FACTORS AFFECTING PERFORMANCE OF CUSTOMS PATROLS AT THE PORT OF MOMBASA

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE IN THE SCHOOL OF BUSINESS IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE POST GRADUATE DIPLOMA IN CUSTOMS ADMINISTRATION AT THE JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY.

MAY, 2020

DECLARATION

This research project is my original work and has not been presented for any award in any other academic or non- academic institution.

..... ……

Signature Date

EDWIN NZUKI

HDB335-C016-0853/2018

This research project has been submitted for examination with my approval as the Supervisor.

..... …….

Signature Date

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KESRA

DEDICATION

This project is dedicated to my late father Mr. Benjamin Nzuki Mutunga who passed away while I was studying this course, to my lovely wife Joyce Naseriane Massaine and to my mom Catherine Mwende Nzuki ,I salute you all.

ACKNOWLEDGEMENT

I would like to give thanks to the Almighty God for giving me the strength and wisdom during this study. I would also like to thank my supervisor, Andrew Sululu for his tremendous support and guidance throughout the research. I wish to appreciate my family for their unwavering support and encouragement during this period. I thank all my lecturers at KESRA Mombasa campus for their support and co-operation throughout my study period. Finally, I thank one of my best close friends Mr. Gerald Njoroge for his encouragement and support.

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LIST OF ABBREVIATIONS AND ACRONYMS

CRMP: Customs Reform Modernization Program

EAC: East African Community

ECT: Electronic Custom Technology

ICT: Information Communication Technology

KEBS: Kenya Bureau of Standards

KEPHIS: Kenya Plant Health Inspectorate Service

K.P.A: Kenya Ports Authority

KRA: Kenya Revenue Authority

RECTS: Regional Electronic Cargo Tracking System

WTO: World Trade Organization.

OECD: Organization for Economic Co-operation and Development

DEFINITION OF TERMS

Customs Patrol: Measures applied by Customs to ensure compliance with the duties and taxes. It involves conducting surveillance, inspection and patrol by foot, motor vehicles, boats or aircraft at assigned points (World Customs Organization, 2009).

Infrastructure: The basic physical systems and resources that support transportation, communication and operations of an organization (Ojadi & Walters, 2015)

Performance: The term includes the outcomes of the efficiency of customs performance, clearance process, the revenue collected from facilitating trade. The indicators include taxpayer compliance, customer satisfaction and corporate growth

Human Resource Capacity: Becker & Milner (2009) postulates that human resource capacity as the development of skills and competencies of the workforce within an organization to ensure that attainment of objectives is achieved.

Technology: Application of organized knowledge or activities designed to assist human adaptation to participation in and utilization of the environment (Arthur, 2009).

ABSTRACT

The public has for long time complained about the performance of customs and patrol department due to its numerous complex procedures. The Performance of customs and patrol has an integral role of managing trade and the main objective is to facilitate trade. Entry or exit has to be through authorized points and routes. Goods crossing the borders should pass through Customs clearance formalities. This study sought to establish factors affecting performance of custom patrol at the port of Mombasa. The study was guided by the following objectives: To examine the effect of infrastructure on performance of customs patrol at the Port of Mombasa, to examine the effect of human Resource capacity on performance of customs patrol at the Port of Mombasa and to ascertain the effect of technology on performance of customs patrol at the Port of Mombasa. The study would be of great value to the management of KRA, government of Kenya and even the future researchers. To provide the basis of the study, the following theories were used: Resource based theory, human capital theory and system theory. The study adopted cross-sectional research design, since it provided information on the study variable where the population targeted was 300 employees of various levels of agencies. The study used cluster random sampling technique in the determination of sample size where it involves dividing target population into subgroups of managers and supervisors. Primary data was collected and the study used structured questionnaires in form of Likert Scale statements to establish the relationship between the variables. The study used drop-pick method to collect data from the respondents. The study used Statistical package for social sciences (SPSS version 24) in data analysis and establishing relationship study variables. Out of 171 questionnaires distributed only 137, were returned which representing 80.12%. The coefficient on the effects of infrastructure on performance of custom patrol was found to be 0.462 with p-value of 0.000. On the effect of human resource capacity on performance of custom patrol, the coefficients were 0.194 with p-value of 0.000; finally, on the effect of effect of technology on the performance custom patrol, the coefficients were 0.114 with p-value of 0.023. The study concludes that human resource and infrastructure significantly contributes to custom patrol performance, also technology contributes to custom patrol performance but not as significant as compared to human resource and infrastructure. The study recommended that reforms should be incorporated on the automation of the custom patrol performance practices and improvement of human resource capacity.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The operating environment for customs in the 21st Century has evolved and this has necessitated the adaptation of modern operations and mind set. This is to serve the expectations of the international trading community working environment that envisages the most affordable, less complex, time saving and most efficient way of doing trade in business. Traders are looking for time saving, simplicity, and speed (World Trade Organization, 2015). The performance of customs patrol has an integral role of managing the trade activities along the border points. Customs patrol is one of the large departments in terms of manpower and mandated to revenue collection and facilitation of trade and commerce (KRA, 2017).

Globally the United States Customs and Border Protection agency and the United States Border Patrol are tasked with securing the U.S. borders against illegal entry of people and goods. Due to limited resources, it is not possible to have a constant security presence at every point along the border, and intelligent criminals are constantly seeking ways to circumvent security measures. Given this context, an important question facing analysts and decision makers for the Border Patrol is how to effectively allocate the available resources at both the strategic and tactical levels to maximize border security

The last decade, the United States Customs and Border Protection agency (CBP) and the United States Border Patrol (USBP) under the Department of Homeland Security (DHS) both have the primary responsibility to defend and secure both land and sea borders. Technology and highly trained personnel have been incorporated into a national strategy that is aimed at securing the U.S. borders from illegal intrusion. This includes the detection and apprehension of illegal trafficking of humans, drugs, weapons, contraband, and the prevention of terrorist activity.

Since the 1990s, the USBP has adopted an operational strategy that focuses on preventing illegal entry into the U.S. through deterrence. This has included deploying a combination of infrastructure, manpower, and technology to detect and apprehend individuals involved in illegal activity, as well as executing legal strategies to deter illegal activity based on the risk of being caught and prosecuted. While many illegal entry attempts take place at official ports of entry (POEs), others take place in the long and sometimes remote stretches of border in between these areas; the Border Patrol uses patrols and sensor technology to detect illegal entry attempts.

Khalid (2013) defined customs patrol as the conducting of surveillance and inspection. Customs patrols are mainly done on the customs entry points, borders warehouses, passenger terminals and the baggage halls. The customs patrol agent inspects vessels, aircraft, and vehicles when docking, landing and crossing at entry points. Customs patrol agents also establishes working rapport with local residents and law enforcement agencies. They are mandated to observe activity and regularity of vessels, planes, cargo, and storage arrangements in assigned area, gather and evaluate information from informers and other sources, locate and apprehend customs violators. WCO (2015), recommends custom patrol and enforcement to enforce federal laws and combat illicit trade.

The use of computerized systems in customs and patrol performance involves the use of information and communication technologies (ICT) ICTs includes a scope of quickly advancing technologies which incorporate telecom innovations, for example, a mobile phone, Television and Radio, PC intervened conferencing and video conferencing and in addition computerized advances which incorporate personal computers and data systems. The current conditions are strongly influenced by the customs activities which have brought about fundamental changes in customs activities and inspection process done by the officers in patrol departments. Border patrol agents are also responsible for preventing illegal immigration and protecting Americans from human and drug trafficking, terrorism, and agricultural pests. A border patrol agent works for US Customs and Border Protection that has been around since the beginning of the republic but has relatively recently gained more attention especially since the al Qaeda terrorist attacks of September 11, 2011.

The performance on customs patrol on duty is equipped with variety of technological tools as infrared scopes, electronic sensors and low-light television systems. Customs patrol officers are also involved in the legal field as they offer input to the courts regarding immigration issues such as citizenship applications. Border patrol officers often deal with dangerous situations such as coming into contact with armed criminals and some job duties may overlap their regulatory bodies or institutions depending on the type of goods under examination (World Bank, 2015).

