

**OPERATIONS STRATEGIES AND PERFORMANCE OF
NATIONAL TRANSPORT AND SAFETY AUTHORITY MOTOR
VEHICLE INSPECTION CENTERS, KENYA**

BY

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DECLARATION

I hereby declare that this Research Project Report is my original work and has not been submitted in any University.

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Date.....

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D61/73187/2014

This research project has been submitted for examination with my approval as the university supervisor

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May the Almighty God bless you all.

DEDICATION

I dedicate this research project to my loving wife Quinter. Both the physical and moral support you offered me was instrumental to the success of this project.

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ABBREVIATIONS AND ACRONYMS

5FS:	Five Focusing Steps
KENHA:	Kenya National Highway Authority
KERRA:	Kenya Rural Roads Authority
KURA:	Kenya Urban Roads Authority
NTSA:	National Transport Safety Authority
OTIF:	On Time In Full
RBV:	Resource Based View
ROCE:	Return on Capital Employed
SPSS:	Statistical Package for the Social Sciences
TOC:	Theory of Constraints
VIC:	Vehicle Inspection Center
WHO:	World Health Organization

ABSTRACT

The objective of study was to investigate the effects of operation strategies on the performance of NTSA, Motor vehicle inspection centers in Kenya. The study adopted cross-sectional descriptive survey design. The target population 18 motor vehicle inspection center managers and 18 assistant center managers in the 18 inspection centers in Kenya. The study collected primary data through use of a questionnaire which will have both closed and open-ended questions. The questionnaire which was administered by the researcher through drop and pick later method. The data collected was first edited, coded, and entered into software (SPSS version 20) which also aided in the data analysis. Both descriptive and inferential statistics were adopted for the study. The qualitative data was generated from the open ended questions and was categorized in themes in accordance with research objectives and reported in narrative form along with quantitative presentation. The quantitative data was analyzed using descriptive statistics which included frequency distribution tables and measures of central tendency (the mean), measures of variability (standard deviation) and measures of relative frequencies. The inferential statistics included a correlation analysis which established the relationship between variables. Data was presented using tables, charts and graphs. The study found out that quality driven operations strategy, dependability-driven operations strategy, speed driven operations strategy and flexibility driven operations strategy had been adopted in the Motor vehicle inspection centers. Adoption of these operational strategies had been prompted by the need to: improve operations processes; improve efficiency at the; increase capacity; and need to improve quality of the services offered at the inspection centers. The operational strategies had improved operational efficiency, enhanced the quality of services, increased the capacity, and improved customer's satisfaction at the inspection centers. The study concludes that the implementation of operational strategies influenced performance of NTSA, Motor vehicle inspection centers in Kenya. The study recommends for continued improvements in terms of increased use of technology, enhancing speed and capacity at the centers in order to increase compliance with the traffic laws.

CHAPTER ONE: INTRODUCTION

1.1 Background

In the current day's market place that is global, highly competitive and internet-based, it is imperative that organizations have a clearly outlined plan geared towards the achievement of their goals. In the recent past, there has been interest on the impacts of operation management activities on the overall performance of the service industry. According to Prajogo & Goh (2005), this recognition lays emphasis on questions of where and how operation-management activities influence the performance of firms in the service industry. Operations strategy encompasses strategic actions which formulates the goals of an operation (Slack et al., 2010); also, it entails fulfilling the customers' needs by the operation management so as to satisfy them (Lewis & Slack,2003).

For an organization to be competitive, it should enact and execute procedures that guarantee lower production costs, quality products, efficient service delivery, and flexibility in adapting to new products and processes (Arnas, Lopes De Sousa Jabbour & Saltorato, 2013). An organization strategy entails how the firm wants to succeed and survive in a certain environment within a long period of time (Barnes, 2008). A Company can excel in its operations if it offers its products at reduced price, produces high-quality goods, delivers its products fast to consumers, exercises reliable delivery, and adopts innovativeness (Barnes, 2008). Operations strategy entails the patterns of strategic decisions which establishes objectives and activities of operations (Slack, Chambers & Johnson, 2010).Strategies related to processes such as cost reduction and adherence to regulations enhances the firm's performance (Letangule & Letting, 2012).

This study was anchored on the Theory of Constraints and Resource Based View theory. Theory of Constraints brings out the idea that in any system there is at least one weakest point or bottlenecks. These constraints are the main obstacles preventing companies from achieving their aims of increasing profits (Coman & Ronen, 1994). Constraints restrict output and when properly identified and managed, they provide the fastest route to significant improvements and form the bedrock of continuous growth (Dettmer, 1997). Resource Based View (RBV) states that a firm's performance relies on a combination of both tangible and intangible assets (Barney, Wright, & Ketchen, 2001). Pearce and Robinson (2007) opine that each organization derives its competences from its resources to attain competitive advantage. With reference to this theory, the resources available play a very big role in influencing organization's process of strategy implementation. It is vital to bear in mind that without the essential resources for implementation, a strategy will remain in the planning stages.

NTSA was created in the year 2012, as the lead agency in coordination and enforcement of road safety issues in order to minimize the loss of lives through road crashes. The authority has a duty of providing of a safe, reliable and efficient road transport service. It also plans, manage and regulate the road transport sector in accordance to the NTSA act of 2012. In exercising its mandate, the authority has created seven directorates to deal with specific roles and to support its core functions. These directorates are Registration and Licensing, Road safety, Motor vehicle Inspection, Internal audit, Legal, corporate services and Information, communication and Technology. All these functions were previously performed by different government agencies, and therefore NTSA currently consolidates all road transport activities under one roof (NTSA act, 2012).

1.1.1 Operation Strategies

Operation strategy is the actions that determine the permanent strategies and abilities of the firm through market demands with resources set aside for the same activities (Slack & Lewis, 2002). The specific market needs have to be addressed for the organization to be able to meet these market demands, Operations strategy can also be viewed as the process of developing a long-term plan of how to utilize their major resources available while ensuring compatibility with the organization's long-term strategy (Hayes et al., 2005).

For an organization to succeed, its operation practices must be guided by its business objectives. Womack (2006) argues that a firm's strategic guidelines are dependent on two things - what ought to be done to satisfy clients and activities for survival and prosperity. Operations strategy constitutes of policies and objectives that explain how the firm intends to utilize the resources allocated for the operation department to achieve its objectives (Hayes, Upton, & Pisano 2008).

Strategy can be regarded to exist at three levels in an institution. At first, there happens to be corporate level strategy that is deemed to be the highest. It gives direction to the entire organization at large. In case an organization entails above one unit of business, corporate level strategy shall consider what the businesses are supposed to be, how allocation of resources will be done say cash, the management of the relationships created by the units of business and the corporate. Organizations are likely to lay out the strategies they want to apply in either vision statement form or a corporate mission (Slack & Lewis, 2002).

Secondly, Business level strategy follows which is basically involved in how a certain type of a unit in business is supposed to compete with others in that industry as well as what its objectives and aims are supposed to be. According to the organization's strategy and how the units of business and the corporate centre relate, a unit of business strategy might be limited by inadequate or no resources or limitations brought on board by the centre.

The functional level strategy comes third: It deals with the functions individually (marketing, operations, finance, etc.) They examine how much every single function impacts on the business strategy, what should compose the strategic objectives and how the management of the resources available is supposed to be conducted to achieve the desired goals (Hill, 1993).

