using the Statistical Package for Social Sciences (SPSS).The research yielded both qualitative and quantitative data. Qualitative data was analyzed using content analysis based on themes emanating from respondents information. The data collected were analyzed using descriptive and inferential statistics. Multiple regression analysis was applied in the model below;

Model Specification

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon_i \dots \dots \dots (i)$$

Where

Y= Product Quality

X₁ = Timely ordering

X₂ = Efficiency

X₃ = Product planning

X_4 = Customer satisfaction

Y = intercept in the equation

$\beta_0, \beta_1, \beta_2, \beta_3$ and β_4 = coefficients to be estimated

ε = error term

4. RESEARCH FINDINGS AND DISCUSSIONS

Introduction

In this chapter analysis, interpretation and discussion of data collected from sampled respondents are presented. The study determined the impact of lead time management techniques on product quality in Kenya Seed Company, Kitale Town. Data analysis was based on the following study variables; timely ordering, efficiency, product planning and customer satisfaction.

Response Rate

The total number of questionnaires collected after administering questionnaires was 81 questionnaires. Only 79 questionnaires was fully filled while 2 were not completed which the study discarded. Therefore the study used 79 which represented 97.5 percent response rate which is supported by Bable (1995) who posits that a response rate of 70 percent and above is satisfactory to conduct adequate data analysis.

Validity and Reliability

Pilot study was carried in Unga Limited Eldoret where research instruments used (questionnaires) were test for validity and reliability. Content validity was used to test validity of the research instruments. The content validity was determined using constructive criticism from project supervisor who have an extensive experience and expertise in questionnaire construction. Research instruments were revised and improved according to the supervisors' advice and questions. Cronbach's Alpha was used to test reliability of the pilot data. When using the Cronbach's Alpha value to test reliability, a value above 0.7 was considered acceptable; however, a value above 0.80 was preferable. The results of the piloted research instruments enabled the researcher to determine the consistency of responses to be made by respondents and adjust the items accordingly by revising the document (Pallant, 2011). The research instruments were developed carefully to fit the research design and the plan of data analysis so that the data collected to facilitate the answering of research questions. The results of the reliability tests were as shown in the (Table 4.1);

Table 4.1 Reliability Test

Items	Cronbach's Alpha	N of Items
Timely ordering	0.990	5
Efficiency	0.993	5
Product planning	0.819	5
Customer satisfaction	0.991	6
Product Quality	0.976	3

The pilot study results indicated that the Cronbach's Alpha value of test for reliability for Timely ordering was 0.990. The reliability of the efficiency was 0.993; the reliability of the Product planning was 0.819; the reliability of the Customer satisfaction was 0.991 while the reliability of the Product Quality was 0.976. The study results revealed that all the variables gave an alpha test value of greater than 0.70, therefore all the items were regarded reliable. According to Pallant (2011) when using the Cronbach's Alpha coefficient value to test reliability, a value above 0.7 is considered acceptable.

Demographic Analysis

This part of the questionnaire intended to establish the respondent's personal information. Information sought included the gender, age, employment period, and education level of respondents.

Table 4.2 Gender

Gender	Frequency	Percentage
Male	47	59.5
Female	32	40.5
Total	79	100.0

The study findings on gender showed that 59.5 percent of the respondents were male while 40.5 percent of the respondents were female. The results meant that all the genders were involved in the study and therefore the study was not gender bias.

Table 4.3 Age

Age bracket	Frequency	Percentage
Below 21 years	16	20.3
21-30 years	32	40.5
31-40 years	21	26.6
Over 40 years	10	12.7
Total	79	100.0

The study findings on age bracket showed that 20.3percent of the respondents were below the age of 21 years, 40.5percent of the respondents were between the age of 21 to 31 years, 26.6percentof the respondents were between the age of 31 to 40 years while 12.7 percent of the population was over the age of 40 years.

Table 4.4 Working period

Working period	Frequency	Percentage
Below 5 years	18	22.8
Between 5 to 10 Years	40	50.6
Between 10 to 15 Years	15	19.0
Above 16 Years	6	7.6
Total	79	100.0

The study findings on Working period showed that 22.8 percent of the respondents had worked in the company for less than 5 years, 50.6 percentof the respondents had worked in the company between 5 to 10 years, 19.0percent of the respondents had worked in the company between 10 to 15 years while the remaining 7.6percent of the respondents had worked in the company for more than 16 years.

