

**INFLUENCE OF CUSTOMS PROCEDURES ON TRADE
FACILITATION AT JOMO KENYATTA INTERNATIONAL
AIRPORT, KENYA**

ALPHA MUSYOKA KITONGA

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

2019

DECLARATION

This research project is my original work and has not been presented in any other University.

Signature:

Date:

ALPHA KITONGA

REG-NO: HDB-335-C016-0328/2017

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

Signature:.....

Date:

Dr Dorris Gitonga, PHD.

KESRA

DEDICATION

I dedicate this work to my parents, brothers and sisters and more specifically to my dear mother, who provided me with that moral word which pushed me on. Lastly, I dedicate this work to my God: You have favored me.

ACKNOWLEDGMENT

My walk through the Post Graduate Diploma Course has not been very easy. It has taken a lot of commitment and sacrifice. I thank the almighty God for bringing me this far. I express my sincere thanks to my supervisor Dr. Dorris Gitonga for standing with me. I sincerely appreciate the support of the entire department of Customs Administration JKUAT, teaching and non-teaching staff. Finally, I am grateful to my family. Your prayers, understanding, support and encouragements always kept me standing. May the Good Lord bless you the more. I owe this project to you.

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGMENT	iv
LIST OF TABLES.....	viii
LIST OF FIGURES	ix
ABBREVIATIONS AND ACRONYMS.....	x
DEFINITION OF TERMS.....	xi
ABSTRACT	xiii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem	9
1.3 Research Objectives	10
1.4 Research Questions	10
1.5 Justification of the Study	11
1.6 Scope of the Study	13
CHAPTER TWO	14
LITERATURE REVIEW.....	14
2.1 Introduction.....	14
2.2 Theoretical Framework	14
2.3 Conceptual Framework	20
2.4 Empirical Review	21
2.5 Summary.....	26
CHAPTER THREE.....	27
RESEARCH METHODOLOGY.....	27
3.1 Introduction.....	27
3.2 Research Design.....	27
3.3 Target Population	27
3.4 Sample Size and Sampling Technique	28
3.5 Data Collection Instrument.....	29
3.6 Data Collection Procedure.....	29

3.7 Pilot Testing	31
3.8 Data Analysis and Presentation	33
CHAPTER FOUR	35
DATA ANALYSIS, FINDINGS AND DISCUSSION	35
4.1 Introduction.....	35
4.2 Response Rate	35
4.3 Demographic Characteristics	36
4.4 Influence of Verification Procedures on Trade Facilitation	41
4.5 Influence of Enforcement Procedures on Trade Facilitation	43
4.6 Influence of Release Procedures on Trade Facilitation.....	47
4.7 Trade Facilitation	49
4.8 Correlation Analysis.....	51
4.9 Regression Analysis	52
CHAPTER FIVE	56
DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS.....	56
5.1 Introduction.....	56
5.2 Summary.....	56
5.3 Conclusion	58
5.4 Recommendations	59
5.6 Suggestions for Further Studies	60
REFERENCES	61
APPENDICES	66
Appendix I: Introductory Letter.....	66
Appendix II: Research Questionnaire	67
Appendix III: Work plan	72
Appendix IV: Research Budget	73

LIST OF TABLES

Table 3.1: Target Population Distribution	30
Table 3.2: Sample Size	31
Table 4.1 : Response Rate.....	35
Table 4.2 : Age Brackets of the Respondents	38
Table 4.3 : Level of Education of the Respondents.....	38
Table 4.4 : Designation of the Respondents	39
Table 4.5 : Extent to which Verification Procedures affect Trade Facilitation	41
Table 4.6 : Extent in which aspects of verification procedures affect trade facilitation ...	42
Table 4.7 : Agreement with the Effects of Verification procedures on Trade Facilitation	42
Table 4.8 : Aspects of Enforcement Procedures affecting Trade Facilitation in JKIA	45
Table 4.9 : Agreements Enforcement Procedures and Trade Facilitation in JKIA	46
Table 4.10 : Aspects of Release Procedures affect Trade Facilitation in JKIA.....	48
Table 4.11 : Agreements on influence of Release Procedures on Trade Facilitation.....	48
Table 4.12 : Extent to which customs procedures affect aspects of trade facilitation	50
Table 4.13 : Correlations between customary procedures and trade facilitation	51
Table 4.14 : Model Summary.....	53
Table 4.15 : ANOVA Test Results.....	53
Table 4.16 : Regression Coefficients.....	54

LIST OF FIGURES

Figure 2.1: Conceptual Framework	21
Figure 4.1: Gender of the Respondents	37
Figure 4.2: Working Experience in Cargo Sheds and Customs Department.....	40
Figure 4.3: Extent to which Enforcement Procedures affect Trade Facilitation.....	45
Figure 4.4: Extent to which Release Procedures affect Trade Facilitation.....	47
Figure 4.5: Extent to Which Customs Procedures affect trade facilitation in JKIA	50
Figure 4.6: Graph for Correlation Analysis.....	52

ABBREVIATIONS AND ACRONYMS

ATM	Aircraft Traffic Movement
BOT	Bank of Tanzania
CA	Customs Administration
EU	European Union
GDP	Gross Domestic Product
ICT	Information and Communications Technology
JKIA	Jomo Kenyatta International Airport
KAA	Kenya Airports Authority
KRA	Kenya Revenue Authority
SPSS	Statistical Package for Social Sciences
SSS	Short Sea Shipping
TTS	Trade Transaction Costs
VAT	Value Added Tax
WTO	World Trade Organization
SME	Small and Medium Enterprises
KPA	Kenya Ports Authority
CFS	Container Freight Stations

DEFINITION OF TERMS

Customs procedures	This is the release for free circulation, special procedures, import export processes under which goods may be placed in accordance with the provided codes (World Bank, 2012).
Enforcement	- A system by which Authorities act in an organized manner to enforce customs laws by putting in place procedures that will be followed by people/entities who violate the rules and norms regarding customs (Benazic, 2012).
Release procedure:	This term refers to all processes of cargo handling when the contracting shipper hands the goods or the container over to the agent/ owner of goods by delivering them on a means of transport to a place appointed by the owner away from the port of destination (Fegley, 2014).
Trade Facilitation	This is the ‘reduction of barriers of International trade and harmoniousness of cross-border trade processes and procedures (WTO, 2016)
Verification procedure:	This is the process of tallying/ confirming that the number or quantity of goods to be shipped or received is that described in shipping documents such as the bill of lading, letter of credit, or other documents agrees with the physical goods (Kisingu, 2017).