Slack et al. (2004) argue that there are five operations performance objectives namely; low cost production, quality, speed, dependability and flexibility (Innovativeness). An organization might not excel in all the objectives; therefore, it is advisable for a firm to select the goals likely to help it succeed in its strategy (Barnes,2008). Operations strategy constitutes of four views—bottom-up, top-down, market requirements, and operation resources (Lewis & Slack, 2003). Operations strategy helps to accomplish the needs of business strategy, and assists the firm in incorporating customers' needs into operations capabilities (Beckman & Rosenfield, 2008). Operations strategy could be established through the company's competitive advantages (Kaviani et al., 2014). Slack and Lewis (2011) opine that strategies connect a firm's resources to the needs of the market. Kaviani et al. (2011) argue that the formulation of operations strategy is dependent on two critical views –resource based view and market based view.

Low cost production translates to selling of products and services at lower prices hence enhancing customer satisfaction (Slack et al., 2010). The success of an operation can be measured using productivity, the ratio of operation output to the ratio of operation input. Kaviani et al. (2014) argue that efficient cost management encompasses carrying out tasks in an inexpensive manner to produce goods that can be sold at prices favorable to customers. This is a plan which the company uses to create the cheapest product in the market. It is characterized by investing prudently in production equipment, conservation of scarce resources, and keen controlling on costs of operation (Birjandi, 2012). Porter (1985) argued that cost leaders ought to control costs effectively, avoid incurring a lot of expenses on innovation and marketing, and minimize prices when disposing their products.

Quality refers to the creation of excellent goods and services that meet or exceed the expectation of clients (Goetsch and Davis, 2010). A product/ service that meet the specifications can be regarded as a quality item (Crosby, 1979). Quality is thus a relative to use than as a general characteristic and high-quality product lives up to the expectation of customers.

Speed refers to the time it takes for the customer to request and receive the products (Slack, Chambers and Johnson, 2010). The speed of delivery is very vital because the faster the customers receive the service, the more likely they will buy or pay for it. The external customers are likely to get excellent services if the operation management exercises speedy decision making and fast service delivery (Slack, Chambers and Johnson, 2010).

Dependability encompasses carrying out tasks in a timely manner, and meeting any promises given to customers (Kaviani et al., 2014). It means serving customers in

time or delivering goods and services to them as per the promises (Slack et al., 2010). Customers prefer reliable organizations, and a dependable company is likely perform more than the undependable one.

Innovativeness entails research and development, the introduction of new products in the market, and technological leadership (Covin & Wales, 2012). Products innovation encompasses the production of new products which are totally new or have unique attributes to the existing ones in the market. Process innovation entails coming up with the new process of producing goods. Firms which implement innovative activities are likely to have a significant improvement in production and market performance (Gunday, Ulusoy, Kilic, & Alpkan, 2011). Product innovation which involves either product replacement or repositioning contributes to the organization's profitability (Letangule & Letting, 2012).

An effective operations strategy ought to enhance the competitive advantage of an organization on the basis of its resources (Kaviani, Abbasi, Yusefi, & Zareinejad, 2014). By having an effective operations strategy, a firm can offer quality services, attain a higher reputation, and achieve higher productivities in terms of sales and profits (Bosire and Owuor, 2018). This study will adopt the quality, dependability, Flexibility and speed strategy dimensions.

1.1.2 Organization Performance

According to Lusch and Laczniak (1989), performance is the sum of economic outcomes arising from activities pursued by an institution, and it is measured by comparing the actual outcomes and the intended outcomes. Organization achievement is the ability of a business to attain its objectives (Ricardo & Wade, 2001). Song et al. (2007) opine that business performance entails the use of both financial (sales, return

on assets, profits) and non-financial measures (market effectiveness, customer orientation, customer service, etc.). The current study focuses on non-financial measures. This study will also adopt the use of scales to evaluate performance since it is widely-accepted as the best practice by extant literature (Choi,Poon,&Omega,2008; Morales, Barrionuevo, & Gutierrez,2012).

Voorde, Paauwe &Veldhoven (2012) argue that effective employee management in regard to happiness and relationship significantly affect organizational performance. Organizational success is measured using accounting indicators such as cash flows, profits, and financial market indicators related to investor value (Morgan,2012). According to Ricardo (2001), performance measures may include result-oriented behavior, normative measures, training, management development, and many more. Argues that subjective examination of performance measures have been used to evaluate organizational effectiveness and employee satisfaction (Abu-Jarad, Yusof, & Nikbin, 2010).

Relevance measures how many the activities by a certain project suit the policies or priorities set by the receivers of that project, donors and even the target group. Some of the questions key in measuring relevance includes asking whether the set goals by the project do satisfy what the beneficiaries need and as well if those outcomes and activities involved in the project align to the goals of that organization. Effectiveness examines how much the set objectives of a certain program are reached at. Impact measures the changes resulting from the project whether positive or negative. This entails expected effects or unexpected ones and also the direct effects and negative ones. Efficiency examines whether the project uses less costs by comparing the input expenses and the output so as to reach results desired. Sustainability measures if

profits resulting from the business have a probability of continuity even after the business is closed (Chandes et al., 2010)

In this research, strategic actions such as change in capacity, efficiency, Change in number of compliance and customer satisfaction was used to gauge the level of performance of the NTSA Motor vehicle inspection Centers.

1.1.3 National Transport Safety Authority (NTSA)

NTSA is a national organization under the Ministry of Transport and Infrastructure created by the NTSA Act (2012) to enhance sanity to Kenyan roads. Hence NTSA is meant to bring together the functions of Licensing and inspection of motor vehicles, Registration of Motor Vehicles, Driver Testing, and Road Safety and to a certain degree, Traffic Law enforcement. Previously, these functions were executed by separate government agencies. The authority, in exercising its mandate, has developed strategies that should lead to a drop in road carnage that Kenya experiences today (NTSA, 2012).

This road carnage negatively impacts the Kenyan economy. Since attaining independence in the year 1963, Kenya has seen an increase in road accidents related deaths from 548 back in 1963 to 4,702 in 2014 (WHO, 2014). In 51 years that is a 643% increase. This is even more unfortunate as the crashes are not by accident but via well recognizable and modifiable risk factors. The agency has the mandate to reduce road fatalities and injuries as well as economic damages resulting from road crashes that Kenya experiences today through the application of various strategies that are within their mandate. However, given the gravity of their functions, complexity of strategies and cost, there should be a mechanism put in place to decide whether the strategies are necessary and whether they lead to performance of the agency.

1.2 Research Problem

Operations Strategies comprise of a wide range of policies and plans which ought to be incorporated with overall business strategy to enhance business performance (Jacobs & Chase, 2008). Operations strategy is vital because it facilitates the fulfillment of customers' needs hence satisfying them. These strategies therefore are laid out and communicated in advance to all employees, and therefore act as motivating instrument as the employees understand what the management strategy is and how it affects what they do on daily basis. The companies executives has to manage the operation programs in a way that empowers the individual employees to take to take over strategic objectives, monitor the progress towards expected outcomes and measure performance in a way that clearly identifies the problems and the areas of growth.

