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**The Influence of Operations Strategies on Customer Satisfaction among
Automotive Component Manufacturers in Nairobi County**



Master of Business Administration

2019

**The Influence of Operations Strategies on Customer Satisfaction among
Automotive Component Manufacturers in Nairobi County**

Glory Kajuju Mugambi

100292

**Submitted in Partial Fulfillment of the Requirements for the Degree of
Master of Business Administration at Business School, Strathmore
University**



Nairobi, Kenya

JUNE, 2019

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

Glory Kajuju Mugambi

May 2019

The watermark is a large, light gray version of the Strathmore University crest. It features a shield with a rose on the left and a lion on the right, topped with three hearts. Below the shield is a banner with the Latin motto "VT OMNES VNVM SINT".

Approval

This dissertation of Glory Kajuju Mugambi was reviewed and approved by the following:

Dr. Everlyne Nabaliala Makhanu (Supervisor)
Lecturer, Strathmore University Business School

Dr. George Njenga
Dean, Strathmore University Business School
Strathmore University

Prof. Ruth Kiraka
Dean, School of Graduate Studies
Strathmore University

ABSTRACT

With the increasing business competition and the need to become adaptable to the changing customer needs, firms are integrating operations strategies to improve and retain their customers. Due to different challenges facing automotive industries, these firms are not able to capitalize on their operations in order to deliver products and services as required by customers. The main objective of this study was to determine the influence of operations strategies on customer satisfaction with a focus on automotive component manufacturers in Nairobi County, with specific objectives being five, focusing on influence of quality, cost reduction features, delivery speed, flexibility and innovation on customer satisfaction.

The study adopted the use of descriptive and inferential research design to analyze the collected data. The population consisted of 25 automotive component manufacturers in Nairobi County listed with Kenya Association of Manufacturers, while the focus was the employees of the firms, holding positions in either operations or marketing. The findings of the descriptive test indicate that the most commonly applied strategies are delivery speed and flexibility, while innovation and cost reduction features as least. The correlation analysis indicates that there is an overall significant strong positive association between operations strategies and customer satisfaction.

The study recommends that automotive component manufacture firms should channel and ensure a proper management structure to implement operations strategies since they highly contribute to the operationalization of the firm and ensure focus on customer's requirements.

Key words: *Customer satisfaction, operations strategies, competitive priorities, quality, cost reduction features, delivery speed, flexibility, innovation*



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ABBREVIATIONS AND ACRONYMS

B2B	-	Business to Business
BDO	-	Binder Dijker Otte
CEM/CXM	-	Customer Experience Management
EDT	-	Expectancy Disconfirmation Theory
GoK	-	Government of Kenya
ISIC	-	International Standards on Industrial Classification
KAM	-	Kenya Association of Manufacturers
NACOSTI	-	National Commission for Science, Technology and Innovation
OEM	-	Original Equipment Manufacturer
OM	-	Operations Management



DEFINITION OF TERMS

Operations	This the manufacturing and services practices employed by firms to transform resources into products desired by the customer (Jacobs & Chase, 2017)
Operations Strategies	These are specific competitive capabilities of an organization based on the operations functions that are aimed at helping an firm achieve its long-term competitive goals (Gyampah & Boye, 2001)
Quality	This entails set of features and design that defines a product or service and also reliability at which the product has, without defects (Jacobs & Chase, 2018).
Cost Reduction Features	The ability of a firm to make a product or deliver the service inexpensively (Jacobs & Chase, 2018).
Delivery Speed	The ability of an organization to delivery products or services more quickly and supply on or before a promised delivery time (Jacobs & Chase, 2018).
Customer Satisfaction	A strategy that focuses the operations and processes of a business around the needs of the individual customer (Sharma & Chaubey, 2014).

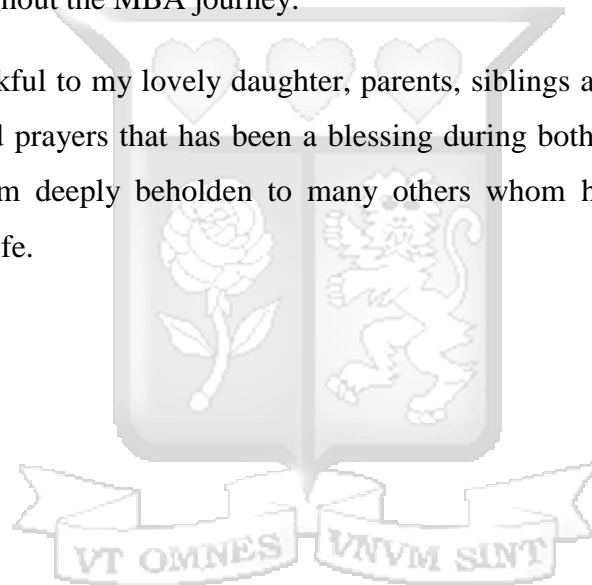
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DEDICATION

To my lovely daughter Sheila Nisha, my parents; Mr. & Mrs. Stephen Mugambi and siblings; Gikundi and Mwirigi.

My most heartfelt appreciation for your prayers and support during this journey.



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In order for firms to maintain customers and avoid marginalization, a careful optimization of internal resources is relevant due to the high efficiency standards imposed by the market. (Battistoni, Bonacelli, Colladon & Schiraldi, 2013). Firms may use specific operations as a strategic business positioning and as a form of differentiation from competitors, and organizations that neglect the strategic aspect of creating value for the customers and just equate cost, quality and delivery to customer, only address their financial benefit (Hines, Holwe & Rich, 2004). Value should flow across an organization through all the departments where each entity defines value for itself taking into account the end user, who interacts with products and services of the firm and is able to satisfactorily associate with what is offered.

Customer satisfaction is paramount and connected to other benefits, such as affirmative word of mouth, less consumer complaints, warranty and field support, retaining and improving customer base and employee turnover (Fornell, Mithas & Krishnan, 2006). Firms are required to adopt continuous development of internal processes and routines by keeping up to date with information and improving expertise practices. A challenge associated with firms is the lack of corporate function with which to handle the recommended continuous improvement practices internally and hence often adopt learning by doing process (Battistoni et al., 2013).

With some degree of specialization and diversity that characterizes automotive firms due to the wide range of items manufactured, there is need for specific operations strategies to optimize internal resources for delivery of required products or services to customers. According to Battistoni et al. (2013) organizations are heterogeneous and carry out business in multifaceted and dynamic system. The automotive industry is one of the world's largest industrial sectors and over the past three decades, the centre of gravity of global production has been shifting towards developing countries, and the industry encompasses a full range of industrialization processes including metal fabrication, plastics and electronics and has considerable technological spill overs (Black & McLennan, 2016).

1.1.1 Operations strategies

Operations strategy is generally considered and defined as the implementation and enhancement of certain competitive strengths depending on the operations functions of a specific organization with the main aim of accomplishing long-term competitive goals (Gyampah & Boye, 2001). The main focus would be operations that pertain to quality, flexibility, cost reduction, delivery speed and innovations. Operations involve the manufacturing and services measures employed by organizations in order to transform the resources into products and services desired by customers (Jacobs & Chase, 2017).

Operations Management (OM) has been characterized by shifts from mass production to high volume customized products; the initial objective was to produce products based on individual customer specifications and measures taken into account required greater amount of time, flexibility, and less responsiveness, hence this pushed manufacturers to just focus on only standardized products in large volumes and utilize systems of mass production (Gunasekaran & Ngai, 2012). With the increase of competition in the global markets OM shifted focus on more improved manufacturing and service strategies and ensuring better performance metrics which were cost effective. Operations strategies like Total Quality Management and Just-in-Time were developed to focus on the changing demands of customers specifically the need for quality products for lesser price. The use of information systems have been crucial in improving organization capabilities, especially in problems that initially were complex and difficult to deal with (Bayraktar, Jothishankar, Tatoglu & Wu, 2007).

Organizations have kept abreast with need to compete globally by implementing some new operations strategies and measures and have been required to compete on the levels of as price, quality, flexibility, dependability, and responsiveness (Gunasekaran & Ngai, 2012). The shift from the need to compete on the basis of cost and quality to time-based mass customization, has necessitated the capabilities of timeliness and quick response in delivery of goods and services produced, which constitutes a real challenge to many organizations (Bayraktar et al., 2007).

The prerequisite to compete in the global market, has pushed organizations to reengineer and adopt operations strategies, mainly focusing on quality of products, flexibility, speed, how services are offered, and costs (Zhao & Lee, 2009). The aspect of trade-offs and priorities crop in, where firms make a choice on which strategy to focus on. The aspects that affect an organization's decision on the strategies to adopt are, for instance, an organization that produces communication equipment is most likely to focus on innovation strategy than another organization involved in production of plastic containers domestic use (Ahmad & Schroeder, 2011).

This explains why different practices may affect specific performance measures and implementation of certain metrics. For example, in order to focus on cost reduction features, specific set of operations functions, practices and techniques might be recommended, and consequently if the plant desires high quality practices, different set of practices will be incorporated (Cua, McKone & Schroeder, 2001). This means there are specific strategies adopted in the manufacturing and service processes to ensure the needs of the customer are the main focus.

According to a study done by Boyer & Lewis (2002) operations strategy has been defined by the relevance placed on manufacturing capabilities, including low cost, quality, flexibility, and delivery, as well as suggestions of innovativeness and service as additional priorities. High expectations have been placed on organizations to enhance sound strategies relating to their core operations capabilities, focus being on strategies of cost efficiency, quality, innovation, flexibility and delivery, in order to gain and maintain competitive advantage (Singh, Wiengarten, Nand & Betts, 2014),

Early studies have identified four major operations strategy: cost efficiency, quality of products and services, delivery and flexibility (De Meyer, Nakane, Miller & Ferdows, 1989; Swink & Way, 1995). A fifth strategy was suggested by some researchers, this being the level of innovativeness (Leong, Snyder and Ward, 1990; Noble, 1995; Frohlich and Dixon, 2001). These five operations strategies are considered in this study as employed by automotive component manufacturers to ensure customer satisfaction.

1.1.2 Customer Satisfaction

According to Angelova & Zekiri (2011) customer satisfaction has a positive influence on the profitability and success of the firm, as a satisfied customer develops the basis for a thriving business due to brand loyalty and repeated purchases and hence the need for firms to focus on high quality service. According to Mehta, Steinman and Murphy (2016), as a provider of the service or product there is need to know what the required outcome is and how to achieve it. Ahmad & Schroeder (2011) posit that firms must focus on customer requirements, which can be numerous, in order to successfully compete in the global market.

A consumer may have a specific necessitate that a product and/ or service should accomplish. Organizations must realize that customer satisfaction is a relevant strategic performance measure which is affected by the level of service experience and the perceived value of products and services delivered. Oliver (2010) points out that repeat purchases which may be as a result of word of mouth and published information is crucial to a continued stream of profitability, as organizations such as Consumers Union, track reports of customer feedback over time and hence a significant effect on earnings. This means that repeated purchases are as a result of customer loyalty, which is driven by the comparison of the value that the customer perceives and the outcome of the product and or service.

In order to ensure the customer is satisfied, products and or service providers must know the elements in the marketing mix needed in order to attract customers especially through their buying behavior (Wahab, Hassan, Shahid& Maon, 2016). Marketing involves a set of steps that ensure value is delivered to the customer and can be remembered hence creating a relationship with clients as well as providing benefits to the organization (Armstrong & Kotler, 2011). Customer satisfaction is one of the best-studied areas in marketing, and the good news for marketers is that if firms satisfactorily resolve customers' problems, previously dissatisfied customers will spread this news to five other people concerning the treatment they have received, and they will be more likely to do business again with the firm (Hussain, Al Nasser & Hussain, 2015).

Haumann, Quaiser, Wieseke & Rese (2014) advises firms to continually put effort into improving the performance of their products and services as customer satisfaction is

established by comparisons of expectations and perceived performance. Rego, Morgan & Fornell (2013), suggest that managers should benchmark customer satisfaction improvement practices against those of competitors in order to increase their market share despite the challenges that arise from the need to simultaneously implement different strategies.

1.1.3 Automotive Manufacturing Sector

Due to the traditional culture of manufacturing, profitability has been declining as more focus is just on the product, without ensuring value to the customer (Claes & Martinez, 2010).