Going to the East in China for example the mission of China Customs is to guard the national gateway and increased realization of the importance of customs patrol as a key vehicle for economic growth and development .Its essential tasks are, revenue collection, fighting smuggling and heightened international awareness of the costs associated with complying with inefficient and outdated customs boarder formalities. Customs administration, international land borders points of entry to apprehend undocumented aliens and smugglers while customs patrol officer's focus on facilitating the flow of legitimate trade and travel determining the admissibility of individuals into China.

In North Africa, Morocco's customs protection and administration were based on the principles of the World Customs Organization, code of conduct for customs workers established new rules for professional ethics. In addition, the International Monetary Fund and bilateral partners provided technical assistance (Barbone, & Arindam, 2019). The research center, 2017 report pointed out that there are many border crimes which are committed and the need to train more customs patrol officers.

In Africa there exists a complex underpinning and dynamics of increasing trend of illegal trading of contraband, which has evolved into highly complex, commercial, criminal and entrepreneurial activities (Hohzaki and Masuda, 2008). In Kenya the smuggling of contrabands is believed to be growing despite the levels of technology, Human resource capacity and infrastructure embraced by the Kenya customs and Border control department. The trafficking of illegals such as heroin, cocaine and other psycho-active chemicals has necessitated the need to have regular patrols all over the country (KRA, 2017).

Mombasa port is managed by the Kenya Ports Authority (KPA) who own and operate the port facilities. The port authority exclusively provides security and shore handling services within the port. Other services such as Shipping, Clearing and Forwarding are performed by private companies. There also exist other Government authorities in the port engaged in revenue collection and enforcement of standards. These are the Kenya Revenue Authority, Customs and Border Control Department, (KRA/CSD), the Kenya Bureau of Standards (KEBS), and Port Health. Patrols in Kenya have been tightened considerably following the events of 11 September 2011 and the sharp rise in terrorist incidents worldwide as well as in Kenya KPA is paying attention to the security of everyone visiting its ports and using their facilities (William, 2015).

The Kenya Revenue Authority harmoniously with KPA has introduced a number of measures to make the port a safer place and ensure compliance in performance. This includes: Training more customs Patrol officers and equipping them with new electronic surveillance equipment's CCTV; Sea surveillance by the plain-clothes and customs patrol and security officers; Strict controls on port entry with all port users and visitors required to display biometric passes and to weigh reflector jackets when accessing the quayside. A rapid response team to deal with urgent security matters in or near the port area. A centralized verification area at the container terminal, car handling area and the CFS . Physical and electronic operated Barriers at port gates to deter forced entry and ensure proper security checks (William, 2015).

WCO (2015), defines Patrol is an expedition to keep watch over given area (port, border, and airport by customs enforcement officers walking or driving around at regular intervals. Customs patrol involves the prevention, detection and apprehension of terrorists, illegal aliens and smugglers near entry points by maintaining surveillance from a covert position Customs patrols is mostly done on land and sea by customs enforcement officers in conjunction with other security agencies which includes Kenya Ports Authority, Kenya Navy, and Kenya Police among others at the Kenya coast.

1.2 Statement of the Problem

OECD (2016), estimates that illicit trade contributes to 8 to15 percent of the global GDP. This pose a serious challenge to global economies, ranging from smuggling, to the illegal sale or possession of goods, counterfeiting and tax evasion, services, illicit trade is compromising the attainment of the SDGs in significant ways, humans and wildlife, depriving governments of revenues for investment in vital public services, crowding out legitimate economic activity, dislocating millions of legitimate jobs and causing irreversible damage to ecosystems and human lives. WCO (2015), recommends custom patrol and enforcement to combating illicit trade.

OECD (2016) further estimates that EAC governments loses over $ 500 million in tax revenue annually due to the influx of counterfeit. In Kenya, smuggling, substandard goods, transit fraud and dumping contributes 40% loss of revenue to Kenyan manufacturers (Varila, 2015). This has led intensified efforts by KRA to end illicit trade along the border points, but still smugglers are taking advantage of the loopholes in custom patrol to bring contraband goods to Kenya (Gitongo, 2019). This has been propelled by limited resources, which has made it difficult to have constant security presence at the border points and smugglers are constantly improvising ways to circumvent security measures at the border points (Gitongo, 2019).

Despite these challenges facing custom patrol only few studies have been done related to the topic. For instance, Lubeka (2017), examined factors influencing implementation of customs union in East African countries. Where lack of investment in technologies, specialization in activities, retraining of human resource and strategic alliances, were challenges facing the Custom Union. Further Wafula, (2013) studied computerized systems effects and performance of custom and border control department of KRA. Where it was determined that cargo security system still faces a challenge, since it was difficult to track cargo and cases of stolen goods, hence hampering the efficiency of the custom and control departments. It was in the backdrop of these problems and research gaps that the researcher seeks to establish the factors affecting the performance of custom patrol at the Port of Mombasa.

1.3 Objectives of the Study

The objectives of the study are outlined in this section.

1.3.1 General Objective

The main Objective of this study was to establish factors affecting customs patrol at the Port of Mombasa.

1.3.2 Specific Objectives

The study was guided by the following specific objectives:

i. To examine the effect of infrastructure on performance of customs patrol at the Port of Mombasa.
ii. To ascertain the effect of human resource capacity on performance of customs patrol at the Port of Mombasa
iii. To examine the effect of technology on performance of customs patrol at the Port of Mombasa

1.4 Research Questions

i. What are the effects of infrastructure on performance of customs patrol at the Port of Mombasa?
ii. How does human resource capacity affect performance of customs patrol at the Port of Mombasa?
iii. What are the effects of technology on the performance of customs patrol at the Port of Mombasa?

1.5 Significance of the Study

The study will greatly benefit customs authorities as they will be able to gain great insight on factors affecting customs patrols within their areas of jurisdiction. This may enable them to strengthen their patrols and achieve their operational goals. Researchers will use the study to bring out critical aspects of customs patrol and administration in relation to the reforms therein. The study will give insights on how to curb illegal trade

in weapons, drugs, immigration and tax evasion. The economy will also improve as there will be more jobs actualized through the protection of local industry; the youth will be more productive as items like drugs will be kept away from the society.

1.6 Scope of the Study

The study was limited on factors affecting customs patrol performance at the Mombasa Port. The specific objectives of the study were to establish the effect of infrastructure on customs patrol performance at the port of Mombasa, to establish the effect of human resource capacity on customs patrol performance at the port of Mombasa, and to determine the effect of technology on customs patrol performance at the port of Mombasa. The study was carried out in the month of November and December, 2019 where data was collected and analyzed.

1.7 Limitations of the Study

The respondents took a lot time filling in questionnaires, therefore had to collect already filled questionnaires to do the analysis because of the time constraints. This made the response rate not to be 100% as expected. The respondents were also not free to give personal information as they considered it private though the researcher assured them that the information provided be used for the purpose of research only while maintaining high levels of confidentiality. The researcher overcomes time constraint through proper planning and allocation of available resources.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter highlights the following on factors affecting custom patrol: theoretical review, conceptual framework, review of study variables, and critique of existing literature, research gap and summary of literature.

2.2 Theoretical Review

This study relied on the following theories: Resource based theory, human capital theory and system theory.

2.2.1 Resource Based Theory

This is an approach that was aimed at realizing competitive advantage for the firms and it was theorized in the 1980s and 1990s.It majorly focuses on the application of packages of resources both tangible and intangible at the firms use (Wenerfelt, 1984). The factions in support of this school of thought are for the argument that a firm should look inside itself for resources necessary to achieve a competitive advantage instead of looking outside the competitive environment.