Road Transport services constitute a key component of Kenya's service sector in both their contribution to the country's employment and income generation and their role in external trade, especially at the regional level. The Kenya economy is dependent on roads and road transport. Good infrastructure facilitates trade, economic development and improvement in the quality of life, especially in Kenya where roads carry over 80 per cent of passenger transport. Roads are one of the modes of transport of people and goods and are used to interconnect other modes as well as provide access to basic social services. National Transport safety Authority was created by an act of parliament in the year 2012 to help in harmonizing the functions of the key road transport departments under one roof, and help in effectively managing the road transport sub sector with the aim of minimizing the loss of lives through road crashes (NTSA, 2012).

Terer (2015) in his study of perceived effect of operational strategies on performance of weighbridges in Kenya ,concluded that the implementation of operational strategies on weighbridges in Kenya had improved operational efficiency in terms of the time taken to weigh one truck at the weighbridges; enhanced the quality of services provided at the weighbridges; had increased the capacity of the weighbridges; increased the revenue collected in the weighbridges due to increased compliance and improved customers satisfaction.

Wambua (2014) in his study on Operations strategy and performance of Mobile phone service providers in Kenya concluded that cost, quality, flexibility and speed of provision of services affected business performance to a great extent. Bosibori (2012) in her study on Operations strategies in Kenya Airlines concluded that those Airlines that had a clearly defined operations strategy that was well implemented had a competitive advantage over those that did not. She recommended studies on the effective applications of operations strategies in other sectors in Kenya. Ngelese (2016) in his study of operation strategies and customer retention in insurance industry in Kenya concluded that Operation contributes to overall success of the firm through attraction and retention of customer..

The above studies made attempts to establish the link between operations strategies and the performance of firms in Kenya. However, the researcher did not come across a study that looked at operations strategies and performance of NTSA, Kenya and more so to its Motor vehicle inspection directorate. This study will therefore make a modest attempt to fill this identified gap.

The roads act of 2007 enacted has come up with three different agencies KENHA, KURA and KERRA in charge of roads management. NTSA whose vision is geared

towards sustainable, safe road transport system with zero crashes has been instrumental in the efforts to reduce road accidents and is responsible for registration, Inspections, licensing and road safety. The motor vehicle inspections directorate of NTSA is tasked to ensure that all vehicles on the Kenyan roads are roadworthy, safe and are in good mechanical status. The research sought to answer these research questions: What are the operations strategies that have been adopted by the NTSA? What are the challenges affecting the operation strategies adopted by NTSA, Motor vehicle inspection centers, Kenya? What is the effect of these strategies on performance of NTSA motor vehicle inspection, Kenya?

1.3 Research Objectives

The following were the highlights of the research objectives.

1.3.1 General Objective

The general objective of this study was to investigate the effects of operation strategies on the performance of NTSA.

1.3.2 Specific Objectives

- i. To find out the operation strategies employed by NTSA Motor vehicle inspection centers, Kenya.
- ii. To assess the challenges affecting the operation strategies adopted by NTSA Motor vehicle inspection centers, Kenya.
- iii. To establish the relationship between operations strategy and performance of NTSA motor vehicle inspection centers, Kenya.

1.4 Value of the Study

The primary aim of NTSA is to effectively manage the road transport sub sector in order to prevent injuries and save lives by reducing the severity and number of collisions across the road network. The results of this research will help various institutions and academicians. To begin with, the findings will be vital to NTSA and other government agencies charged with the task of ensuring safety on the Kenyan roads, to strategize their efforts and processes to guarantee successful implementation of these strategies. In addition, the present study will be significant to national policy makers as it will seek to investigate the link between various operation strategies relevant to the management of road transport in Kenya.

The study will also be of significance to transport operators, both private and public and insurance firms. The study would add knowledge to the existing body of literature on operation strategies on the performance of NTSA motor vehicle inspection centers, Kenya and open up areas for further research for academicians and researchers. The study would also be act as a reference for future researchers and academia on related topics and therefore it will be of help to other researchers who undertake the same topic of study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter highlighted the theories anchoring the study, empirical reviews, and the conceptual framework on operations strategies on performance of NTSA Motor vehicle inspection centers, Kenya. The theoretical review section got an overview on the theories used in the current research; while empirical review delves into the existing literature regarding the topic under study.

2.2 Theoretical Review

This segment discussed theories attributed by other scholars and authors that critically inform the study. This study was guided by the Resource-Based View theory and Theory of Constraints (TOC).

2.2.1 Resource-Based View Theory (RBVT)

The RBVT was developed by Birge Wernerfelt in 1984. This approach can be used in identifying and analyzing an organization's strategic advantage based on its unique combination of capabilities, intangible assets, and skills (Barney, Wright, & Ketchen, 2001). The Research Based View Theory's primary ideology is that organizations vary in major aspects as each of them own a different combination of both intangible and tangible organizational capabilities and assets. According to (Pearce & Robinson, 2007), each organization cultivates competences from these resources and when developed exceptionally well, they become the organization's competitive advantage. With reference to this theory, the resources available play a very big role in influencing organization's process of strategy implementation. It is essential to note

that without the essential resources for implementation, a strategy will remain in the planning stages.

Hart (1995), states that, although the process of using resources and capabilities for strategic purposes creates short-term competitive advantage, the more vital element to sustainable competitive advantage is the match between external changing conditions and internal capabilities. He argues that while organizations are committed to current competency bases, they may end up in a state of isomorphism in where they are not able to adapt to changes in external circumstances. Therefore, the competencies that were once an advantage for the organization are now obsolete and of no strategic significance to the organization. Hart (1995) concludes that organizations will face a lot of disadvantages if their resources do not match the natural environment which has a growing importance. He insists that organizational theorists and strategists must begin to understand the impact of environmentally oriented capabilities and resources can produce in gaining sustainable competitive advantage.

As an institution, NTSA depends on its resources to be more competitive; therefore its performance is determined by nature of its resources. These resources are assumed to be heterogeneous and immobile, and in addition, are regarded as valuable, unique, non-imitable, and no-substitutable and therefore can sustain competitive advantage.

2.2.2 Theory of Constraints

Theory of constraints is management philosophy focusing on the weakest rings in the chain to improve the performance of the system. The constraint (the most important limiting factor) is methodologically identified, that which prohibits the achievement of a goal and then systematically improving that constrain until it is no longer the limiting

factor. Theory of constraints therefore systematically focuses efforts, energy and attention on the system constraint. This constraint or bottleneck restricts the output of the entire system and at the same time represents the primary leverage point of improving it (Dettmer, 1997).

Constraints restrict output and when they are identified and managed properly, they provide the fastest road to great improvements and they form the major blocks of continuous growth. If constraints are ignored, they can stay idle, squandering large amounts of capacity. The constraints that moves beyond control are likely to wreck destabilize delivery schedules and cause unpredictable delays (Coman & Ronen, 1994). Theory of constraint means identifying the constraints and managing them resulting in On Time In-Full (OTIF) delivery to customers, eliminating of stock- outs across the supply chain, better control over operations and far less firefighting, reduced cycle times and therefore inventories, rapid response culture and fewer chronic conflicts between team members, exposing additional production capacity without any investment and higher net profit, ROCE and free cash flow (Dettmer, 1997)..