A report by United Nations Industrial Development Organization (2004), posit that the manufacturing sector, has always been considered important especially by economic policymakers, making it the main engine of technical revolution and economic growth. The Government of Kenya declared manufacturing as a top priority investment and as the primary element from which all other development solutions coagulate and take shape (Kenya Association of Manufacturers, 2018). And therefore, there is need to propel competitiveness for local industries to push the agenda for manufacturing sector in reviving the economic growth of the country by creation of job and enable the local industries compete globally.

The automotive industry has a substantial impact on economic development and technological advancement in both developed and developing countries; the industry is estimated to contribute 3% of global GDP and is largely dominated by retail and distribution of finished vehicles, and after-sales support in servicing and spare parts; with small-scale assembly of motor vehicles mainly in Kenya (Binder Dijker Otte, 2017). According to the report the region's thriving domestic market for auto parts and components presents a great opportunity for local enterprises to get involved in the production and to meet the ever-growing demand, the region needs to explore and adapt measures that will spur the development of the local parts industry.

The regulation and knowledge on the effective measures or strategies to adapt will be useful in guiding the local automotive manufacturers in delivering the required products. Original Equipment Manufacturers (OEMs) are more likely to purchase locally such components e.g. chassis and body frames, provided that the local manufactures meet the minimum requirement, hence important to have initiatives of enhancing the local firms to meet the

requirements of QCD (quality, cost and delivery) by OEMs (BDO, 2017). Kenya has a tiny automotive sector and this clearly illustrates the problems of establishing the automotive industry in the continent; the domestic production is tiny due to post-independence policies that encourage import substitution, and there is also some small-scale component production, mainly for the aftermarket (Black, Makundi & McLennan 2017).

1.2 Statement of the problem

According to Battistoni et al., (2013) operations management which is involved in the identification of all the activities required for provision of products and services that focuses on the customers is sometimes derelict especially among automotive industries. Firms focus on objectives that drive return on investment and performance in terms of revenue, and hence the customer is not mainly the focus. According to Sharma and Chaubey (2014), bad outcomes with a product; for example, functionality failure, or failure to meet longevity expectations, will lead to customer complaints which can circulate through published feedback or word of mouth or online. In the automotive industry there is need for more information on the relevance of translating customer requirements into product attributes, and implementation of quality strategy is hardly manageable in the translation phase (Stylidis, Wickman & Soderberg, 2015). The management and knowledge in the influence of operations a strategy in meeting the dynamic needs of customers is therefore required which this study explored among automotive component manufacturers.

With the need of making choices regarding which operations strategies should receive more attention and investment, organizations are generally challenged to make trade-offs between different operations strategies, based on their benefits (Boyer and Lewis, 2002. A selection of strategies to implement would mean ensuring a fit with the existing structures of the organization. According to a report by BDO (2017) to meet the ever-growing demand of the automotive industry, the East African region needs to explore and adapt measures that will spur the development of the local parts industry. The automotive industry face many challenges and delivering value to customers by ensuring quality products remains as one of the main constraint (Stylidis, Madrid, Wickman & Soderberg, 2017).

Despite the many constraints and trade-offs facing organizations especially among automotive firms, the study identified how quality, low price, delivery speed, flexibility and innovation are important in ensuring customer expectations and requirements are met.

1.3 Research Objectives

This section presents both the main objective and specific objectives of the study.

1.3.1 Main Objective

The main objective of this study was to determine the influence of operations strategies on customer satisfaction in automotive component manufacturers in Nairobi County.

1.3.2 Specific Objectives

This section presents the specific objectives of the study:

- (i) To determine the influence of quality on customer satisfaction in automotive component manufacturers in Nairobi County.
- (ii) To establish the influence of cost reduction features on customer satisfaction in automotive component manufacturers in Nairobi County.
- (iii) To establish the influence of delivery speed on customer satisfaction in automotive component manufacturers in Nairobi County.
- (iv) To establish the influence of flexibility on customer satisfaction in automotive component manufacturers in Nairobi County.
- (v) To establish the influence of innovation on customer satisfaction in automotive component manufacturers in Nairobi County.

1.4 Research Questions

The study answered the following questions:

- (i) What is the influence of quality on customer satisfaction in automotive component manufacturers in Nairobi County?
- (ii) What influence does cost reduction features have on customer satisfaction in automotive component manufacturers in Nairobi County?
- (iii) What is the influence of delivery speed on customer satisfaction in automotive component manufacturers in Nairobi County?
- (iv) Does flexibility influence customer satisfaction in automotive component manufacturers in Nairobi County?
- (v) What is the influence of innovation on customer satisfaction in automotive component manufacturers in Nairobi County?

1.5 Significance of the Study

The study is of importance to the automotive manufacturing firms in gaining more insights on the value of streamlining operations and focusing on generating positive customer experiences. The firms have general understanding of the sector and how to incorporate strategies that will benefit both the industry and their customers.

Customers also benefit from the study, as the information generated from the research ensures they are the focus in a firm in ensuring their specific requirements are met and value is provided.

Information generated from this research is of help to Policy makers and the Government in development and promotion of guidelines that will ensure effective operations strategies are incorporated in firms for better growth of the economy. This will help push industries to ensure quality, flexibility, responsiveness and upgraded standards, leading to an ability to compete nationally as well as internationally.

The study is important for the school archives and as source of relevant information for other researchers interested in developing further research related to operations strategies and customer satisfaction.

1.6 Scope of the Study

The study was carried out within Nairobi County, where automotive component manufacturing activities are dominant.

The study focused at the automotive industry, the main focus being on subsector of motor vehicle components, which comprises of customization of various parts for vehicle assembly as well as for spare parts market. According to the International Standards on Industrial Classification (ISIC), automotive industry covers: manufacture of automotive; manufacture of trailer and semi-trailers and; manufacture of parts and accessories for automotive products (KNBS, 2018).



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents an evaluation of literature in regards to the influence of operations strategies on customer satisfaction as presented by other researchers. The chapter presents the theoretical literature with the theories that underpin the study and further presents the empirical literature, research gaps, as well as the conceptual framework of the study.

2.2 Theoretical Review

Trade-off and expectancy disconfirmation are two principal theories that have foundation in explaining the dynamics involved in implementation of the operations strategies and the interactions with the customer. Trade-off depicts the need for firms to make a choice or focus on the implementation of the five operations strategies as different structures are required for each and depending on the priority of the organization. Despite the cumulative model a choice has to be made and that will have influence on customer satisfaction. The expectancy disconfirmation takes the approach of explaining the dynamics involving in ensuring customer satisfaction in provision of products and services

2.2.1 Trade-off Theory

According to the Trade-off Theory (Skinner, 1969), production systems inevitably pertains trade-offs and compromises, and are designed to perform limited operational tasks, with the firms need to develop concrete strategies depending on core operations capabilities (Singh et al., 2014). However, the question is whether manufacturers can focus on numerous priorities simultaneously or achieve competitive advantage based on multiple capabilities without sacrificing the outcome of another (Rosenzweig & Easton, 2010) Sarmiento, Sarkis & Byrne, (2010) insist that firms must become “focused” in order to gain strategic advantage over competitors (Sarmiento, Sarkis & Byrne, 2010).

With limited resources and need to adapt to the changing customer needs, it is inherent that organizations will pursue strategies that will help meet the expectations of the end user. Rosenzweig & Easton (2010) points out that managers do not have the time nor the resources

to do all the operations simultaneously and therefore choices have to be made in regards to the specific measures used develop competitive position. The automotive manufacturing organizations are therefore not successful unless appropriate operating decisions are made. The concept of trade-offs comes into play affecting the type of product and or service delivered, which ultimately affects the level of satisfaction received by the customer.

This theory was relevant in explaining the objective of identifying the different operations strategies employed by the automotive manufacturing firms, trade-offs encountered and the basis of specific choice of strategies implemented. The automotive firm's structures and capacity challenges their capability to implement the strategies cumulatively, hence choices are made and one or two specific strategies are implemented.

2.2.2 Expectancy Disconfirmation Theory

The theory proposes that costumers purchase goods and services with prior expectations about an anticipated performance; the expectation point then becomes a standard against which the product is judged (Yuksel & Yuksel, 2001). According to EDT, confirmations of a product or service performance are measured once the product or service has been used, against expectations and if there is a match, confirmation occurs, hence satisfaction; disconfirmation occurs where there is a negative difference between expectations and outcomes, which means dissatisfaction. Satisfactory customer experience is therefore determined by the perceived expectation and performance or value of a product or service on fulfilling a need or requirement.

The theory was relevant with focus being on customer satisfaction in relation to a firm's clients, their expectations and outcome or performance of services rendered and products provided. Therefore, the importance of marketing in a firm to focus on the problems experienced by customers and constant feedback for improvement and to ensure the different dynamic requirements of customers are met for growth of the firm.

2.3 Empirical Review

This section of the study provides empirical literature of the study as presented by other author's and researchers. The section covers operations strategies; design and process quality, low cost features, delivery speed and reliability, flexibility and innovations or upgraded standards

2.3.1 Quality and customer Satisfaction

According to Jacobs & Chase (2018), design quality relates to the set of features the product or service contains; while process quality relates directly to the reliability of the product or service, without defects. It is necessary for organizations to provide high-performance product and consistent quality services to retain their customers.

Creating and maintaining superior service quality is critical in achieving customer satisfaction, value creation and growth for an organization (Sharma & Chaubey, 2014). According to survey carried out by Sharma and Chaubey (2014) on 255 random sampled bank customers in order to compare customer experiences between public and private sector banks, customer is the most valuable asset for any organization. The research used well structured questionnaire to collect data, and tests were carried using Analysis of Variance, cluster and exploratory factor analysis. The conclusion for the study was that there need in training and identification of the right employee in order to gain greater customer satisfaction.

A study conducted by Anderson & Kovach (2014) concludes that elimination of defects is relevant for tackling financial loses that result from failure to implement and maintain quality and schedule performance.

A case study carried out by Godina, Matias and Azevedo (2016) to gain in-depth knowledge on the best tools of managing processes in order to improve quality in manufacturing process used control charts analysis and normality test. The results of the study concluded that control measures can help other firms achieve high levels of quality, which is beneficial in meeting the expectations of the end-user and the growth of the firm.

2.3.2 Cost Reduction Features and Customer Satisfaction

A profound view associated with cost or price is the ability of a firm to make a product or deliver the service inexpensively (Jacobs & Chase, 2018). Price and timely delivery of products and services is paramount for meeting a customer's expectation; delivery time performance generally depends on a firm's available capacity and operating efficiency (So, 2000). The low cost feature is both relevant to the firm and the customers, the firm is able to tap on a wide market, move volume sales and make profit; the customer gains product at a low cost and hence possibility of loyalty to the firm.

A study conducted by Gyampah & Acquah (2008) using questionnaire to collect data from 250 large and medium manufacturing and service firms in Ghana, with the main aim of testing the influence of competitive strategy on manufacturing strategy and impact on firms' performance concluded that cost strategy as a manufacturing capability was strongly adopted among the firms and there existed a strong relationship between competitive strategy and manufacturing strategy.

In order to compete in a low-cost strategy and achieve an efficient scale capability, a firm implements tight operating and overhead cost control measures (Ahmad & Schroeder, 2011). This study involved collection of data from 103 manufacturing plants in order to ascertain implementation of low cost strategy in 4 countries; Germany, Japan, Italy and U.S.A.

A study done by Nair & Boulton (2008) proposes need for an alignment in future operations strategy that has value-based costing, with customer-driven pricing. The challenges in implementing low cost features in firms, are mainly has a result of lack of raw materials locally and high operating costs, especially due to high cost of energy. The inadequate supply of raw materials to manufacturing companies and high cost of energy results in high operational costs due to the inefficiency of their production capacity; it also lowers their profit margin (KAM, 2018). In the automotive industry, it is thought that flexible manufacturing systems will allow fast cost-effective results to the dynamic global and support rapid product launches designed to meet ever changing customer requirements (Elkins, Huang & Alden, 2013).

2.3.3 Delivery Speed and Customer Satisfaction

This strategy is based on the ability of an organization to delivery products or services more quickly and supply on or before a promised delivery (Jacobs & Chase, 2018). A case study carried out by Anderson & Kovach (2013) to assess the effect of welding defects and turn-around time on customer satisfaction and firm performance in an industry-leading construction, and fabrication service company in Texas, U.S.A. concluded that ensuring delivery of services and projects within the stipulated time frame improves a firm relation with the customer. The study also concluded that quick turn around and quality of products has a strong effect on the performance of the firm. Scheduled delays which are caused by unplanned downtime in turnaround projects can lead to significant financial losses, as this is as a result of loss in production capability or rework/repair costs (Lenahan, 2006).

