

Factors Affecting Cargo Clearance Efficiency at the Port of Lamu Kenya

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**A Research Project Submitted in Partial Fulfillment of the Requirements
for the Post Graduate Diploma in Customs Administration of the Jomo
Kenyatta University of Agriculture and Technology**

2022

DECLARATION

This research project is my original work and has not been presented for a post graduate diploma in any other academic or non-institution

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HDB335-C016-0317/2020

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DEDICATION

This research project is dedicated to my mother, who has over the years taught me so much about the complexities of everyday life and the need to always put God first in all endeavours that I undertake.

ACKNOWLEDGEMENT

I thank the Almighty God for his guidance in my entire study of post graduate diploma course. Indeed, I acknowledge Mr. Biwott my supervisor for his invaluable guidance and meaningful insights which enabled me to finish this project. His devotion of personal time and genuine concern about my progress substantially and significantly has led to the success of this study. Special acknowledgement goes to my parents for giving me invaluable support and motivation during my studies. Finally, to all my family, friends, lecturers and fellow students, thank you for your input and support during the entire course.

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ABBREVIATIONS AND ACRONYMS

BE	Bill of Entry
CFS	Container Freight Stations
CIF	Cost Insurance and Freight
DO	Delivery Order
DDP	Delivery Duty Paid
EDI	Electronic Data Interchange System
EU	European union
KIFWA	Kenya International Freight and Warehousing Association
KRA	Kenya Revenue Authority
LAPSSET	Lamu Port South Sudan Ethiopia Transport Corridor
NPA	Nigeria Ports Authority
OSBP	One-Stop Border Post
RECTS	Regional Electronic Cargo Tracking
TEUS	Twenty Foot Equivalent Unit

DEFINITION OF KEY TERMS

Cargo Clearance:	Necessary procedure before goods can be imported or exported internationally (Preece & Neher, 2020).
Customs Officer's Knowledge:	Ability to prepare and process import and export documentation according to customs regulations, laws, or procedures (Hesketh, 2020).
Documentation Procedures:	They lay out all the steps for particular tasks that need to be undertaken and repeated consistently (Kashubsky & Hintsa, 2020).
Payment of agency fee:	An agency fee structure is the amount charged to a client as part of a business agreement for external marketing services and how that fee is broken down into services and/or deliverables (AM, 2021).
Verification methods:	The verification of the container identification code is done at the entry and/or exit of a terminal gate. The process uses the Container Identification System (Hesketh, 2020).

ABSTRACT

Customs clearance involves the preparation of documents and/or electronic submissions, the calculation and payment of taxes, duties, and excises; and facilitating communication between government authorities and importers and exporters. The general objective of the study was to investigate the factors affecting cargo clearance efficiency at the port of Lamu Kenya. The specific objectives of the study were to establish the effect of customs officer's knowledge on cargo clearance efficiency at the port of Lamu, to determine the effect of documentation procedures used on cargo clearance efficiency at the port of Lamu and to establish the effect of Regional Electronic Cargo Tracking System on cargo clearance efficiency at the port of Lamu. The study was anchored on three theories; Attraction-Selection-Attrition Theory, System Theory and agency theory. This study adopted descriptive research design in order to systematically and accurately describe various factors affecting cargo clearance efficiency at the port of Lamu Kenya. The target population under this study included the registered KIFWA custom agents operating at Lamu port and Customs Authority officers at the CFS/ICD gate who confirm the exit of the cargo in the customs management system, transfer document (EXIT NOTE and C2/Release order) which is generated by both the destination Partner States Customs Authorities and the host country. The population of the study was 201 with a sample size of 134 respondents. The sampling technique adopted was simple random technique. The study adopted both primary and secondary data sources in data collection. A pilot study was carried out to check for validity and reliability. Based on the findings, results indicated that there is a positive and significant relationship between customs officer's knowledge, documentation procedures and Regional Electronic Cargo Tracking System and the cargo clearance efficiency at the port of Lamu Kenya. The study recommends that customs and customs agent's management should initiate a policy of providing collaborative opportunities for the development Customs agents. Secondly, there should be an integrative approach that takes into consideration all the administrative and commercial aspects of the matter within the framework of a facilitation programme aimed at minimizing formalities, simplifying and streamlining procedures, and harmonizing and standardizing documents. Lastly, successful implementation of the Regional Electronic Cargo Tracking System will give benefits in improving how the regulator clear cargo and cargo trucks that enter and exit the Kenyan borders and charge taxes and levies accordingly. The system will also assist Kenya Revenue Authority in monitoring the all inbound and outbound goods.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Customs clearance is sometimes referred as customs brokerage; it is a profession that involves the clearing of goods through customs barriers for importers and exporters. It involves the preparation of documents and / or electronic submissions, the calculation and payment of taxes, duties, and excises; and facilitating communication between government authorities and importers and exporters (Al-Haddad, Chuman & Kouki, 2021). All imported goods are subject to customs clearance in every destination country. Importers and exporters are required to find out in advance the clearance requirement at destination country and prepare plans to fulfill them (Munene & Nduruhi 2017).

Customs department carries out physical inspection of consignment after arrival for valuation of imports to ascertain description of items, classification of items according to relevant customs chapter and tariff, and ascertaining that there is no case of under or over invoicing (Sintok, 2018). The importer through the customs agent has to clear the consignment through the free period which normally varies for three to seven days, beyond this period a demurrage would be charged on the consignment for all days up to the time of actual delivery. Goods can be disposed off if not cleared from port within thirty days (Al-Haddad et al., 2021).

According to Kashubsky and Hintsa (2020), there have been arguments over time that there is need to simplify taxpayers' procedures during cargo clearance. For instance, unnecessary information about return on taxes and payment invoices should be done away with. If such simplifications are implemented, then, customs officials will be having an easy responsibility of focusing on and managing the central tasks which include ensuring compliance, monitoring compliance and dealing with individuals who fail to comply. However, the general assertion in the region is that enforcement of the customs may be a difficult task particularly due to the presence and emergence of a large informal sector, low public morality, low levels of literacy, poor structure of salaries for civil servants, poor infrastructure and communication, faulty functioning of judicial systems and personal vested interests in customs radical reforms (Gani, 2017)

The efforts have been made to improve customs administration in EU and Asia countries. Through the report on "The Challenges and Opportunities in Western Europe and Asia"

contented that, customs clearance in central Asia is less efficient however than southeast European average. For example, it takes 1-3 hours to clear goods in Europe while it takes 3-4 hours in Kyrgyz Republic and three hours in Tajikistan (Kashubsky & Hintsu, 2020). For their level of development and technological enhancement these are the challenges; and the reasons behind is uncertainty on implementation of new customs codes and standards for measuring the value of imported goods. Another reason is the excessive documents in customs clearance process taking example in Tajikistan, where the procedures require up to 18 accompanying documents (forms, certificates, and applications issued by different agencies); (world Bank 2004). Other challenges were lack of cooperation among border agencies (e.g. customs, inspectorate agency); and lack of capacity to fully utilize information technology in customs administration, corruption (Al-Haddad et al., 2021).

Kusuma and Tseng (2020) assert that in Nigeria for example, in order to enhance maritime sector and ports operations, the federal government introduced a port reform package in 1996. In response to this initiative the management of port authority of Nigeria took immediate step to streamline and simplify clearing processes through: - Computerizing of billing system, Unification of documents, change of procedures for shipping and clearing of goods and Guaranteed the vessels to have berthing facility on arrival (no queue).

The clearing procedures are somehow simplified compared to other developing countries. The main player document after the bill of entry is a Delivery Order (DO). The importer or agent takes import documents to Nigeria Ports Authority (NPA) for planning and confirming appropriate arrival date and the specific allocated berth; then completes the bill of entry (BE) registering it with the customs office (Edet, 2017). A blank a Delivery Order from (DO) from shipping company is issued after crosschecking to the details in the shipping manifest and the BE; after the DO is completed by the importer or agent is submitted back to the shipping company. The shipping company on satisfaction of the details filled in the DO by the importer endorses it while withdrawing the original bill of lading from the consignee. Thereafter, the lower portion of the DO is detached and handed back to the importer as evidence of shipping company release (Sakyi, Appiah, Ayesu, Immurana & Baidoo, 2020).

According USAID Report Customs Clearance Issues by Durgavich (2019), the customs clearing procedures, regulated by recipient country governments, change over time and can be quite complex. Failure by importer to meet local customs clearance procedures, or customs procedures that are themselves prone to breakdowns, may cause long delivery delays, stock

shortages, and even stock-outs. In 2018 when conducted the study titled “Customs Clearance Issues Related to the Import of Public Health Programs”, USAID found from Tanzania that, from when goods (donations) arrive at seaport to the time they are delivered to MSD it took roughly 27 days and this is only part of the whole clearance process. The total clearing period reached up to 67 days. With such delays almost all shipments to Tanzania will have additional port costs due to prolonged processing time.

Port of Lamu has introduced formal procedures to be taken into consideration on importation of goods. The document describes the procedures that have to be followed and it states what is required at different stages (Manwari, 2021). The guidelines provided must be cautiously and timely followed up to avoid delays in shipment of goods which will consequently result of late clearance and delivery of the goods to the final customer. The supplier can be held responsible for any additional costs incurred on shipment due to non-compliance of the import procedures. Increasingly, exporters are quoting more inclusive terms. The benefits of taking charge of the transportation on either a CIF or DDP basis include (Bassa, Kwateng & Kamewor, 2021).

1.1.1 Lamu Port

The Port of Lamu connects the Kenya coast to South Sudan and Ethiopian markets and serves as an anchor point for a second corridor - the LAPSSET Corridor. The port is located in Manda Bay, the Northern part of the Kenyan Coast, about 80 Km south of the Somalia border and 200 Km North of Mombasa Port. The LAPSSET Corridor infrastructure project includes other components such as Lamu Port, Roads, Railways, Pipelines, International Airports, Resort Cities, Crude and Product Oil Pipeline, and Energy Infrastructure. In addition, the One-Stop Border Post (OSBP) in Moyale was commissioned in 2019 by the Heads of States for Kenya and Ethiopia (Bassa et al., 2021).