The working process of implementing theory of constraints concept consists of the five focusing steps (5FS) called the process of ongoing improvements. Step one involves identification of the systems constraint, step two is deciding how to exploit the systems constraint, step three is subordinating everything to the above decision, step four is elevating the constraint, step five if in any of the previous steps a constraint is broken , go back to step one(Goldratt & Cox, 1992). The goal of every organization is profit maximization today and in the future. And in order to achieve this goal, the output of an operating system should be increased while reducing its inventory and

operating expenses .Therefore, the performance of any system is limited by the rate of output at the systems constraint, and identifying the systems constraint as the weakest link of the chain and eliminating it is the main idea behind theory of constraints (Coman & Ronen, 1994).

The theory of constraints was applicable to this study since it focuses on continuous systems improvement by dealing with the constraints. NTSA, in its endeavor to fulfill its mandate, continues to face challenges both internal and external. It has to continuously identify the weakest link in its chain in and eliminate it in order to improve on performance of the entire system of the Authority.

2.3 Operation Strategies and Performance

Mill et al. (2002) opine that operations strategy is the process of adding value to customers that is taken on by the organizations through conversion of resources to final services and products. Whether planning, market, customer approach or planning, operations strategy is based on resources available. The primary purpose of operation strategies is to incorporate the activities, processes, and capabilities of the firm with the business strategy by ensuring the operations management facilitates that strategy (Burgelman et al. 2008, de Meyer & Loch 2008). The past studies have described the operations strategy idea as a series of actions and decisions focused on supporting the strategic goals set up by the business unit. These operations ought to be compatible with the organizational needs by ensuring there is consistency between the business's policies, competitive advantage and capabilities (Adam and Swamidass, 1989; Wheelwright, 1984).

According to Lusch and Laczniak (1989), performance is the sum of economic outcomes arising from activities pursued by an institution, and it is measured by comparing the actual outcomes and the intended outcomes. According to Chamber (2004), operations strategy is closely connected to competitive advantage. Competitive advantages refer to the unique resources which are difficult to copy (Kaviani et al., 2014). The company's competitive advantages (performance objectives) include cost, quality, speed, flexibility, and dependability (Slack & Lewis, 2011). The performance goals are used to analyze and categorize the performance of an organization.

The development of Product and service is intended to effectively serve the needs of existing customers in the market. Once the innovative products enter the market, there are high chances for the firm's performance to improve since such goods face limited competition. An organization should put in place a strategy to design, innovate, and add value to its products and services (Slack, Chambers, & Johnston, 2010). A company should purpose being a leader in introducing new products into the market and the creation of such products should be continuous. An organization should be flexible in serving its customers by continuously altering the timing or quantity of products and services (Slack et al., 2010).

The strategy literature has made a proposal of a link between how a firm performs and its strategy. The notion which exists that performance of a firm is supported by strategy has been taken up for research by majority of researchers (Prajogo and Sohal, 2006). A number of them have tested individual sides of strategy on how a firm performs (White, 1996). A strategy whose quality is high is likely to attain quality of conformance and high designs that will result to a good reputation, cutting down of

costs as well as increased productivity which would result to an increase in the growth of sales.

Wangui (2013) in his study on the operation strategy and performance in the hotel industry, in Nairobi Kenya, concluded that the operation strategy positively impacted performance in the Hotel industry. And that almost all the hotels sampled applied the operation strategies under study. She recommended that the operation departments should be enhanced in Hotels as they are the key drivers of performance in any organization. The study used descriptive research design of survey type.

Mungai (2014) , in his study of Operations strategies and project performance of Japan International corporation Agency funded projects in Kenya, in his findings presented, showed that there is positive effects of operation strategies on project performance. And with successful implementation of such projects, there is high chance of project sustenance he concluded that the project' success is no longer found on the products and services an organization is offering alone but in those imitable characteristics of an organization such as policies and operational strategies that will differentiate and give an organization the required competitiveness.

A strategy that costs less results to improvements in how efficient a firm can cut down on its price and at the same time enjoy a rise in the growth of sales. A company which employs a strategy that enables it to attain volume of sales while maintaining costs at a low rate and keeping the quality of its products high is capable of adjusting at a faster rate to the changes occurring in that market. Finally, a company that delivers in time and is reliable can highly expect that its customers are getting satisfied, and would result to rapid growth of sales and the share in the market (Prajogo and Sohal, 2006).

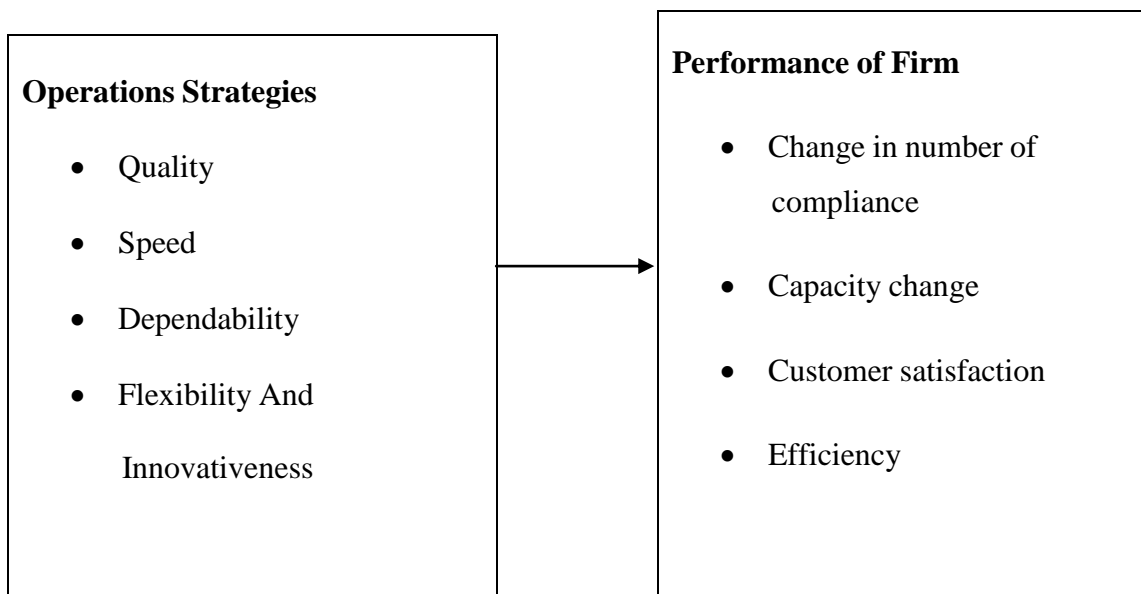
2.4 Conceptual Model

The conceptual Model (Figure 2.1) shows the various constructs and parameters that the researcher used in performing statistical analysis of the data was collected so as to determine the effects of independent variables on dependent variable and to ensure that the set objectives are met. The independent variables were Operation strategies with operation performance objectives of service quality, speed of delivery, dependability and Flexibility (Innovativeness); the dependent variable was the performance of NTSA Motor vehicle inspection centers, Kenya.

Figure 2. 1: Conceptual Model

Independent variable

Dependent variable



SOURCE: Author, 2019

CHAPTER THREE: RESEARCH METHODOLOGY

3.0. Introduction

This chapter discussed the method employed in finding answers for the questions of research. The methodology of this followed in this order; research design, target population, methods of data collection and analysis.

3.1. Research Design

The study deployed descriptive survey research design. Descriptive research design is applicable in reporting the way things are (O. Mugenda & Mugenda, 1999). Pinsonneault and Kraemer (1993) refer to survey as a method of putting together information on opinions, characteristics or actions of a big population of people. Surveys are also employed to determine needs, assess the impact and determine the demand (Salant & Dillman, 1994). Surveys have the power to obtain information from a population through large samples. The research employed face to face interviews. Questionnaires were also included which were open and close ended.