A study done by Gunasekaran, Lia & Cheng (2008) on responsive of supply chain as competitive strategy confirms that a single firm may not have the capability to respond quickly to changing market requirements. The study recommends the need for, strategic alliances or partnerships which will help the organization improve on delivery reliability (Gunasekaran, Lai & Cheng, 2008).

The results of a study carried out by Cronin et al. (2000) to clarify the relationship between quality, value, customer satisfaction and behavioral intentions concluded that quality is a complex variable to measure and its perceived value, however a strong relationship exists between these variables. A research conducted by Kivite (2015) on the effects of waiting time and customer satisfaction indicated that long waiting time negatively affects customers' satisfaction and post- sale judgment.

2.3.4 Flexibility and Customer Satisfaction

For organizations, satisfaction of customers increases as the firm builds and is able to give value for the products and services provided to customers (Zhang, Vonderembse & Lim., 2003). According to Homburg, Kohmer, Cannon & Kiedaisch (2002) flexibility is value created in dealing with the unforeseen problems or short term changes in the needs of the customer and the ability to be flexible demonstrates a general preparedness in responding to the dynamic needs of customers. The study conducted by Hamburg et al. (2002) concludes

that quality and flexibility are important antecedents of customer satisfaction in buyer–supplier relationships between manufacturing companies.

There is the prerequisite for firms to be responsive to customers’ unique and dynamic needs taking into account the intense competition and globalization. A survey on flexibility among Spanish automotive suppliers indicated that with different flexibility dimensions it is important to set structures that pertain to the specific flexibility that the firm is adopting and that firm performance measure will depend on that flexibility dimension,, therefore it is necessary for logistic and production managers to plan for the effects of each flexibility dimension and focus the best dimensions for the company’s competitive advantage against competitors (Sanchez & Perez, 2005).

2.3.5 Innovation and Customer Satisfaction

Organizations generally develop and adopt innovations with the intention to contribute to the performance or effectiveness of the adopting organization; According to a survey by KNBS (2016) results show that innovations were largely not common features among automotive firms. There is need to facilitate technology development and promote innovation in order to raise incomes, create employment and meet the changing need of customers. According to a survey by KAM (2018) acquisition of required technology for machine tools manufacture and spare parts is greatly limited by high cost of finance and its poor access, and lack of formal training facilities especially for small scale operators.

According to a research conducted by Abdi, Mardini, Senin, Tupeniate et al. (2018) to examine the direct and indirect effects of organizational culture, knowledge management and organizational learning on innovation in the automotive industry served as a guideline to policy makers and managers to formulate strategies and policies for sustainable innovation. Data was gathered from a survey of 279 companies in Iran. The study also concluded that the benefits of innovation are evident and have shown to be sustainable in the long-term.

A case study on five firms in South Africa by Barnes & Lorentzen (2003) to evaluate on how automotive firms learn, upgrade and innovate concluded that firms are learning from rivals

and sending senior managers abroad for training and hence upgrading on new technological strategic approaches and innovating. The study recommended that despite the challenges faced by automotive firms, efforts of improvements and adopting technological advancements should not stop.

2.3.6 Customer Satisfaction

According to a study done by Thomas and Cunningham (2009), although efficiency is relevant for monopolistic service providers, as the clients do not have any other option than to buy from the firm in order to receive the required the services; customer perception and satisfaction are also very important. Kihiu (2014) points out that customer satisfaction can be achieved only when an organization defines and focus on customer needs from the customer point of view, and not from the firms perception, and hence the point that the customer is always right. Cronin, Brady & Hult (2000) posit that an excellent customer experience is most likely to happen when a firm takes customer's voice seriously and is sincerely responsive to complaints. The surroundings within and by which a customer is interacting with the provider plays an important role in ensuring a good customer experience.

According to a case study carried out by Hussain, Nasser & Hussain (2015) to investigate the linkages among service quality, service provider image, customer expectations, perceived value, customer satisfaction and brand loyalty in a Dubai-based airline, concluded that customer satisfaction is paramount and superior quality yields to brand loyalty.

Anderson & Kovach (2013) survey concluded that ensuring shorter turn-around time has an impact on customer satisfaction and firm performance in an industry-leading construction, and fabrication service company in Texas, U.S.A.

A study carried out by Saidin, Mokhtar, Saad & Yusoff (2018) to investigate the importance of after sale service on customer loyalty in Malaysian national car markers concluded that after-sales service has a significant positive relationship with customer loyalty. This means that support service offers more business opportunity by changing neutral customer to a highly loyal customer.

According to an online survey to investigate the effect of mass customization, customer loyalty and perceived value by Yoo & Park (2016), concluded that there is a high relationship between customer satisfaction, perceived value, loyalty as a result of customization of products according to customers specifications.

2.4 Research Gaps

A survey of U.S manufacturing firms (Ward & Duray, 2000), confirms that manufacturing strategy (cost, quality, flexibility and delivery) is related to organization performance (sales growth and market share), further study is require to provide information on the influence of the strategies on customer satisfaction.

According to a survey carried out on manufacturing plants under World Class Manufacturing (WCM) project (Ahmad & Schroeder, 2011), there exists strategies that affect the performance of a firm and these strategies pertain to delivery, innovation, efficiency and quality are dominant sets of dimensions) or competitive priorities adopted by manufacturing plants, however further study is required to relate the strategic dimensions to customer satisfaction.

The study conducted by Sharma & Chaubey (2014), provided empirical evidence about service personnel, service offering, facilitating services, accessibility, image and the overall concept of customer satisfaction in public and private sector banks in India, this calls for study in the automotive sector to ascertain the influence of operations strategies(quality, cost reduction features, delivery speed and innovation) on customer satisfaction.

A study conducted by Kumar, Kumar & Butt (2010) on the empirical testing of manufacturing capability and manufacturing strategy as two distinct constructs and their influence on organizational performance, was virtually a Business to Business (B2B) study and used single key informant as respondent.

According to recommendations on a study by Kihiu (2014) on approaches of operations improvement and customer satisfaction among service firms, specifically among security firms in Nairobi County, further study is required to determine other operations approaches and their impact in other firms.

These studies have been broad or have failed to give conclusive insights on the influence of operations strategies on customer satisfaction in automotive component manufactures. The current study has established various gaps made by the above studies in regard to study area, the research approach, participants involved, as well as the objectives of the study. This study has bridged this gap in information that exists.

2.5 Conceptual Framework

In this study, the influence of operations strategies on customer satisfaction in automotive component manufacturers in Nairobi County was the main focus. Specifically, the following operations strategies; quality, cost reduction features, delivery speed, flexibility and innovations, their relationship and influence on customer satisfaction. The operations strategies presented the independent variables, while customer satisfaction was the dependent variable. This study was guided by the conceptual framework as presented.

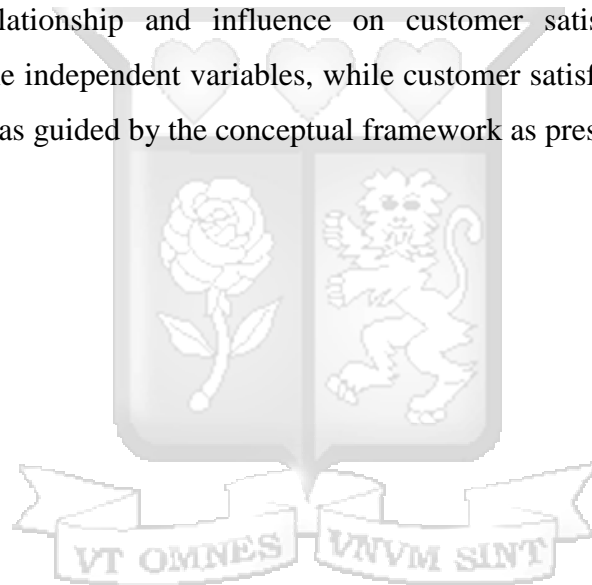
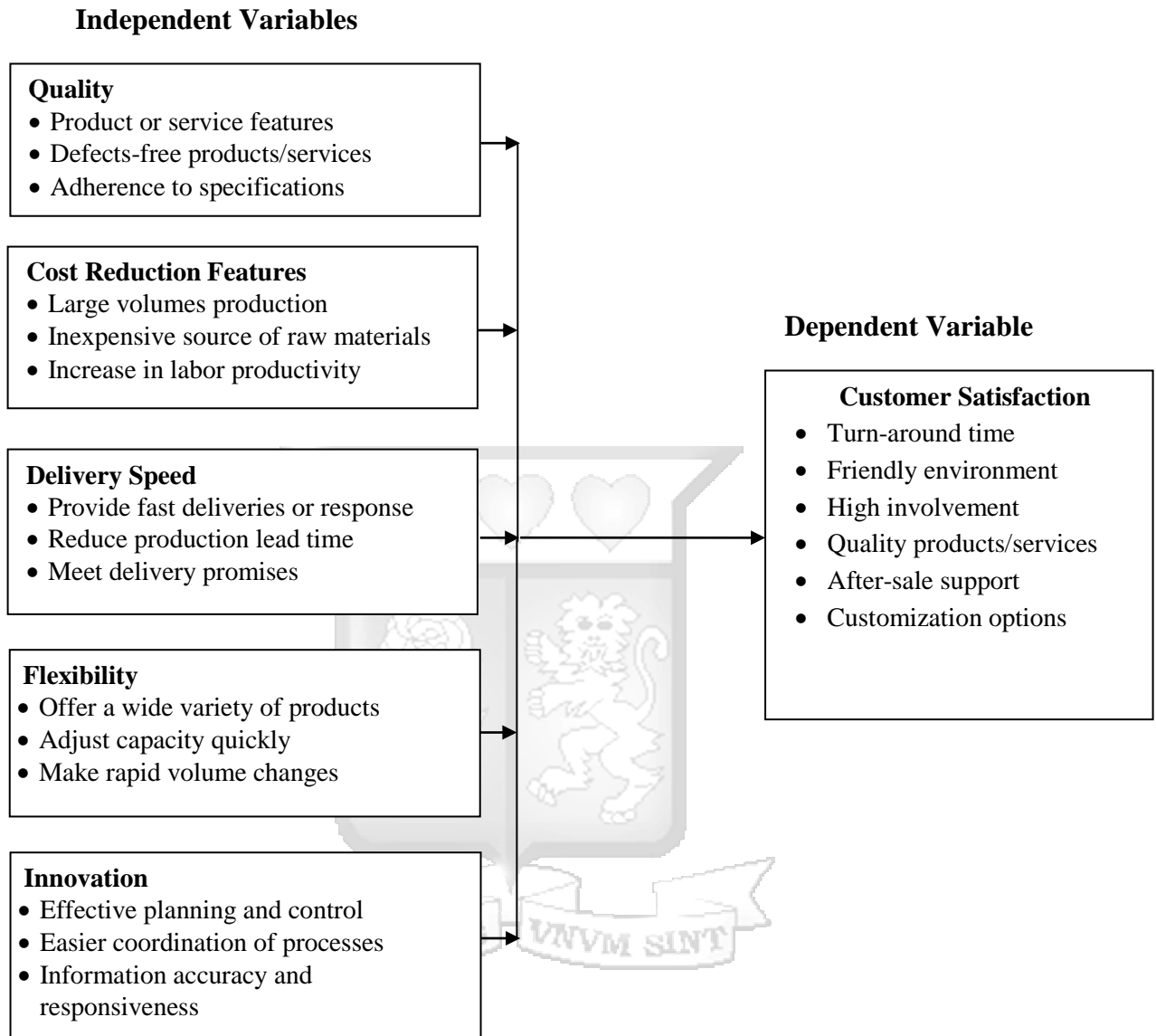


Figure 2.1: Conceptual Framework



Source: Researcher (2019)

Table 2.1 Operationalization of Variable

Variable	Indicator	Measurement scale	Tools of Analysis
Customer Satisfaction in Automotive Component manufacturing Firms	-Quick turn-around time -Friendly environment -High customer involvement -After-sale support -Customization options	-6-point Likert scale	-Mean and Standard Deviation -Correlation & Regression
Quality	-Specific Product/ service features -Defects-free products/services -Adherence to specifications	-6-point Likert scale	-Mean and Standard deviation -Correlation & Regression
Cost Reduction Features	-Large volumes production -Inexpensive source of raw materials -Increased labor productivity	-6-point Likert scale	-Mean and Standard deviation -Correlation & Regression
Delivery Speed	-Provision of fast deliveries/ responses -Reduced production lead time -Meeting delivery promises	-6-point Likert scale	-Mean and Standard deviation -Correlation & Regression
Flexibility	-Offer a wide variety of products -Adjustment of capacity quickly -Rapid volume changes	-6-point Likert scale	-Mean and Standard deviation -Correlation & Regression
Innovation	-Effective planning and control -Easier coordination of processes -Information accuracy and responsiveness	-6-point Likert scale	-Mean and Standard deviation -Correlation & Regression

Source: Researcher (2019)

2.6 Chapter Summary

The chapter presented the theoretical literature which comprises of theories underpinning the study namely the Trade-off Theory and the Expectancy Disconfirmation Theory. This chapter further presented the empirical literature on customer satisfaction, and operations strategies main focus being on; quality, cost reduction features, delivery speed and innovations. The chapter furthermore highlighted the research gaps, as well as the conceptual framework of the study. The next chapter presents the research methodology.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented the research methodology of the study and outlined the methods employed in collecting and analyzing data in determining the influence of operations strategies on customer satisfaction. The section expounds on the data collection instrument and procedures that were used to get relevant, reliable, valid and complete information that is related to the area of study. The chapter covered the following sub-sections: research design, population of the study, sample design, data collection methods, data analysis, and ethical considerations.