Dunford and Snell (2009) explained resources as the principle fundamentals of strategy which determine what an organization intends to do, from what it can do and what it cannot do. Brown, (2008) defined resources as a set of capacities and assets that may be tangible of intangible which when have superiority in their competitive nature, or are scarce; have the ability to result in value due to diversification .In the resource based theory, the focus is on resources as the main factor that leads firms and organization to achieve a superior organization performance. The theory has assumptions that the resources are immobile and heterogeneous.

The theory has been pinned to this study because of the competitive nature of today's customs authorities. Most western countries have adopted customs performance and patrol management practices as a way of adhering to recommendations proposed by the revised

Kyoto Convention. Kenya and her neighboring countries had to seek resources within themselves in order to achieve a competitive advantage against other blocs.
These resources included assets like land, buildings, capital and equipment's.

2.2.2 Human Capital Theory

The theory of human capital was proposed by Schultz (1961). Bohlander, Snell and Sherman (2011) defined human capital as "knowledge, skills, and capabilities of individuals that have economic value to an organization." Thus, human capital development is any activity which increases the quality of the employee. Training is a primary mechanism by which human capital is developed. Marimuthu *et al*. (2019) describe it as the knowledge and training required and undergone by an employee that increases the individual's capabilities in performing activities of economic values.

A number of authors have criticized the human capital theory for being too simplistic in its analysis of employee productivity and have argued that education alone cannot lead to organizational productivity but must be complemented by other variables. Levin and Kelley (2014) have pointed out that economists and other social scientists have overestimated the payoffs from increased education and ignored complimentary inputs such as, training, contract terms, and management practices which must exist for education to improve productivity.

Bassi and Murrer (2016), conducted an extensive review of the literature to identify the impact of investment on human capital development at the firm level in European countries and concluded that increasingly, studies provide evidence that training generates substantial gains for employers. The most compelling evidence is presented in several recent papers connecting training investment with changes in productivity, profitability, and stock market performance. The theory of reinforcement corresponds to the current research as it is linked to human resource capacity. Individuals are more inclined to stay within an organization if they receive training and their skills are improved. Employee training as an aspect of human resource capacity ensures that employees are motivated to undertake their assigned

duties. The employees of the custom department have been trained on modern processes as well as a lot of support from the administration in terms of recruitment.

2.2.3 System Theory

Bertalanffy, (1968) proposed this theory where he stated in his book that: a system is the interdisciplinary study of the intangible organization of phenomena. Autonomous of their ingredients, type or sequential scale of existence .Typical systems usually consist of four things: Object. These may be physical, abstract or both, depends on how the systems works, attributes these are qualities and properties the systems has and all its objects; interrelationships among its objects and lastly all the systems must exist in an environment.

A system is an entity with interdependent and interrelated parts that's defined by its boundaries and can be more than the sum of its parts. This simply means that a change in one part of the system automatically affects the whole systems. Systems can be categorized as either open or closed .Closed systems are the systems that are not affected by their environment. It does not consume information and it therefore has a high likelihood of failing. An open system is one that interacts with its environment through inputs and output. It takes in information from the environment through feedback and is therefore affected by its environment. An organization is therefore an open system. It receives inputs in the form of resources, employee skills, natural resources and equipment's. The inputs are transformed by the way of outputs eg through processing and then produce outputs in the form of services and products. Feedback is very paramount in open systems as it avails information to the organization by linking the outputs to the inputs resulting in improved quality and evolution (Khalid, 2013)

2.3 Conceptual Framework

According to Odhiambo and Waiganjo (2014), a conceptual framework is the diagrammatic presentation of variables, showing the relationship between the independent variable and the dependent variables. The conceptual framework hereunder illustrates the perceived link between the independent (factors) and dependent variable (Performance). The conceptual

framework shows the relationship between the predictor variables Infrastructure, Human Resource capacity and Technology.

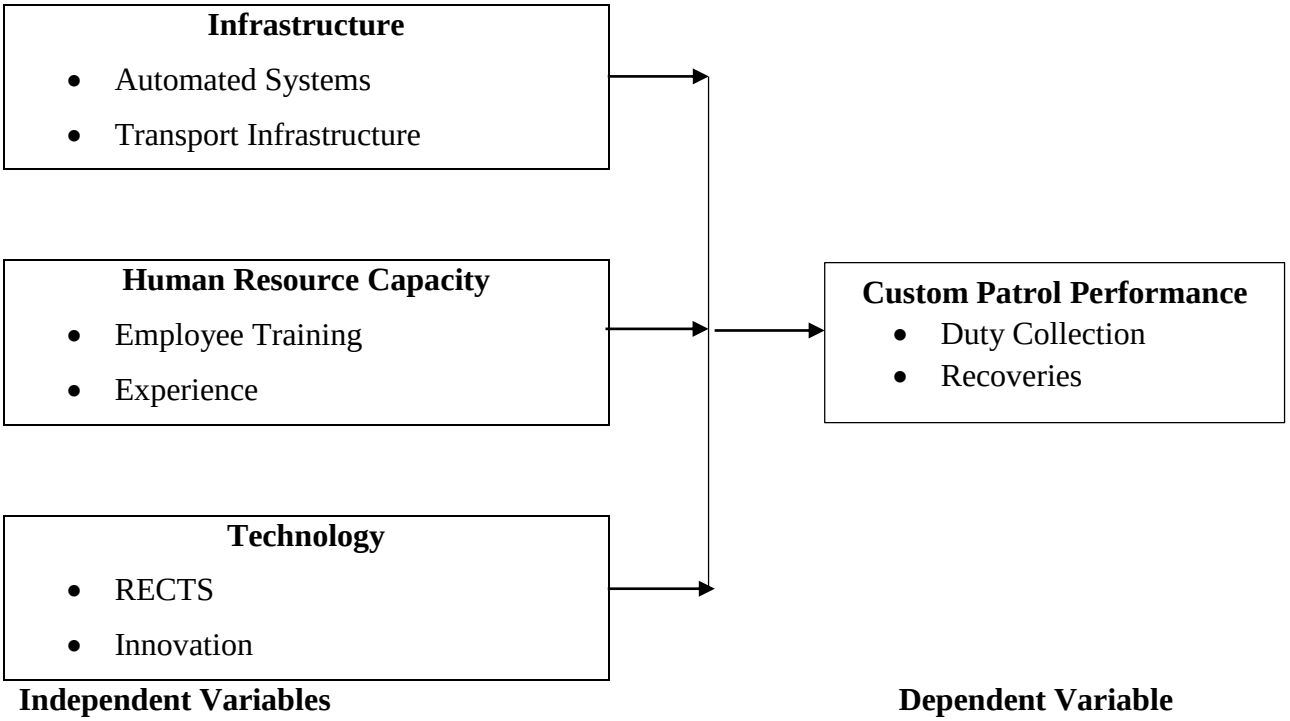

Figure 2.1: Conceptual Framework

2.4 Review of Study Variables

2.4.1 Infrastructure

The availability of key resources and equipment to the customs agencies is vital in increasing the agency capacity to respond effectively towards the core operations. Subsequently, the needs of customs agencies differ based on the terrain and environment they operate from including land entry points, sea and air entry points. Provision and availability of appropriate infrastructure helps build the capacity of institutional operations (Ojadi and Walters, 2015). Customs department has a responsibility of regulating the cargo that passes through border points. The agency requires vehicles for efficient operations.

Having vehicles allows the customs officers to traverse large areas along border points, therefore, ensuring that the agency discharges its duties accordingly.

Countries with access to the ocean have seaports that are essential for the development of trade in those particular regions (Murithi and Moyi 2013). Consequently, customs agencies have a duty to patrol and manage the trade operations within seaports. Normally, slow moving cargo as that found in ships corresponds with high dwell times that tend to bring down the efficiency of seaports and competitiveness of a nations port. It therefore, necessitates the customs agencies to have the right infrastructure and resources to patrol the seaport. Fast moving boats augment the dissemination of duties by the customs agencies. Seaport infrastructure supports the efficient operations of customs agencies within the entry point. It is imperative that the operations of a customs agency within a seaport continue to add value to the trade taking place. Consequently, the availability of fast moving boats ensures that operations of different stakeholders are monitored during patrols.