According to the Lamu Port Feasibility Study and Master Plans Report 2010, the total dry cargo throughput at Lamu Port was projected to amount to 13.5 million tonnes in 2020 and 23.9 million tons by the year 2030. Accordingly, the freight share of railway excluding crude oil in 2020 was estimated to be 96.1% at Southern Sudan-Isiolo section, 93.2% at Ethiopia-Isiolo section, 94.3% at Isiolo-Garissa section and 60.2% at Garissa-Lamu Section (Manwari, 2021). Presently, the port has completed construction of the first three multipurpose berths, with the total quay length available for use by vessels 1,200 Metres. The Port can accommodate ships drawing maximum drafts of 14 Metres and which can safely navigate through the approach channel. The construction of Yard 1 serving the 1st berth is complete with the optimal annual

TEU capacity of 900,000 TEUs. The berth occupancy for this berth is at 75% (Bassa et al., 2021).

The Lamu Port has a natural draft of minus 17.5 Metres in the Eastern Channel and minus 12.6 Metres in the Southern Channel, enabling larger ships with a carrying capacity ranging from 12,000 to 18,000 TEUs to dock, transforming regional economies through increased trade, integration and connectivity (Grainger, 2020). The Port is expected to attract bulk cargo transport business resulting in cheaper movement of goods through the port, increased importation and exports, increased availability of goods and increased choice of consumers, generate new jobs, and spur the growth of local start-ups (Bassa et al., 2021).

1.2 Statement of the Problem

Kenya Revenue Authority (KRA) has finalized its plans to enhance trade facilitation and fast-track cargo clearance at the New Lamu Port. A team from KRA's Regional Electronic Cargo Tracking (RECTS) unit has already being deployed at the Port to ensure that all trucks transporting the cargo through the Port are armed with seals to track and monitor all transit/transshipment cargo through the Port of Lamu (Manwari, 2021). Additionally, a mobile scanner has been deployed at the facility to promote non-intrusive inspection of all the goods being imported through Lamu Port. The KRA office in Lamu has been equipped with the necessary infrastructure including connectivity to access all the Customs, KENTRADE and Kenya Ports Authority systems. The Authority is committed to ensure that cargo clearance is undertaken in a swift, efficient and professional in order to reduce the cost of doing business. This is anticipated to promote the economic development of the country (Tigabu, 2020).

The Kenya Revenue Authority still requires shipping lines to lodge entries with customs. Although shipping lines successfully lobbied to be allowed to lodge the entries without the aid of freight forwarders, which came at an extra cost, the delays still take a huge toll (Buyonge & Kireeva, 2020). Shipping lines have been pushing for the use of inward and outward manifests to reconcile movement of cargo in and out of the port, which is a common practice all over the world. Although transshipment cargo is not supposed to face tedious clearing procedures, Kenya requires shippers to lodge several documents. Constraints facing the Customs Services' Department include: limited scanners at the port, limited automation and loading facilities at the border point stations, financial constraints especially to computerize and improve the necessary infrastructure at the land borders, limited human resource capacity and limited skills to undertake post-audit procedures (Manwari, 2021)

The reviewed literature clearly indicates that cargo clearance is a complicated aspect of the management functions for any sea port. However; there is limited literature indicating the factors affecting cargo clearance especially at the port of Lamu Kenya. Most of the reviewed local studies have focused on port performance but to the best knowledge of the researcher, no study has centered on Lamu port hence there existed a contextual gap. Manwari (2021) investigated the effect of institutional factors on dry ports performance at embakasi internal container depot, Kenya. Masinde (2018) carried out a study on the effect of customs procedures on cross border maize trade: a case study of Namanga border post. Ruto and Datche (2018) study logistical factors influencing port performance taking Kenya port Authority as a case study. Nyema (2018) on his study regarding factors influencing port performance at Mombasa Entry Port. The study Tigabu (2020) only focused on moja dry port container terminal handling practices. The current study sought to contribute to policy formulation and practices by investigating the factors affecting cargo clearance efficiency at the port of Lamu Kenya.

1.3 Objectives the Study

This study was guided by the following general and specific objectives:

1.3.1 General Objective

To investigate the factors affecting cargo clearance efficiency at the port of Lamu Kenya.

1.3.2 Specific Objectives

- i. To establish the effect of customs officer's knowledge on cargo clearance efficiency at the port of Lamu.
- ii. To determine the effect of documentation procedures used on cargo clearance efficiency at the port of Lamu.
- iii. To establish the effect of Regional Electronic Cargo Tracking System on cargo clearance efficiency at the port of Lamu.

1.4 Research Questions

- i. What is the effect of customs officer's knowledge on cargo clearance efficiency at the port of Lamu?
- ii. What is the effect of documentation procedures used on cargo clearance efficiency at the port of Lamu?
- iii. What is the effect of Regional Electronic Cargo Tracking System on cargo clearance efficiency at the port of Lamu?

1.5 Significance of the Study

The study is expected to be of importance to the management and staff of the Customs and Border Control Department as it gives feedback on the effectiveness of the implemented strategies in achieving intended goals and objectives. It can also be useful to members of other tax authorities, agencies and public organizations intending to implement strategy planning in their organizations.

Academicians and researchers will find this study useful as a point of reference and add to the existing body of knowledge in custom clearance. This study is geared towards the context of Customs that is a department of KRA. Therefore, the study would be useful to other like parastatals and government bodies that deal with revenue. In particular, academicians can use the findings as a basis to analyze factors affecting cargo clearance.

1.6 Scope of the Study

The area of consideration for the study is the port of Lamu. This study focused on registered KIFWA custom agents operating at Lamu port and Customs Authority officers at the CFS/ICD gate who confirm the exit of the cargo in the customs management system, transfer document (EXIT NOTE and C2/Release order) which is generated by both the destination Partner States Customs Authorities and the host country. The study was conducted during the period of April to June 2022 and only covered the variables stated in the specific objectives. The objectives were chosen because of the existing contextual gap in reviewed literature on cargo clearance efficiency.

1.7 Limitations of the Study

The use of self-administered questionnaire was a limiting factor in terms of respondents getting the time and understanding the questions for which answers were being sought. The challenge was however reduced as the research assistants were able to make follow-ups and clarify the questions that respondents were not able to comprehend or answer. This greatly reduced the number of unfilled sections in the questionnaires and increased the response rate.

The respondents were likely to be reluctant in giving information fearing that the information sought would be used to intimidate them or print a negative image about them to KRA, since KRA is a revenue collection agency, and the mother organization of the Customs and Border Protection Department. This was mitigated by obtaining a letter of introduction from the University which assured the respondents of the academic purpose of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Under this chapter the study will review literature of past studies. Literature was reviewed under the following subheadings; customs officer's knowledge, documentation procedures and verification methods. This chapter will also consist of theoretical framework and conceptual framework.

2.2 Theoretical Framework

Theoretical framework guides research in determining what variables to measure and what statistical relationships to look for in to understand the variables of the study and; provides a general framework for data the context of the problems under study. The study will also be anchored on three theories; Attraction-Selection-Attrition Theory, System Theory and agency theory.

2.2.1 Attraction-Selection-Attrition Theory

Schneider, Goldstein and Smith in 1995, set that if an association can discover and utilize the correct individuals with the correct learning, capacities and aptitudes in the correct numbers, the association is better set to manage uncertainties (Selvarajan & Cloninger, 2018). Sintok (2018) agrees that the beginning stage of workable systems is getting, holding and creating assets of a given level and it is connected to individuals as an asset. Slavic, Bjekic and Berber (2017) point that recruitment is a means of scouting skilled people to apply for or have lately applied for a current job.

Chukwuka and Nwakoby (2018) distinguish the procedure of enrollment as fundamental. The procedure cannot begin until the association chooses what kind of representatives is required and what number. Further, Susomrith, Coetzer and Ampofo (2019) contend that a good sorting framework should deliver high individual association fit, improving workers connection to the association. Likewise, a custom officer familiarity with thorough knowledge on cargo clearance may improve individual fitness recognitions and proof demonstrates that apparent individual skill is linked to responsibility (Akunda, Chen & Gikiri, 2018). This recommends the procedure of enrollment can boost workers' devotion.

In this study, the principle of attraction selection-attrition is essential as it explains the role of recruitment and selection in obtaining the correct personnel such as customs officers with

knowledge on matters of cargo clearance. The theory emphasizes a port's capacity to recruit and select people with the abilities needed in cargo clearance.

2.2.2 System Theory

It's important for an organization to continually scan its environment to enable it respond to any change (Cao & McHugh, 2017). The purpose of environmental scan is to understand the market dynamics such as competition, technological advancements and others (Byeon, 2017). The application of system theory is very important in an organisation that is applying technology to change the way it operates. The theory mainly concentrates on control mechanism applied for the change and feedback received within the organization. It aims at control of negative feedback by creating an equilibrium and brings the needed stability when implementing the change (Byeon, 2017). The theory enables the business to remain in-tandem with changing environment. The theory defines an organization as set of a relationship comprising of various actors/stakeholders each having their own role and which have an influence with its performance. These actors while playing their individual role are under set of defined rules, which determine how they interact with the organization (Mason, 2017).

System theory tends to bring understanding to the business environment complexities, by enabling the management in responding more effectively to the business disruptors. This is achieved through bringing understanding of the business processes and how they aid in managing the uncertainties and their implications. The theory also addresses the aspect of open and closed systems (Hesketh, 2020). The theory tries distinguish between the two by bringing an understanding on how they are. In open system, the theory informs that and change in the business environment will affect the internal systems within an organization. If the organization does not respond effectively to the changes, then it will affect its overall performance (Wang, 2018). Closed system on the other hand, are not significantly affected by changes with external environment and are more resilient to when the changes occur.