ABSTRACT

The main objective for this research was to establish the influence of customs procedures on trade facilitation at JKIA. Specifically, the research wanted to assess the effect of verification procedures on trade facilitation, to assess the influence of enforcement procedures on trade facilitation in JKIA and to examine the influence of release procedures on trade facilitation in JKIA. The study was grounded on institutional theory, heterogeneous trade firm theory and queuing theory. This was a descriptive research. The objective populace comprised of the customs department of KRA and the cargo sheds operating in JKIA. The target population was 258 employees. This research adopted the stratified random sampling research design. Stratified randomized sampling was applied in this research to select a sample of 20% (51 respondents). This research applied research questionnaire as the main data collection instrument. The questionnaires comprised of open ended and closed ended questions. The questionnaire was made up of two major parts: The first part covers the basic information of the participants; the second part is sub-divided into sub-sections covering the various research variables. The researcher then proceeded to administer the questionnaires through the designated officers and co-ordinated with them to ensure respondents had adequate time to complete them. Prior to the actual study, pilot testing was carried out. Internal consistency method was tested using Cronbach's Alpha. A pilot test was undertaken among 15 participants purposively selected from Clearing and Forwarding firms in Nairobi. The quantitative data that was acquired from the questionnaires was coded and keyed into the SPSS software. Both descriptive and inferential statistics were used. Tables and figures were used to summarize responses for further analysis and facilitate comparison. Regression analysis was also conducted. The study established that verification procedures affect trade facilitation in JKIA to a great extent, enforcement procedures affect trade facilitation in JKIA to a great extent and release procedures affect trade facilitation in Kenya to a moderate extent. In general customs procedures affect trade facilitation in JKIA to a great extent. The study concludes that verification procedures, scanning, verification of document, physical verification and goods assessment have major influence on trade facilitation in JKIA. Enforcement procedures, joint border controls, bond securities and bank guarantees, inward declarations of vessels, aircrafts, rummaging and search and patrols and surveillance are critical in establishing a sustainable business environment. Gate pass and discharge operations are the most influential aspects of release procedures that play a role in trade facilitation. The study recommends the need for enhanced verification procedures at JKIA. The streamlining and harmonisation of verification procedures in JKIA would result in significant reduction of processing times. There is need for streamlining some of the enforcement procedures for cross border trade. The customs office at JKIA needs to automate its discharge operations, KPA pickup order or CFs release order and gate pass procedures for ease of clearance and release.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Mohammad (2017), customs procedures refer to release for free circulation, special procedures, import export processes under which goods may be placed in accordance with the provided codes. While the procedures must provide for expeditious clearance of the goods so that international trade is not delayed, it must also provide for the necessary in-built alert signals to detect cases of infringements of the laws. Customs procedures allow cargo shades to carry out storage, processing, use or traffic operations with foreign goods; suspending the duties and tariffs to which such operations are usually subject, and suspending the application of prohibitions and quantity restrictions on imports or exports, excluding absolutely prohibited goods (narcotics, weapons, etc.), suspension procedures.

The most suitable definition of trade facilitation is adopted from the World Trade Organization (WTO, 2016) which defines trade facilitation as the ‘simplification and harmonization of international trade procedures; wherein trade procedures are the formalities, practices and activities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade. Trade facilitation involves a collection of matters that are related to the smooth and efficient flow of international trade. Trade facilitation is concerned with the efficient application of trade rules and regulations using various measures with an overall objective of reducing trade transaction costs (TTCs) in cross border trade. Thus, it can be conclusively defined as the set of measures or policies which aim to simplify and harmonize

international trade procedures and practices so as to reduce or eliminate TTCs as well as encouraging international trade.

Trade facilitation measures seek to streamline processes and information flow across the relevant regulatory agencies and the international supply chain using various tools such as the single window system (Persson, 2013). International organizations have actively played a key role in the advancement of the trade facilitation agenda by the establishment of various organizations that support international trade. One of the concerns in trade is the time spent to clear export/ import goods by complying with the customs regulations and procedures of the country in question, and the related transaction costs associated with such procedures. Reducing the time required for the clearance of goods at customs responds to trade requirements where the traders need to plan ahead for the movement of goods across borders in order to meet tight production schedules, just-in-time inventory systems that require forward planning and having enough stock for continuous trade while awaiting new goods to be imported and delivered. Trade facilitation therefore affects the total cost of doing business and is a Key factor and influence of international trade.

1.1.1 Customs Procedures and Trade Facilitation in the Global Scene

World Trade Organization - WTO (2016) has recognized that there has been a major increase in globalization and liberalization of world economies resulting in growing complexity in cross border trade due to the multiple state agencies involved in transnational logistics. According to the World Bank (2012), the traditional role of customs as a state institution is described by duties that include collecting duties on internationally traded products which is a conjoint extension of the collection of other

forms of levies, such as the Value Added Tax (VAT), and excise duties. Wilson and Lewis (2015) indicated that whereas customs must facilitate the honest importer and exporter it has also to ensure the laws of the country are applied strictly (Barreiro-Hurle, 2012).

WTO (2016) in a survey by Japan Customs on the time required for the release of goods showed that release times have been reduced by the introduction and improvement of various Customs procedures and techniques. With pre-arrival information, for example, they indicated that the average release time for sea-cargoes was 1.7 hours, which was about 60 percent shorter than 4.1-hour average in cases without pre-arrival information. Japan Customs is formulating and implementing the appropriate and fair tax/tariff policies to realize a healthy national economy and robust public finance. Accordingly, the manner in which customs functions can whichever simplify or complicate the international trade in goods. Mirela and Marilena (2013) using an econometric analysis to assess the role of customs duties in the formation of budget revenues in Romania concluded that customs duties have a major impact on the country's budget revenues and their effects on revenue collection have a multiplier effect on the state budget revenues.

Concerning Asian nations, Li and Wilson (2009) established that enhancement in trade facilitation pointers tends to increase the likelihood that small and medium enterprises (SMEs) will become exporters, as well as their export prosperity. Europe and Central Asia made the biggest reductions in the number of documents required to export and import. High income economies (Organisation for Economic Co-operation and Development member countries) made the biggest reductions in export and import costs by simplifying their customs procedures.

As indicated by European Union – EU (2013), ports assume an integral part in the European economy and advancement, standing at almost 75% of the exchange between the EU and the remainder of the world is taken care of in ports. Hence, the significance of guaranteeing proficiency in ports is identified with the capacity of the EU to be focused at global level. More than 35% of intra-EU cargo transport – as far as tonnage – is represented by Short Sea Shipping (SSS), which accounts for the saturated transport directions, with potential advantages for movement, effective transportation, cost-reserve funds and ecological assurance. With regard to SSS, port effectiveness is especially important, as port costs represent a more prominent offer of aggregate cost related with the logistics chain, when contrasted with coordinate transport by road network. Ports likewise go about as portals for rail and inland conduit systems.