Apart from physical infrastructure, the operations of the customs agencies improve when information technology platforms are incorporated. The patrol activities of KRA customs department improve through the application of RECTS system. RECTS is an automated system that avails real-time tracking of cargo from the entry port to the final destination where it is picked. Moreover, the system can track goods from the manufacturer if they are meant for local consumption. Through the RECTS system the number of days that are required to deliver goods has reduced significantly along the Northern Corridor (KRA, 2017). Furthermore, RECTS has assisted in bringing down tax evasion coupled with improved efficient management of the different goods under transit in the East African region.

2.4.2 Human Resource Capacity

The presence of adequate human resource capacity in the customs department plays a key role in the improvement and sustenance of access to customs services (Hohzaki and Masuda, 2012). Development of human resources in public organizations is an essential issue as it contributes to the efficiency within an organization. Human resource capacity

encompasses issue of skills, competencies, knowledge and training. The performance of individuals within an organization correlates with their motivation levels, training and interest in the job. Subsequently, it is imperative that organizations heighten the capacity of the workforce. Human capacity requires one to account for the individual constraints, regulatory barriers and organizational shortcomings while generating a strategy.

Capacity of the workforce improves through skills based training where the organization offers comprehensive training sessions. Employee training is guided by the gaps present within the organization in regards to skills. Subsequently, the top management considers the objectives at hand, the strategy employed and the available skills within the organization. Training acts as an appropriate strategy for improving the knowledge and skills present within the corporation (Levin and Kelly, 2014).

Education is often considered a method for strengthening capacity of human resources and this requires extensive financing by the parent organization. Through training, employees strengthen the skills that they require to undertake a particular task. Employee training further strengthens the knowledge of the workforce and general skills. Such improvement in skills contributes to heightened productivity and morale. Furthermore, employee training can improve the degree of teamwork present within an organization as the staffs are trained together. On the other hand, experience contributes to the human capacity within the organization.

Khalid, (2013), postulates that experienced employees are more efficient in their daily tasks as they have enough knowledge and skills to handle their assigned tasks. Besides, the organization needs to ensure the right knowledge capacity exists within the organization. Such can be attained through training that allows the less experienced employees to gain the knowledge and skills needed by the workforce. The employee training process should be well planned and flexible toward the needs of the staff members and organization.

2.4.3 Technology

Technology meant hardware, software, telecommunications, databases and other technologies which are used by customs patrol agents to improve their performance or it means equipment, and procedures used to gather, sort, analyze, evaluate and distribute needed, timely and accurate information to decision makers (Bassi and Murrer, 2016).

The integration of ICT in custom performance patrol and in particular imports and export management holds great potential to unlocking the efficacy of these activities in today's economy by improving information sharing, increasing predictability, reducing waste in value chains, better monitor demand for certain products and place orders to prevent an out-of-stock situation, hence reducing bullwhip effects and lead time Autry *et al*. (2011). ICT continues to be one of the most important enablers of effective custom patrol performance.

Varila, Seppanen, Heinonen and Burinskiene (2012) showed that custom performance in patrol productivity could only be achieved by looking at the processes. A great deal of interest in custom patrol stems from the availability of information and the methods to analyze this information to reach meaningful results. Bilker and Milner (2011) assert that the increasing importance of electronic business brings to fore new opportunities and the widespread use of internet makes ICT tools a source of competitive power for many companies. Further, ICT has been adopted in store management processes by firms as a competitive edge and to build strategic long-term relationships between traders.

2.4.4 Custom Patrol Performance

Williams, (2015) mentioned that customs patrol and its performance involves administration, regulation and facilitation of international trade, collection import duties, and enforcing government regulations, including trade and customs. He also mentioned that Customs patrol involves conducting surveillance, inspection, and patrol by foot, vehicle, boat, or aircraft at assigned points of entry into the port of Mombasa to prohibit smuggled merchandise and contraband and to detect violations of Customs and related laws.

The customs patrol agent inspects vessels, aircraft, and vehicles at docking, landing, crossing at entry points. Customs patrol agents also establishes working rapport with local residents, law enforcement agencies. They are mandated to observe activity and regularity of vessels, planes, cargo, and storage arrangements in assigned area, gather and evaluate information from informers and other sources,

Physical verification of goods is done at the port or point of entry where the declarations are compared with documentation and goods actually imported. Examination is done in the presence of the Customs agent or importer, customs authority and member from other regulatory bodies or institutions depending on the type of goods under examination (World Bank, 2015). Import and exports in the country is controlled by the customs administration and patrol. Entry or exit has to be through authorized points and routes. Goods crossing the borders should pass through Customs clearance formalities (Carman, 2018).

The patrol operations of the customs agency are integral to facilitation of trade within the nation's borders. Through patrol, the organization is able to find smugglers operating along border lines and therefore, win the asymmetric challenges that exist within the customs environment (Mugenda and Mugenda, 2013). The customs officers are involved with performance managing trade within the border points coupled with detection and prevention of entry for illegal elements including terrorists.

In regards to enforcement, the customs department operates through the principle of prevention through deterrence. The customs officers have a role in patrolling the entire border of the country that includes land, sea and airports. Subsequently, the organization undertakes patrols on land, air and marine with a view of inspecting trade activities and tackling illegal entry by different parties. Furthermore, the agency is involved with scrutiny of documents involved with importation of different commodities.

2.5 Empirical Review

Williams (2015) undertook a study to explore the security within ports and the impact of such ports on the global commerce. The customs environment is identified as a complex environment that requires a dynamic customs organization. Traditional customs framework brings about inconsistent improvement. There are endemic challenges that arise within the maritime port systems that require coordination by the customs and security stakeholders. The patrol activities are identified as integral towards managing the volatile environment within the customs and trade environment within maritime entry points. Moreover, the customs agencies cannot be ignore the illegal activities that take place within the maritime border points within the maritime environment.

Kay (2015) examined reforming custom policies and revenue mobilization in East and West African countries. It was observed that simplicity and enforceable laws are part of any successful administrative custom reforms. It is argued that it is important to simplify procedures for importers and exporters, for instance, by get rid of unnecessary information on custom returns and payment invoices. The author further says that, once the custom procedures are simplified, the customs officials can manage to focus on the core tasks which include facilitating compliance, monitoring compliance and dealing with non-compliance. It is asserted that customs enforcement is difficult particularly in developing countries due to the presence of large informal sector. Low literacy levels, low public morality, poor salary structure for civil servants, poor communication infrastructure, malfunctioning judicial systems and vested interests against radical reforms.

Kimeu (2017) examined custom reforms in Kenya particularly in regard to custom policy and administrative issues. The study acknowledges that custom system in Kenya has undergone perpetual reform over the past two decades. For instance, from the policy perspective there has been rationalization and simplification of rate schedules and external tariffs brought on board in order to tally with those of East African countries. It is observed that it is imperative to have continued custom reform of both policy instruments and both administrative and enforcement capacity of the custom system. This is against the backdrop of the KRA's revelation that, there are certain exporters and importers of certain

professional bodies who are required to register their annual turnover independently; however, this requirement is hardly enforced. In addition, it is in the public knowledge that the KRA's major focus is custom collection and as such seeks to maximize revenue on behalf of the national government.

Ondiek (2017) conducted a study on Kenya Revenue Authority concerning the challenges encountered in the implementation of the customs performance and patrol and modernization –In particular the study sought to establish how KRA implemented the custom patrol program, the challenges in the process of implementing the same, and how the Authority responded to those challenges.

The study revealed that the greatest challenges encountered by KRA were lack of requisite skills, lack of resources, and also lack of a supportive telecommunication infrastructure in custom patrol. The Authority responded to the afore-stated challenges through training and sensitization of the staff and stakeholders on custom procedures. More so, the challenges were addressed by hiring new employees with the requisite skills. Political support and management style were also integral to the implementation of custom patrol initiatives.