This theory can be used to explain the effect of documentation procedure on cargo clearance at the port of Lamu. Customs procedures are only one aspect of improving the overall efficiency of the cargo clearance process. It is worth noting that unwieldy procedures and excessive paperwork contribute to the congestion of ports, warehouses and stacking areas.

2.2.3 Agency Theory

According to Smith (2017), the 1976 article "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure" by Jensen and Meckling helped Agency theory as the

dominant theoretical framework of corporate governance literature, and position shareholders as the main stakeholder. According to this article, Agency theory addresses the Agency issue in which one party (the principal) delegates work to another (the agent), who performs that work. There is an agency relationship when the actions of one individual affect both his welfare and that of another person in an explicit or implicit contractual relationship. The individual who undertakes the actions is the agent and the person whose welfare (utility), measured in monetary terms, is affected by the agent's actions is called the principal (Akaranga, 2017).

Aliet (2019) assert that the typical case of agency relationship is the one that exists between an employer (the principal) and his employee (the agent). In an agency relationship, the principal wants the agent to act in the principal's interest. However, the agent is expected to have his own interest and consequently, he may not act in the principal's best interests. According to Huang and Yoshida (2019), an agency relationship is a contract under which one or more persons (the principal), engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent. If both parties to the relationships are utility maximizers, there is a good reason to believe that the agent will not always act in the best interests of the principal.

According to Edet (2017), the principal's problem is consequently to design an incentive contract that induces the agent to undertake actions that will maximize the principal's welfare. However, both the principal and agent are confronted with uncertainty. This uncertainty may appear in various ways. Ittonen (2018) posits that the principal-agent relationship may be associated with information asymmetry. The agent, as the party with greater involvement in the company, has access to information which may not be available for the principal without cost. The agent has the opportunity to use this information to his/her own advantage. This generates the need for regulation in assessment and verification process.

According to Mayer, Warner, Siedel, Lieberman, and Martina (2017) all corporate transactions, including those involving governmental organizations are so conducted because corporations cannot themselves actually act; they are legal fictions. Agencies may be created expressly, impliedly, or apparently. Recurring issues in agency law include whether the "agent" really is such, the scope of the agent's authority, and the duties among the parties. Therefore, the Agency theory may apply to the KRA- Customs officers relationship, whereby KRA enforces Customs laws in the country while Customs officers are the implementers. This relationship calls for regulation and partnership between the two to aim to improve efficiencies in the

business of both parties and hence lead to service satisfaction through efficient verification methods.

2.3 Conceptual framework

Conceptual framework is a written or visual presentation that explains either graphically, or in narrative form, the main things to be studied, it indicates the key factors, concepts or variables and the presumed relationship among them (Huberman, 2014). A conceptual framework consists of independent variables that cause changes in the dependent variable. The conceptual framework is shown in Figure 2.1.

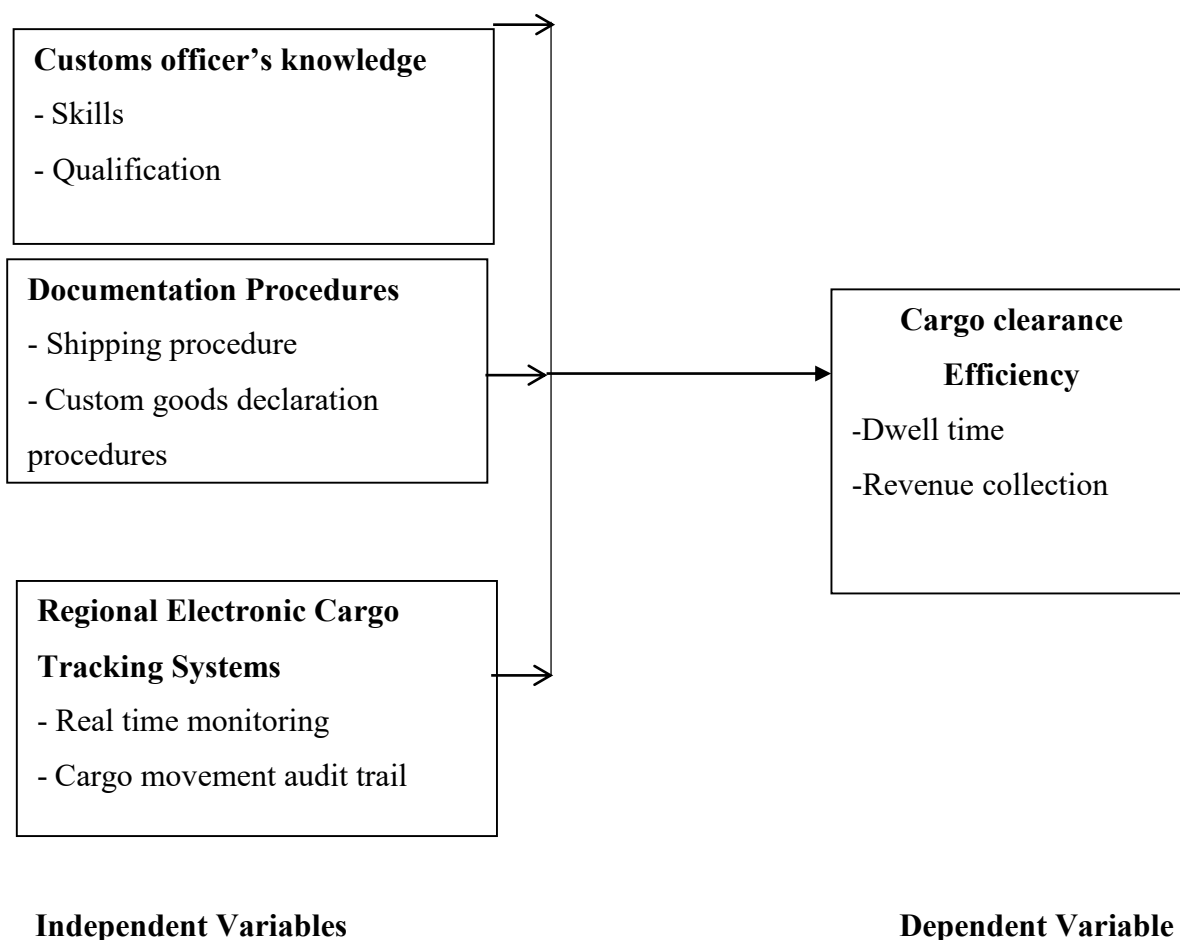


Figure 2.1: Conceptual Framework

2.4 Review of Literature on Variables

2.4.1 Customs Officer's Knowledge

Kenya Ports Authority has taken cognizance of the importance of strategic training to deliver on its vision and mission. In every aspect of the Port capacity improvement in infrastructure,

equipment acquisition and cargo clearance process automation, human resource development has stood out as a common denominator (Kusuma & Tseng, 2019). Knowledge and skill gaps that are considered critical are identified and the trainings are specially designed and tailored to enable staff manage and control, operate, administer and provide leadership in the activities the Authority is engaged in (Singh, 2022).

Several studies have documented the impact of training on organization performance. Results of the research by Aragon-Sanchez et al. (2018) indicate that training activities were positively related to most dimensions of effectiveness (employee involvement, human resources indicators and quality) and profitability. Ubada Garcia (2017) study on the organization's training policies suggested that training programs oriented towards human capital were directly related to employees, customer, and owner/shareholder satisfaction as well as objective measure of business performance such as cargo clearance at various ports.

Emojong (2019) did a study on In-Service Training Programs and their effects on the performance of staff at the Uganda Revenue Authority; it was emphasized in this study the need for on-job training, short seminars and team building workshops as programs that increase the performance of the employees. Without the right training, employees can be the organization's biggest liability. Trained effectively, however, they can become a firm's biggest asset (Bartram & Gibson, 2018). According to Noe (2019), after training support is a key ingredient in the success of training where managers offer after training support to employees to implement the new skills acquired successfully. Support and endorsement from management can greatly enhance training results. One can conclude that training is not always the answer, and when it is the answer, it has to be the right training.

The human resources management of the customs administration of Serbia pay a high attention to the risk analysis and assessment training and development delivered to the operational staff that is based on learning application of new IT software that is based on low, medium and high-risk criterion for selective (high risk) search instead of 100 per cent search as well learning operational risk analysis and assessment skills. Therefore, the customs administration focuses on investments in training and development activities in order to enable the enforcement teams to adapt, compete, excel, innovate, produce, be safe, improve operations, and reach goals (Salas et al., 2019).

2.4.2 Documentation Procedures

Owino (2019) asserts that shipping procedures are often slow, cumbersome and expensive. This has led to increasing the cost of doing business and also access to world markets. By impeding the smooth flow of trade and efficient operation of the means of transport Preece and Neher (2020) noted that unwieldy procedures and excessive paperwork contribute to the congestion of ports, warehouses and stacking areas. It is not unusual for customs or other formalities to require the unnecessary unloading and reloading of goods, thus increasing the risks of pilferage or damage attendant upon the goods being held without proper storage. The role of forwarding agencies that have representatives in the main overseas markets is underdeveloped, even though they could facilitate the speedy movement of goods; at the same time the capabilities of strictly local firms are limited. The effective result is a hidden inflationary tax which is eventually borne by the final consumer of the goods (Carboni & Orsini, 2020).

Costly and complicated procedures are also a serious obstacle to the expansion of trade, sometimes. Discouraging those capable of export from engaging in external trade at all. In the case of land-locked countries in particular, delays and added costs caused by unsuitable procedures contribute to their products lack of competitiveness in world markets. An integrative approach that takes into consideration all the administrative and commercial aspects of the matter within the framework of a facilitation programme aimed at minimizing formalities, simplifying and streamlining procedures, and harmonizing and standardizing documents, is absent (Al-Haddad et al., 2021).