1.1.2 Customs Procedures and Trade Facilitation in Africa

African ports appear not have the capacity to adjust productively to meet the consistently changing and growing needs of industry (EU, 2013). Adeniji (2018) reviewed the role of customs services in trade facilitation in Nigeria. The study examined some of the weaknesses, which have made it an uphill task to achieve the ultimate goal of both the parties involved. However, the focus of attention was on the Nigeria Customs as it still has a long way to go. However, the Nigeria Customs has taken steps over time to improve its service. They are few compared to the ones taken by its counterpart. The implication of these results provides a base for suggestions for improvements on both bodies to maximize on their efficiency. They indicated that customs bodies have long been the backbone of the economies of the two countries in question. One of the key

goals of any customs body was to maximize on efficiency. Nonetheless, this remained a key predicament to the Nigeria Customs as it came with challenges.

Ali, Mohamed and Ali (2016) in a research on contributing factors of trade balance in Somalia gave proof that the amount of clearance times matters for firm-level export performance and that clearance times influence firms' choice to sell goods directly or by involving a third party because time-consuming clearance times necessitate the use of a third-party distributor more often. Zaki (2013) examined the effects of red tape costs on the performance of firms exports in Egypt established that public infrastructure constraints, such as customs delays, seem to have immediate impacts on regional exports in general, implying the relevance of addressing behind-the-border constraints in fostering regional integration. Similarly, Hoekstra (2013) established that trade facilitation can increase African firms' probability to participate in international trade. Additionally, lower trade barriers are associated with a higher growth of exports.

In Sub-Saharan Africa, reducing inland travel time by one day has the potential to raise export volumes by 7 per cent (World Bank, 2014). A prominent feature of trade facilitation reforms recorded by the World Bank's Doing Business 2014 indicators from 2009 to 2013 was the introduction or improvement of electronic data submission and processing. However, in the 2012/2013 period, the most common feature was the improvement of customs administration process. As a result, Sub-Saharan Africa made the biggest reductions in the time to trade across borders from 2009 to 2013.

Dennis and Shepherd (2011) found that lower fixed costs of export (for example the barriers associated to trade facilitation) increase the variety of products that emerging

countries can export. Fixed costs are one of as the crucial contributing factor of a firm's entry into specific foreign product markets. As a consequence, they established that a 10% improvement in trade facilitation results to product diversity gains of the order of 3%-4%.

In developing countries import duties are mainly collected as revenues for the national budget, in developed countries the main role of the customs institutions is the protection of the economy and law enforcement (Rotich, 2014). According to the Bank of Tanzania – (BoT 2013) in Tanzania where import taxes are important chunk of budgetary resources the role of customs has included revenue collection through imposition of various duties and taxes and hence Customs has expanded into the fiscal area. According to the BoT 2013 taxes on imports accounts for about 26.7% of the country's total tax revenue collection in 2012.

1.1.3 Customs Procedures and Trade Facilitation In Kenya

According to Mohammad (2017), delays in customs procedures in Kenya are triggered mainly by the failure of clearing firms or importers to submit documents on time. They found that it took about three to seven days on average after arrival of the importing ship, aircraft or vehicle for agents or importers to lodge import documents with customs, 74.4 % of documents were post-lodged and only 25.6 % pre-lodged. It took around 15 minutes to three days (depending on point of entry) for goods to be availed to customs for inspection following such a request being made. Customs are confronted to a rapidly changing environment: changing patterns of production and consumption intensified international trade, new global threats. In this context, customs play a major role by ensuring a constant balance between protecting society and simplification of trade.

Mwajita (2016) indicated that the performance of trade procedures involves not only customs but also other agencies such as freight forwarders, insurers, immigration authorities, police, plant inspectors, bankers, brokers, standards institutes, health, port authorities, and many more. However, the procedures and formalities treated here are those in which Customs is particularly involved. Increased facilitation of trade, by way of ensuring optimal customs process, should result in improved economic growth for countries and improved competitiveness of their industries by reducing unnecessary bureaucratic requirements and harmonizing relevant processes, at the same time, it should ensure that each country has the right to protect itself from unlawful trade practices. Trade facilitation programs are being initiated around the world.

Okumu and Nyankori (2010) argued that some of these obstacles were identified at WTO symposium on trade facilitation. These include; excessive documentation requirements; lack of automation and insignificant use of information technology; lack of transparency; unclear and unspecified import and export requirements; inadequate procedures; especially a lack of audit-based controls and risk assessment techniques; and lack of modernization of, and cooperation among Customs and other governmental agencies, which thwarts efforts to deal effectively with increased trade flows. Other obstacles include; the need to amend trade and Customs related legislation; the need to implement improved management techniques and to re-organize management structures in order to manage the changes required by trade facilitation.

1.1.4 Jomo Kenyatta International Airport

In Kenya, among the highest density of clearance and, consequently, one of the largest quality time spent on it, is at Jomo Kenyatta International Airport (JKIA). JKIA functions

as a hub for most airlines operations in the Eastern Africa region. JKIA is an international airport in Nairobi, the capital of Kenya. The airport has scheduled flights to destinations in over 50 countries, (Harro, 2017). The airport is named after Jomo Kenyatta, Kenya's first president and prime minister. The airport served over 7 million passengers in 2016, making it the seventh busiest airport in passenger traffic on the continent. In East Africa, it is considered the busiest (Corporate, 2010). JKIA cargo facilities handle over 200,000 tons of cargo annually, and an animal holding facility which occupies 4,318.95ft.

The Cargo sheds provide logistical solution which combines both air, sea, road and rail transportation, clearing and forwarding's, ware house, supply chain value addition activities like warehousing, clearing, forwarding, transit sheds, transportation, importation, exportation, inspection, animal holding and transportation, cold rooms storage facilities, specialized handling of dangerous and harmful materials and weapons, banking halls, specialized freight stations and customs clearance. (Kenya Airways Authority, 2017). The airport designed and constructed in 1978 had a capacity to serve about 2.5 million passengers per year but over the years, this capacity has been exceeded to over 6 million passengers per year. Kenya Airports Authority (KAA) is presently expanding the existing terminal building (Terminal 1) and plans to renovate the existing runway.