3.2. Study Population

Study population comprised of the total number of elements that were being researched (Kothari, 2008). The study targeted the managers in the 18 NTSA Motor vehicle Inspection Centres in Kenya. According to NTSA (2014), there are 18 motor vehicle Inspections centres with approximately 18 Motor vehicle inspection centre managers and 18 assistant motor vehicle inspectors.

The census study approach was used due the involvement of a small population. A census study is appropriate when dealing with a small population whose elements are distinct from one another (Cooper & Schindler, 2007). Therefore, the researcher

adopted a census method; hence the sample size was 36 respondents (18 Inspection center managers and 18 assistant motor vehicle inspectors).

3.4. Data Collection

The study used a semi-structured questionnaire to collect data. The study also attempted to collect data from 18 NTSA Motor Vehicle Inspection center managers and 18 Assistant center Managers from the 18 inspection centers across Kenya. The close ended questionnaire entailed questions which allowed certain type of responses whereas for open ended ones respondents had the freedom to respond the way they wanted. In administering questionnaires, drop and pick later criteria was used but as well one can send them via the email. The participants had adequate time to answer the questions and the answered questionnaires were collected on the collapse of 3 days.

3.5. Data Analysis

Completed questionnaires were edited to ensure that they are complete and consistent. Data analysis was done via SPSS. Descriptive statistics such as mean scores, standard deviations, frequencies and percentages were used to explain the variables. Kothari (2004) opines that descriptive statics are essential in summarizing the survey data. Regression analysis was done to determine the level of significance between the operational strategies and performance of NTSA Motor Vehicle inspection Centers. The performance indicators were; increased compliance, increased operational efficiency, increased capacity and increased customer satisfaction. To establish the relationship between operation strategy and performance of NTSA Motor vehicle inspection centers, Kenya, a frequency table was used to show the score for each category in the rating scale. The percentage of the score for every factor described the

performance of each factor from the total observation. The researcher presented the results using frequency tables, graphs, and charts. A multiple regression model was used, of the form;

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + \varepsilon$$

Where; Y- Is the dependent variable (Performance)

B_0 – is the constant

B_{1-n} - are the regression coefficients or change induced in Y by each in X

X_{1-n} –are the independent variables (Quality, Flexibility, Dependability and speed)

ε - is the error

CHAPTER FOUR: DATA ANALYSIS AND FINDINGS

4.1 Introduction

The results of the data analysis and corresponding findings are presented in this chapter. It starts by presenting a summary of the demographic information of the respondents. It then presents an analysis of the study variables. Finally Inferential Analysis is used to determine whether the independent variables listed together predict the dependent variable business performance. All questionnaires returned by the respondents were usable for data analysis. The research findings were presented in form of tables.

4.2 Response Rate

The researcher issued 36 questionnaires to the sampled population who included motor vehicle center managers and their assistants and assistant managers. The 34 questionnaires were filled and returned in time for data analysis representing 94.4% of the total sample size. According to Mugenda and Mugenda (2003), 50.0 percent response rate is adequate, 60.0 percent good and above 70.0 percent rated very well. This response rate was satisfactory and representative to make conclusions for the study. This excellent response rate can be attributed mainly to the good access of the targeted respondents within the motor vehicle inspection centers. Table 4.1 shows the response rate of the study.

Table 4. 1: Response rate

Response rate	Frequency	Percentage
Response	34	94.4
Non response	2	5.6
Total	36	100

Source: Research Data (2019)

4.3 Respondent profile

The study sought on the respondent profile that included the position held in the organization and gender of the respondent. The finding is summarised in table 4.2

Table 4.2: Respondent profile

		Frequency	Percentage
Position held in organization	Motor Vehicle Center Managers	16	47.1
	Motor Vehicle Assistant Center Managers	18	52.9
	Total	34	100.0
	Gender of the respondent		
	Male	21	61.8
	Female	13	38.2
	Total	34	100.0

Source: Research Data (2019)

The finding of the study in table 4.2 indicated that 47.1% (16) of the respondents held motor vehicle center manager while 52.9% (18) were motor vehicle assistant center managers. Further, the findings revealed that 61.8% (21) of the respondents were male while 38.2% (13) of them were female.

4.4 Operational Strategies

In this section, the study sought to establish the operational strategies that had been adopted in the NTSA motor vehicle inspection centers in Kenya and the extent to which these strategies were being implemented.

4.4.1 Operations strategies used in the Motor Vehicle Inspection Centers

The study sought to find out the extent that respondents agreed with statements on operations strategies in the NTSA motor vehicle inspection centers, Table 4.3 shows the score for each factor in operations strategy.

Table 4.3: Operation Strategies Adopted

Operation strategies	M	SD
Quality Driven strategy	3.85	1.105
Dependability driven strategy	4.15	.784
Speed driven strategy	4.32	.589
Flexibility driven strategy	4.59	.557
Overall Score	4.23	.759

Scale: 1.0-1.4 –not at all, 1.5-2.4-small extent, 2.5-3.4-moderate extent, 3.5-4.4-great extent, 4.5-5.0-very great extent; M=mean, SD= standard deviation

Source: Research Data (2019)

Table 4.3 reveals that respondents agreed that the NTSA, Motor vehicle inspection centers had adopted quality driven strategy to a great extent(M=3.85; SD=1.105) Also to great extent the NTSA had adopted dependability strategy (M=4.15; SD=.784), and speed driven strategy (M=4.32; SD=.589). Respondents cited that to a very great extent NTSA had adopted flexibility driven strategy (M=4.59; SD=.557). The overall score showed that to a great extent, NTSA had adopted operational strategies (M=4.23; SD=.759).

4.4.2 Reasons for adopting Operation strategies at NTSA Motor vehicle Inspection centers

The study sought out what prompted NTSA to employ operation strategies at the Motor vehicle inspection centers is organization. Table 4.3 shows the mean and Standard deviation score for the stated reasons.

Table 4. 4: Reasons for Applying Operation Strategies at the Motor vehicle inspection centers

Reason for adopting operational strategies	M	SD
To reduce the costs of its operations	3.85	1.105
To improve on the quality of its services	4.15	.784
To improve the efficiency of its centers	4.32	.589
To Improve the capacity of its Inspection centers	4.59	.557
To meet the expectations of its customers	4.38	.888
To improve the operation processes	4.59	.609
Overall Score	4.31	.755

Scale: 1.0-1.4 –strongly disagree, 1.5-2.4-disagree, 2.5-3.4-neutral, 3.5-4.4-agree, 4.5-

5.0-strongly agree; M=mean, SD= standard deviation

Source: Research Data (2019)

The study results in table 4.4 shows that the respondents agreed that the NTSA adopted operational strategies: to reduce costs(M=3.85; SD=1.105), improve quality(M=4.15; SD=.784); improve efficiency(M=4.32; SD=.589); and meet expectations of its customers(4.38; SD=.888) at the Motor vehicle Inspection Centers. In addition, the respondents strongly agreed that NTSA adopted operational strategies to improve capacity of it inspection centers (M=4.59; SD=.557) and improve the operation processes (M=4.59; SD=.609). The overall score revealed that the respondents agreed (M=4.3; SD=.76) the NTSA adopted operational strategies.