2.6 Critique of Existing Literature

Bilker and Milner (2011) failed to address the core operations of the customs patrol and focused on the administrative and policy formulation factors. Administrative policies are integral to the performance of customs agencies but are not entirely effective to the performance of the organization. Customs agency operates in a volatile environment that requires pragmatic solutions and strategies. Subsequently, the rigid nature of policies cannot be the only determinant of performance in a customs agency.

On the other hand, Kay (2015) fails to provide insight into the appropriate legal frameworks that can support operations of the customs agency. Williams (2015) study of customs and security in the maritime ports is specific to the collaboration between security and customs officers. The study does not provide insight into the issue of customs patrol operations.

William, (2015) study failed to provide the mitigation strategies which can be implemented to overcome the challenges of custom and patrol. Most studies have shown that mitigation strategies can enhance effective implementation of custom projects in KRA, would result in KRA initiatives under the automation project included implementation of a disaster recovery and business continuity, improvement of IT infrastructure, and enhanced IT Security, Bilker and Milner (2011), can be criticized on the ground that it failed to provide how efficiently KRA can raise more custom revenue, and how to reduce the administrative and distortionary through custom patrol and administration.

2.7 Research Gap

Most of the previous research undertaken in the field of customs performance operations puts emphasis on security of maritime operations and administrative policies (Bilker and Milner, 2011). The emphasis on customs policies is essential but the studies failed to highlight the factors affecting performance of customs patrol.

Ondiek, (2013) explores the challenges encountered during customs patrol operations and failed to address the specific aspects of patrol including infrastructure development. Effective problem-solving mechanisms identify not only challenges but also highlight the factors that contributed to the problem. The studies further failed to highlight the integral role of human resource capacity in the patrol operations of the customs agency.

Furthermore, the modern technology that guides customs operations has not been explored extensively (Arangi, 2018). Subsequently, this research seeks to explore the research gap that exists in regards to the influence of the three independent variable of Infrastructure, Human Resource capacity and technology on performance of Customs patrol. Therefore, there is no study that has been comprehensively done on the factors affecting performance of Customs Patrol and the reason for filling these gaps.

2.8 Summary

The chapter reviewed the following theories human capital theory, resource based theory and system theory linked to the study. To provide how the study variables are linked to one another, conceptual framework is used, followed by a review of the study variables. Past

studies on customs reforms, patrol and administration is also reviewed criticized and have also been reviewed and existing research gap identified. Moreover, the literature reviewed explores the role of customs patrol and commerce growth. The literature reviewed provides insight into the study independent variables of Infrastructure, Human Resource Capacity and Technology coupled with the dependent variable on performance.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes research methodology which was used in the study; it includes research design and target population, sampling procedure, data collection instruments, data collection procedure and data analysis.

3.2 Research Design

A research design is a blue print which facilitates the smooth cruising of the different research tasks, thereby making research as efficient as possible thus yielding maximum information with minimum expenditure of effort, time and money (Kothari, 2011).

A design refers to the plan and structure of investigation so conceived as to obtain answers to research questions. The study adopted descriptive research design. The design is considered appropriate as it enabled the researcher to reach many subjects within limited time. Specifically, a descriptive study describes the existing conditions and attitudes through observation and interpretation techniques i.e. answering the questions of who, how, what, which, when and how much of the study (Cooper and Schindler, 2013).

3.3 Target Population

The target population refers to the entire group of people, events or things of interest that the researcher wishes to investigate (Mugenda and Mugenda, 2013). The target population is 146 employees of Kenya Revenue Authority. The study focused on 300 officials from Customs working at the Port, CFS, and Enforcement. This study targeted these officials because they had adequate knowledge on the factors influencing performance of customs patrol.

Table 3.1: Target Population

Management Level	Target Population	Percentage %
Port	152	50.67%
CFS	59	19.67%
Enforcement	89	29.66%
Total	**300**	**100%**

Source: KRA Human Resource Southern Region (2017)

3.4 Sampling Frame

A sampling frame is a complete and correct list of all population elements from which the sample is drawn from (Cooper and Schindler, 2011). In most practical situations, the frame is a matter of choice to the researcher and sometimes a critical one. The Sampling frame was acquired from Customs officers of KRA, Port officials and container freight officers.

3.5 Sample Size and Sampling Technique.

A sample is the selected respondents of a study who should be as closely representative of the total population as possible and should not be excessively large or small. According to Orodho (2011), it is a finite and representative number of individuals or subjects in a population to be studied. A sample of 171 customs officers was selected from the total number of 300 official members. To come up with a precise sample size, the researcher used Slovins formula at 95% confidence level. .The study adopted cluster sampling technique, where sampling members are divided into homogeneous subgroups based on the areas of operation.. The measurement of the population becomes manageable when the population is grouped within the clusters. The formula produces an effective method of determining sample size as shown below:-

$$n = \frac{N}{1 + N(e)^2)}$$

Where n is the sample size, N is the population size, and e is the level of precision. When this formula is applied to the above sample, we get equation as:-

$$n = \frac{300}{1 + 300(0.05)^2}$$

The sample size (n) = 171

The sample size of 171 was then distributed among the clusters using the Nyman's allocation formula given below:-

$nh = (Nh/N) * n$

Where nh is the sample size for stratum h, Nh is the population size for cluster h, N is total population size, and n is total sample size.

Table 3.2: Sample Size

Management Level	**Target Population**	**Sample Size**
Port Officers	152	87
CFS Officials	59	34
Enforcement Officials	89	50
Total	**300**	**171**

3.6 Data Collection Instruments.

The study used primary data which was collected using structured questionnaire with closed ended questions. Questionnaire was used since it was easy to administer and data obtained easy to analyze. Likert scale was used because it was easy to understand and responses were easily quantifiable and subjective to computation of mathematical analysis

3.7 Data Collection Procedure

The researcher first obtained introductory letter from Kenya School of Revenue Administration .Data was collected through self-administered questionnaire using drop and pick method. The reason why this instrument was preferred is because it has standard questions which can be administered to a larger number of respondents within aa short time and at a minimal cost. This is in support of Mugenda and Mugenda (2013) observation that a questionnaire method is inexpensive method for data collection.

3.8 Pilot Study

After developing the questionnaires, the researcher conducted a pilot test to test the reliability and the validity of the instrument. Pilot testing presents an opportunity for a researcher to test reliability of the research instruments and validity of the data collected. Mugenda and Mugenda (2013), reports that reliability is the measure of degree of consistence research instrument produces after several trials. The researcher used a sample of 10 questionnaires from the respondents for pilot test. According to (Cooper & Schwedler, 2014), 1% of the sample is enough to constitute a pilot study. The aim of pilot test was to test and ensure that items in the questionnaire are clear and they carry the same meaning to all respondents .It also sought to determine how much time is required to complete the questionnaire by a respondent.

3.8.1 Validity

According to Hohzaki, (2012) validity refers to the extent to which an instrument test measures what it is supposed to measure and the extent to its truthfulness, accuracy, and authenticity. To ensure the study was viable, the researcher pre-tested 30 questionnaires and compared them with past questionnaires of a similar study to ensure each question measures a particular variable under study. Measures of sampling adequacy and test of sphericity, through KMO and Bartlett's were 0.850 and acceptable.

3.8.2 Reliability

Harrison, Van and Skipworth (2014), defines reliability as the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable. The research used the Cronbach's alpha to determine the reliability.