Table 4.5 level of education

Highest level of education	Frequency	Percentage
PHD	1	1.3
Masters	2	2.5
Degree	24	30.4
Diploma	48	60.8
Others (specify)	4	5.1
Total	79	100.0

The study findings on the level of education showed that 1.3percent of the respondents had PHD, 2.5percent of the respondents had Masters, 30.4percent of the respondents had degree, 60.8percent of the respondents had diploma while the remaining 5.1percent of the respondents fall in neither of the stated education level.

Analysis of Objectives

This part of the study analyzes the objectives of the study on the impact of lead time management techniques on product quality in Kenya Seed Company, Kitale Town.

Timely Ordering

The study sought to find out the effect of timely ordering on product quality in Kenya Seed Company. The findings were analyzed as shown in the table 4.6; The following findings were given using the scale of 1-5 where:- Strongly Agree=5, Agree=4, Neutral=3, Disagree=2 ,Strongly Disagree=1

Table 4.6 Timely Ordering

Statements		1	2	3	4	5
1 Online businesses constantly satisfy customers by providing detailed product information on websites	F	15	5	1	24	34
	Percent	19	6.3	1.3	30.4	43
2 Timely delivery of products is importantly effective and encourages good relationship between the company and customers	F	13	1	3	13	49
	Percent	17.5	1.3	3.7	17.5	61
3 Consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively	F	11	10	5	6	47
	Percent	13.9	12.7	6.3	7.6	59.5
4 Product quality is important in e-commerce to help maintain customer satisfaction and loyalty and reduce the risk and cost of replacing faulty goods	F	15	3	3	14	44
	Percent	19	3.8	3.8	17.7	55.7
5 Timely ordering of products has enabled the company effectively manage its operations	F	15	5	1	24	34
	Percent	19	6.3	1.3	30.4	43

The study results in table 4.6 revealed that 19 percent of respondents strongly disagreed that online businesses constantly satisfy customers by providing detailed product information on websites, 6.3percent of the respondents disagreed that online businesses constantly satisfy customers by providing detailed product information on websites, 1.3percent of the respondents were neutral that online businesses constantly satisfy customers by providing detailed product information on websites, 30.4 percent of the respondents agreed that online businesses constantly satisfy customers by providing detailed product information on websites whereas 43 percent of the respondents strongly agreed that online businesses constantly satisfy customers by providing detailed product information on websites. The study results revealed that 17.5 percent of the respondents strongly disagreed that timely delivery of products is importantly effective and encourages good relationship between the company and customers, 1.3 percent of the respondents disagreed that timely delivery of products is importantly effective and encourages good relationship between the company and customers, 3.7 percent of the respondents were neutral that timely delivery of products is importantly effective and encourages good relationship between the company and customers, 17.5 percent of the respondents agreed that timely delivery of products is importantly effective and encourages good relationship between the company and customers whereas 61 percent of the respondents strongly agreed that timely delivery of products is importantly effective and encourages good relationship between the company and customers.

The study results showed that 13.7 percent of the respondents strongly disagreed that consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively, 12.7 percent of the respondents disagreed that consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively, 6.3 percent of the respondents were neutral that consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively, 7.6 percent of the respondents agreed that

consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively whereas 59.5 percent of the respondents strongly agreed that consumer's questions on shipment, payment, product, policies and other customer concerns can be addressed effectively.

The study results showed that 19 percent of the respondents strongly disagreed that product quality is important in e-commerce to help maintain customer satisfaction and loyalty and reduce the risk and cost of replacing faulty goods, 3.8 percent of the respondents disagreed that product quality is important in e-commerce to help maintain customer satisfaction and loyalty and reduce the risk and cost of replacing faulty goods, 3.8 percent of the respondents were neutral that product quality is important in e-commerce to help maintain customer satisfaction and loyalty and reduce the risk and cost of replacing faulty goods, 17.7 percent of the respondents agreed that product quality is important in e-commerce to help maintain customer satisfaction and loyalty and reduce the risk and cost of replacing faulty goods whereas 55.7 percent of the respondents strongly disagreed that product quality is important in e-commerce to help maintain customer satisfaction and loyalty and reduce the risk and cost of replacing faulty goods.

The study results showed that 19 percent of the respondents strongly disagree that timely ordering of products has enabled the company effectively manage its operations, 6.3 percent of the respondents disagree that timely ordering of products has enabled the company effectively manage its operations, 1.3 percent of the respondents were neutral that timely ordering of products has enabled the company effectively manage its operations, 30.4 percent of the respondents agreed that timely ordering of products has enabled the company effectively manage its operations whereas 43 percent of the respondents strongly agreed that timely ordering of products has enabled the company effectively manage its operations.