4.4.3 Other Reasons

The study inquired on other reasons that had influenced NTSA to adopt operation strategies at its Motor vehicle inspection centers. The respondents stated that NTSA adopted operation strategies in order to ensure compliance and conformity to the traffic laws and rules ; need to standardize procedures and processes across its inspection centers; and pressure from the members of the public to reduce the fatalities

of the road traffic crashes; and to reduce corruption at inspection centers The respondents further stated that implementation of the best practices in other of the world and pressure from transport operators also influenced adoption of operational strategies in the Motor vehicle inspection centers

4.4.4 Challenges that affect Implementation of Operation Strategies

The respondents were asked to indicate the extent to which they experienced obstacles execution of operational strategies in the NTSA, Motor inspection centers. The finding is summarized in table 4.4.

Table 4. 5: Extent of experiencing obstacles in execution of operational strategies

Statement	M	SD
To what extent do your experience obstacles in the execution of operation strategies in the NTSA, Kenya motor vehicle inspection centers?	3.41	1.076

Scale: 1.0-1.4 –not at all, 1.5-2.4-small extent, 2.5-3.4-moderate extent, 3.5-4.4-great extent, 4.5-5.0-very great extent; M=mean, SD= standard deviation

Source: Research Data (2019)

The finding of the study presented in table 4.5 shows that the respondents said that they faced obstacles to a moderate extent in execution of operational strategies (M=3.41; SD=1.076)

Further, the study sought the level of agreement and disagreement on the challenges that affect implementation of operational strategies in the NTSA, Motor inspection centers. The finding is shown table 4.5

Table 4. 6: Challenges affect implementation of operational strategies in the NTSA, Motor inspection centers

Challenges	M	SD
Lack of employee commitment	2.62	1.633
Inadequate funding	2.50	1.581
External influence	4.15	1.329
Lack of good leadership/management	3.24	1.539
Organization culture	3.53	.992
Overall score	3.21	1.415

Scale: 1.0-1.4 –strongly disagree, 1.5-2.4-disagree, 2.5-3.4-neutral, 3.5-4.4-agree, 4.5-5.0-strongly agree; M=mean, SD= standard deviation

Source: Research Data (2019)

Table 4.6 shows that the respondents agreed that: external influence (M=4.15; SD=1.329) and organizational culture (M=3.53; SD=.992) were challenges that affected implementation of operational strategies in the NTSA, Motor inspection centers. On the other hand, respondents were neutral that: lack of employee commitment (M=2.62; SD=1.633); inadequate funding (M=2.50; SD=1.581) and lack of good leadership/management (M=3.24; SD=1.539) were challenges that affected implementation of operational strategies in the NTSA, Motor inspection centers.

The overall score, shows that respondents were neutral on the challenges that affected implementation of operational strategies in the NTSA, Motor inspection centers (M=3.21; SD=1.415).

4.5 Operational Strategies and performance

The study sought on the extent that operation strategies aligned to the objective of NTSA. The study results is shown in table 4.7

Table 4. 7: Alignment of operational strategies to NTSA objectives

	M	SD
To what extent are the operations performance objectives aligned and supported by the business objectives of NTSA	4.00	.921

Scale: 1.0-1.4 –not at all, 1.5-2.4-small extent, 2.5-3.4-moderate extent, 3.5-4.4-great extent, 4.5-5.0-very great extent; M=mean, SD= standard deviation

Source: Research Data (2019)

The finding of the study in table 4.8 revealed that the respondents pointed out that to great extent the operational strategies are in alignment to the NTSA objectives.

Moreover, the study sought the respondents' opinion on the effect of operational strategies on performance of NTSA, Motor inspection centers. The finding is summarized in table 4.8.

Table 4. 8: Effect of Operational strategies on Performance

Statement	M	SD
The operation strategies has improved the quality of services offered at the NTSA, inspection centers	4.26	.448
The operation strategies have increased the level of compliance by the Transport operators	4.38	.551
Has increase the capacity of NTSA, inspection centers	4.35	.485
Has improve operational efficiency	4.65	.485
Has improved staff morale at NTSA, inspection centers	4.18	.387
Has improved customers satisfaction	4.41	.557
Overall score	4.37	.486

Scale: 1.0-1.4 –strongly disagree, 1.5-2.4-disagree, 2.5-3.4-neutral, 3.5-4.4-agree, 4.5-5.0-strongly agree; M=mean, SD= standard deviation

Source: Research Data (2019)

The finding of the study in table 4.8 indicated that respondents agreed that operation strategies have: improved the quality of services offered at the NTSA, inspection centers (M=4.26; SD=.448), increased the level of compliance by transport operators (M=4.38; SD=.551), increased the capacity of NTSA, inspection centers (M=4.35; SD=.485, improved staff morale at NTSA, inspection centers (M=4.18; SD=.387) and improved customers satisfaction (M=4.41; SD=.557). Respondents strongly agreed that operations strategies improved operational efficiency (M=4.65; SD=.485). The overall score showed that respondents agreed that operational strategies had effect on performance of NTSA, Motor inspection centers (M=4.37; SD=.486).

4.5.1 Correlation analysis of Operations Strategy on Performance

Correlation analysis was carried to generate the statistical relationship between operation strategies and performance of NTSA Motor Vehicle Inspection Centers, Kenya. The correlation result is shown in table

Table 4. 9: Correlation Analysis of Operations Strategy on Performance

		Performance	Operation strategies
Performance	Pearson Correlation	1	.879**
	Sig. (2-tailed)		.000
	N	34	34
Operation strategies	Pearson Correlation	.879**	1
	Sig. (2-tailed)	.000	
	N	34	34

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

The finding in table 4.9 shows that there is a strong positive relationship between operational strategies and performance with a correlation coefficient of .879. Since the

p value is less than .05, the study concluded that there was a positive linear relationship between operational strategies and performance.

Further, table 4.10 illustrates the multi variant correlation analysis of the operational strategies that affects performance.

Table 4. 10: Multi variant correlation analysis of operational strategies and performance.

		Quality driven Operation Strategy	Dependability driven Operation Strategy	Speed driven Operation Strategy	Flexibility driven Operation Strategy	Performance
Quality driven Operation Strategy	Pearson Correlation	1	.901**	.774**	.736**	.741**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	34	34	34	34	34
Dependability driven Operation Strategy	Pearson Correlation	.901**	1	.879**	.768**	.881**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	34	34	34	34	34
Speed driven Operation Strategy	Pearson Correlation	.774**	.879**	1	.696**	.912**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	34	34	34	34	34
Flexibility driven Operation Strategy	Pearson Correlation	.736**	.768**	.696**	1	.762**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	34	34	34	34	34
Performance	Pearson Correlation	.741**	.881**	.912**	.762**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	34	34	34	34	34

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

The value of -1.00 represents a perfect negative correlation while a value of +1.00 represents a perfect positive correlation. A value of 0.00 means that there is no relationship between variables being tested. A correlation analysis reveals that there is a high positive relationship between the Speed strategy and the performance of motor vehicle inspection centers with $\beta = 0.912$. The relationship between dependability driven strategy, flexibility driven strategy and quality driven strategy all having strong positive relationships with the performance at NTAs motor vehicle inspection centers with Pearson's correlation coefficients of 0.881, 0.762 and 0.741 respectively. These findings indicate that there was a positive linear relationship between Operations Strategy and Business performance.