3.2 Research Design

This study adopted the use of descriptive research to determine the influence of operations strategies on customer satisfaction whose measures have no inherent numeric value, but simply descriptive in nature. The study applied correlational research design in order to determine whether there existed a relationship and to what extent between the independent variables (quality, cost reduction features, delivery speed, flexibility, innovation) and dependent variable (customer satisfaction). The research design methods add value by increasing validity in the findings, informing the collection of the primary data, and assisting with knowledge creation (Mckim, 2017).

3.3 Population of Study

A population is an entire group of people, or events that a study wishes to investigate (Wambugu et al., 2015). According to KAM (2018), the automotive industry has the automotive vehicle production and assembly, motorcycles production and assembly, and automotive component manufacture sub sectors, with a total of 59 members. The researcher selected the population from a list of automotive firms drawn from KAM automotive component manufacture sub sector members. The list consisted of 25 automotive component manufacture firms. The study focused on the entire population of 25 automotive parts/component manufacturing firms in Nairobi County. Nairobi County was chosen as the

study site due to proximity, financial constraints and time availability for carrying out the research.

3.4 Sampling Design

To select the sample the researcher included all the 25 automotive component manufacture firms registered with KAM. A judgmental sampling was used to select firms with factories in Nairobi County and this was arrived at by contacting the listed firms to confirm on their location. The study was interested in seeking information from the employees of these firms; therefore the researcher purposively selected either the operations manager and/or the marketing manager per firm in each of the 25 automotive organizations to answer the questionnaire. The operations manager or the marketing manager was sought to mainly answer questions pertaining the operations strategies focused on by the firm and aspects of measures for customer satisfaction.

3.5 Data Collection Methods

This section of the chapter presents the data collection tools and methods the study employed. Data for this study was collected by the use of structured questionnaires. Kothari (2009) refers to questionnaire as one of the most suitable research instrument to collect data due to its ability to collect large amount of data in a sensibly quick time. A questionnaire was preferable for this study because all respondents were quite literate and were able to respond to the questions adequately. The study had the same questionnaires for the operations and/or marketing manager, which had closed ended questions.

The questionnaires were divided into three sections. The first section was to find out the background information of the respondents while the second and third sections looked at the specific research objectives pertaining operation strategies and customer satisfaction respectively. Each item in the questionnaire was developed to address specific variables as per the objectives of the study. The research instrument was administered physically whereby the respondents were required to fill the questionnaire as the researcher waits. The respondent took less than 20 minutes to complete the questionnaire, however some managers were busy or out of office and the questionnaire was left behind and collected at an agreed time.

3.6 Validity & Reliability

The study conducted validity and reliability tests on the variables to measure usefulness and consistency as discussed below.

A pilot study was carried out on one of the automotive firm which enabled the researcher to fine tune the instrument to ensure objectivity and efficiency. The feedback from the pilot study pointed out on the complexity of the terms in use and the possibility of failure to get both the operations and marketing manager to answer the sections as per area of specialty. Corrections were done to ensure clarity, relevance and simplicity of terms, and the provision to have either the operations or marketing manager fill all the sections on the questionnaire.

To ensure content validity the researcher ensured meetings with the supervisor in order to make adjustments and/or additions to the research instruments as necessary. To ascertain construct validity, theory evidence was used to determine the similarity of behavior or responses to theoretical propositions of the construct measured in the instrument.

Reliability relates to the consistency of a measure (Heale & Twycross, 2015). To ensure reliability the researcher employed self-administration approach of data and reliability was measured using homogeneity approach. The Cronbach's α result is a number between 0 and 1 and an acceptable reliability score is one that is 0.7 and higher (Heale & Twycross, 2015).

Computation of Cronbach's Alpha was done using SPSS version 25.0. Correlation coefficient varies on a scale of 0.00 (indicating total unreliability) and 1.00 (indicating perfect reliability). Values ranging from 0.8 to 0.9 indicates high reliability, 0.6 to 0.8 indicates acceptable reliability, while values below 0.5 is unacceptable (Wambugu et al., 2015). The questionnaire was accepted at reliability indices of 0.822, 0.795, 0.710, 0.736, 0.788 for quality, cost reduction features, delivery speed, flexibility and innovation respectively as presented in Table 3.1 below. The scale combination had an Alpha of 0.77 which is above the threshold of 0.6 an indication that the instrument can be relied to provide accurate and reliable findings.

Table 3.1: Reliability Analysis

Variables	Cronbach's Alpha	Items
Quality	0.822	4
Cost Reduction Features	0.795	4
Delivery Speed	0.710	3
Flexibility	0.736	4
Innovation	0.788	5
Scale Combination	0.770	

Source: Researcher (2019)

3.7 Data Analysis

Data analysis was carried out using descriptive statistics, correlation and simple regression analysis. Data was verified, coded and checked for any errors and omissions. The collected data was analyzed using Statistical Packages of Social Sciences (SPSS) version 25.0. The analyzed data was presented in the form of frequency distribution, percentages, means and measure of dispersion. Bar graphs and pie charts were also used to present the findings of the study.

Correlation and regression models were used in the analysis of data. The relationship between influence of quality, cost reduction features, delivery speed, flexibility and innovation on customer satisfaction was measured using Pearson correlation. The statistical significance on existence of the relation between the independent variables (quality, cost reduction features, delivery speed, flexibility, and innovation) and the dependent variable (customer satisfaction) was tested using the linear regression analysis.

3.8 Ethical Considerations

The researcher issued participant consent letter and a research permit from National Commission for Science, Technology and Innovation (NACOSTI). Ethical approval was done by Strathmore University Ethical Review Board. All the approvals were presented to the prospective respondents. Written consent was sought from the operations and marketing managers of the automotive firms to indicate their willingness to participate.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

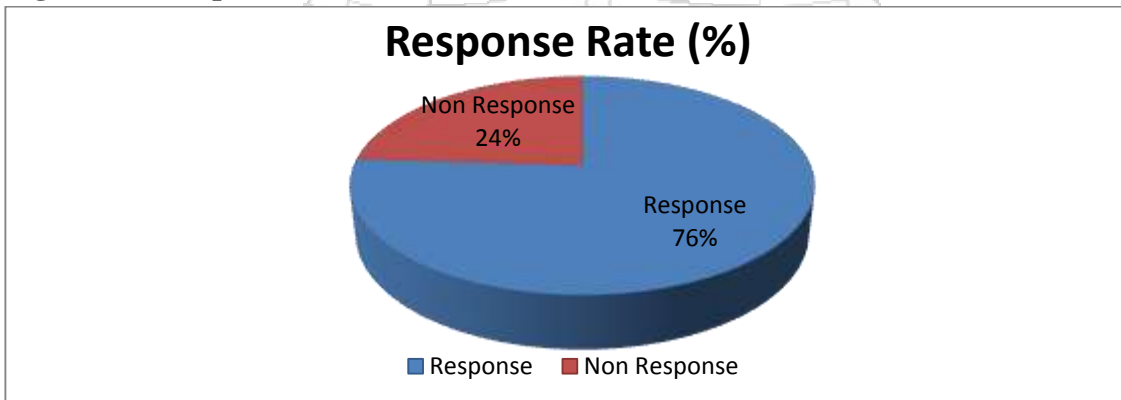
4.1 Introduction

In this chapter, data analysis and presentation of research findings was done in relation to the specific research objectives. The company and respondent's demographics which entailed company details as well as head of department details is presented in the first section. The findings on the influence of Quality, Cost reduction features, Delivery speed, Flexibility and innovations are presented in the second. The third and last section presents respondents' findings in relation to Customer satisfaction. A summary of the major findings is then presented at the end of this chapter.

4.2 Response Rate

The research was conducted by administering questionnaires to a sample size of 25 automotive component manufacturers in Nairobi County. Out of the 25 questionnaires distributed to the respondents, the researcher made numerous follow-ups and managed to collect 19 questionnaires which were duly filled and returned by the respondents. Recommendations by Kothari (2011) suggest that a 50% and above response rate is deemed sufficient for analysis therefore, the responses from data obtained was sufficient.

Figure 4.1: Response Rate



Source: Researcher (2019)

Figure 4.1 above presents a response rate of 76% which was considered adequate to properly conclude the study findings.

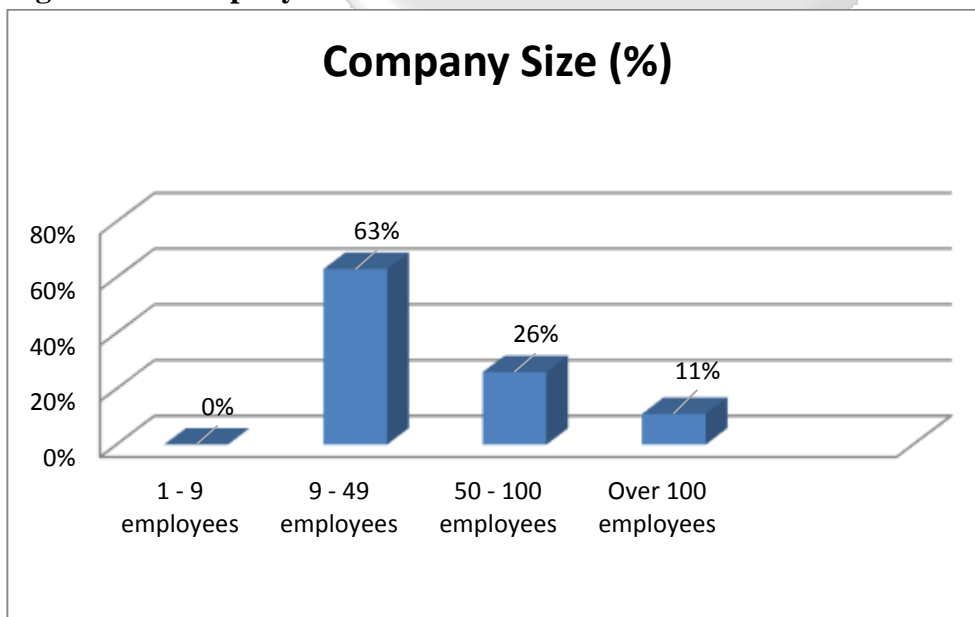
4.3 The Company's Demographic Information

The researcher sought the demographic or background information of the firms and presented the findings in this section. The items comprising the firm's demographic information include the Company size and Years of operation.

4.3.1 Company Size

The findings reveal that 63% of the respondents indicated that their companies have 9 – 49 employees, 26% indicated having between 50 – 100 employees, while 11% indicated having over 100 employees.