Where interaction with customs is mediated by customs brokers, business people usually get the impression that delays are largely caused by customs authorities (KAA, 2017). This may be partially correct in the situation of delays caused by pre-shipment inspection companies sub-contracted by customs to carry out verification of values, quantities and quality of goods. In other cases, customs usually have limited control over the activities

of other government agencies responsible for checking goods standards and health inspection. This research desired to establish the influence of customs procedures on trade facilitation at Jomo Kenyatta International Airport, Kenya

1.2 Statement of the Problem

In today's international marketplace, companies are constantly faced with the competition on the local, national and international level. Since customs procedures affect the facilitation of trade between origin and destination, these intermediating public entities play a major role in facilitating or hindering exports and imports (Hornok, 2012). Developed countries perceive that Customs procedures in developing countries have not adjusted enough to the rapidly growing volume of trade of the last decade. Their complaints are echoed by service providers, such as Express mail couriers which handles a substantial proportion of all Customs entries. The ability of such firms to provide their services depends heavily on efficient customs procedures.

Like other countries, customs procedures in Kenya experienced problems from the manual operations, illogical decisions, corruption and delays in clearance. Regardless of simplification of customs procedures customs formalities in Kenya are lengthy and less than efficient, leading to delays in the release of goods. Mwajita (2016) investigated the effects of the implementation of the Kenya National Electronic Single Window System (SWS) on trade facilitation and found that the absence of a concrete legal framework guiding the implementation of the SWS and comprehensively covering the trade facilitation agenda has been an impediment to the mandate of KenTrade as a trade facilitation agency.

A major challenge identified by stakeholders in the shipping logistics chain in Kenya was the bilateral procedures and lengthy approval process faced by the importers and exporters who had to lodge multiple documents both electronically and manually with multiple government agencies and other private entities involved in international trade. In Kenya, importers have complained that after introduction of container scanners, the dwell time of goods at the port has not reduced significantly due to the existing high levels of verification even after electronic scanning has been carried out. Despite these gaps, there was limited research on the influence of customs procedures on trade facilitation in Kenya. It was against this backdrop that the current study sought to establish the influence of customs procedures on trade facilitation at Jomo Kenyatta International Airport, Kenya.

1.3 Research Objectives

1.3.1 General Objective

The general objective for this study was to establish the influence of customs procedures on trade facilitation at JKIA, Kenya

1.3.2 Specific Objectives

The specific objectives were:

- i. To determine the influence of verification procedures on trade facilitation in JKIA
- ii. To assess the influence of enforcement procedures on trade facilitation in JKIA
- iii. To examine the influence of release procedures on trade facilitation in JKIA

1.4 Research Questions

The study was guided by the following research questions:

- i. How do verification procedures influence trade facilitation in JKIA
- ii. How do enforcement procedures influence trade facilitation in JKIA
- iii. How do release procedures influence trade facilitation in JKIA

1.5 Justification of the Study

Trade facilitation measures are increasing becoming important in assisting developing countries expand international trade and benefit from global trade. Despite companies involved in international trade having very efficient and flexible strategies they undergo high critical challenges and experiences in customs procedures hence limiting their capacities in exploring their potentials fully for competitive advantages in international trade.

JKIA has an Air Traffic Movement(ATM) of over 72,000 aircrafts per year, and its predicted by the year 2030 ATM will be 192,000 aircrafts. The handling capacity for cargo stands at 250,000 tons having increased by 50,000 tons per year for the past 7 years. The airport has also experienced an increase in 45% of number of flights for the last 7 years KAA (2017). Therefore, JKIA is a major customs clearance Hub in Kenya. Cargo sheds in JKIA therefore play a very important role in transport sector in Kenya and East Africa. With regards to the density of cargo cleared at JKIA, it is evident that clearance of import and export goods at JKIA can be a great influence to the efficiency of import of goods in Kenya and East Africa as a region which will directly impact business and transaction cost.

The study aimed at adding value to the theoretical foundation on trade facilitation and customs procedures, by drawing a relationship between trade facilitation and customs procedures at the cargo sheds in JKIA. Many researchers have carried out research in the air freight industry but haven't exhausted in the area of customs procedures and trade facilitation in cargo operations management and more specifically cargo sheds in JKIA.

The study would further form a body of knowledge from which scholars could get information for their academic assignments and projects on customs procedures and trade facilitation. Other researchers could acquire information about a research topic from similar study conducted on the same area of research and thus form a basis for further research.

Furthermore, this particular research would pave way for more emerging issues within trade facilitation and customs procedures hence allowing more research on it. Academicians would also benefit significantly from this research. Trade facilitation and customs procedures is a topic that is covered in part of their studies but getting to study from case studies that have been researched on helps one be able to relate and comprehend much better. This would provoke the academicians to even look further into the topic and come up with further studies on the same so as to exploit this topic further which is much wider.

The study would be used by the management of JKIA cargo companies in the development of policies that would ensure effective customs procedures and trade facilitation policies in the industry. Other organizations could use the study to come up with policies that would improve customs procedures and trade facilitation in their firms. Policy makers and Government could find the findings of this study as a basis for policy development. The study could provide information on the customs procedures and trade facilitation management in JKIA. The findings could be used by cargo companies' management to come up with corporate strategies that enable firms to remain competitive.

1.6 Scope of the Study

This study focused on examining the influence of customs procedures on trade facilitation in Kenya. The conceptual scope of the study was the three identified objectives that are related to the main objective of the study. The geographical setting of the study was the cargo sheds in JKIA, Nairobi. As such the cargo sheds in JKIA were involved in the study. The study involved collecting information from the management staffs of the 9 cargo sheds in JKIA. A simple random sampling method was used to generate the sample for the study. The study anticipated that participants would have sufficient knowledge and that they gave trustworthy information sought by the study. This was relevant in collecting the data required as finances and distances are the limiting factors that inhibit collecting the data from all the customs, cargo sheds and freight and forwarding firms in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, past researches and studies that are in line with the study topic are reviewed. This will be done by ensuring that the objective of the study is reflected in the reviewed themes. The first section discusses the theories informing the study and their applicability to customs procedures on trade facilitation. The second section is general literature which reviews the empirical studies on customs procedures on trade facilitation with regard to verification procedures, enforcement procedures and release procedures. The last section explores the framework adopted in conceptualizing the relationship between the independent and dependent variable identified in the study.

2.2 Theoretical Framework

Theories represent a theoretical foundation for understanding, investigating and planning ways to examine relationships in a social system. According to Simon and Goes (2011) a theoretical framework provides a well-supported rationale to conduct a study and helps the reader understand the researcher's perspective. In this section, the study presents a description of theories that explain the research problem at hand and the relationship that exists between theory and practice. The study is grounded on institutional theory, heterogeneous trade firm theory and queuing theory.

2.2.1 Institutional Theory

This study is centered on the institutional theory developed by North (1991). Institutions just like customs establishments at border crossing points were created to bring about order in cross border trade and lessen uncertainty in exchange (North, 1991). These institutions determine transaction and production costs and profitability of engaging in an

economic activity. They consist of formal rules, informal constraints (norms of behavior, conventions and self-imposed codes of conduct) and the enforcement characteristics of both. When there are significant transaction costs in a competitive market, institutions will be designed in such a way that they induce the actors to acquire essential information that will lead them to correct the costly models.