3.9 Data Analysis and Presentation.

Both descriptive and inferential statistics were used to analyze the collected data. The descriptive statistics employed include mean, standard deviation, percentages and frequencies, while the inferential statistics were in the form of Pearson Correlation, ANOVA, and coefficient of determination and regression analysis. Harrison Van and Skipworth (2014) confirm that the main purpose of data analysis is to study existing information in order to determine the factors that explain specific phenomenon. To this extent therefore, the responses to the questions were interpreted and put into different specific and relevant categories. Multiple regression formula to be used is presented as;

$$\mathbf{Y=\beta_0+\beta_1}\,X\boldsymbol{\beta_1}\mathbf{+\beta_2}X_2\mathbf{+\beta_3}X_3\ +\varepsilon$$

Where

Y = Performance of Custom Patrol

B_0 = Constant

B_1 = Infrastructure

B_2 = Human Resource capacity

B_3 = Technology

e = error term at 5% Significance Level

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The chapter gives an extensive analysis of the study finding. The study sought to establish the factors influencing the performance of custom patrol in Mombasa Port. Therefore, this chapter involves presentation and interpretation of the results obtained from the study.

4.2 Response Rate

A total of 171 questionnaires were distributed to port officials, CFS officials and KRA officials, 137 questionnaires which represented 80.12% response rate. According to Zikmund, Babin, Carri and Griffin (2012) a 50% response rate is adequate, 60% is good and 70% and above is very good. The response rate of 80.12% for this study was therefore considered satisfactory to make conclusions for the study. Most of the respondents that did not return their questionnaires claimed that they considered such information to be very private, while a few either misplaced or were not willing to respond to the questions.

Table 4. 1: Response Rate

Response	**Frequency**	**Percentage %**
Returned Questionnaire	137	80.12%
Unreturned Questionnaire	34	19.88%
Total	**171**	**100%**

4.3 Pilot Study Results

The study conducted a pilot test to identify the suitability of the questionnaire, in terms of the format, content, and ease of understanding of the terminology that might be used. The questionnaire was pretested using convenience sampling in which 30 respondents were chosen.

4.3.1 Reliability of the Research Instruments

Cronbach's alpha coefficient was used to measure the internal consistency, an alpha of more than 0.7 was considered acceptable.

Table 4. 2: Reliability of the Research Instruments

Variable	Number of Items	Cronbach Alpha
Infrastructure	5	0.725
Human Resource Capacity	5	0.886
Technology	5	0.936
Custom Patrol Performance	5	0.918
Overall Alpha	**20**	**0.949**

The Cronbach's alpha coefficient ranges from 0 to 1 and alpha coefficients of 0.70 and above are considered appropriate (Sekaran and Bougie, 2013). The measures in the study were found to be highly reliable because they all had alpha coefficients greater than the minimum acceptable alpha of 0.70 (Hair *et al.*, 2010). Infrastructure had an alpha coefficient of 0.725, human resource capacity 0.886, technology 0.938 and custom patrol performance 0.918. The overall Cronbach's alpha coefficient for all the constructs in the study was 0.949.

4.3.2 Validity of the Research instruments

The study applied the Kaiser-Meyer Olkin (KMO) measures of sampling adequacy and Bartlett's test of Sphericity on all the independent variables in order to examine the dimensionality of the factors and custom patrol performance

Table 4. 3: KMO and Bartlett's Test on Variables

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.850
Bartlett's Test of Sphericity	Approx. Chi-Square	462.639
	Df	28

	Sig	.000

The KMO measures of sampling adequacy show the value of test statistic as 0.850, which is close to 1, representing greater acceptability of the use of factor analysis and sufficient inter correlations of study variables. Bartlett's test of sphericity is significant (chi-square=462.639, p=0.000). The p-value<0.05 indicating a highly significant relationship among the variables.

4.4 Background Information

In this section the researcher sought to determine the following concerning the respondents: education level, cadres of the employees and finally the number of years they had worked in the organization.

4.4.1 Education Level of the Respondents

The respondents were asked to determine the level of education in which they belong and findings were depicted on table 4.4.

Table 4. 4: Education Level of the Respondents

Education Level	Frequency	Valid Percent
Bachelor Degree	37	27.0
Diploma	13	9.5
Masters	41	29.9
Post Graduate Diploma	46	33.6
Total	**137**	**100**

It was evident that 33.6% (46) of the respondents indicated that they had a post graduate diploma, followed closely by 29.9% (41) of the respondents who indicated they had master's degree, 27.0% (37) indicated that they had a bachelors' degree and finally 9.5% (13) of the respondents had a diploma qualification. This provided a good sample based on education level. This implies that the sample respondents were literate, knowledgeable and capable of making sound judgment on the subject matter. Since a majority of the respondents had attained formal education training it would be easy to communicate with them.

4.4.2 Cadres of the Respondents

Secondly, the respondents were asked to indicate the category in which they belong, table 4.5 shows the findings.

Table 4. 5: Cadres of the Respondents

Category	Frequency	Valid Percent
Port	79	57.7
CFS	25	18.2
Enforcement	33	24.1
Total	**137**	**100**

Majority of the respondents were custom officials with 57.7% (79) representation, followed by 24.1% (33) and finally 18.2% (25) of the respondents indicated that they were port officials. This indicated that the departments involved in customs patrol were represented in the study.

4.4.3 Work Experience

Finally, on the general information, the respondents were asked to indicate the number years in which they had worked in their respective organization.

Table 4. 6: Work Experience

Work Experience	Frequency	Valid Percent
Less than 4 years	29	21.2
4-8 years	33	24.1
9-13 years	31	22.6
Above 14 years	44	32.1
Total	**137**	**100**

On the work experience, 32.1% (44) of the respondents indicated that they had worked in their respective organization for above 14 years, followed by 24.1% (33) who indicated that they had worked for the organization between 4-8 years, followed by 22.6% (31) who

indicated that they had worked in their organization for between 4 to 8 years and finally 21.2% (29) indicated that they had worked in their organization for less than 4 years. It was evident that majority of the respondents had enough experience on custom patrol practices as per their organization

4.5 Descriptive Statistics

In this section the researcher sought determine the mean and standard deviation on each of the study variables

4.5.1 Infrastructure

The respondents were asked to indicate the extent in which they agree with the various statements on infrastructure. The following scale was used 1=strongly disagree, 2=disagree, 3=Neutral, 4=agree and 5=Strongly agree.

Table 4. 7: Infrastructure

Statements	Mean	Std. Deviation
Automated systems support centralized monitoring center.	3.9221	1.31556
Investment through infrastructure in the form of speed boats has increased efficiency of customs patrol	3.8701	1.37027
Transport infrastructure supports road and boat patrols	3.9740	1.31763
KRA RECTS assists inefficient tracking of transit cargo along the Northern corridor.	3.8831	1.41397
Rapid response unit has enabled customs to deal effectively with diversion of cargo in transit.	3.8442	1.31854
Valid N = 137		

The analysis showed that the respondents agreed that transport infrastructure supports road and boat patrols with (M=3.9740, SD=1.31763), they also agreed that automated systems support centralized monitoring center with (M=3.9221, SD=1.31556). The analysis further showed that the respondents agreed that KRA RECTS assists inefficient tracking of transit cargo along the Northern corridor with (M=3.8831, SD=1.41397) and

they agreed that investment through infrastructure in the form of speed boats has increased efficiency of customs patrol with (M=3.8701, SD=1.37027). Finally, the analysis indicated that rapid response unit has enabled customs to deal effectively with diversion of cargo in transit with (M=3.8442, SD=1.31854). The analysis showed that the respondents agreed that that infrastructure affects performance of custom patrol at the port of Mombasa. These findings support the findings of Ojadi and Walters (2015), who postulates that provision and availability of appropriate infrastructure helps build the capacity of institutional operations.