Figure 4.2: Company Size



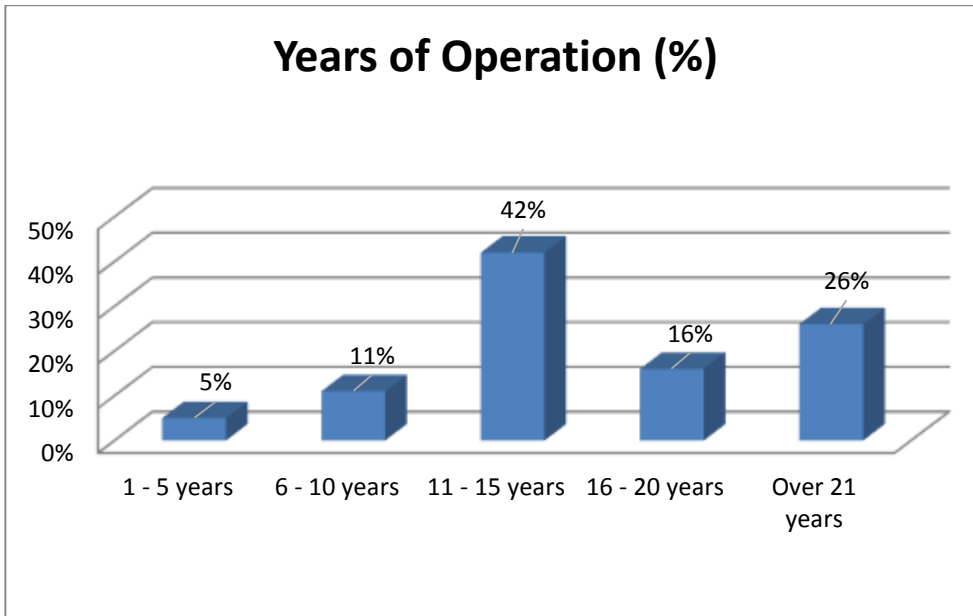
Source: Researcher (2019)

The distribution of respondents by size of the company in terms of number of employees is presented in Figure 4.2 above.

4.3.2 Number of Years of Operation

The findings indicated that 42% of the respondents revealed that their companies have been in business operation between 11-15 years, 26% indicated over 21 years of business operation, while 11% of the respondents indicated having been operational between 6 – 10 years.

Figure 4.3: Number of Years of Operation



Source: Researcher (2019)

The distribution of respondents by number of years of operation is highlighted in Figure 4.3 above.

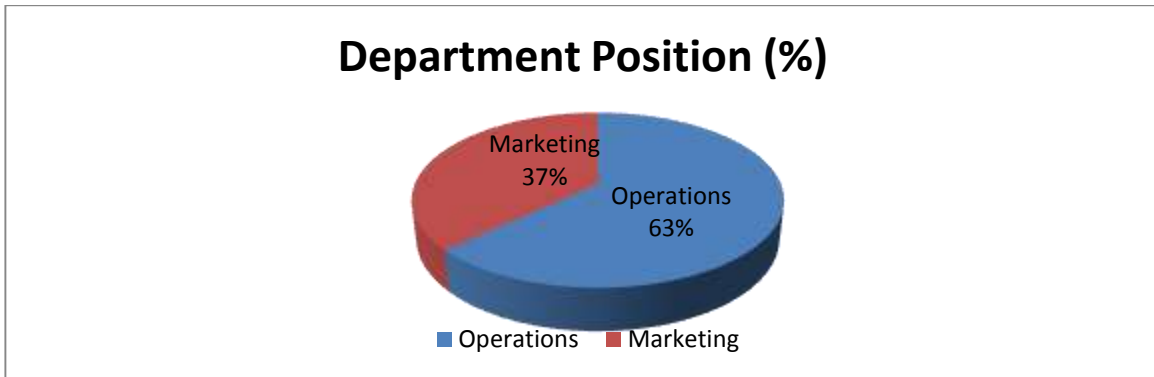
4.4 The Respondent's Demographic Information

The researcher then sought the demographic or background information of the respondents and presented the findings in this section. The items comprising the firm's demographic information include the Department position, Years of service and Education level.

4.4.1 Department Position

The study sought to identify which departmental positions the respondents represented in their respective companies. The findings presented indicated that 63% of the respondents hold positions in operations department, while 37% of the respondents indicated that they hold positions in the marketing department.

Figure 4.4: Department Position



Source: Researcher (2019)

Figure 4.4 above shows the distribution of respondents by departmental position.

4.4.2 Years of Service

The study sought to identify the number of years the respondents have served in their respective companies. Table 4.1 below presents the distribution of respondents by their years of service. The findings presented indicate that 58% of the respondents have worked in the company for 11 – 15 years, 16% have worked for 6 – 10 years and over 16 years respectively, while 10% of the respondents indicated that they have worked for 1 – 5 years.

Table 4.1: Years of Service

No. of Years	Frequency (N)	Percent (%)
1 – 5	2	10%
6 – 10	3	16%
11 – 15	11	58%
Over 16	3	16%
Total	19	100%

Source: Researcher (2019)

4.4.3 Education Level

The study sought to identify the level of education attained by the respondents. Table 4.2 below presents the distribution of respondents by their education level. The findings presented

reveal that 16% of the respondents have attained college education level, 10% have attained secondary level, while 5% of the respondents indicated that they have attained upto primary school level.

Table 4.2: Education Level

Level	Frequency (N)	Percent (%)
No formal education	0	0%
Primary School	1	5%
Secondary School	4	21%
College/University	14	74%
Total	19	100%

Source: Researcher (2019)

4.5 Quality and Customer Satisfaction

This section sought to determine the relationship between quality and customer satisfaction. Quality was measured by four items which include; product designs and service features attributable to the organization, accreditation by national/international bodies for standardization and auditing, quality control measures to avoid product defects and lastly, customer feedback systems.

4.5.1 Influence of Quality on Customer Satisfaction

This presented the frequency distribution of the respondent's extent of agreement or disagreement regarding the first study objective which is the influence of quality on customer satisfaction among automotive component manufacturers. The respondents were requested to answer the questions by indicating their opinion on the provided statements which were rated on a 6-point Likert scale. A computation of frequencies and percentages was conducted and the mean scores ranked. Mean scores of 3.5 and above ($M > 3.5$) denoted effectiveness of the study variable.

The descriptive analysis on Table 4.3 reveals that majority of the respondents felt that quality based on control measures carried out to avoid defects in products and ensure adherence to standard specifications had to a great extent influenced customer satisfaction ($M = 4.016$, $SD = 0.868$). Other respondents felt that quality based on systems that ensure customer

feedback in the design and process of products or service provision had influenced customer satisfaction to a very great extent (M= 4.073, SD=0.928). However, some respondents felt that quality based on accreditation by national bodies and quality audits carried out in the organization influenced customer satisfaction to a very small extent (M= 3.583, SD=1.044). Lastly, findings from respondents indicate that quality based on specific product designs and service features that can be defined or attributed to the organization influenced customer satisfaction to some extent (M= 3.618, SD=1.251).

Table 4.3: Quality and Customer Satisfaction Descriptive

Influence of Quality on Customer Satisfaction		1	2	3	4	5	6	Total	M	SD
There are specific product designs and service features that can be defined or attributed with my organization.	<i>f</i>	0	0	1	14	2	2	19	3.618	1.251
	%	-	-	5	73	11	11	100		
My firm is accredited by national or international bodies such International organization for standardization (ISO) and quality audits are carried out in the organization.	<i>f</i>	1	11	4	1	1	1	19	3.583	1.044
	%	5	58	21	5	5	5	100		
There are quality control measures carried out to avoid defects in products and ensure adherence to standard specifications.	<i>f</i>	0	0	1	3	13	2	19	4.016	0.868
	%	-	-	5	16	68	11	100		
There are systems that ensure customer feedback or involvement in the design and process of products or service provision	<i>f</i>	0	0	0	0	4	15	19	4.073	0.928
	%	-	-	-	-	21	79	100		

Source: Researcher (2019)

4.5.2 Relationship between Quality and Customer Satisfaction

The existence of relationship between quality and customer satisfaction among automotive component manufacturers was tested using the Pearson Correlation and regression analysis test. The findings are presented in Table 4.3

Table 4.4: Quality and Customer Satisfaction

Pearson Correlation				
Variables			Quality	
Customer Satisfaction r =19		Correlation	.611*	
		Sig. (2-tailed)	.000	
Coefficients				
	Unstandardized Coefficients		T	Sig
Model	B	Std. Error		
(Constant)	1.495	1.107	1.114	.000
Quality	.354	.061	3.322	.002
1	R Square		.801	
	R		.872 ^a	
*.Correlation is significant at 0.05 level (2-tailed)				
a. Predictors: (Constant), Quality				
b. Dependent Variable: Customer Satisfaction				

Source: Researcher (2019)

The correlation analysis results indicate that there is a statistically significant strong positive correlation between quality and customer satisfaction, $r(19) = 0.61, p < 0.05$.

The findings on the model summary indicate that quality explained about 80% of the variability on customer satisfaction, ($R^2 = 0.801, p < 0.05$) which is considered a good fit and the strength of the relationship ($R = 0.872$) thereby indicating that there exists a positive correlation between quality and customer satisfaction.

The results also signify that quality statistically and significantly predicted customer satisfaction recorded at 0.002. This means that a unit increase of quality would result to an increase in customer satisfaction by 0.354. Therefore, it can be concluded from the coefficients that the general form of the linear regression model equation is denoted as; Customer satisfaction = 1.495 + 0.354 Quality.

4.6 Cost Reduction Features and Customer Satisfaction

This section sought to establish the relationship between cost reduction features and customer satisfaction. Cost reduction features was measured by four items that entail; large volume production capability, accessibility of inexpensive raw materials, better management structure and lastly, customer involvement in costing metrics.

4.6.1 Influence of Cost Reduction Features on Customer Satisfaction

This section presents the frequency distribution of the respondent's extent of agreement or disagreement regarding the second study objective which is the influence of cost reduction features on customer satisfaction among automotive component manufacturers. The respondents were requested to answer the questions by indicating their opinion on the provided statements which were rated on a 6-point Likert scale. A computation of frequencies and percentages was conducted and the mean scores ranked. Mean scores of 3.5 and above ($M > 3.5$) denoted effectiveness of the study variable.

The descriptive analysis on Table 4.5 revealed that majority of the respondents felt that the ability of the firm to access inexpensive raw materials and leverage on providing products at low cost influenced customer satisfaction to some extent ($M = 3.710$, $SD = 0.974$). Other respondents felt that cost reduction based on firm having better management structure that enables the right utilization of resources and production capacities influenced customer satisfaction to a great extent ($M = 3.636$, $SD = 0.862$). However, some respondents felt that cost reduction features based on customer involvement in the costing metrics to ensure they understand why an item or service is priced as such influenced customer satisfaction to a very small extent ($M = 3.501$, $SD = 1.013$). Lastly, findings from respondents indicate that cost reduction features based on large volume production capability that allows for low cost production influenced customer satisfaction to great extent ($M = 3.662$, $SD = 0.892$).

Table 4.5: Cost Reduction Features and Customer Satisfaction Descriptive

Influence of Cost Reduction Features on Customer Satisfaction		1	2	3	4	5	6	Total	M	SD
There is large volume production capability that allows for low cost production.	<i>f</i>	0	0	2	3	9	5	19	3.662	0.892
	<i>%</i>	-	-	11	16	47	26	100		
The firm is able to access inexpensive raw materials and leverage on providing products at low cost.	<i>f</i>	1	1	0	10	3	2	19	3.710	0.974
	<i>%</i>	5	5	-	52	16	11	100		
The firm has better management structure that enables the right utilization of resources and production capacities.	<i>f</i>	0	0	1	3	13	2	19	3.636	0.862
	<i>%</i>	-	-	5	16	68	11	100		
The customer is involved in the costing metrics to ensure they understand why an item or service is priced as such.	<i>f</i>	2	6	4	3	2	2	19	3.501	1.013
	<i>%</i>	11	32	21	16	11	11	100		

Source: Researcher (2019)

4.6.2 Relationship between Cost Reduction Features and Customer Satisfaction

The existence of relationship between cost reduction features and customer satisfaction among automotive component manufacturers was tested using the Pearson Correlation and regression analysis test. The findings are presented in Table 4.6 below.

Table 4.6: Cost Reduction Features and Customer Satisfaction

Pearson Correlation				
Variables			Cost Reduction Features	
Customer Satisfaction r =19	Correlation		.634*	
	Sig. (2-tailed)		.000	
Coefficients				
	Unstandardized Coefficients		T	Sig
Model	B	Std. Error		
(Constant)	1.264	1.117	1.101	.000
Cost	.231	.051	3.477	.001
1	R Square		.762	
	R		.805 ^a	
*.Correlation is significant at 0.05 level (2-tailed)				
a. Predictors: (Constant), Cost Reduction Features				
b. Dependent Variable: Customer Satisfaction				

Source: Research (2019)

The results of the correlation analysis indicate that there exist a statistically significant strong positive correlation between cost reduction features and customer satisfaction, $r(19) = 0.63$, $p < 0.05$.