As countries or human beings increasingly become dependent on each other, more complex institutional structures are necessary to capture the potential gains from trade. Such developments require the society to develop institutions that permit anonymous, impersonal exchanges across time and space. As societies experience gains from such cooperation, they move to create the necessary institutions to capture the gains from trade. North (1991) further notes that as trade expands beyond a single village, possibilities of conflict over transactions are anticipated. For example, the development of long-distance trade creates two distinct transaction cost issues. One is the dilemma of agency, which was historically met by use of acquaintances in long-distance trade.

When traders do not have complete information on the market or regulations such as customs procedures, they are unable to fully exploit the opportunities available in cross border trade. However, relevant and timely information enable the traders to fully exploit the benefits of trade. This is where entities such as clearing agents come in. According to Tassabehji, Hackney and Popovic (2016), at times, agents have personal interests that may not necessarily be the same as those of traders or key clients. For the agents to work in the interest of the traders, they get paid a fee to carry out the customs clearing process on behalf of their clients. Equally, governments have in place regulations guiding the work of agents. One of the guiding principles is that the agents must have a license in

order to operate. This leads to a win-win situation, where the clearing agents work in the interest of the traders. In return, they get paid for their role in cross border trade.

The second issue involves negotiation of contracts and enforcement in unfamiliar territories where reaching agreements and enforcing contracts were cumbersome processes (Tassabehji *et al.*, 2016). By lowering information costs and providing incentives for contract fulfilment, institutions made transacting and engaging in long-distance trade possible. For the purpose of the current research, such institutions are the customs establishments, whose main task is to facilitate cross border movement of goods, services and people.

Customs institutions at border crossing points are meant to make it easy for undertakings such as cross border trade to take place due to the benefits of such activities in supporting economic growth. In this way, they not only contribute to higher intra-regional trade but also to economic growth as a result of improved efficiency and profitability of traders" engagement in cross border trade. According to Bruton, Ahlstrom & Han-Lin (2010), the institutional theory is primarily concerned with how different groups and organisations can better secure their positions and legitimacy by complying with rules and norms within an organized and formal environment. It is concerned with regulatory, social and cultural influences that support survival and legitimacy of an organisation or business. They guide behavior using rules of the game as well as by monitoring and enforcement mechanisms. For new organisations, the institutional environment outlines and limits business opportunities. This affects the growth of new businesses.

While inadequate institutional development can make it hard for new businesses to flourish, more developed institutional environment with highly obstructive regulation can equally impede the growth of firms. Governments, therefore, have the responsibility of ensuring that markets function efficiently by eliminating conditions that create barriers to entry and market imperfections by lifting unreasonably stifling regulation. Broadman, Anderson, Claessens, Ryterman, Slavova and Vagliasindi (2004) observe that growth in emerging markets of Eastern Europe was hindered by absence of effective market-based institutions that would ensure fair competition and protect property rights.

The institutional theory does not fully explain how customs procedures that cross border traders have to comply with inhibit dealings in this kind of trade. Further, it does not elucidate how institutions, inefficient or not, oblige traders to explore alternative channels aimed at bringing down the cost of participating in cross border trade. According to Hoskisson, Eden, Lau and Wright (2000), institutional theory is specifically appropriate in explaining firm behaviour as markets develop. Institutional theory has also been used in examining the role of business group connections or networks on the survival of foreign subsidiaries, how institutional changes influence firms' internationalisation process and relationships between institutional environments and foreign subsidiary ownership arrangement.

2.2.2 Heterogeneous Trade Firm Theory

The heterogeneous trade firm theory proposed by Alexander (1990) examines the efficiency, or lack of it, that arises from aspects such as customs procedures in cross border trade. The heterogeneous trade firm theory provides a more direct link between cross-border trade procedures and firms' participation in the export market and volume of

exports. According to Melitz (2003), this theory states that firms differ in their level of production. The firms also face both fixed and variable costs in entering the export market.

The firms that are more productive find it more profitable to export. They therefore engage in the export market. A decrease in the variable cost (which varies with the level of output or production) affects both volumes and diversification of trade by making existing exporters to export more and leads to entry of more business entities in the export market. This is due to a decline in the minimum level of productivity required by firms or traders to enter the export market (Melitz, 2003). According to Lesser and Moisé-Leeman (2009), trade facilitation programmes that are successfully implemented are likely to minimise costs, raise productivity and increase transparency in cross border trade.

The reduced costs can be divided into direct and indirect expenses of trade. Generally, direct costs are associated with documentation, border fees, transport and storage. Indirect expenses on the other hand are linked with depreciation costs due to time delays at border crossing points and uncertainty about procedures such as customs clearance of commodities (Lesser & Moisé-Leeman, 2009). Persson (2010) argues that recent theoretical contributions have emphasized that costs related to cross-border trade affect both the volume and range of goods traded.

2.2.3 Queuing Theory

The queuing theory helps us better understand the independent variable of cargo release. The theory was developed by Wagner (2017), queuing system consists of one or more berth that provide service of some sort to arriving ships. Ships

arrived to find all berths busy generally join one or more queues (lines) in front or near the berths, hence the name queuing systems. The queuing systems in ports have the objective to measure performance such as queue length and waiting time.

Adedayo, Ojo and Obamiro (2016) stressed that many situations in life requires one to line up or queue before being attended to. These lines formed are referred to as waiting lines or queues. According to them queue occurs when the capacity of service provided fall short of the demand for the service. Sanish (2017) in his article on application of queuing to the traffic at the Port refers to queuing theory as analytical techniques accepted as valuable tool for solving congestion problems. According to him the primary inputs to the models are the arrival and service patterns. Therefore, it can be observed that that queuing theory can be used to predict some important parameters like average waiting time of ships, average queuing length, average number of ships in the port and average berth utilization factor closer to the actual values. Therefore, this theory is very important in managing congestion and its related problems at the port.

Queuing theory was used in this research to help harmonize inconsistencies between customs clearing and forwarding service cost and customers waiting cost so that it can improve clearance and waiting times to achieve a reasonable amount of time in clearance of goods at points of entry and exit. It is related to the allocation of equipment and personnel that directly affect clearing and forwarding times. The theory will be used in considering the number of ways to reach customers, serve them better with regards to allocation of equipment and personnel for clearance of goods. Recommendations based

on the study will be given out which may be used in allocation of the number of equipment and personnel to improve service level, reduce queuing time and attract more customers. From the importer/exporter and traders point of view, solving the problem of queuing is effective for improving customer service and saving cost. It can both supply better service in a low cost manner and increase customer satisfaction with customs clearance to enhance competitiveness in the international market.