Customs procedures are only one aspect of improving the overall efficiency of the cargo clearance process. A WCO study of cargo clearance times at Indonesian ports found that the customs clearance process for certain shipment took an average of 6.4 minutes, compared to 159 hours and 23 minutes for other activities involved in cargo clearance (including problems with incomplete documents; red tape involved in releasing goods from warehouses; payment hold-ups and deliberate delays in delivery, even after the release of goods by customs official (APEC, 2017).

Thailand's electronic data interchange (EDI) system before the implementation of the Thailand's EDI system, it used to take up to three days to complete customs processing. The EDI system in Thailand allows for customs documentation to be transferred via an online system (Gani, 2017). Traders can link to the system or use a licensed customs broker. With this

system, traders are required to meet customs officers for only verification. With this system, it takes less than a day. The system quickened and simplified the Country's customs procedures (Bassa et al., 2021).

2.4.3 Regional Electronic Cargo Tracking Systems

According to Manwari (2021), KRA introduced the new electronic system of monitoring transit cargo. The system uses a radio frequency identification solution. The system will replace the conventional mechanical seal that is quite cumbersome where the cargo is accompanied by escorts to the borders, which has previously not been effective. The taxman has not been able to seal loopholes as importers ride on the inefficiency to dump goods destined for neighbouring countries in Kenya. This in itself not only ensures that the revenue collector efficiently collects taxes but it also promotes consumer protection (Masinde, 2018).

Regional electronic cargo tracking systems have made it possible to inspect and clear containers within the pre-set organizational benchmarks. Before the introduction of the system, it was virtually impossible to inspect all of the containers (Choi, 2019). It was not even possible to check even 10% of the containers. This challenge is addressed as the system is automatic and shares data on a real-time basis showing the location of every truck and its cargo whether it is rerouted, enroute to its destination or stationery (Buyonge & Kireeva, 2020). Detection of tampering while on transit is done immediately and hence preventing loss before arrival at the unloading port. Monitoring of any change is registered by RFID signals from the truck associated with the opening of the container. Real-time reporting of any exception and incident of container security violation to destination custom and port authorities for remedial action before arrival, (Chung, 2019).

The fight against dumping of transit cargo in the Kenyan market has gone a notch higher with the tax collector initiative of introducing an electronic cargo tracking solution to monitor movement of goods between the port of Mombasa and Busia and Malaba border points through which goods have an entry point to the landlocked Great Lakes Region (Owino, 2019). KRA have dedicated resources to this particular project by setting up a department specially for handling cargo monitoring both at the headquarters – Times Towers- and also at the various stations. The KRA customs, Border stations, Container Freight Stations (CFS), Bonded warehouses, Export Processing Zones (EPZ), Port and KRA approved yards are in a total of 14 regions countrywide (Abdoulkarim, Fatouma & Munyao, 2019).

The main focus of the system is to improve overall operational performance and improve on service delivery (Geralis & Terziovski, 2018). Successful implementation of the system will give benefits in improving how the regulator clear cargo and cargo trucks that enter and exit the Kenyan borders and charge taxes and levies accordingly. The system will also assist Kenya Revenue Authority in monitoring the all inbound and outbound goods (Manwari, 2021).

2.4.4 Cargo Clearance Efficiency

A study conducted by KenTex Cargo (2016) noted that, clearing a consignment at the port of Mombasa can be a daunting experience, confusing, costly and sometimes, seemingly impossible to most. All goods imported or exported into and outside Kenya undergo various tasks through Kenyan customs and KRA. The procedures include manifest submission and approval, goods declaration, pre-shipment declarations, clearance process which entails sometimes verification of goods through scanning or physical verification. These procedures are often marred with issues such as delays, corruption and also loss of goods.

Cargo clearance at the port was identified as a trade facilitation constraint leading to increased cost of doing business in the country. The constraints identified include; The lack of alignment among Port Community members in discharging their mandates in trade facilitation; Insufficient capacity and ineffective operational models at both the Port terminal and hinterland transport channels; Poor Ship to Shore Interface, Low yard productivity and limitations in Cargo off take capacity; Time-consuming Customs Service Department clearance procedures and interventions by other statutory bodies; Insecurity and time-consuming non-tariff barriers along the Corridor; Corruption and unethical practices by different parties in the logistics supply chain (Owino, 2019).

The introduction of a modern data processing system into the customs clearance process will therefore bring about faster clearance of cargo, improve revenue control and will provide up-to-date accurate information on trade in goods (Abdoulkarim et al., 2019). A number of countries have reduced clearance time dramatically with automation of processing system. For example, the Japanese customs reduced the customs clearance time significantly from 50.3 hours to 30.8 hours for air cargo and from 142.1 hours to 81.1 hours for sea cargo; (and the time elapsing between the import declaration to the permission was reduced from 2.3 hours to 0.7 hours for air cargo and from 26.1 hours to 5.6 hours for sea cargo, that means the time required to file the import declaration after the arrival of the cargo was reduced (Mikuriya, 2017).

2.5 Empirical Review

Manwari (2021) investigated the effect of institutional factors on dry ports performance at Embakasi internal container depot, Kenya. The study adopted an explanatory research design. The study targeted a total population of 302. A sample size of 169 respondents was selected using Kumar's formulae and the study adopted stratified sampling design. Primary data was collected using structured questionnaires. Piloting was used to test the reliability of the research instruments. The study concludes that the poor state of transport infrastructure within Kenya ensures that freight costs are high and competitiveness is reduced. Road and rail networks both require regular and constant repairs and upgrades, the single biggest contributor to the cost of transporting along the northern corridor is fixed port charges and time delays at Mombasa port as a consequence of the inadequacies of port infrastructure, burdensome documentation, cargo clearance and bureaucratic customs procedures.

According to (KPA Audit report, 2016-2017) indicated that various freight stations had failed to move 6,000 containers that had been cleared, increasing the pile-up at the port yard to 18,000 Twenty Foot Equivalent Unit (Tues.) against its capacity of 14,500. If the container freight stations (CFSs) move the cargo that is ready, operations will return to normal, but the stations said that KPA had failed to put its equipment to optimal use even as some of them hold up to 2,300 Tues., two times their capacity. The delays at the port are costing importers huge storage charges with containers taking up to 14 days to move from the port to CFSs where most of the domestic cargo is cleared. Importers and clearing agents blame the delay on poor performance in the freight handling, saying they should be allowed to collect part of the cargo cleared from the port.

Masinde (2018) carried out a study on the effect of customs procedures on cross border maize trade: a case study of Namanga border post. The research took a qualitative approach, which enabled the researcher to gain deeper understanding of how customs procedures affect cross border maize trade. Cross border maize traders were the key respondents. They are directly affected by customs procedures irrespective of their understanding of such processes. The researcher used a purposive sampling approach in identifying the respondents and other key informants that were interviewed. Apart from traders, a number of other key players in cross border trade were interviewed. These included clearing agents and officials of Kenya Revenue Authority, Kenya Plant Health Inspectorate Service, Kenya Bureau of Standards and Port Health. These were interviewed to gauge their understanding of the effect of customs procedures on cross border maize trade.

Ruto and Datche (2018) study logistical factors influencing port performance taking Kenya port Authority as a case study. The study use survey research design and employs descriptive statistics analysis and summaries the causes of poor performance in the port of Mombasa according to the findings are: lengthy customs clearing procedures, rapid growth of container trade, frequent break down of Kenya Revenue Authority (KRA) and Kenya Ports Authority (KPA), IT Systems, slow gate out process and slow container off-take to Container Freight Station, inadequate yard capacity and lengthy KRA clearing procedures, poor yard planning and in adequate usage of IT in yard planning, poor working corporate culture by the corporate staff and poor hinterland connectivity.

2.6 Critique of Existing Literature

Nyema (2018) on his study regarding factors influencing port performance at Mombasa Entry Port failed to reveal factors such as inadequate cargo handling equipment, reducing berth times and delays of container ships, dwell time, container cargo and truck turnaround time, custom clearance, limited storage capacity, poor multi-modal connections to hinterland and infrastructure directly affected container terminal performance. The study also failed to acknowledge that multi sectorial linkage such as working relation between Kenya Ports Authority, Kenya Revenue Authority, Shipping lines/agencies, KEBS, Police play a key role is contributing to cargo clearance in the port of Mombasa.

The numbers of staff or the labor costs are also considered as a potential factor that may affect the performance of dry port (Guar, 2011). The number of employees is usually taken as a critical factor influencing businesses of dry ports as more staffs can handle the inbound and outbound containers or bulk cargos more efficiently especially in peak hours. Dry ports should have sufficient middle-level and front-line managers as well as workers to handle the businesses.

When compared to traders, transporters especially those of Tanzanian or Rwandan origin expressed frustration over long delays they experienced at the border on the Kenyan side awaiting clearance compared to their Kenyan counterparts. According to the study by Transparency International (2018), the worst customs stations in terms of time spent to clear goods were reported at the Kenya and Tanzania borders of Namanga, Taveta, Holili, Horohoro, Lunga Lunga and Loitoktok. The study found that truck drivers spent an average of 68 hours at these border stations seeking customs clearance. The slow pace of clearance opens up an opportunity for giving of bribes to hasten the process. The study further found that the least

amount of time spent on customs clearance was reported at the Tanzania-Burundi border. Truck drivers spend an average of 48 minutes at Kobero border on Burundi side and Kabanga on the Tanzania side to get cleared.

The study Tigabu (2020) only focused on moja dry port container terminal handling practices by investigating the factor affecting performance of container handling service. The study did not elaborate on how customs clearance affected other service like warehouse service and other terminal service. In addition, the study was not able to get secondary data on container weighting time of the current year thus forcing the researcher to focus on correctional survey method which made researcher to collect container data on specific dates in order to data on container waiting time.