The findings on the model summary indicates that cost reduction features explained about 76% of the variability on customer satisfaction, ($R^2 = 0.762$, $p < 0.05$) which is considered a good fit and the strength of the relationship ($R = 0.805$) thereby indicating that there exists a positive correlation between cost reduction features and customer satisfaction.

According to the regression coefficients findings, there is a clear indication that cost reduction features statistically and significantly predicted customer satisfaction recorded at 0.001 This means that a unit increase of cost reduction features would result to an increase in customer satisfaction by 0.231. Therefore, it can be concluded from the coefficients that the general form of the linear regression model equation is denoted as; Customer satisfaction = $1.264 + 0.231$ Cost reduction features.

4.7 Delivery Speed and Customer Satisfaction

This section sought to establish the relationship between delivery speed and customer satisfaction. Delivery speed was measured by the following items; fast delivery and time tracking measures for customer orders and complaints, delivery of customer requests and orders within required time frame and lastly, customer complaints related to delayed deliveries or prolong production lead time.

4.7.1 Influence of Cost Reduction Features on Customer Satisfaction

This section presents the frequency distribution of the respondent's extent of agreement or disagreement regarding the third study objective which is the influence of delivery speed on customer satisfaction among automotive component manufacturers. The respondents were requested to answer the questions by indicating their opinion on the provided statements which were rated on a 6-point Likert scale. A computation of frequencies and percentages was conducted and the mean scores ranked. Mean scores of 3.5 and above ($M > 3.5$) denoted effectiveness of the study variable.

The descriptive analysis on Table 4.7 below, reveals that majority of the respondents felt that delivery speed based on the measures put in place to ensure fast deliveries and time tracking

for customer orders and response for complaints influenced customer satisfaction to a great extent (M= 4.128, SD=0.817). Other respondents felt that delivery speed based on customer requests and orders that are delivered within the required time frame or within the indicated period influenced customer satisfaction to a very great extent (M= 4.401, SD=0.650). However, some respondents felt that customer's complaints related to delayed deliveries or prolong production lead time influenced customer satisfaction to very extents (M= 3.715, SD=1.080).

Table 4.7: Delivery Speed and Customer Satisfaction Descriptive

Influence of Delivery Speed on Customer Satisfaction		1	2	3	4	5	6	Total	M	SD
There are measures put in place to ensure fast deliveries and time tracking for customer orders and response for complaints.	<i>f</i>	0	1	1	1	12	4	19	4.128	0.817
	<i>%</i>	-	5	5	5	63	21	100		
My firm ensure customer requests and orders are delivered within the required time frame or within the indicated period.	<i>f</i>	0	0	0	3	5	11	19	4.401	0.650
	<i>%</i>	-	-	-	16	26	58	100		
There are customer's complaints related to delayed deliveries or prolong production lead time.	<i>f</i>	2	13	2	1	1	0	19	3.715	1.080
	<i>%</i>	11%	68	11	5	5	-	100		

Source: Researcher (2019)

4.7.2 Relationship between Delivery Speed and Customer Satisfaction

The existence of relationship between delivery speed and customer satisfaction among automotive component manufacturers was tested using the Pearson Correlation test. The findings presented are presented in Table 4.8 below.

Table 4.8: Delivery Speed and Customer Satisfaction

Pearson Correlation				
Variables			Quality	
Customer Satisfaction		Correlation	.763*	
r =19		Sig. (2-tailed)	.000	
Coefficients				
Model	Unstandardized Coefficients		T	Sig
	B	Std. Error		
(Constant)	1.543	1.099	1.005	.000
Delivery	.389	.055	2.427	.003
1	R Square		.774	
	R		.781 ^a	
*.Correlation is significant at 0.05 level (2-tailed)				
a. Predictors: (Constant), Delivery Speed				
b. Dependent Variable: Customer Satisfaction				

Source: Researcher (2019)

The Correlation test findings presented indicate that there existed a statistically significant strong positive correlation between delivery speed and customer satisfaction, $r(19) = 0.76$, $p < 0.05$.

The result of the regression model summary indicates that delivery speed explained about 77% of the variability on customer satisfaction, ($R^2 = 0.774$, $p < 0.05$) which is considered a good fit and the strength of the relationship ($R = 0.781$) thereby indicating that there exists a positive correlation between delivery speed and customer satisfaction.

According to the regression coefficient findings, there is a clear indication that delivery speed statistically and significantly predicted customer satisfaction recorded at 0.003 which is less than the p-value of 0.05. This means that a unit increase of delivery speed would result to an increase in customer satisfaction by 0.389. Therefore, it can be concluded from the coefficients that the general form of the linear regression model equation is denoted as; Customer satisfaction = 1.543 + 0.389 Delivery speed.

4.8 Flexibility and Customer Satisfaction

This section sought to establish the relationship between flexibility and customer satisfaction. Flexibility was measured by the following items; capability of customizing wide variety of products and services according to customers' requirements, capability of adjusting capacity in provision of products depending on demand, measures for rapid volume changes in production and lastly meeting customer requirements in terms of product variety, customization and volume.

4.8.1 Influence of Flexibility on Customer Satisfaction

This section presents the frequency distribution of the respondent's extent of agreement or disagreement regarding the fourth study objective which is the influence of flexibility on customer satisfaction among automotive component manufacturers. The respondents were requested to answer the questions by indicating their opinion on the provided statements which were rated on a 6-point Likert scale. A computation of frequencies and percentages was conducted and the mean scores ranked. Mean scores of 3.5 and above ($M > 3.5$) denoted effectiveness of the study variable.

The descriptive analysis on Table 4.9 below reveals that majority of the respondents felt that flexibility based on firms capability in offering wide product variety as well as product and services customization had to a great extent influenced customer satisfaction ($M = 3.964$, $SD = 0.838$). Other respondents felt that flexibility based on the firms capability of adjusting capacity in provision of products or services depending on demand influenced customer satisfaction to a very great extent ($M = 4.021$, $SD = 0.967$). However, some respondents felt that flexibility based on measures put in place to ensure ability of the firm to make rapid volume changes in production influenced customer satisfaction to a small extent ($M = 3.640$, $SD = 0.907$). Lastly, findings from respondents indicate that flexibility based on firms ability to meeting customer requirements in terms of product variety, customization and volume influenced customer satisfaction to great extent ($M = 3.772$, $SD = 1.051$).

Table 4.9: Flexibility and Customer Satisfaction Descriptive

Influence of Flexibility on Customer Satisfaction		1	2	3	4	5	6	Total	M	SD
My firm offers a wide variety of products or has the capability to customize products and services according to the customer's requirement.	<i>f</i>	0	0	0	3	11	5	19	3.964	0.838
	%	-	-	-	16	58	26	100		
My firm is capable of adjusting capacity in provision of products or services depending on demand.	<i>f</i>	0	0	0	1	4	14	19	4.021	0.967
	%	-	-	-	5	21	74	100		
There are measures in place that ensures the firm is able to make rapid volume changes in production.	<i>f</i>	0	0	9	2	6	2	19	3.640	0.907
	%	-	-	47	11	32	11	100		
Customer requirements are met in terms of variety products, customization and volume.	<i>f</i>	0	1	1	1	8	8	19	3.772	1.051
	%	-	5	5	5	42	42	100		

Source: Researcher (2019)

4.8.2 Relationship between Flexibility on Customer Satisfaction

The existence of relationship between flexibility and customer satisfaction among automotive component manufacturers was tested using the Pearson Correlation test. The findings are presented in Table 4.10.

Table 4.10: Flexibility and Customer Satisfaction

Pearson Correlation				
Variables			Quality	
Customer Satisfaction r =19	Correlation		.650*	
	Sig. (2-tailed)		.000	
Coefficients				
	Unstandardized Coefficients		T	Sig
Model	B	Std. Error		
(Constant)	1.665	1.107	1.226	.000
Flexibility	.293	.061	2.554	.004
1	R Square		.822	
	R		.817 ^a	
*.Correlation is significant at 0.05 level (2-tailed)				
a. Predictors: (Constant), Flexibility				
b. Dependent Variable: Customer Satisfaction				

Source: Researcher (2019)

The Correlation test findings are indicate that there existed a statistically significant positive correlation between flexibility and customer satisfaction, $r(19) = 0.65, p < 0.05$.

The result of the simple regression model summary indicates that flexibility explained about 82% of the variability on customer satisfaction, ($R^2 = 0.822, p < 0.05$) which is considered a good fit and the strength of the relationship ($R = 0.817$) thereby indicating that there exists a positive correlation between flexibility and customer satisfaction.

The test on significance of individual variables shows a clear indication that flexibility statistically and significantly predicted customer satisfaction recorded at 0.004 which is less than the p-value of 0.05. This means that a unit increase of flexibility would result to an increase in customer satisfaction by 0.293. Therefore, it can be concluded from the coefficients that the general form of the linear regression model equation is denoted as; Customer satisfaction = $1.665 + 0.293$ Flexibility.

4.9 Innovation and Customer Satisfaction

This section sought to determine the relationship between innovation and customer satisfaction. Innovation was measured by the following items; upgraded standards that help in effective planning, coordinating and controlling the firms processes, use of specific systems or tools to ensure information accuracy, annual assessment and implementation of improvement standards and lastly, easier communication and data retrieval systems.

4.9.1 Influence of Innovation on Customer Satisfaction

This section presents the frequency distribution of the respondent's extent of agreement or disagreement regarding the fifth and last study objective which is the influence of innovation on customer satisfaction among automotive component manufacturers. The respondents were requested to answer the questions by indicating their opinion on the provided statements which were rated on a 6-point Likert scale. A computation of frequencies and percentages was conducted and the mean scores ranked. Mean scores of 3.5 and above ($M > 3.5$) denoted effectiveness of the study variable.

The descriptive analysis on Table 4.11 below reveals that 47% of the respondents felt that innovation based on upgrading standards that help in effective planning, coordinating and

controlling to some extent influenced customer satisfaction (M= 3.788, SD=0.966). Other respondents felt that innovation based on use of specific tools or systems to ensure information accuracy and quick responsiveness to resolve work related issues had influenced customer satisfaction to some small extent (M= 3.691, SD=1.877). However, some respondents felt that presence of easier communication and data retrieval systems that ensure easier feedback to customers enquiries influenced customer satisfaction to great extent (M= 3.874, SD=0.085).

Table 4.11: Innovation and Customer Satisfaction Descriptive

Influence of Innovation on Customer Satisfaction		1	2	3	4	5	6	Total	M	SD
We have upgraded standards that help in effective planning, coordinating and controlling the processes of the firm	<i>f</i>	1	2	2	9	3	2	19	3.788	0.966
	<i>%</i>	5	11	11	47	16	11	100		
The firm uses specific tools or systems to ensure information accuracy and quick responsiveness to resolve work related issues.	<i>f</i>	5	2	6	4	1	1	19	3.691	1.877
	<i>%</i>	26	11	32	21	5	5	100		
Continuous improvement standards are assessed annually and implemented to avoid obsolete procedures and processes in the firm.	<i>f</i>	2	2	5	4	3	3	19	3.540	1.807
	<i>%</i>	11	11	26	21	16	16	100		
We have easier communication and data retrieval systems that ensure easier feedback to customer's enquiries.	<i>f</i>	4	1	6	1	7	0	19	3.874	0.085
	<i>%</i>	21	5	32	5	37	-	100		

Source: Researcher (2019)



4.9.2 Relationship between Innovation and Customer Satisfaction

The existence of relationship between innovation and customer satisfaction among automotive component manufacturers was tested using the Pearson Correlation test. The findings are presented in Table 4.12

Table 4.12: Innovation and Customer Satisfaction

Pearson Correlation				
Variables			Quality	
Customer Satisfaction r =19	Correlation		.833*	
	Sig. (2-tailed)		.000	
Coefficients				
	Unstandardized Coefficients		T	Sig
Model	B	Std. Error		
(Constant)	1.522	1.224	1.552	.000
Innovation	.413	.059	3.289	.005
1	R Square		.731	
	R		.822 ^a	
*.Correlation is significant at 0.05 level (2-tailed)				
a. Predictors: (Constant), Innovation				
b. Dependent Variable: Customer Satisfaction				

Source: Researcher (2019)

The Correlation test results indicate that there existed a statistically significant strong positive correlation between quality and customer satisfaction, $r(19) = 0.833, p < 0.05$

The result of simple regression model summary indicates that innovation explained about 73% of the variability on customer satisfaction, ($R^2 = 0.731, p < 0.05$) which is considered a good fit and the strength of the relationship ($R = 0.822$) thereby indicating that there exists a positive correlation between innovation and customer satisfaction.