2.3 Conceptual Framework

The relationship between the independent and dependent variable will be brought out by the conceptual framework. For this research, the depended variable is trade facilitation while the independent variables are release procedures, verification procedures and enforcement procedures. They form the diagram below

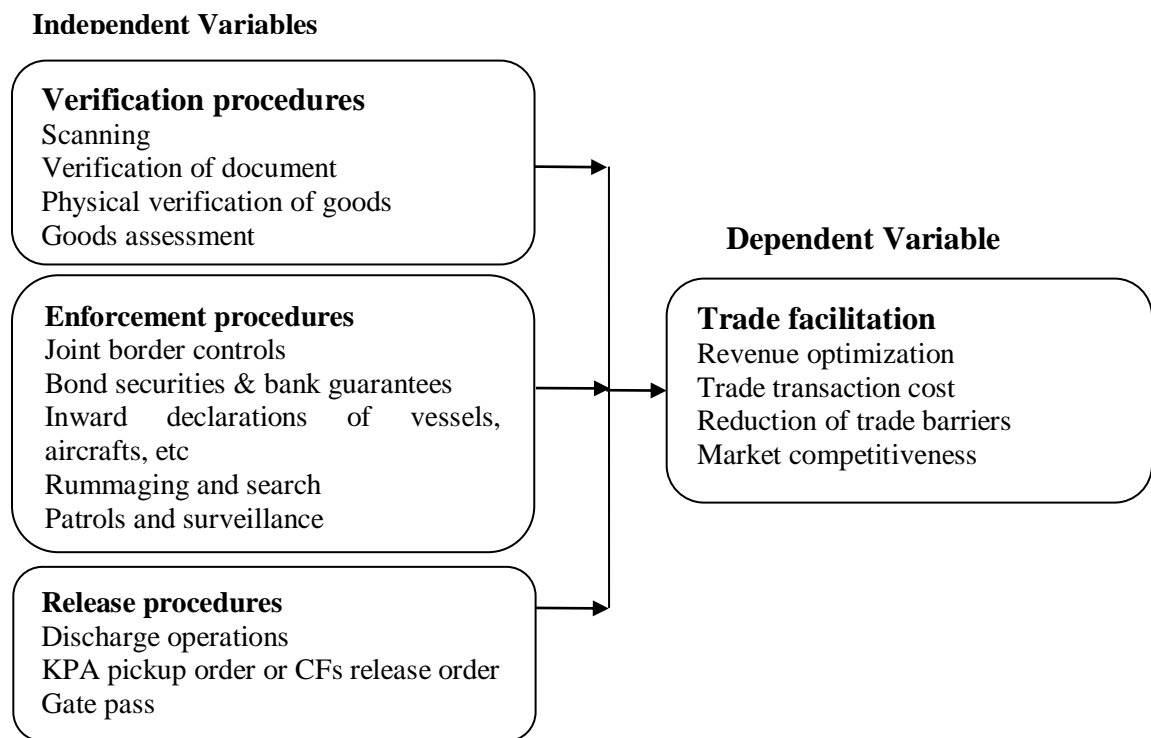


Figure 2.1: Conceptual Framework

2.4 Empirical Review

The World Bank (2014) observes that complicated border procedures and bureaucratic bottlenecks impede economic growth considerably by reducing access to international markets. Disproportionate delays in exporting and importing activities also lower the volume of trade. The costlier and more time-consuming it is to export or import, the harder it is for homegrown businesses to reach global markets. Inefficient customs procedures, inadequate infrastructure and unreliable logistics services add up to the time it takes to trade, thereby pushing up costs such as storage and inspection costs. In some African countries, losses of revenue accruing from inefficient border procedures are estimated to exceed 5 per cent of their GDP.

Moise and Sorescu (2013) found out that the policy areas that seem to have the greatest influence on trade costs and volumes are streamlining of customs procedures, simplification and harmonization of documents, the accessibility of trade-related information and use of automated processes. A study on bribery as an NTB conducted by Transparency International (2012) indicated that the duty of customs officials is to check whether goods have been correctly declared in the import or export declaration documents. If wrong declaration is identified, it becomes an avenue for them to solicit for bribes in order to issue clearance. Similarly, among the roles of police officers is to check whether drivers have correct transport documents in relation to goods being ferried. If such documents are missing, the chances of bribery are high. A study done by EASSI (2011) found that cross border traders sometimes violated customs rules due to ignorance about customs procedures, the need to evade taxes and high cost of hiring a clearing agent.

Customs officials sampled by EASSI (2011) reported that some traders used truck drivers to clear goods on their behalf. In some cases, customs clearing agents and truck drivers concealed information from traders because they want to remain in business as middlemen. The middlemen also make more money when traders are ignorant of customs procedures. Nonetheless, if some traders are able to get necessary information, they often clear their goods by themselves. Customs officials further reported occasionally providing education to traders to reduce violation of cross border trade regulations such as using informal routes to circumvent customs procedures (EASSI, 2011).

2.4.1 Verification Procedures

Customs verification procedures represent a major trend in trade facilitation. The emergence of global networks has profoundly influenced the way individuals interact with each other, businesses conduct their affairs, and governments provide services to their citizens (Davis, 2012). In verification procedures there are major agreements among merchants and customs agents with respect to the expected positive impact of the automation process. Verification procedures are reengineered in the following ways: processes are automated to reduce intervention in 80 percent of transactions, controls are positioned at points where they would be most effective without obstructing business, remote facilities are provided for lodging declarations, paperless and cashless processes are introduced, certain operations are privatized, and finally agencies participating in the system are linked electronically (Hummels & Schaur, 2014).

According to Mohammand (2017), it is argued that the automation initiative will lead, for example, in the lowering in lodgment clearance time and charge and corruption; an increment in number of customers for the customs agents and freedom for the personnel's

and traders to hustle outside customs normal working hours. It is appealing to note that the majority of the customs agents and traders are ready to set up new entities or install new equipment (such as computers, fax machines and internet connection) to gain access to the service automation process. In Kenya, as in many other countries, Customs is in the forefront of the various agencies that intervene in international trade in goods. Customs is, for instance deeply involved in controlling goods which cross borders, determining goods nomenclature and origin, and collecting revenue as well as administering trade policies.