4.5.2 Regression Analysis of Operations Strategy on Performance

This analysis generates a mathematical formula for describing the statistical relationship between one or more predictor variables (independent) and the response variable (dependent). Regression coefficients represent the mean change in the dependent variable for one unit of change in the independent variable while holding other predictors in the model constant. This statistical control that regression provides is important because it isolates the role of one variable from all of the others in the model. The table below shows the regression coefficients of the four independent variables namely; quality, dependability, speed and flexibility. Table 4.11 shows the regression coefficients for the four independent variables.

Table 4. 11: Model summary of Operational strategies and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.941 ^a	.886	.870	.147	1.111

a. Predictors: (Constant), Flexibility driven Operation Strategy, Quality driven Operation Strategy, Speed driven Operation Strategy, Dependability driven Operation Strategy

b. Dependent Variable: performance

Table 4.11 reveals that $r=.941$ and r square is $.886$. This finding shows that there is positive strong relationship between the operational strategies and performance of NTSA, Motor inspection centers. The r square= $.886$ indicates that 88.6% of the performances is attributed by the operational strategies while 11.4% is attributed by other factors

Table 4.12: ANOVA of Operational strategies and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.876	4	1.219	56.375	.000 ^b
	Residual	.627	29	.022		
	Total	5.503	33			

a. Dependent Variable: performance

b. Predictors: (Constant), Flexibility driven Operation Strategy, Quality driven Operation Strategy, Speed driven Operation Strategy, Dependability driven Operation Strategy

Table 4.12 shows a p value of less than $.05$. This result implies that the null hypothesis is rejected. Therefore the study concluded that operational strategies had statistical effect on performance of NTSA, Motor inspection centers.

Table 4. 13: Coefficients of Operational strategies and Performance

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	1.349	.270		4.999	.000
1 Quality driven Operation Strategy	.102	.054	.277	1.882	.070
Dependability driven Operation Strategy	.247	.103	.475	2.405	.023
Speed driven Operation Strategy	.391	.092	.564	4.260	.000
Flexibility driven Operation Strategy	.153	.073	.208	2.095	.045

a. Dependent Variable: performance

Table 4.13 reveals that speed driven operation strategy was the most predictor (B=.391), followed by dependability operation strategy (B=.247), flexibility driven operation strategy (B=.153) and quality driven operation strategy (B=.102). Further, the results indicated that speed driven operation strategy was the most significant variable on performance of NTSA, Motor vehicle inspection centers. (Sig.=.000)

The regression model below shows the regression analysis:

$$\gamma = 1.349 + 0.102\chi_1 + 0.247\chi_2 + 0.391\chi_3 + 0.153\chi_4 + 0.05$$

Where Y is the dependent variable (Performance),

X₁ is the Quality driven strategy,

X₂ is Dependability strategy,

X₃ is Speed strategy,

X₄ is the Flexibility strategy.

ε is the random error component

4.6 Discussion of Results

Results of the operations strategy employed at the NTSA, Motor vehicle inspection centers, Kenya are presented in Table 4.2. From the results, most respondents agreed that quality, dependability, speed and flexibility of provision of services were considered to a great extent in the operations strategy. This was in line with the first objective of establishing if operation strategy was employed at NTSA, Motor vehicle Inspection centers.

Most respondents agreed that they face challenges on implementation of operation strategies at the motor vehicle centers to a moderate extent and that a great amount of interference comes from external interference as presented in Table 4.4 and Table 4.5 .Results for the reasons for adopting operation strategies by NTSA motor vehicle inspection centers, Kenya are presented in Table 4.3. Most respondents agreed on the need to; reduce costs, improve quality, improve efficiency, increase capacity, meet customer expectations and need to improve operation processes at motor vehicle inspection centers prompted NTSA to adopt these operation strategies. Also, whether there is relationship between operation strategies and performance of NTSA Motor Vehicle Inspection centers, from the results in Table 4.8, most respondents agreed that quality, dependability, speed and flexibility of provision of services affected to a great extent the performance of service provision at the motor vehicle centers.

These findings are in agreement with the literature review where Wangui (2013) in his study on the operation strategy and performance in the hotel industry, in Nairobi Kenya, concluded that the operation strategy positively impacted performance in the Hotel industry. By having an effective operations strategy, a firm can offer quality services, attain a higher reputation, and achieve higher productivities in terms of sales

and profits (Bosire & Owuor, 2018). It also supports the conclusion made by Terer (2015) who in his study of perceived effect of operational strategies on performance of weighbridges in Kenya ,concluded that the implementation of operational strategies on weighbridges in Kenya had improved operational efficiency in terms of the time taken to weigh one truck at the weighbridges; enhanced the quality of services provided at the weighbridges; had increased the capacity of the weighbridges; increased the revenue collected in the weighbridges due to increased compliance and improved customers satisfaction.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter gives summary of the findings of the research, the conclusion, recommendations and suggestion for further studies of the subject matter. The responses were based on the objectives of the study. This study sought to investigate the effects of operations strategy on the Performance in the NTSA Motor Vehicle inspection centers, Kenya.

5.2 Summary

The study established that the kind of operational strategies adopted in the NTSA motor vehicle inspection centers had greatly emerged through strategic actions and decisions taken by the top management over the years. The study also established that the operations strategies were derived from, and were supportive of the organization's business strategy. On the operational strategies adopted in the NTSA motor vehicle inspection centers, the study found out that quality driven operations strategy, dependability-driven operations strategy, speed driven operations strategy and flexibility driven operations strategy had been adopted to a great extent. The respondents further revealed that they endeavored to adhere to standard operating procedures and comply to the NTSA rules for the inspection centers. In order to achieve this, they held regular meetings to push through management agenda and monitor effectiveness of the system.

NTSA also adopted the usage of technology to reduce human manipulation and corruption practices. The organization also created capacity by regular training of staff on work ethics and encouraging employee involvement in decision making. On

the reasons for adopting operation strategies in the Motor vehicle inspection centers; the study found out that the need to: reduce costs, improve quality; improve efficiency; increase capacity; meet expectations of its customers and need to improve operation processes at the Motor vehicle Inspection Centers prompted NTSA to adopt operational strategies. Other reasons included need to ensure compliance by road transport operators to traffic rules; need for harmonization of services and procedures across the inspection centers; pressure from stakeholders and public; and need to reduce corruption at the inspection centers.

Other benefits as stated by the respondents included: higher levels of understanding between the authority and the transport operators; increased stakeholder confidence for good service and fairness at the inspection centers and reduced corruption. Moreover, the respondents indicated that it had led to increased use of technology thereby reducing incidences of manipulation by the interested parties; Reduced queues at the inspection centers and reduced long hours of work by staff who also had improved attitude.

The respondents revealed that the operations performance objectives were aligned and supported by the business objectives to a great extent. On overall, majority of the respondents indicated that the implementation of operation strategies influenced performance of the NTSA motor vehicle inspection centers to a great extent. The Pearson correlation results support the above findings as it was found out that there was a high, positive and statistically significant relationship between performance of NTSA motor vehicle inspection centers in Kenya and quality driven operations strategy, dependability-driven operations strategy, speed driven operations strategy and flexibility driven operations strategy. This implies that a unit increase in any of

these operation strategies would significantly increase performance of NTSA Motor vehicle inspection center in Kenya.