2.7 Research Gaps

The reviewed literature clearly indicates that cargo clearance efficiency is a complicated aspect of the management functions for any sea port. However; there is limited literature indicating the factors affecting cargo clearance efficiency at the port of Lamu Kenya. Most of the reviewed local studies have focused on port performance but to the best knowledge of the researcher, no study has centered on Lamu port hence there existed a contextual gap. Manwari (2021) investigated the effect of institutional factors on dry ports performance at embakasi internal container depot, Kenya. Masinde (2018) carried out a study on the effect of customs procedures on cross border maize trade: a case study of Namanga border post. Ruto and Datche (2018) study logistical factors influencing port performance taking Kenya port Authority as a case study. Nyema (2018) on his study regarding factors influencing port performance at Mombasa Entry Port. The study Tigabu (2020) only focused on moja dry port container terminal handling practices. The current study seeks to contribute to policy formulation and practices on matters of cargo clearance efficiency.

Despite numerous studies having been conducted on sea ports and custom clearance, there is a deviation in the paths and methodologies applied leading to conflicting results and causations; hence the need for the current research to expound on the body of knowledge. For instance, Manwari (2021) in his study adopted mixed research design, Masinde (2018), employed descriptive study design while Webeshet (2019), applied cross sectional descriptive survey. The differences in methodologies led to varied findings and thus the need to address the existing methodological gaps.

2.8 Summary

The study was guided by Attraction-Selection-Attrition Theory, System Theory and agency theory. The conceptual framework for this study attempted to explain an integrative view of the factors affecting cargo clearance at the port of Lamu Kenya. The empirical literature will be done in accordance to the study objectives and the conceptual framework gives a diagrammatical explanation of the variables. Customs officer's knowledge, documentation procedures and Regional Electronic Cargo Tracking System as independent variables and cargo clearance efficiency as a dependent variable.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The mode and manner in which research is carried out and conducted plays a significant role in determining the failure or success of the project. Therefore, it is advisable to make sure that research is well planned and implemented before commencing to avoid any incongruous mishaps in the manner through which it is handled. According to Garg (2016), it is needful to make sure that research conduct is approached systematically and in a manner that extensively involves sedulous planning and execution (Garg, 2016). This therefore ascertains the need for research to be carried out in a way that ensures maximum optimization of research resources in order to come up with the most accurate data and information for effective problem solving. Selecting an appropriate methodology to carry out research constitutes a greater part in seeing to it that all relevant variables are considered in order to consequentially come up with the best inferences.

3.2 Research Design

According to Siedlecki (2021), a research design that is descriptive can ensure the use of a variety of methods in research so that more than one variable is investigated. Therefore, a design forms an ambiguous part of the conceptual framework and structure which serves the duty to guide conduct within the research. Therefore, this study adopted descriptive research design in order to systematically and accurately describe various factors affecting cargo clearance at the port of Lamu Kenya. Implications are that the selected sample was queried in order to allow for smooth collection of information that acts as lead in the research process.

3.3 Target Population

Siedlecki (2021) refer to population as the aggregate or totality of those conforming to a set of specifications. The target population refers to population to which the researcher wants to generalize the results of the study. Target population is also defined as all the members of a real or hypothetical set of people, events or objects to which a researcher wishes to generalize the results of the research study (Garg, 2016). The target population under this study included the registered KIFWA custom agents operating at Lamu port and Customs Authority officers at the CFS/ICD gate who confirm the exit of the cargo in the customs management system, transfer document (EXIT NOTE and C2/Release order) which is generated by both the

destination Partner States Customs Authorities and the host country. The population of the study will be 201.

Table 3.1: Target Population

Category	Target Population
Customs Authorities officers	105
Custom Agents	96
TOTAL	201

Source: KRA (2021/2022)

3.4 Sampling Frame

The sampling frame involves a list of all the items you want to study. It involves the list of everything and everyone that the researcher intends to study (Abgaz, 2018). For this study the sampling frame involved a number of customs authority officers.

3.5 Sample Size and Sampling Technique

A research sample is a population sub-component. In research, the researcher usually finds information from the sample and assumes at given levels of confidence that the results represent what could be found out by including all the elements in the population in the actual study (Ihantola & Kihn, 2017). The sampling technique adopted was simple random technique. This enabled a free and fair selection with no biasness. It will ensure that each unit of population has equal probability of inclusion. The study will sample used the formula developed by Yamane (1967) to determine the size of the sample.

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

Where,

n = is the desired sample size

N = is the population size

e = margin of error (at 95% confidence level)

Therefore, sample size was given as

Therefore, the size of the sample based on the formula is depicted in Equation below

$$n = \frac{201}{1+201(0.05^2)} = 134$$

Table 3.2: Sample Size

CATEGORY	Sample Size
Customs Authorities officers	70
Custom Agents	64
TOTAL	134

3.6 Data Collection Instrument

Data collection activities require meticulous attention in order to ensure that data is collected, measured and analyzed accurately. It was necessary to use both primary and secondary data in this research, owing to the fact that information in both sets of data proved to be very beneficial in making sure that most of the questions in the questionnaire are well structured. Providing a wide scope of structure in the questionnaire was effective in determining the intensity of information obtained. The fact that Abgaz claims that most of the primary data collected proves to be lexical in terms of directly responding to questions of a questionnaire signifies the importance of using such data in a research project (Abgaz, 2018).

Therefore, in order to be able to collect primary data, a questionnaire was structured and utilized by the study in order to make sure that respondents were given better chances to articulate their issues in a more objective manner. Owing to the fact that primary data comes from an original source and should maintain originality, the questionnaire was very appropriate in making sure that the landlords will be eligible to the payment of taxes are well scrutinized in reference to how the processes and activities have functioned to influence the issue of revenue mobilization and generation.

Secondary data was collected from various sources which are prolific and proficient, such as journals and texts to ascertain every data that was collected and guide on its validity and credibility. The internet, physical library and other relevant materials were also salient and valued in the process of coming up with the secondary data.

3.7 Data Collection Procedure

The research assessed the reliability of the structured research questionnaire through a pilot study. The researcher briefed the respondents on the study purpose before eliciting responses

from them. The questionnaires administered directly to respondents to fill the questionnaires in person

3.8 Pilot Study

A pilot study is the assists the researcher to identify if there are any flaws, weaknesses and any other shortcoming in the data collection method. According to Kothari (2014), pilot study involves giving few people in the sample the questionnaire in able to know how they will answer the questionnaire are. It is pre-testing the questionnaire.

3.8.1 Validity

This is the ability the ability to produce accurate results that reflect the true situation of the environment it is supposed to study (Bryman, 2015). Content validity examines whether the questions set were for their intended purpose. Instrument validity was used to test judgement and intuitive. Factor analysis was used to test the validity of this study. The researcher used the most common internal consistency measure known as KMO-Bartlett's test. It may be safe to say that its value varies from 0 to 1, but satisfactorily value is required to be more than 0.6 for the scale to be reliable. The recommended value of 0.7 is the cut-off of reliability (Ghauri & Gronhaug, 2018).

3.8.2 Reliability

Reliability refers to the ability of an instrument to produce consistent results. The closer the reliability coefficient is to 1, the higher the internal consistency reliability. Cronbach of 0.7 and 0.8 is an acceptable range while that of 0.6 and below is poor (Ghauri & Gronhaug, 2018). Reliability is concerned in the consistency and stability of the test result (Burns & Groove, 2013). Cronbach's alpha was used to test the reliability of the measures in the questionnaire. In this study, reliability was tested using questionnaire duly completed by randomly selected respondents.

3.9 Data Analysis and Interpretation

Cooper and Schindler (2013) highlighted data analysis as inspection, cleaning, transforming and modeling data in order highlight useful information to draw conclusions and support decision making. The collected data was coded and entered into SPSS to create information that will used for analysis. In these research two types of data analysis was done. Analyzed data was presented using frequency tables to find out the percentage of response of each category in the variable that included response rate to questions. Quantitative data analysis was executed through descriptive statistics such as means, standard deviations, and percentages,

frequencies using the statistical package for social science (SPSS Version 28) which has been incredible capabilities of executing such high-level analysis as of variance (ANOVA), chi-square test, multivariate analysis correlation and multiple regression analysis.

The following model for the regression model is expected to analyze the relationship:

The multiple regression formula is presented as;

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + e_i$$

Where:

Y = Cargo Clearance

β_0 = Constant

X_1 = Customs Officer's Knowledge

X_2 = Documentation Procedures

X_3 = Regional Electronic Cargo Tracking System

e_i = Stochastic term

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter represents the empirical findings and results of the application of variables using techniques mentioned in chapter three of the methodology. Data analysis was in line with specific objectives where patterns were investigated, interpreted and implications drawn on them. The general objective of this research was to investigate the factors affecting cargo clearance efficiency at the port of Lamu Kenya. In an attempt to address the specific objectives of the study, this chapter provides a detailed description of descriptive and inferential statistics and research findings and discussions.

4.2 Response Rate

Out of the 134 questionnaires administered, only 126 questionnaires were filled and returned. This represented 94% of response rate. According to Ghauri and Gronhaug (2018), a 50% response rate is considered to be adequate, 60% to be good, while a 70% and above rate is considered to be very good. Therefore, a 94% response rate from this study is considered to be very good and satisfactory. The high response rate can be attributed to an overwhelming willingness of respondents to participate in the research. The study was interesting to a majority of the respondents who participated with curiosity.

Table 4.1: Response Rate

Response	Frequency	Percentage %
Responses	126	94%
Non responses	8	6%
Total	134	100

4.3 Pilot Study Results

4.3.1 Validity

Factor analysis was used to check validity of the constructs. Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) & Bartlett's Test of Sphericity is a measure of sampling adequacy that is recommended to check the case to variable ratio for the analysis being conducted. In most academic and business studies, KMO & Bartlett's test play an important role for accepting

the sample adequacy. While the KMO ranges from 0 to 1, the world-over accepted index is over 0.5. Also, the Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through the study. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05.