The manner in which customs verification operates highly affect international trade either negatively or positively (Benazic, 2012). In other words, the manner in which Customs operates can either simplify or complicate global trade in goods. And this introduces us to the concept of trade facilitation. Adeniji (2018) indicated that during verification, the importer is issued with charge order. After issuance of out of charge order, the importer presents the same to the custodian who in turn issues the gate pass after verification of correctness of bill of lading and number of packages. The importer presents importer's copy of the charge order and the custodian gate pass to the customs officer at the gate while taking the goods out of the customs area. The introduction of Simba system led to 'brief case clearing agents being thrown out of business due to high costs involved in training and buying equipment compounded with payment for accessing the system (Kasima, 2014). Although the system was fully operational, there were frequent breakdowns on a weekly basis, leading to unprecedented delays.

The airlines were also not lodging their manifests on time with customs, thus in some cases entries were not being lodged on time. Harro (2017) reported that delays were still

being experienced at the time of verification of goods. The officers posted at the various stations were not enough and were sometimes too busy to verify all shipments in time. Some of these problems being experienced should have been addressed during the pilot phases. In spite of the progress made a lot still remains to be done and the government should put considerate amount of funding in terms of purchasing of better and more equipment, and training of more customs officials for the system to be 100% effective.

2.4.2 Enforcement Procedures

It is asserted that there are three key forces that influence the functions of customs administration in the 21st century. The first touches in revenue maximization; the second is a demand for customs to play a bigger part in facilitating trade in tandem with preferential trade agreements; and the third is the requirement for customs to assume more enforcement responsibilities. According to Buyonge's (2017) study that focused on Africa's customs issues, the future role of customs administration in Africa, particularly in regard to inevitable modernization and reform, will be required to respond appropriately to the demands for revenue optimization and enforcement of regulatory policies and practices.

Zaki (2014) indicated that the role of Customs in exports and imports is governed by the fact that practically all exports and imports of goods, including exports of waste, are subject to the Customs procedure. This is done by awareness raising, capacity building, facilitating inter-agency and cross-border collaboration and operational enforcement activities. The conventional task of customs as a national entity is featured by tasks that comprises the collection of taxes on internationally sold goods, which is a common allowance of the collection of some other forms of duties such as the Value Added Tax

(VAT) and excise taxes. However, the task of the customs administration differs from a country to another (Mwajita, 2016). In the less developed countries, import taxes are solely collected as income for the national spending whereas in richer countries the sole task of customs entities is to guard the economy and implement the law (Widdowson, 2017).

Unquestionably, customs procedures signify a key cause of barriers to economic activity. According to Raballand, Salim, Monica and Gözde (2012), customs, the environmental authority and the police have formed an enforcement working group on waste which meets twice yearly to discuss issues, primarily with an operational focus. This forum has been found to be quite useful in building relationships between the various agencies. Governments define and enforce the arrangements relating to customs clearance and border control. This and the high rate of growth in trade values and volumes that occurred over the assessment period strongly suggest that the observed decline in time costs in Customs clearance and technical control was a direct consequence of changes in public policy and administration.

2.4.3 Release Procedures

According to Griffith, Michael and Czinkota (2012), customs gives “Out of Charge” and the Custodian releases the goods from CFS by issuing a Gate-Pass. Customs release most of accredited clients’ consignments without any intervention, thus drastically reducing clearance time and transaction costs. Their imports will be subject to a small percentage of system generated random checks to monitor their continuing compliance and to retain an element of surprise (Griffith *et al.*, 2012). According to a report by Maersk Shipping Line(2009) the release procedures for Imported cargo is centered on

presentation of original bills of lading, duly signed container guarantees forms and payment of local duties. Imported containers must be cleared within 7 days for reefers and 14 days for dry port containers after being discharged or they are subject to a demurrage and detention charge. Release procedures include long and cumbersome documentation procedure coupled with uncoordinated and un-harmonized activities by the institutions involved in clearing/forwarding due to their emphasis on control aspect rather than facilitation of clearance.

2.5 Summary

This was a review of the influence of customs procedures on trade facilitation. Emphasis has been laid on verification procedures, enforcement procedures and release procedures. In order for customs organizations to be successful in the volatile market, they have to ensure that their procedures are at optimal to minimize costs and ensure responsiveness to customer demands. Since there had been little attention on influence of customs procedures on trade facilitation, this study sought to fill the gap by establishing the influence of customs procedures on trade facilitation in JKIA.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter analysed the various kinds of aspects of research methodology that were adopted in the research. The chapter has also indicated a brief explanation of the research design which was used in the research as well as details on the population, sampling technique, sampling size, data collection approaches and equipments and data analysis methods that were used in this research work.

3.2 Research Design

Descriptive research design was used in this study. A descriptive design is a scientific method that involves observation and description of the subject's behavior without influencing it in any way (Cooper & Schindler 2011). Descriptive research design was chosen because this study aimed at collecting information from respondents on their views and opinions with regards to the influence of customs procedures on trade facilitation in JKIA. This design enabled the researcher establish how the variables relate to each other (Mugenda & Mugenda, 2012) and it also provided the researcher with the appropriate procedure for examining the influence of customs procedures on trade facilitation in JKIA.

3.3 Target Population

The target population comprised of the customs department of KRA and the cargo sheds operating in JKIA. According to the Kenya Airports Authority- KAA (2017), there were nine (9) cargo sheds operating in JKIA whose staff stood at 172. In addition, the KRA Human Resource Manual (2017) reported that there were 86 employees working at the customs. In this study the population under consideration was the employees of the cargo

sheds in JKIA and the customs department of KRA. 172 top and middle management employees of cargo sheds and 86 top and middle management employees of the customs department were involved. As such the target population was 258 employees as outlined in Table 3.1.

Table 3.1: Target Population Distribution

Population category	Frequency	Percentage
Customs employees	86	33.3
Cargo shed employees	172	66.7
Total	258	100.0

3.4 Sample Size and Sampling Technique

This research adopted the stratified random sampling research design and used stratified random sampling to identify the strata or subgroups that represent the entire population. Stratified random sampling was used in this research so as to ensure that individuals in the process were given equal chances of being selected. A stratified sample was used to divide the entire target population into different strata was sub grouped according to the various categories they are drawn from. From these subgroups the appropriate number for the research was drawn. This was to ensure that the research has adequate amount of subjects from each department participating in the research.

Stratified sampling was used to ensure that the sample population for conducting research was a good representation of the overall population and reduce cases of bias. The stratified random sampling method was also very easy to carry out and of very high efficiency. This was to ensure that specific groups are represented, even proportionally, in the sample(s) (different departments), by selecting individuals from strata list. Eventually, the respondents per category was obtained using the probability sampling by use of random sampling where 10% of the target population was selected.

Kothari (2004) argues that if well chosen, samples of 10% of a population is considered representative of the population under investigation and often gives reliable results. Stratified randomized sampling was applied in this research to select a sample of 20% (51 respondents) that was knowledgeable on the information that is sought in this research. The sample size that was used in this research was 51 respondents. This was to ensure that the process is less biased and that there was an equal chance of representation. This were drawn from different categories as shown in Table 3.2 below.