The findings of the study indicated that majority of the respondents were of the opinion that timely delivery of products is importantly effective and encourages good relationship between the company and customers. This meant that the market is full of best transporters who deliver timely goods at desired place with low cost, effectively and without any damage. Their services plays vital role in any business success. Timely delivery of goods to the desired place plays vital role in providing the company decent competitive advantage. The study findings are supported by Maslak (2018) who examined timely delivery of products and the results showed that every business runs on the mutual trust of customers and service providers. Thus, companies make various promises to their customers and they are made to be fulfilled to exist in market. Hence, if a company or individual wish to avail goods delivery from Singapore to Kuala Lumpur, they need to have internet as best supporter. In Singapore to Kuala Lumpur almost all the professional and licensed transportation companies are listed. They can be contacted at any time through the phone call, email or by visiting the dedicated website. You can get best quotes for your transportation along with terms and conditions. Avail the service of transporter that delivers your goods with utmost safety, timely and at low cost. Also Evans and Lindsay (2013) found that the professional transporters have experts who well understand various custom laws and resolves all the issues related to the custom at Singapore and Malaysia border. Thus, enjoy delivery from Singapore to Klang Valley of various goods without much involvement, as experts are there to take care of it. Thus, if a business is small, medium or large, the logistic company holds expertise in meeting the entire transportation requirement at these important locations. Thus, hire the professional and experienced transporter and enjoy hassle free transport service. The trained staff at these transporting companies always emphasis on building best relations with customers by delivering satisfactory services.

Inferential Findings and Discussions

Table 4.7 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580	.336	.300	.48462

From the study results on table 4.7 the coefficient of correlation coefficient (R) and determination (R^2) shows the degree of association between lead time management techniques and product quality in Kenya Seed Company Kitale. The results in the model summary indicated that $R = 0.580$ and $R^2 = 0.336$. R value gives an indication that there is a linear relationship between lead time management techniques and product quality Kenya Seed Company, Kitale Town. The R^2

indicates that explanatory power of the independent variables is 0.336. This means that about 33.6 percent of the variation in product quality is explained by the independent variables. This meant that the data that had been used in the regression model were accurate.

Table 4.8 ANOVA

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.796	4	2.199	9.363	.000
	Residual	17.380	74	.235		
	Total	26.176	78			

The ANOVA (table 4.8) for the regression F test provides an overall test of significance of the fitted regression model. The F value indicates that all the variables in the equation are important hence the overall regression is significant. The F-statistics produced (F = 9.363) significant at $p=0.000$ thus confirming the fitness of the model and therefore, there is statistically significant relationship between lead time management techniques and product quality Kenya Seed Company. This means that at least one of the independent variables is a significant predictor of the dependent variable.

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

Chapter five presents the summary of the findings, conclusion and the recommendation based on the findings of the study. It therefore, presents summary of findings of each objective analyzed, it generates conclusions from hypothesis that were tested through likert scale statements that were answered by the respondents and finally the chapter presents the suggestions for further study.

Summary

The summary of the findings are discussed below basing each objective;

Timely Ordering

The study results on timely ordering revealed that timely delivery of products is importantly effective and encourages good relationship between the company and customers. This meant that the market is full of best transporters who deliver timely goods at desired place with low cost, effectively and without any damage. Their services plays vital role in any business success. Timely delivery of goods to the desired place plays vital role in providing the company decent competitive advantage. Thus the companies make various promises to their customers and they are made to be fulfilled to exist in market. Hence, if a company or individual wish to avail goods delivery from Kenya seed they need to have internet as best supporter.

Conclusions

The study concluded that product quality at Kenya Seed Company is affected positively by timely ordering on product quality. In the production unit raw materials are required in time so as to ensure efficiency in production that result to the quality products. Also timely delivery of products to retailers ensures trust of customers demand is protected. The company therefore becomes relevant in the competitive world through production of quality products that are unique and trusted in the market. The Kenya seed company survives the challenges that are encountered in the production section since the logistics concerned with the timely delivery of products are implemented.

Recommendations

The study recommends that: Kenya Seed Company managers should ensure that there is timely ordering of products this will enable the company to effectively manage its operations. Managers should come up with good structural plan that secures quality product. The managers of Kenya Seed Company should ensure that the product design is good so as to be appealing on customers' demands. This will create competitive advantage in the market that will favour dominance over

rival companies. The study further recommends to the Kenya seed company managers to emphasize on aggregate planning.

Areas for Further Research

From the foregoing findings the study recommends that similar study to be done in all the companies in Kenya in order to understand the effects of lead time management on product quality and service delivery. The research will factor in the problems at a broader perspective, which will benefit product quality. Further study also can be done on the factors that hinder lead time management at Kenya Seed Company. This will enrich knowledge of impact of lead time management technique on an organizational management.

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