The study applied the KMO measures of sampling adequacy and Bartlett's test of sphericity to test whether the relationship among the variables has been significant or not as shown in below in table 4.2. Factor 1 was based on five items that represented customs officer's knowledge; Factor 2 was based on five items that represented documentation procedures; Factor 3 was based on five items that represented Regional Electronic Cargo Tracking System, Factor 4 with five items represented cargo clearance efficiency. The Kaiser-Meyer-Olkin measures of sampling adequacy shows the value of test statistic as 0.791, which is greater than 0.5 hence an acceptable index. While Bartlett's test of sphericity shows the value of test statistic as 0.000 which is less than 0.05 acceptable indexes. This result indicates a highly significant relationship among variables.

Table 4.2: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin	Measure of Sampling Adequacy.	.791
Bartlett's Test of Sphericity	Approx. Chi-Square	179.306
	Df	6
	Sig.	.000

4.3.2 Reliability Analysis

Reliability is a measure of the degree to which a research instrument yields consistent result or data after repeated trials (Siedlecki, 2021). Reliability in research is influenced by random error. As random error increases, reliability decreases. Random error is the deviation from a true measurement due to factors that have not effectively been addressed by the researcher. According to Ihantola and Kihn (2017), errors may arise from inaccurate coding, ambiguous instructions/questions to the subjects, interviewers' fatigue, interviewee fatigue, interviewer's bias, and so on. There are three types of random errors that arise at the time of data collection. These are: error due to the inaccuracy of the instrument; error due to the inaccuracy of scoring

by the researcher and unexplained error. These three types of errors combine to produce inconsistencies in the measurement, which ultimately affects the reliability of the data collected (Abgaz, 2018).

Reliability was tested using Cronbach's coefficient Alpha. Cronbach's Alpha measures how well a set of items or variables, measure a single uni-dimensional latent construct that is a coefficient of reliability or consistency. Reliability is expressed as a coefficient between 0 and 1.00. The higher the coefficient, the more reliable is the test. A threshold of a Cronbach Alpha of 0.7 and above is acceptable (Ihantola & Kihn, 2017). Cronbach Alpha was used to test the reliability of the proposed constructs. The findings indicate that customs officer's knowledge has a coefficient of 0.834, Documentation procedures has a coefficient of 0.801, Regional Electronic Cargo Tracking System has a coefficient of 0.812 and cargo clearance efficiency has a coefficient of 0.806. All constructs depicted that the value of Cronbach's Alpha was greater or equal to 0.7000 and thus, the study constructs were reliable. The reliability results are presented in Table 4.3.

Table 4.3: Reliability Test

Scale	Cronbach's Alpha	Number of Items	Remarks
Customs Officer's Knowledge	.834	5	Accepted
Documentation Procedures	.801	5	Accepted
Regional Electronic Cargo Tracking System	.812	5	Accepted
Cargo Clearance Efficiency	.806	5	Accepted

4.4 Demographic Data

The section gives the general analysis on the demographic data gotten from the respondents which included; - education of the respondent and number of years worked.

4.4.1 Level of Education

The respondents were asked to indicate their highest level of education. The findings in Table 4.4 illustrate that 27.8% of the respondents had reached diploma level, while 33.3% of the respondents had attained undergraduate level and 38.9% had attained post graduate level. The

findings imply that most of the respondents had high level of education which could have contributed to accurate responses. The high level of education of respondents indicates that many respondents have attained a given level of education and qualifications to secure their jobs.

Table 4.4: Level of Education

Level	Frequency	Percent (%)
Diploma Level	35	27.8
Undergraduate Level	42	33.3
Postgraduate Level	49	38.9
Total	126	100.0

4.4.2 Work Experience

The study sought to find out the number of years the respondents had worked as customs agent and as customs authority officers. Table 4.5 shows that 17.5% of the respondents indicated that they had worked for over 10 years, 31.7% indicated between 6 to 10 years, 28.6% indicated between 3 to 5 years and 22.2% of the respondents indicated that they had worked for less than 3 years. The findings imply that the respondents had worked long enough in the industry and hence had knowledge about the issues that the researcher was looking for.

Table 4.5: Work Experience

Work Experience	Frequency	Percent
less than 3 years	28	22.2
3 - 5 years	36	28.6
6-10 years	40	31.7
More than 10 years	22	17.5
Total	126	100.0

4.5 Descriptive Analysis

This section contains descriptive statistics for all the variables used in this study.

4.5.1 Customs Officer's Knowledge

Table 4.6 presents the results of the descriptive statistics in terms of the means and standard deviations for all items for customs officer's knowledge. The results revealed that the mean scores ranged from 3.67 for item suggesting that custom officers have cargo clearance skills to 4.03 for the item suggesting that training has an effect on cargo clearance. All custom officers are competent on cargo clearance matters had a mean score of 3.93 and a standard deviation of 0.740, followed by the statement that custom officers are well trained on custom clearance had a mean score of 3.94 and a standard deviation of 0.762, while the statement that custom officers are facilitated with internal training schemes had a mean score of 3.96 and a standard deviation of 0.950.

Means greater than 1 and less than 1.5 implied that customs officer's knowledge affected cargo clearance efficiency to no extent. Means greater than 1.5 and less than 2.5 implied that customs officer's knowledge affected cargo clearance efficiency to a little extent. Means greater than 2.5 and less than 3.5 implied that customs officer's knowledge affected cargo clearance efficiency to a moderate extent. Means greater than 3.5 and less than 4.5 implied that customs officer's knowledge affected cargo clearance efficiency to a greater extent. Means greater than 4.5 implied that customs officer's knowledge affected cargo clearance efficiency to a very great extent.

The findings are in support of Kusuma and Tseng (2019) who asserted that Kenya Ports Authority has taken cognizance of the importance of strategic training to deliver on its vision and mission. In every aspect of the Port capacity improvement in infrastructure, equipment acquisition and cargo clearance process automation, human resource development has stood out as a common denominator. Similarly, Ubada Garcia (2017) study on the organization's training policies suggested that training programs oriented towards human capital were directly related to employees, customer and owner/shareholder satisfaction as well as objective measure of business performance such as cargo clearance at various ports.

Emojong (2019) did a study on In-Service Training Programs and their effects on the performance of staff at the Uganda Revenue Authority; it was emphasized in this study the need for on-job training, short seminars and team building workshops as programs that increase the performance of the employees. Without the right training, employees can be the

organization's biggest liability. Trained effectively, however, they can become a firm's biggest asset (Bartram & Gibson, 2018). Knowledge and skill gaps that are considered critical are identified and the trainings are specially designed and tailored to enable custom staff manage and control, operate, administer and provide leadership in the activities the Authority is engaged in (Singh, 2022).

Table 4.6: Customs Officer's Knowledge

Statement	N	Mean	Std. Deviation
Custom officers are well trained on custom clearance	126	3.94	.762
Custom officers have cargo clearance skills	126	3.67	1.109
Custom officers are facilitated with internal training schemes	126	3.96	.950
Training has an effect on cargo clearance	126	4.03	.680
All custom officers are competent on cargo clearance matters	126	3.93	.740
Valid N (listwise)	126		

4.5.2 Documentation Procedures

Table 4.7 presents the results of the descriptive statistics in terms of the means and standard deviations for all items for documentation procedures. The results revealed that the mean scores ranged from 3.69 for item suggesting that lodgment and processing of imports declaration form has improved significantly to 4.15 for the item suggesting that time taken to declare goods to Customs has reduced significantly. Lodging and processing of customs declaration has been made easier and transparent had a mean score of 3.93 and a standard deviation of 0.782, followed by the statement that compliance with customs procedures has improved significantly had a mean score of 3.95 and a standard deviation of 0.736, while the statement that there is greater coordination of verification process between customs and PGAs had a mean score 3.98 and a standard deviation of 0.579.

Means greater than 1 and less than 1.5 implied that documentation procedures affected cargo clearance efficiency to no extent. Means greater than 1.5 and less than 2.5 implied that documentation procedures affected cargo clearance efficiency to a little extent. Means greater than 2.5 and less than 3.5 implied that documentation procedures affected cargo clearance efficiency to a moderate extent. Means greater than 3.5 and less than 4.5 implied that documentation procedures affected cargo clearance efficiency to a greater extent. Means greater than 4.5 implied that documentation procedures affected cargo clearance efficiency to a very great extent.

The study findings are in agreement with those of Owino (2019) asserts that shipping documentation procedures are often slow, cumbersome and expensive. This has led to increasing the cost of doing business and also access to world markets. Preece and Neher (2020) noted that unwieldy procedures and excessive paperwork contribute to the congestion of ports, warehouses and stacking areas. It is not unusual for customs or other formalities to require the unnecessary unloading and reloading of goods, thus increasing the risks of pilferage or damage attendant upon the goods being held without proper storage. Similarly, Al-Haddad et al. (2021) opined that costly and complicated procedures are also a serious obstacle to cargo clearance efficiency and the expansion of trade, sometimes. Discouraging those capable of export from engaging in external trade. A WCO study of cargo clearance times at Indonesian ports found that the customs clearance process for certain shipment took an average of 6.4 minutes, compared to 159 hours and 23 minutes for other activities involved in cargo clearance (including problems with incomplete documents; red tape involved in releasing goods from warehouses; payment hold-ups and deliberate delays in delivery, even after the release of goods by customs official (APEC, 2017).

Table 4.7: Documentation Procedures

Statement	N	Mean	Std. Deviation
Lodgment and processing of Imports declaration form has improved significantly	126	3.69	1.054
Lodging and processing of Customs declaration has been made easier and transparent	126	3.93	.782
Compliance with Customs procedures has improved significantly	126	3.95	.736
There is greater coordination of verification process between Customs and PGAs	126	3.98	.579
Time taken to declare goods to Customs has reduced significantly	126	4.15	.621
Valid N (listwise)	126		

4.5.3 Regional Electronic Cargo Tracking System

Table 4.8 presents the results of the descriptive statistics in terms of the means and standard deviations for all items for customs verification. The results revealed that the mean scores ranged from 3.77 for item suggesting that improved and facilitative form of communication between KRA staff and clearing agents to 4.25 for the item suggesting that cargo dumping has been reduced drastically. RECTS has reduced tax evasion had a mean score of 3.91 and a standard deviation of 0.670, followed by the statement that the system provides movement audit trail used for post-clearance audit had a mean score of 4.03 and a mean score of 0.592, while the statement that RECTS enables data captured to be shared on real time had a mean score of 4.10 and a standard deviation of 0.534.