5.3 Conclusions

The objectives of the study were to establish operations strategy employed at the NTSA, motor vehicle inspection centers in Kenya, to assess the challenges affecting the operation strategies adopted and to establish the relationship between these operations strategies and performance of NTSA motor vehicle inspection centers, Kenya.

It was established that operations strategy was used to a great extent in NTSA, motor vehicle inspection centers, Kenya. It was further realized that quality, dependability speed and flexibility of provision of services affected organizations performance to a great extent. The organizations had strategy department, vision and mission statements, explicit operations and business objectives and engaged in strategic planning, which was considered a very important aspect of an organization.

It was established that challenges are experienced in the implementation of operation strategies in the NTSA Motor vehicle inspection centers to a great extent. The challenges included External influence; organizational culture; and lack of good leadership ;lack of employees' commitment and Inadequate funding affected implementation of operation strategies in the motor vehicle inspection centers in Kenya.

The study found out the operational strategies had improved operational efficiency at the NTSA motor vehicle inspection centers, improved quality of services at these centers. It has also increased the level of compliance by the transport operators, increased capacity of the motor inspection centers, improved customer satisfaction

and improved staff morale. Therefore, there was a positive linear relationship between operational strategies and performance.

The Authority spent enormous time and resources in ensuring that the respective mission, vision and values were integral in day to day operations and are internalized by all staff. The organization had outlined operations strategy in their strategic plans and there were policies to guide engagements in implementation of the strategy.

5.4 Recommendations

The objectives of the study were to find out operations strategy employed in the NTSA, motor vehicle inspection centers, Kenya; to assess the challenges affecting the operation strategies adopted and; to establish the relationship between these operations strategies and performance of NTSA motor vehicle inspection centers, Kenya.

The study recommends that operations strategy should be formulated with business performance in mind for the NTSA, motor vehicle inspection centers, Kenya. Quality, dependability, speed and flexibility of provision of services should be considered to a great extent when formulating operations strategies as found out in the study. The study also recommends that relationship between operations strategy and business performance of NTSA, inspection centers, Kenya should be enhanced to improve overall performance. The study finally recommended that there are many challenges that Motor vehicle inspection centers experience in aligning operations strategy to business performance and therefore organizational synergy is needed to improve the relationship.

5.5 Limitations of the Study

The limitations of this study included among failure to get 100% response rate. Some respondents failed to fill the questionnaire. The size of the sample was not big enough to give a fair assessment of the operations strategy employed and their relationship to business performance. The time available in carrying out the research was short. Availability of a longer time period would have led to collecting data from all the target respondents and thereby getting a result that represented all the respondents.

5.6 Suggestions for Further Research

The study was only carried out by middle level managers, and specifically center manages and their deputies in all the motor vehicle inspection centers under the NTSA Motor vehicle Inspection directorate. The same study should be carried out in the other directorates to find out if the similar results would be obtained.

Equally there is room for further research on external factors such as political interference, Public hostility, government laws, and the level of contributions from their partner organizations in the road transport safety campaigns. Finally, the study can be replicated in other industries and sectors in Africa with a view of documenting the operation strategy practices and how they are linked to business performance. It could also serve to investigate the extent of which operation strategies of other directorates of NTSA contributes to the performance of the Motor vehicle inspection directorate wing of NTSA.

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APPENDICES

Appendix1: Questionnaire

This questionnaire is designed to collect data regarding ‘Operations Strategies and Performance of National Transport and Safety Authority (NTSA) Motor Vehicle Inspection Centers, Kenya. Please respond as accurately and honestly as possible to all questions. All responses shall be treated with confidentiality and will be used for academic purposes only.

Section A: Respondents Profile

1. Kindly indicate your Position in the organization.....

2. Gender (tick one): Male [] Female [] others []

Section B: Operational Strategies Adopted

3. Which of the following operation strategies have been adopted by NTSA, Kenya at the Motor vehicle Inspection centers? Indicate the extent of adoption using a scale of 1-5 where: 5 is to a very great extent , 4 is to a great extent , 3 is to a moderate extent, 2 is to a small extent while 1 is not at all.

Operation Strategies	1	2	3	4	5
Quality driven operation strategy					
Dependability driven Operations Strategy					
Speed driven operations strategy					
Flexibility Driven operation strategy					
Other (specify).....					

b). Give details of how you are implementing any of the above strategies in the NTSA Motor vehicle inspection centers, Kenya to achieve the intended objectives...

4. Which of the following reasons prompted NTSA to adopt operation strategies in the Motor vehicle inspection centers? Use a scale of 1 to 5 where 1 is strongly disagree, 2 is disagree, 3 is Neutral, 4 is agree and 5 is Strongly agree

Reason	1	2	3	4	5
To improve on the quality of its services					
To improve the efficiency of its centers					
To Improve the capacity of its Inspection centers					
To meet the expectations of its customers					
To improve the operation processes					

5. Which other reasons influenced NTSA to adopt operation strategies in the motor vehicle inspection centers?

.....

6. To what extent do you experience obstacles in the execution of operation strategies in the NTSA, Kenya motor vehicle inspection centers?

Very great extent [] Great extent [] Moderate extent []

Small extent [] Not at all []

7. Which of the following challenges affect implementation of operation strategies in the NTSA, motor vehicle inspection centers? Use a scale of 1 to 5 where 1 is strongly disagree, 2 is disagree, 3 is Neutral, 4 is agree and 5 is Strongly agree

Challenges	1	2	3	4	5
Lack of employee commitment					
Inadequate funding					
External influence					
Lack of good leadership/management					
Organizational culture					
Other (specify).....					

Section C: Operation Strategies and Performance

8. To what extent are the operations performance objectives aligned and supported by the business objectives of NTSA?

Very great extent [] Great extent [] Moderate extent []

Small extent [] Not at all []

9. To what extent do you agree with the following statements on the effect of operation strategies on performance of NTSA, Kenya Motor vehicle Inspection Centers? Use a scale of 1 to 5 where 1 is strongly disagree, 2 is disagree, 3 is Neutral, 4 is agree and 5 is Strongly agree

Statement of Performance	1	2	3	4	5
The operation strategies has improved the quality of services offered at the NTSA, Inspection centers					
The operation strategies have increased the level of compliance by the Transport operators					
Has increased the capacity of NTSA, Inspection centers					
Has improved operational efficiency.					
Has Increased staff morale at NTSA, inspection centers					
Has improved customers satisfaction					

10. How else has the operation strategies influenced the performance of NTSA, Kenya Motor Vehicle Inspection centers?

.....
.....

11. On overall, to what extent has implementation of operation strategies influenced performance of NTSA, Kenya Motor vehicle Inspection Centers?

Very great extent [] Great extent [] Moderate extent []

Small extent [] Not at all []

THANK YOU FOR YOUR RESPONSE

Appendix II: List of NTSA, Motor Vehicle Inspection Centres (VIC) in Kenya

1. Nairobi, Likoni road vic
2. Nakuru vic
3. Nyahururu vic
4. Eldoret Vic
5. Kericho Vic
6. Kitale vic
7. Kisumu vic
8. Kisii vic
9. Kakamega vic
10. Mombasa vic
11. Voi vic
12. Garissa vic
13. Thika vic
14. Nyeri vic
15. Embu vic
16. Meru vic
17. Machakos vic
18. Nairobi Area Vic