4.5.2 Human Resource Capacity

On the second variable the respondents were asked to indicate the extent in which they agree with the following statements on human resource capacity. The following scale was used: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Table 4. 8: Human Resource Capacity

Statements	Mean	Std. Deviation
Employee training is vital to proper patrol by customs officers	3.8961	1.34345
Training enables customs patrol officer make sound judgments.	4.1299	1.21775
Training can improve individual performance resulting in better custom patrol performance.	4.8571	0.51257
Problem solving skills are important to customs patrol officers.	3.7013	1.46956
Successful custom operations depend on skilled personnel	3.8312	1.39927
Valid N=137		

Table 4.8 showed that the respondents strongly agreed that training can improve individual performance resulting in better custom patrol performance with (M=4.8571, SD=0.51257), majority of the respondents also strongly agreed that training enables customs patrol officer make sound judgments with (M=4.1299, SD=1.21775). The respondents agreed that employee training is vital to proper patrol by customs officers with (M=3.8961, SD=1.34345) and they also agreed that successful custom operations

depend on skilled personnel with (M=3.8312, SD=1.39927). Finally, the respondents agreed that problem solving skills are important to customs patrol officers with (M=3.7013, SD=1.46956). The analysis showed that the respondents either strongly agreed or agreed that human resource capacity affects performance of custom patrol. These findings corroborate that of Neuman (2013), who established that experience contributes to the human capacity within the organization. Experienced employees are more efficient in their daily tasks as they have enough knowledge and skills to handle their assigned tasks

4.5.3 Technology

On the final independent variable, the respondents were asked to indicate the extent in which they agree with the following statements on technology. The following scale was used: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

Table 4. 9: Technology

Statements	Mean	Std. Deviation
The clearance system enables seamless integration with clients	3.9870	1.31283
The clearance system contributes to accuracy in handling consignments	3.9221	1.25411
Technology innovation has improved customs patrols	4.3766	1.55099
Investment in ECTs facilitate speed of custom patrol operations	3.6234	1.36728
ECTs facilitated the storage of customers' details	4.1818	1.93324
Valid N=137 (listwise)		

The analysis showed that the respondents strongly agreed that technology innovation has improved customs patrols with (M=4.3766, SD=1.55099) and they also strongly agreed that ECTs facilitated the storage of customers' details with (M=4.1818, SD=1.93324). The respondents also agreed that the clearance system enables seamless integration with clients with (M=3.9870, SD=1.31283) and they agreed that the clearance system contributes to accuracy in handling consignments with (M=3.9221, SD=1.25411). Finally, the analysis

showed that the respondents agreed that investment in ECTs facilitate speed of custom patrol operations with (M=3.6234, SD=1.36728). The analysis showed the respondents agreed that technology affects performance of custom patrols. These findings support that of Samuel (2012), where it was established that the integration of ICT in custom patrol and in particular consignment management holds great potential to unlocking the efficacy of these custom patrols in today's economy by improving information sharing, increasing predictability, reducing waste in value chains, better monitor demand for certain products and place orders to prevent an out-of-stock situation, hence reducing bullwhip effects and lead time.

4.3.4 Performance of Custom Patrol

On the dependent variables, the respondents were asked to indicate the extent in which they agree with the various statements on performance of custom patrol. The following scale was also used: 1=Strongly Disagreed, 2=Disagreed, 3=Neutral, 4=Agreed, 5=Strongly Agreed.

Table 4. 10: Performance of Custom Patrol

Statements	Mean	Std. Deviation
Operations policies eliminate duplication of tasks in customs patrol.	2.4675	.68026
The import and export documentation are done electronically using single customs entry	3.8442	1.35787
Legal procedures ensure custom compliant are resolved	4.2078	1.05412
Custom patrol procedures are very efficient	3.6234	1.42385
Mandate of other government agencies involved in the trade process affect the operations of customs	3.5455	1.42852
Valid N=137		

The analysis showed that the respondents strongly agreed that legal procedures ensure custom compliant are resolved with (M=4.2078, SD=1.05412). the respondents agreed that the import and export documentation are done electronically using single customs entry

with (M=3.8442, SD=1.35787) and they agreed that custom patrol procedures are very efficient with (M=3.6234, SD=1.42385). The respondents further agreed that mandate of other government agencies involved in the trade process affect the operations of customs with (M=3.5455, SD=1.42852). The respondents were neutral on the statements that operations policies eliminate duplication of tasks in customs patrol with (M=2.4675, SD=0.68026). Based on the analysis of these statements it was evident that the respondents agreed that infrastructure, technology and human resource capacity affects custom patrols performance. These findings supports that of Carman (2018), who postulates that goods crossing the borders should pass through Customs clearance formalities, Chipeta (2016) adds that customs patrol involves conducting surveillance, inspection, and patrol by foot, vehicle, boat, or aircraft at assigned points of entry into the port of Mombasa to prohibit smuggled merchandise and contraband and to detect violations of customs and related laws

4.5 Inferential Statistics

To come up with study conclusions, the researcher used the following statistical methods: correlation analysis, coefficient of determination, ANOVA and regression analysis.

4.5.1 Correlation Analysis

To establish the relationship between the factors and performance of custom patrol, Pearson Bivariate Correlation was used. According to Kothari (2013) correlation coefficient determines the strength of the relationship between dependent and independent variables.

Table 4. 11: Pearson Correlation

		I	HRC	T	CPP
Infrastructure (I)	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	137			
Human Resource Capacity (HRC)	Pearson Correlation	.682	1		
	Sig. (2-tailed)	.000			
	N	137	137		
Technology (T)	Pearson Correlation	.522	.622	1	
	Sig. (2-tailed)	.002	.000		
	N	137	137	137	
Custom Patrol Performance (CPP)	Pearson Correlation	.784	.668	.722	1
	Sig. (2-tailed)	.000	.003	.001	
	N	137	137	137	137

Correlation is significant at the 0.05 (2-tailed)

The correlation analysis between infrastructure and custom patrol performance was determined as (r=0.784, p=0.000), this meant that there was a strong positive correlation between the two variables and the relationship was statistically significant since p-value was < 0.05. On the correlation between human resource capacity and custom patrol performance, it was determined that (r=0.668, p=0.003), this implied that there was above moderate positive correlation between the two variables and the relationship was statistically significant since p-value was < 0.05. Finally, correlation analysis between technology and custom patrol performance was determined as (r=0.722, p=0.001), which meant that there was an almost strong positive correlation between technology and custom

patrol performance and the relationship was statistically significant since p-value was < 0.05. The above findings support that of Williams (2015).

4.5.2 Analysis of Variance (ANOVA)

To test significance of the model in explaining custom patrol performance, an analysis of variance was carried out.

Table 4. 12: Analysis of Variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.239	2	3.119	32.833	.000[b]
	Residual	12.875	134	.096		
	Total	19.114	136			

a. Dependent Variable: Custom Patrol Performance

b. Predictors: (Constant), Infrastructure, Human Capacity, Technology

The analysis of variance indicated (F[2,134]=32.833, p=0.000). The model was therefore significant at $\alpha = 0.05$ level of significance in explaining the linear relationship between infrastructure, human resource capacity and technology with custom patrol performance.

4.5.3 Coefficient of Determination

To explain the suitability of the independent variables (human resource capacity, technology and infrastructure) on the performance of custom patrol coefficient of determination (r^2) was determined through linear regression.

Table 4. 13:Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.718[a]	.515	.496	.30768

a. Predictors: (Constant), Infrastructure, Human Capacity, Technology

The analysis indicated that there exists an almost strong positive correlation (r=0.718) between combined factors (infrastructure, human resource capacity and technology) on the

performance of custom patrol. The analysis further indicated that these factors could only explain 49.6% (0.496) of the performance of custom patrol and the results leaves 50.4% unexplained.

4.5.4 Regression Coefficient

In determining the coefficient of the predictor (infrastructure, human resource capacity and technology) and performance of custom patrols, linear regression was determined.

Table 4. 14: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.848	.228		3.710	.000
	Infrastructure	.462	.055	.449	8.402	.000
	Human Resource Capacity	.194	.054	.195	3.592	.000
	Technology	.133	.058	.114	2.293	.001

a. Dependent Variable: Performance.