Means greater than 1 and less than 1.5 implied that customs verification affected cargo clearance efficiency to no extent. Means greater than 1.5 and less than 2.5 implied that customs verification affected cargo clearance efficiency to a little extent. Means greater than 2.5 and less than 3.5 implied that customs verification affected cargo clearance efficiency to a moderate

extent. Means greater than 3.5 and less than 4.5 implied that customs verification affected cargo clearance efficiency to a greater extent. Means greater than 4.5 implied that customs verification affected cargo clearance efficiency to a very great extent.

The study findings are in line with Alfitiani (2020) journal titled Jordan's electronic transit monitoring and facilitation system presented to the world customs organization highlights that the introduction of electronic tracking of transit goods in Jordan greatly improved transparency among the key stakeholders. The research findings clearly highlight that this was the same feeling concerning impact of RECTS on transparency as the respondents agreed that the transparency has positively influenced management of transit goods (Oirere, 2020).

Table 4.8: Regional Electronic Cargo Tracking System

Statement	N	Mean	Std. Deviation
RECTS has reduced tax evasion	126	3.91	.670
RECTS enables data captured to be shared on real time	126	4.10	.534
Cargo dumping has been reduced drastically	126	4.25	.532
Improved and facilitative form of communication between KRA staff and clearing agents	126	3.77	1.013
The system provides movement audit trail used for post-clearance audit	126	4.03	.592
Valid N (listwise)	126		

4.5.4 Cargo Clearance Efficiency

Table 4.9 presents the results of the descriptive statistics in terms of the means and standard deviations for all items for cargo clearance efficiency. The results revealed that the mean scores ranged from 3.95 for item suggesting that the cargo dwell time at the port of Lamu has reduced significantly to 4.21 for the item suggesting that compliance with regulatory requirements has improved significantly. Cargo clearance time at the port of Lamu has improved significantly had a mean score of 4.04 and a standard deviation of 0.916. The statement that there is increase revenue collection by regulatory agencies at the port of Mombasa had a mean score of 4.04 and

a standard deviation of 0.571, while the statement that there is faster lodgment & processing of regulatory documents by Traders had a mean score of 4.11 and a standard deviation of 0.729.

Means greater than 1 and less than 1.5 implied that cargo clearance efficiency has improved to no extent. Means greater than 1.5 and less than 2.5 implied that cargo clearance efficiency has improved to a little extent. Means greater than 2.5 and less than 3.5 implied that cargo clearance efficiency has improved to a moderate extent. Means greater than 3.5 and less than 4.5 implied that cargo clearance efficiency has improved to a greater extent. Means greater than 4.5 implied that cargo clearance efficiency has improved to a very great extent.

The study findings are in line with Massami and Manyasi (2021) who conducted a study on analysis of the performance of cargo clearance formalities based on Fuzzy VIKOR Clustering Model: A Case of Dar es Salaam Seaport and found that the efficiency of cargo clearance operations is a strategic key performance indicator for a Sea Port. The high quality of cargo clearance service for the Port reveals the reduction of cargo dwell time and associated costs. Improving cargo clearance processes is necessary for Ports to remain competitive in the international trade. Similarly, Owino (2019) recommended for the optimizing of the cargo clearance system, coordinating the cargo clearance structure, and simplifying the procedure of cargo clearance at customs.

Table 4.9: Cargo Clearance Efficiency

Statement	N	Mean	Std. Deviation
The cargo dwell time at the port of Lamu has reduced significantly	126	3.95	.788
Cargo clearance time at the port of Lamu has improved significantly	126	4.04	.916
Compliance with regulatory requirements has improved significantly	126	4.21	.733
There is increase revenue collection by regulatory agencies at the port of Mombasa	126	4.04	.571
There is faster lodgment & processing of regulatory documents by Traders	126	4.11	.729
Valid N (listwise)	126		

4.6 Correlation Analysis

Pearson Bivariate correlation coefficient was used to compute the correlation between the dependent variable (service satisfaction) and the independent variables (customs officer's knowledge, documentation procedures and customs verification). According to Siedlecki (2021), this relationship is assumed to be linear and the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables.

Table 4.10 shows the correlation results which indicates that there was a positive and significant relationship between customs officer's knowledge and cargo clearance efficiency. This reveals that any positive change in customs officer's knowledge leads to improved cargo clearance efficiency. The relationship has been illustrated by the correlation co-efficient of 0.624. There was also a positive and significant relationship between documentation procedures and cargo clearance efficiency. This reveals that any positive change in documentation procedures leads to improved cargo clearance efficiency. The relationship has been illustrated by the correlation co-efficient of 0.601. There was also a positive and significant relationship between RECTS and cargo clearance efficiency. This reveals that an adoption of RECTS leads to improved cargo clearance efficiency. The relationship has been illustrated by the correlation co-efficient of 0.512.

Table 4.10: Pearson Correlations

		Customs Officer's Knowledge	Documentation Procedures	RECTS	Cargo Clearance Efficiency
Customs Officer's Knowledge	Pearson	1			
	Correlation				
	Sig. (2-tailed)				
	N	126			
Documentation Procedures	Pearson	.524**	1		
	Correlation				
	Sig. (2-tailed)	.000			
	N	126	126		
RECTS	Pearson	.445**	.560**	1	
	Correlation				
	Sig. (2-tailed)	.000	.000		
	N	126	126	126	
Cargo Clearance Efficiency	Pearson	.624**	.601**	.512**	1
	Correlation				
	Sig. (2-tailed)	.000	.000	.000	
	N	126	126	126	126

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

4.7 Regression Analysis

4.7.1 Model Summary

Regression analysis was conducted to empirically determine whether predictors (customs verification, customs officer's knowledge and documentation procedures) were a significant determinant of the cargo clearance efficiency. Regression results in Table 4.11 indicate the goodness of fit for the regression between the predictors and dependent variable (cargo clearance efficiency). An R squared of 0.511 indicates that 51.1% of the variations in cargo clearance efficiency are explained by the variations in RECTS, customs officer's knowledge and documentation procedures. This implies that 48.9% of the unexplained variations in cargo clearance efficiency is accounted for by the other variables.

Autocorrelation may be defined as the assumption that the errors of prediction are independent of one another (Ihantola & Kihn, 2017). The Durbin-Watson statistic was used to measure the autocorrelation of errors over the sequence of cases, and if significant, indicates dependence of errors. In order to conclude lack of autocorrelation, Johnson and Wichern (2019) stated that the optimum value of the Durbin-Watson should fall within the range of 1.5 to 2.5, while Field (2018) suggested that the Durbin-Watson statistic is better when closer to 2.0. The findings revealed that the Durbin-Watson value was 2.066 suggesting lack of autocorrelation among the variables as shown in table 4.11.

Table 4.11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.715 ^a	.511	.499	.23215	2.066

a. Predictors: (Constant), RECTS, Customs Officer's Knowledge and Documentation Procedures

b. Dependent Variable: Cargo Clearance Efficiency

4.7.2 Analysis of Variance (ANOVA)

Table 4.32 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. This was supported by an F statistic of 42.547 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level. These results imply that the independent variables are good predictors of cargo clearance efficiency.

Table 4.12: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.879	3	2.293	42.547	.000 ^b
	Residual	6.575	122	.054		
	Total	13.454	125			

a. Predictors: (Constant), Regional Electronic Cargo Tracking System, Customs Verification, Customs Officer's Knowledge and Documentation Procedures

b. Dependent Variable: Cargo Clearance Efficiency

4.7.3 Regression Coefficients

The results in table 4.13 show that the predictors contributes significantly to the model since the p-value is 0.000. The findings imply that one positive unit change in customs officer's knowledge led to a change in cargo clearance efficiency at the rate of 0.375. This confirms the positive effect of customs officer's knowledge on cargo clearance efficiency. This implies that customs officer's knowledge cargo clearance efficiency at the port of Lamu. From the regression result, the findings imply that one positive unit change in documentation procedures led to a change in cargo clearance efficiency at the rate of 0.288. This confirms the positive effect of documentation procedures on cargo clearance efficiency. This implies that documentation procedures cargo clearance efficiency at the port of Lamu. The findings also imply that an increase in adoption of Regional Electronic Cargo Tracking System led to a change in cargo clearance efficiency at the rate of 0.172. This confirms the positive effect of RECTS on cargo clearance efficiency. This implies that RECTS cargo clearance efficiency at the port of Lamu.

Multicollinearity was tested by computing the Variance Inflation Factors (VIF) and its reciprocal, the tolerance. It is a situation in which the predictor variables in a multiple regression analysis are themselves highly correlated making it difficult to determine the actual contribution of respective predictors to the variance in the dependent variable. Thus, collinearity diagnostics measure how much regressors are related to other regressors and how this affects the stability and variance of the regression estimates. The existence of multicollinearity is a vital problem in applying multiple time series regression model. Multicollinearity is a situation when independent variables in the regression model are highly inter-correlated. Multicollinearity inflates the variances of the parameter estimates and hence this may lead to lack of statistical significance of individual predictor variables even though the overall model may be significant.

To detect for multicollinearity, the study examined the correlation matrix or by using Variance Inflation Factor (VIF) as shown in Table 4.13. The Variance Inflation Factor (VIF) quantifies the severity of multicollinearity in an ordinary least- squares regression analysis. VIF's greater than 10 are a sign of multicollinearity; the higher the value of VIF's, the more severe the problem. This study adopted a VIF value of 10 as the threshold. Customs Officer's Knowledge had VIF of 1.445; Documentation Procedures had VIF of 1.688 and Customs Verification had VIF of 1.526. These results indicate that the VIF values of the independent variables were

within the threshold of 10. This indicated that there was no threat of multicollinearity problem and therefore, the study used linear regression model.