The significance of individual variables results that innovation statistically and significantly predicted customer satisfaction recorded at 0.005 which is less than the p-value of 0.05. This means that a unit increase of innovation would result to an increase in customer satisfaction by 0.413. Therefore, it can be concluded from the coefficients that the general form of the linear regression model equation is denoted as; Customer satisfaction = 1.522 + 0.413 Innovation.

4.10 Overall Analysis of Operations Strategies and Customer Satisfaction

The descriptive analysis sought to establish the level of implementation of operations strategies while the correlation test sought to determine the strength of the relationship

between operation strategies and customer satisfaction. The results of these tests are indicated in table 4.13

Table 4.13: Summary of Descriptive and Regression Analysis

Operations Strategies		Mean	Standard Deviation	
Delivery Speed		4.081	0.849	
Flexibility		3.849	0.941	
Quality		3.823	1.023	
Innovation		3.723	1.184	
Cost Reduction Features		3.627	0.676	
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819 ^a	.778	.060	1.63512
a. Predictors: (Constant), Quality, Cost Reduction Features, Delivery Speed, Flexibility, Innovation b. Dependent Variable: Customer Satisfaction * $p < 0.05$				

Source: Researcher (2019)

The findings of the descriptive test indicate that the most commonly applied strategies are delivery speed and flexibility with mean scores of 4.081 and 3.849 respectively, while innovation and cost reduction features as least with mean scores of 3.723 and 3.627 respectively.

The result of the regression model summary indicates that Quality, Cost Reduction Features, Delivery Speed, Flexibility and Innovation explained about 77.8% of the variability on customer satisfaction, ($R^2 = 0.778$, $p < 0.05$) which is considered a good fit and the strength of the relationship ($R = 0.819$) thereby indicating positive correlation between operations strategies (Quality, Cost Reduction Features, Delivery Speed, Flexibility, Innovation) and customer satisfaction.

CHAPTER FOUR

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter highlights a summary of the study that contains discussion, conclusions and recommendations for further studies based on the specific study objectives. The research findings revolved around the specific objectives which included; the influence of quality on customer satisfaction, the influence of cost reduction features on customer satisfaction, the influence of delivery speed on customer satisfaction, the influence of flexibility on customer satisfaction and lastly, the influence of innovation on customer satisfaction.

5.2 Discussion of Findings

The research was guided by five specific objectives which included; to determine the influence of quality on customer satisfaction, to establish the influence of cost reduction features on customer satisfaction in, to establish the influence of delivery speed on customer satisfaction, to establish the influence of flexibility on customer satisfaction in and lastly, to establish the influence of innovation on customer satisfaction in automotive component manufacturers in Nairobi County.

The study obtained a high response rate, which was considered adequate for analysis of this study. Findings indicated that majority of the respondents had worked in the company for more than five years, indicating work experience sufficient to provide detailed information for this study. In addition to the findings, majority of the respondents had attained college education level therefore this was considered enough for the respondents to provide vast knowledge regarding the level of application of the operations strategies and their influence on customer satisfaction. It was further noted that majority of the respondents held positions in operations and marketing departments indicating solid information regarding the variables that were understood and taken into account. In this regard, the study findings obtained seem to be in agreement with those findings conducted by other scholars.

5.2.1 Relationship between Quality and Customer Satisfaction

In broad view, product quality is the ability of a product to meet or rather exceeds the expectations of customers (Jacobs & Chase, 2018). In today's competitive environment,

quality is paramount to the success and survival of an organization. The study highlighted that there are quality control measures carried out to avoid defects in products, however there are minimal adherence to standard specifications as the firms are not accredited by National or International bodies for standardization and quality audits. Quality is a complex and multifaceted concept that strongly impacts customer satisfaction; hence the study highlighted cases of low standard products due to lack of customer involvement in provision of products. This research finding agree with a study by Sharma and Chaubey (2014) who acknowledged that in order to continuously improve process performance by meeting standardized specifications to avoid product defects, the customer must be placed at the focal point of operations. In addition, findings from the study as revealed by respondents strongly indicated that there are minimal systems for customer feedback or involvement in the design and process of products or service provision. This study supports the findings of Islam (2014) which found that use of proper communication channels and systems ensures that greater responsiveness is achieved thereby improving performance processes of products and services offered by firms.

5.2.2 Relationship between Cost Reduction Features and Customer Satisfaction

The study highlighted that there is minimal volume production capability that allows for low cost production as indicated by the respondents. This study supports the findings by So (2000) who acknowledged that price and timely delivery are important factors for success of meeting a customer's expectation and since delivery time performance generally depends on the available capacity and operating efficiency of an organization, a firm might need to increase the capacity or improve the efficiency of its delivery system in order to achieve the desired time performance. This in turn positively affects the satisfaction of customers. In addition, findings from the study indicated that firms are unable to access inexpensive raw materials and therefore unable leverage on providing products at low cost. The research findings agree with the study by KAM (2018) that the inadequate supply of raw materials to manufacturing companies and the high cost of energy results in high operational costs, lowers the profit margin and therefore firms are unable to sustain low pricing in their products.

5.2.3 Relationship between Delivery Speed and Customer Satisfaction

The study highlighted that there are measures put in place to ensure fast deliveries and time tracking for customer orders and responsiveness for customer complaints. The findings agreed with a study by Kivite (2015) who found that by measuring the extent to which perceived waiting time period matches customers' expectations for a specific transaction, it has been found that long waiting time negatively affects customers' satisfaction and post-sale judgment. Another indication from the research highlighted that the firms ensure that customer requests and orders are delivered within the required time frame or within the indicated period. This study supports the findings by Lenahan (2006) who found that scheduled delays caused by unexpected downtime in turnaround projects can result in significant financial losses due to the loss of production capability or rework/repair costs. This may thereby negatively affect customer satisfaction.

5.2.4 Relationship between Flexibility and Customer Satisfaction

The study highlighted that the firms offers a wide variety of products or has the capability to customize products and services according to the customer's requirement. This finding agrees with a study by Gunasekaran, Lai & Cheng (2008) who found that flexible information architecture regarding product customization that supports decentralized collaborative processes is essential, for visibility and collaboration. These are considered the key to advances in the development of flexibility in an organization and ultimate customer satisfaction.

From the research findings component manufacturers have made flexibility practices a priority in order to meet the dynamic and ever changing requirements of the automotive market. The capability to customize and rapidly change capacity depending on demand is an anticipated requirement in these firms and an after sought service by customers.

5.2.5 Relationship between Innovation and Customer Satisfaction

The study highlighted that there are minimal continuous improvement standards and sometimes there are obsolete procedures and processes in the firm, as most of the documentation is done manually. The findings of the study are in agreement by the survey done by KAM (2018) which concluded that the acquisition of required technology for machine tools manufacture and spare parts is greatly limited by high cost of finance and its

poor access, and lack of formal training facilities especially for small scale operators. With minimal data retrieval systems, communication is flawed, difficult to track feedback on customer's enquiries and managers have little opportunities for improvement in these firms. Bayraktar et al. (2007) further found that there is need to facilitate technology development and promote innovation in order to raise incomes, create employment in meet the dynamic needs of customers as technological advancement ensures information accuracy and quick responsiveness to resolve work related issues.

5.3 Conclusion

The study concluded that automotive firms are facing challenges in making choices on the operations strategies to implement. These firms lack the capacity to implement strategies cumulatively and therefore have to make a choice on the specific operations strategies to focus or implement. The conclusion is indicative of the fact that despite innovation having a higher influence on customer satisfaction, it is the least implemented strategies amongst the studied strategies. that there is need for automotive component manufacturers in Nairobi to improve on their operational strategies in order to keep abreast with the competitive automotive market environment.

It is noted in the study that component manufacturers in Nairobi have managed to adopt operations strategies pertaining delivery speed by ensuring customer requests and orders are delivered within the required time frame or within the indicated period. In addition, these firms have measures put in place to ensure fast deliveries and time tracing or customer orders and response or complaints. These firms have ensured that delivery speed is constantly being achieved by ensuring there is minimal customer complaints related to delayed deliveries and this has ensure customer satisfaction.

The firms have adopted strategies on flexibility by adjusting capacity in provision of products and services depending on demand. The firms offer a wide range of products with the capability to customize products and services according to customer requirements.

The research in addition concludes that innovation and delivery speed have a stronger positive connection with customer satisfaction, while cost reduction features and quality have positive minimal connection.

5.4 Recommendations

The researcher recommends proper channel of information, regulation and knowledge management of the operations strategies among automotive component manufacturers to ensure despite the constraints faced by these firms, they are able to prioritize on strategies that have a higher optimal effect on customer requirements and expectations.

The study recommends the need for automotive component manufacturers to be accredited by national or international bodies such International organization for standardization (ISO) as well as ensure quality audits are carried out in the organization.

The study recommends the importance of automotive component manufacturers to form better management structure that enables the right utilization of resources and production capacities. This will ensure that there is proper work flow and communication across departments to ensure efficiency of operational processes.

The study recommends that continuous improvement standards should be assessed annually and implemented to avoid obsolete procedures and processes in the firm. There is need for automotive component manufacturers to upgrade standards that help in effective planning, coordinating and controlling the processes of the firm.

5.5 Limitation of the Study

The findings of this study were limited to automotive component manufacturers in Nairobi County. This limits the use of study findings on operations strategies to other sectors because the operations strategies discussed here may not necessarily influence customer satisfaction of firms in the other sectors.

5.6 Areas for Further Studies

This study focused solely on automotive component manufacturers in Nairobi. The study suggests that further research should be conducted on other sectors other than automotive such as leather and footwear, food and beverages or paper and board sectors in addressing operational strategies issues and the impact on other firm performance metrics.

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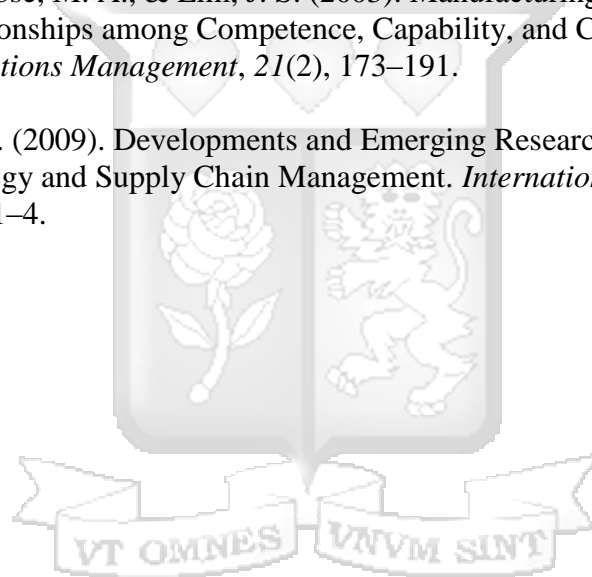
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APPENDICES

APPENDIX I: INTRODUCTION LETTER TO THE RESPONDENTS

Glory Mugambi
P.O Box 137 - 60300,
Isiolo, Kenya

To The Operations or Marketing Manager,

.....

Nairobi, Kenya

RE: REQUEST FOR DATA COLLECTION FOR ACADEMIC RESEARCH PROJECT

I am a student at Strathmore University Business School currently undertaking a research study to fulfill the requirements of the Award of Master of Business Administration. This research study is titled: **The Influence of Operations Strategies on Customer Satisfaction among Automotive Component Manufactures in Nairobi County**. Your willingness to participate in this research is highly appreciated.

The main purpose the study is for academic requirements only, data shared will be treated with utmost confidentiality. The findings of the study will be made available upon request.

Thank you in advance for your co-operation.

Yours Faithfully,

Glory Mugambi
0723937323

APPENDIX II: PARTICIPANT INFORMATION AND CONSENT FORM

RESEARCH TOPIC:

The Influence of Operations Strategies on Customer Satisfaction among Automotive Component Manufacturers in Nairobi County.

SECTION 1: INFORMATION SHEET

Investigator: Glory Kajuju Mugambi

Institutional affiliation: Strathmore Business School (SBS)

SECTION 2: INFORMATION SHEET–THE STUDY

: Why is this study being carried out?

With the need for development and creating more quality value for the customer and cutting down production cost, the study will be beneficial to manufacturing firms in gaining more insights on the value of streamlining operations and focusing on generating positive customer experiences.

: Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire to get information on operations strategies employed in the firm and their influence on customer satisfaction. If you are not able to answer all the questions successfully the first time, you may be asked to sit through another informational session after which you may be asked to answer the questions a second time. You are free to decline to take part in the study from this study at any time without giving any reasons.