From the table 4.14 above ,the general regression Model equation can be derived as follows

$$\mathbf{Y=0.848 + 0.462}\,\boldsymbol{X1}\mathbf{ + 0.194}\boldsymbol{X2} + \mathbf{0.133} + \boldsymbol{\varepsilon}$$

Where

Y = Performance of Custom Patrol

B_1 = Infrastructure

B_2 = Human Resource capacity

B_3 = Technology

e = error term at 5% Significance Level

Therefore;

The coefficient on the effects of infrastructure on the performance of custom patrol were 0.462 with p-value of 0.000, which implied that a unit increase in infrastructure will lead to 46.2% improvement in performance of custom patrol and the relationship was statistically significant. On the effect of human resource capacity on performance of custom patrol, the coefficients were 0.194 with p-value of 0.000, which means that a unit increase in human resource capacity will result in 19.4% improvement in custom patrol performance. Finally, on the effect of effect of technology on the performance custom patrol, the coefficients were 0.114 with p-value of 0.023, which implied that a unit increase in technology will result in 11.4% improvement in custom patrol but the relationship is statistically insignificant.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents a summary of findings, conclusions, recommendations and areas of further research. For each of the research objective a summary of the key findings of the study are presented.

5.2 Summary of Findings

5.2.1 Infrastructure

The study sought to establish the extent to which infrastructure affects performance of customs patrol at the port of Mombasa. the analysis showed that there was a significant relationship between infrastructure and performance of custom patrol. The study determined that automated systems support centralized monitoring center and investment through infrastructure in the form of speed boats has increased efficiency of customs patrol. It was further determined that transport infrastructure supports road and boat patrols and KRA RECTS assists inefficient tracking of transit cargo along the Northern corridor. Finally, on this objective, it was determined that rapid response unit has enabled customs to deal effectively with diversion of cargo in transit. The provision and availability of appropriate infrastructure helps build the capacity of institutional operations.

5.2.2 Human Resource

The study sought to establish the extent to which Human Resource Capacity affects performance of customs at the port of Mombasa. It was determined that there exists a significant relationship between human resource capacity and performance of custom patrol. The study showed that employee training is vital and the human resource supports efficiency within an organization and encompasses the skills, competencies and knowledge.

The study further showed that training can improve individual performance resulting in better custom patrol performance and problem-solving skills which are important to customs patrol officers. Finally, it was revealed that successful custom operations depend on skilled personnel from the Human Resource Capacity. The findings revealed that a total mean average was high and respondents agreed to the increase of employee training.

5.2.3 Technology

The study sought to establish the extent to which technology affects performances of customs patrol at the port of Mombasa. From the analysis the results indicated that there exists a relationship between technology and custom patrol performance but the relationship is not statistically significant. It was determined that clearance system enables seamless integration with clients and clearance system contributes to accuracy in handling consignments. The study further showed that technology innovation has improved customs patrols and investment in ECTs facilitate speed of custom patrol operations. Lastly, it was established that ECTs facilitated the storage of customers' details. ICT continues to be one of the most important enablers of effective customs patrol performance.

5.3 Conclusion

The study concludes that Human Resource Capacity and infrastructure significantly contributes to custom patrol performance, also technology contributes to custom patrol performance but not as significant as compared to human resource and infrastructure. The study further conclude that operations policies eliminate duplication of tasks in performance of customs patrol and the import and export documentation are done electronically using single customs entry. It was also concluded that IT systems ensure custom compliant are resolved and custom patrol procedures are very efficient. Finally, it was concluded that mandate of other government agencies involved in the trade process affect the operations of customs.

5.4 Recommendations

The study recommends the following;

1. That for Technology to be effective , the Organization ought to invest more in deploying infrastructure and manpower so as to keep up with technological advancement. Technology and highly trained personnel should be incorporated into a national strategy that is aimed at securing our borders from illegal intrusion on weapons and prevention of terrorist activities.
2. The effective uses of ECTs facilitate the speed of performance on custom patrol operations .The RECTS system which is automated, avails real time tracking of cargo from the entry point to the final destination where it is picked or collected with minimal time bound.
3. Information obtained during the Operation should be used to update existing risk profiles and targeting criteria used by Customs and other actors involved in combating the illicit drug trade.
4. That in order for Organization to succeed in managing its performance, it ought to increase the capacity of its staff through training and other development programs.
5. That for infrastructure to be effective, the organization should provide enough resources to its personnel in order for them to respond rapidly to any challenge in their daily operations

5.5 Suggestions for Further Studies

The study focused on factors that affect performance of customs patrol at the port of Mombasa. Since 86.4% of the results are explained by independent variables in this study, it is recommended that a further study be carried out on other such factors as corruption, organization culture on factors that affect performance of customs patrol at the port of Mombasa.

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APPENDIX II: QUESTIONNAIRE

INSTRUCTIONS

1. Tick where appropriate in the spaces provided and give descriptive answers where requested.

2. Please answer all the questions.

SECTION A: DEMOGRAPHIC CHARACTERISTICS OF THE RESPODENTS

1. Education Level: -

Bachelor degree ( ) Diploma ( ) Secondary level ( ) Primary level ( )
Others (specify)……

2. Which of the following cadres do you belong to?

Port ( ) CFS ( ) KRA ( ) .

3. Please indicate the number of years you have worked in the organization.

Less than 4 year ( ) 4 - 8 years ( ) 9 - 13years ( ) above 14 years

SECTION B: Infrastructure.

In this section the effect of infrastructure in performance of customs patrol is sought.

Please indicate the extent in which you agree with the following statements. Use the following scale: 5 = Strongly Agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly Disagree

	Statements	**1**	**2**	**3**	**4**	**5**
B1	Automated systems support centralized monitoring center.					
B2	Investment through infrastructure in the form of speed boats has increased efficiency of customs patrol.					
B3	Transport infrastructure supports road and boat patrols					
B4	KRA RECTS assists inefficient tracking of transit cargo along the Northern corridor.					
B5	Rapid response unit has enabled customs to deal					

	effectively with diversion of cargo in transit.					

SECTION C: Human Resource Capacity

In this section the effect of Human Resource Capacity in performance of customs patrol is sought.

Please indicate the extent in which you agree with the following statements. Use the following scale: 5 = Strongly Agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly Disagree

	Statements	**1**	**2**	**3**	**4**	**5**
C1	Employee training is vital to proper patrol by customs officers.					
C2	Training enables customs patrol officer make sound judgments.					
C3	Training can improve individual performance resulting in better organization performance.					
C4	Problem solving skills are important to customs patrol officers.					
C5	Successful corporations depend on skilled personnel.					

SECTION D: Technology

In this section the effect of technology in performance of customs patrol is sought.

Please indicate the extent in which you agree with the following statements. Use the following scale: 5 = Strongly Agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly Disagree

Statements	**1**	**2**	**3**	**4**	**5**
The clearance system enable seamless					

integration with clients					
The clearance system contribute to accuracy in handling consignments					
Technology innovation has improved customs patrols					
Investment in ECTs facilitate speed of custom patrol operations					
ECTs facilitated the storage of customers' details					

SECTION E: Performance of Custom Patrol

In this section the effect of Technology in performance of customs patrol is sought

Please indicate the extent in which you agree with the following statements. Use the following scale: 5 = Strongly Agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly Disagree

	Statement	**1**	**2**	**3**	**4**	**5**
E1	Customs patrol facilitates international trade					
E2	Increase in customs patrols lead to enhanced enforcement of government regulations on imports and exports at the port of Mombasa					
E3	Increase in custom patrol leads to increased customs revenue collected at the port of Mombasa					
E4	Automated systems strategy integrates the processes for easy customs and patrol.					
E5	Increase in customs patrols leads to increase in seizure of illegal goods along the northern corridor.					

APPENDIX III: WORK PLAN

Activity	September 2019	October 2019	November& December	January 2020
Proposal Writing				
Proposal Defense				
Data Collection				
Data analysis and interpretation of the research findings				
Submission of final project				

APPENDIX IV: BUDGET

S/N	ITEM	QUANTITY	TOTAL COST(KSHS)
1	Stationery		15,000
2	Printing services		15,000
3	Transport & subsistence		15,000
4	Consultancy		10,000
5	Miscellaneous		20,000
	Grand Total (KSHS)		75,000