Table 4.13: Multiple Regression (Coefficients)

		Unstandardized Coefficients		Standardized Coefficients				Collinearity Statistics
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.729	.310		2.350	.020		
	Customs Officer's Knowledge	.375	.073	.390	5.127	.000	.692	1.445
	Documentation Procedures	.288	.079	.301	3.663	.000	.592	1.688
	RECTS	.172	.079	.170	2.176	.031	.655	1.526

a. Dependent Variable: Cargo Clearance Efficiency

$$Y = 0.729 + 0.375X_1 + 0.288X_2 + 0.172X_3$$

Where:

Y = Cargo Clearance Efficiency

β_0 = Constant

X_1 = Customs Officer's Knowledge

X_2 = Documentation Procedures

X_3 = Regional Electronic Cargo Tracking System

e_i = Stochastic term

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of key findings of the study, conclusions, and recommendations that are aligned to the specific objectives of the study.

5.2 Summary of Findings

5.2.1 Customs Officer's Knowledge

The first objective of the study was to establish the effect of customs officer's knowledge on cargo clearance efficiency at the port of Lamu. Customs officer's knowledge was found to be satisfactory in explaining cargo clearance efficiency. Further, results showed that customs officer's knowledge is a good predictor of cargo clearance efficiency. Correlation analysis revealed that customs officer's knowledge was positively and significantly associated to cargo clearance efficiency. Regression of coefficient revealed that there was a positive and significant relationship between customs officer's knowledge and cargo clearance efficiency. This means that an improvement in customs officer's knowledge leads to an improvement in cargo clearance efficiency.

5.2.2 Documentation Procedures

The second objective of the study was to determine the effect of documentation procedures used on cargo clearance efficiency at the port of Lamu. Documentation procedures was found to be satisfactory in explaining cargo clearance efficiency. Further, results showed that documentation procedures are a good predictor of cargo clearance efficiency. Correlation analysis revealed that documentation procedures was positively and significantly associated to cargo clearance efficiency. Regression of coefficient revealed that there was a positive and significant relationship between documentation procedures and cargo clearance efficiency. This means that an improvement in documentation procedures leads to an improvement in cargo clearance efficiency.

5.2.3 Regional Electronic Cargo Tracking System

The third objective of the study was to establish the effect of Regional Electronic Cargo Tracking System on cargo clearance efficiency at the port of Lamu. Regional Electronic Cargo Tracking System was found to be satisfactory in explaining cargo clearance efficiency. Further, results showed that Regional Electronic Cargo Tracking System is a good predictor of cargo

clearance efficiency. Correlation analysis revealed that Regional Electronic Cargo Tracking System was positively and significantly associated to cargo clearance efficiency. Regression of coefficient revealed that there was a positive and significant relationship between Regional Electronic Cargo Tracking System and cargo clearance efficiency. This means that the introduction of Regional Electronic Cargo Tracking System leads to an improvement in cargo clearance efficiency.

5.3 Conclusions

5.3.1 Customs Officer's Knowledge

The study concludes that customs officer's knowledge has a positive effect on cargo clearance efficiency at the port of Lamu. Kenya Ports Authority has taken cognizance of the importance of training to deliver on its vision and mission. In every aspect of the Port capacity improvement in infrastructure, equipment acquisition and cargo clearance process automation, human resource development has stood out as a common denominator. Training programs oriented towards customs officer's knowledge is directly related to cargo clearance efficiency. Customs and Customs agents have pursued proactive training solutions that are jointly developed between Customs and Customs agents, in order to embrace skill and knowledge development on Customs policies and procedures. This is because it was evident that Customs agents are the recipients implementing Customs policies and procedures.

5.3.2 Documentation Procedures

The study established the critical role of documentation procedures in improving cargo clearance efficiency. Unwieldy procedures and excessive paperwork contribute to the congestion of ports, warehouses and stacking areas. The study concludes that lodgement and processing of imports declaration form has improved significantly. Lodging and processing of customs declaration has been made easier and transparent. Compliance with customs procedures has improved significantly. The study also concludes that there is greater coordination of verification process between Customs and PGAs. The study further concludes that time taken to declare goods to customs has reduced significantly.

5.3.3 Regional Electronic Cargo Tracking System

The study concluded that RECTS has reduced tax evasion. It was also established that RECTS enables data captured to be shared on real time. It was also concluded that cargo dumping has been reduced drastically. There is improved and facilitative form of communication between KRA staff and clearing agents. The system provides movement audit trail used for post-

clearance audit. Regional electronic cargo tracking systems have made it possible to inspect and clear containers within the pre-set organizational benchmarks.

5.4 Recommendations

1. The study recommends that customs and customs agent's management should initiate a policy of providing collaborative opportunities for the development Customs agents. This would bring about benefits such as competency improvement, through collaborative training needs assessment and after-training support. This will help them to engage closely and creatively with activities that will improve the competencies and hence cargo clearance efficiency. The study also recommends that Customs executives should demonstrate commitment toward empowering Customs agents by ensuring and offering continuous training on new customs processes and operations at the port of Lamu.
2. Costly and complicated documentation procedures are a serious obstacle to cargo clearance efficiency and therefore it is recommended that there should be an integrative approach that takes into consideration all the administrative and commercial aspects of the matter within the framework of a facilitation programme aimed at minimizing formalities, simplifying and streamlining procedures, and harmonizing and standardizing documents.
3. Regional electronic cargo tracking systems has made it possible to inspect and clear containers within the pre-set organizational benchmarks. Successful implementation of the system will give benefits in improving how the regulator clear cargo and cargo trucks that enter and exit the Kenyan borders and charge taxes and levies accordingly. The system will also assist Kenya Revenue Authority in monitoring the all inbound and outbound goods.

5.5 Areas for Further Research

The study sought to investigate the factors affecting cargo clearance efficiency at the port of Lamu Kenya. This called for the analysis of the registered KIFWA custom agents and Customs Authority officers operating at Lamu port only, thus area for further studies could consider other public sector organizations dealing with tax administration. Moreover, the study used only three variables that is customs officer's knowledge, documentation procedures and customs verification as the only variables that cargo clearance efficiency at the port of Lamu

Kenya. According to the coefficient of non-determination, 48.9% is explained by other factors not considered in the model. Therefore, future studies can incorporate other variables which are not captured by this study.

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APPENDICES

Appendix I: Letter of Introduction

Dear Respondent

RE: REQUEST FOR FILLING QUESTIONNAIRES

I am David Mwamutsi Mwamutsi a student at KESRA - Mombasa Campus pursuing a Post Graduate Diploma in factors affecting cargo clearance efficiency at the port of Lamu Kenya. Kindly take a few minutes to complete this questionnaire. Your specific answers will be completely anonymous. Your views will form an important basis of my research. The information generated will be treated with confidentiality and will not be in any way used against the respondent nor the institution. The information obtained will be used purely for the intended academic purposes.

Yours faithfully,

DAVID MWAMUTSI MWAMUTSI

Appendix II: RESEARCH QUESTIONNAIRE

The below questionnaire has five sections. Kindly fill each section to the best of your knowledge. Kindly tick where necessary and where an explanation is needed kindly explain to your level best.

CONFIDENTIALITY CLAUSE:

The responses you provide will be used for academic research purposes, will be strictly confidential and will be handled ethically.

SECTION A: BASIC INFORMATION

1) Level of education

Diploma ☐ Undergraduate ☐ Postgraduate ☐

2) Years of experience in custom clearance

Less than 3 Year ☐ 6- 10 Years ☐

3 to 5 years ☐ More than 10 years ☐

SECTION B: CUSTOMS OFFICER'S KNOWLEDGE

Please indicate on the scale provided below by ticking the extent to which you agree with the following statements.

Strongly Agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly Disagree=1

	Statement	1	2	3	4	5
B.1	Custom officers are well trained on custom clearance					
B.2	Custom officers have cargo clearance skills					
B.3	Custom officers are facilitated with internal training schemes					
B.4	Training has an effect on cargo clearance					
B.5	All custom officers are competent on cargo clearance matters					

Section C: DOCUMENTATION PROCEDURES

Please indicate on the scale provided below by ticking the extent to which you agree with the following statements.

Strongly Agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly Disagree=1

	Statement	1	2	3	4	5
C.1	Lodgement and processing of Imports declaration form has improved significantly					
C.2	Lodging and processing of Customs declaration has been made easier and transparent					
C.3	Compliance with Customs procedures has improved significantly					
C.4	There is greater coordination of verification process between Customs and PGAs					
C.5	Time taken to declare goods to Customs has reduced significantly					

SECTION D: REGIONAL ELECTRONIC CARGO TRACKING SYSTEM

Please indicate on the scale provided below by ticking the extent to which you agree with the following statements.

Strongly Agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly Disagree=1

	Statement	1	2	3	4	5
D.1	RECTS has reduced tax evasion					
D.2	RECTS enables data captured to be shared on real time					
D.3	Cargo dumping has been reduced drastically					
D.4	Improved and facilitative form of communication between KRA staff and clearing agents					

D.5	The system provides movement audit trail used for post-clearance audit					
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SECTION E: CARGO CLEARANCE EFFICIENCY

Please indicate on the scale provided below by ticking the extent to which you agree with the following statements.

Strongly Agree=5, Agree=4, Uncertain=3, Disagree=2, Strongly Disagree=1

	Statement	1	2	3	4	5
E.1	The cargo dwell time at the port of Lamu has reduced significantly					
E.2	Cargo clearance time at the port of Lamu has improved significantly					
E.3	Compliance with regulatory requirements has improved significantly					
E.4	There is increase revenue collection by regulatory agencies at the port of Mombasa					
E.5	There is faster lodgement & processing of regulatory documents by Traders					

Thank you for your time, patience, cooperation and support in my research.