: Who is eligible to take part in this study?

- Senior Managers in the operations management position
- Marketing managers

: Who is not eligible to take part in this study?

Individuals or employees who are not in the above mentioned positions and individuals under the age of 18 years are not eligible

: What will taking part in this study involve for me?

Your voluntary signed consent on this form and completion of the questionnaire.

: Are there any risks or dangers in taking part in this study?

There are no risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

: Are there any benefits of taking part in this study?

The information will be used to improve the operations of the firm, enable build and retain customers by ensuring the firm focuses on the requirements of the clients.

: What will happen to me if I refuse to take part in this study?

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

: Who will have access to my information during this research?

All research records will be stored in securely locked cabinets. That information may be transcribed into our database but this will be sufficiently encrypted and password protected. Only the people who are closely concerned with this study will have access to your information. All your information will be kept confidential.

: Who can I contact in case I have further questions?

You can contact me, Ms Glory K. Mugambi, at SBS, or by e-mail glory.mugambi@strathmore.edu or by phone 0733937323/0723937323. You can also contact my supervisor, Dr. Everlyne Makhanu, at the Strathmore Business School, Nairobi, or by e-mail emakhanu@strathmore.edu or by phone 0722672473

If you want to ask someone independent anything about this research please contact:

The Secretary–Strathmore University Institutional Ethics Review Board, P. O. BOX 59857, 00200, Nairobi, email ethicsreview@strathmore.edu Tel number: +254 703 034 375

I, _____, have had the study explained to me. I have understood all that I have read and have had explained to me and had my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you;

Participation in the research study

I AGREE to take part in this research

DO NOT AGREE to take part in this research

Storage of information on the completed questionnaire

AGREE to have my completed questionnaire stored for future data analysis

DON'T AGREE to have my completed questionnaire stored for future data analysis

Date: / /

Participant's Signature:

_____ *DD / MM / YEAR*

Participant's Name:

_____ Time: /
(Please print name) *HR / MN*

I, Ms Glory K. Mugambi certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that s/he has understood the nature and the purpose of the study and consents to the participation in the study. S/he has been given opportunity to ask questions which have been answered satisfactorily.

Investigator's Signature: _____ Date: / /
DD / MM / YEAR

Investigator's Name:

Glory K. Mugambi _____ Time: /
HR / MN

APPENDIX III: STRATHMORE UNIVERSITY ETHICAL APPROVAL



1st April 2019

GLORY KAJUJU MUGAMBI
P.O BOX 137-60300
ISIOLO-KENYA.
Email: glorymugambi@gmail.com

Dear Glory,

REF **Protocol ID:** SU-IERC0357/19 **Student Number:** 100292

THE INFLUENCE OF OPERATIONS STRATEGIES ON CUSTOMER SATISFACTION AMONG SMALL AUTOMOTIVE COMPONENT MANUFACTURERS IN NAIROBI COUNTY

We acknowledge receipt of your application documents to the Strathmore University Institutional Ethics Review Committee (SU-IERC) which includes:

1. Study Protocol submitted 14 March 2019
2. Cover letter listing all submitted documents 14 March 2019
3. Proposal declaration page signed by supervisors 14 March 2019

The committee has reviewed your application, and your study "THE INFLUENCE OF OPERATIONS STRATEGIES ON CUSTOMER SATISFACTION AMONG SMALL AUTOMOTIVE COMPONENT MANUFACTURERS IN NAIROBI COUNTY," has been granted approval.

This approval is valid for one year beginning **1st April 2019** until **1st April 2020**

In case the study extends beyond one year, you are required to seek an extension of the Ethics approval prior to its expiry. You are required to submit any proposed changes to this proposal to SU-IERC for review and approval prior to implementation of any change.

SU-IERC should be notified when your study is complete.

Thank you

Sincerely,

Prof. Florence Oloo
Secretary
Strathmore University Institutional Ethics Review Committee



APPENDIX IV: NACOSTI PERMIT

<p>THIS IS TO CERTIFY THAT: MISS. GLORY KAJUJU MUGAMBI of STRATHMORE UNIVERSITY BUSINESS SCHOOL, 0-60300 ISIOLO, has been permitted to conduct research in Nairobi County</p> <p>on the topic: THE INFLUENCE OF OPERATIONS STRATEGIES ON CUSTOMER SATISFACTION AMONG SMALL AUTOMOTIVE COMPONENT MANUFACTURERS IN NAIROBI COUNTY</p> <p>for the period ending: 3rd May, 2020</p> <p> Applicant's Signature</p>	<p>Permit No : NACOSTI/P/19/43400/29354 Date Of Issue : 0th May, 2019 Fee Received :Ksh 1000</p> <p></p> <p> Director General National Commission for Science, Technology & Innovation</p>
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<p align="center">THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013</p> <p>The Grant of Research License is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.</p> <p>CONDITIONS</p> <ol style="list-style-type: none"> 1. The License is valid for the proposed research, location and specified period. 2. The License and any rights thereunder are non-transferable. 3. The Licensee shall inform the County Governor before commencement of the research. 4. Excavation, digging and collection of specimens are subject to further necessary clearance from relevant Government Agencies. 5. The License does not give authority to transfer research materials. 6. NACOSTI may monitor and evaluate the licensed research project. 7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research. 8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice. <p>National Commission for Science, Technology and Innovation P.O. Box 39623 - 00100, Nairobi, Kenya TEL: 020 496 7000, 0713 756797, 0718 042149 Email: info@nacosti.go.ke, registry@nacosti.go.ke Website: www.nacosti.go.ke</p>	<p align="center"> REPUBLIC OF KENYA</p> <hr/> <p align="center"></p> <p align="center">National Commission for Science, Technology and Innovation</p> <p align="center">RESEARCH LICENSE</p> <p align="center">Serial No. A 24479</p> <p align="center">CONDITIONS: see back page</p>
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APPENDIX V: QUESTIONNAIRE

SECTION A: BACKGROUND INFORMATION

Kindly answer the following questions by ticking () in the boxes and/or filling the spaces.

Company Details

A1. Company Name:

A2. What is the company size?

<input type="checkbox"/>	1-9 employees	<input type="checkbox"/>	9-49 employees
<input type="checkbox"/>	50-100 employees	<input type="checkbox"/>	Over 100 employees

A3. How long has the firm been in operation?

<input type="checkbox"/>	1-5 Years	<input type="checkbox"/>	16-20 Years
<input type="checkbox"/>	6-10 Years	<input type="checkbox"/>	Over 21 Years
<input type="checkbox"/>	11-15 Years		

Head of Department Details

A4. What is your department in the firm?

<input type="checkbox"/>	Operations department	<input type="checkbox"/>	Marketing department
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A5. How long have you been with the company?

<input type="checkbox"/>	1-5 Years	<input type="checkbox"/>	11-15 Years
<input type="checkbox"/>	6-10 Years	<input type="checkbox"/>	Over 16 Years

A6. What is your highest level of education?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No formal education	Primary School	Secondary School	College/University

SECTION B: Operations Strategies Adopted by the Manufacturing Firm.

Kindly indicate by ticking (√) the extent of your agreement on how the following Operations Strategies have applied in your firm. On a Scale of 1-5 where, 1= Does not exist, 2= Very small extent, 3= Small extent, 4= Some extent, 5= Great extent, 6=Very great extent.

	1. Quality	1	2	3	4	5	6
B(i)	There are specific product designs and service features that can be defined or attributed with my organization.						
B(ii)	My firm is accredited by national or international bodies such International organization for standardization (ISO) and quality audits are carried out in the organization.						
B(iii)	There are quality control measures carried out to avoid defects in products and ensure adherence to standard specifications.						
B(iv)	There are systems that ensure customer feedback or involvement in the design and process of products or service provision						
2. Cost Reduction Features							
B(i)	There is large volume production capability that allows for low cost production.						
B(ii)	The firm is able to access inexpensive raw materials and leverage on providing products at low cost.						
B(iii)	The firm has better management structure that enables the right utilization of resources and production capacities.						

B(iv)	The customer is involved in the costing metrics to ensure they understand why an item or service is priced as such.						
3. Delivery Speed							
B(i)	There are measures put in place to ensure fast deliveries and time tracking for customer orders and response for complaints.						
B(ii)	My firm ensure customer requests and orders are delivered within the required time frame or within the indicated period.						
B(iii)	There are customer's complaints related to delayed deliveries or prolong production lead time.						
4. Flexibility							
B(i)	My firm offers a wide variety of products or has the capability to customize products and services according to the customer's requirement.						
B(ii)	My firm is capable of adjusting capacity in provision of products or services depending on demand.						
B(iii)	There are measures in place that ensures the firm is able to make rapid volume changes in production.						
B(iv)	Customer requirements are met in terms of variety products, customization and volume.						
5. Innovations							
B(i)	We have upgraded standards that help in effective planning, coordinating and controlling the processes of the firm						
B(ii)	The firm uses specific tools or systems to ensure information accuracy and quick responsiveness to resolve work related issues.						

B(iii)	Continuous improvement standards are assessed annually and implemented to avoid obsolete procedures and processes in the firm.						
B(iv)	We have easier communication and data retrieval systems that ensure easier feedback to customer's enquiries.						

SECTION C: Customer Satisfaction

Kindly indicate by ticking (√) the extent of your agreement on how Customer Satisfaction is achieved in your firm. On a Scale of 1-5 where, 1= Does not exist, 2= Very small extent, 3= Small extent, 4= Some extent, 5= Great extent, 6=Very great extent.

Customer Satisfaction		1	2	3	4	5	6
C(i)	Customer feedback is undertaken for all the sales done in the firm to ensure satisfactory services and products.						
C(ii)	Our customers commend us for setting quick response procedures to ensure short turn-around time for services						
C(iii)	We ensure support and after-sale services for the products supplied.						
C(iv)	We provide a friendly environment for all customer interactions and transactions.						
C(v)	We provide all automotive customization requirements and spares under one roof.						

THANK YOU FOR YOUR COOPERATION!!!

**APPENDIX VI: LIST OF AUTOMOTIVE COMPONENT MANUFACTURERS
REGISTERED WITH KENYA ASSOCIATION OF MANUFACTURERS (KAM)**

1. Auto Ancillaries Ltd
2. Auto Industries Ltd
3. BMG Holdings Ltd
4. Choda Fabricators Ltd
5. Chui Autosprings Industries Ltd
6. Cica Motors
7. Dodi Autotech K ltd
8. Impala Glass Industries Ltd
9. Kenyon Ltd
10. King-Bird K Ltd
11. King Finn K Ltd
12. Kibo Africa Ltd
13. Mash East Africa
14. Master Fabricators Ltd
15. Megh Cushion Industries Ltd
16. Mutsimoto Motor Co. Ltd
17. Pipe Manufacturers Ltd
18. Plateau Motors Ltd
19. Rockey Africa Ltd
20. Ruidu Kenya Co Ltd
21. Sohansons Ltd
22. Soraya Motor Spares
23. Theevan Enterprises Ltd
24. Unifilters Kenya Ltd
25. Varsani Brake Lining Ltd



APPENDIX VII: TURNITIN PLAGIARISM REPORT

The influence of Operations Strategies on Customer Satisfaction among Automotive Component Manufacturers in Nairobi County

ORIGINALITY REPORT

20% SIMILARITY INDEX	8% INTERNET SOURCES	5% PUBLICATIONS	17% STUDENT PAPERS
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TOP SIMILARITY SOURCES

1	Submitted to Kenyatta University <small>Student Paper</small>	2%
2	Submitted to Midlands State University <small>Student Paper</small>	1%
3	Submitted to University of Nairobi <small>Student Paper</small>	1%
4	Submitted to Mount Kenya University <small>Student Paper</small>	1%
5	Submitted to Anglia Ruskin University <small>Student Paper</small>	1%
6	Submitted to CVC Nigeria Consortium <small>Student Paper</small>	1%
7	Submitted to Sunway Education Group <small>Student Paper</small>	1%
8	Submitted to University of Hull <small>Student Paper</small>	1%
9	erepository.uonbi.ac.ke:8080 <small>Internet Source</small>	<1%
10	eprints.usq.edu.au <small>Internet Source</small>	<1%
11	www.tips.org.za <small>Internet Source</small>	<1%
12	Submitted to Laureate Higher Education Group <small>Student Paper</small>	<1%
13	Kut C. So. "Price and Time Competition for Service Delivery", Manufacturing & Service	<1%