Table 3..2: Sample Size

Population category	Frequency	Sample ratio	Sample size
Customs employees	86	0.2	17
Cargo shed Employees	172	0.2	34
Total	258	0.2	51

3.5 Data Collection Instrument

The research has utilized research questions as the major information collection instrument, a questionnaire was therefore designed. The major mission of the questionnaire was to communicate to the respondents about the intended information and to provide the most desirable responses in a bid to accomplish the research goals. Using questionnaires, information can be obtained from a wide sample and large regions, confidentiality is enhanced through questionnaires because they save time, since they were displayed in paper format and there exist no opportunity for interviewer bias, convenience for respondents, no interviewer variability and absence of interviewer effects.

Concerning the questionnaires, there existed open-ended and closed-ended questions all entirely stated and well-focused in the process of recognizing the busy schedule of the

participants. The structured questions are normally closed ended with alternatives from which the respondents are entitled to choose the most appropriate answer. The unstructured questions gave the respondents with the opportunity to provide their own responses. The respondents were given a complete allowance of response which permitted one to answer in his or her own words.

3.6 Data Collection Procedure

The researcher utilized questionnaires as information accumulation instruments for the study. Notwithstanding the essential information, optional information was utilized and gathered through work area investigate strategy as this is most suitable for writing and materials. The study began by disclosing to all members in the study the part they were relied upon to play a role and the significance of giving genuine data through an introductory letter sending the survey. The members were guaranteed by the researcher that that the data they gave would be treated with strict certainty. The researcher then continued to oversee the polls through the assigned officers and co-ordinate with them to guarantee respondents have sufficient time to finish them. The inquiries incorporated both closed and open-finished inquiries with subheadings where important to control the respondents separately.

The data collected for the research was primary data aimed at getting a more general understanding of influence of customs procedures on trade facilitation at JKIA. The questionnaire was made up of two major parts: Part one comprises of the background information of the respondents; the second part is sub-divided into sub-sections covering the various variables. A 5-point Likert scale was applied and it expressed a series of statements that expressed the respondent's views from 'very great extent' to 'no extent'.

In addition to the primary data, secondary data was used and collected through desk top research technique as this is most appropriate for literature and materials on emergency preparedness of private security firms for rescue operations. The researcher started by explaining to all participants in the study the role they were expected to play and the importance of providing honest information through a cover letter forwarding the questionnaire. The respondents were assured the information they gave will remain confidential. The researcher then proceeded to administer the questionnaires through the designated officers and co-ordinate with them to ensure respondents had adequate time to complete them.

3.7 Pilot Testing

Prior to the actual study, pilot testing was carried out. This is the researcher's best opportunity to revise scripts, look for control measures and scan the environment for factors that confounded the results. This involved checking whether the questions are clear and revoking any positive or negative response. It also helped to find out whether the questions were measuring what was expected. This involved checking whether the questions are clear and revoking any positive or negative response. In this stage, the study tested the reliability and validity of the research instrument.

3.7.1 Validity Test

The researcher evaluated the validity of the data collection tool by seeking the opinions of the study supervisor as well as other specialists in the area of study. This paved way for editing of the study tool consequently enhancing its authenticity.

3.7.2 Reliability Test

Reliability was also confirmed by pre-testing the questionnaire with a selected sample from the Clearing and Forwarding Companies in Nairobi. The pretest was conducted by both the principle researcher and the research assistants to enhance clarity of the questionnaire. According to Mugenda and Mugenda (2012), the correctness of the data collected largely depends on the data collection instrument in terms of validity and reliability. This instrument was reviewed based on the pre-test experience. Internal consistency method was tested using Cronbach's Alpha. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. A "high" value of alpha is often used as evidence that the items measure an underlying (or latent) construct. Reliability with a predetermined threshold of 0.7 is considered acceptable. That is, values above 0.75 indicated presence of reliability while values below signified lack of reliability of the research instrument. The formula for Cronbach alpha

is;

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N - 1) \cdot \bar{c}}$$

The pilot study was carried among 15 respondents purposively chosen from Clearing and Forwarding Companies in Nairobi and reliability tested using a Cronbach's alpha. A reliability of above 0.7 was achieved and this was considered reliable as recommended by Zikmund, Babin, Carr and Griffin (2013) who recommended that a reliability test which yields a coefficient greater than or equal to 0.7 is sufficient enough. The respondents were also informed that the research is meant for academic purposes only and that the study had no intention of using the information for personal gains. The respondents were not required to indicate their names and participation in the study was on voluntary basis.

3.8 Data Analysis and Presentation

Before processing the answers to the questions, the signed and completed questionnaires were edited for consistency and completeness. The actual and basic information collected was coded before to being inputted into Statistical Package of Social Science (SPSS) software. The quantitative data that was obtained from the questionnaires was coded and keyed into the SPSS software. Once it is coded, the information was therefore cleaned to enhance accuracy and completeness of the information gathered. In the analysis of the data collected, both descriptive and inferential numerical were employed.

Tables and figures were used to summarize responses for further analysis and enable comparison. This generated quantitative reports through tabulations, percentages, and measure of central tendency. Additionally, to measure the strength of the relationship between the variables, the researcher conducted a multiple regression analysis. The investigator sought to ascertain the causal effect of one variable (independent variable) upon another (dependent variable). The researcher also typically assessed the statistical significance of the estimated relationships, that is, the degree of confidence that the true relationship is close to the estimated relationship. Regression analysis was also valuable for quantifying the impact of various simultaneous influences (independent variables) upon a single dependent variable. As such, the data was broken down into the influence of customs procedures on trade facilitation at JKIA. The regression equation was:

$$Y = (\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon): \text{Whereby}$$

Y = Trade facilitation (dependent variable)

X_1 = verification procedures

X_2 = enforcement procedures

X_3 = release procedures.

β_0 = Constant

β_1 , β_2 , and β_3 = Regression Coefficients

ε = Error term an error term normally distributed about a mean of 0.

The equation was solved by the use of statistical model where SPSS was applied. This offered a quantitative and qualitative representation of the objectives of the study.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter represents the empirical findings and results of the study using techniques mentioned in chapter three in methodology. The organized data obtained from the research instruments was cleaned, sorted and coded prior to the analysis. The collection of data was done using a self-administered research questionnaire. This study generally sought to establish the influence of customs procedures on trade facilitation at JKIA, Kenya. The specific objectives were to determine the influence of verification procedures on trade facilitation in JKIA, to assess the influence of enforcement procedures on trade facilitation in JKIA and to examine the influence of release procedures on trade facilitation in JKIA. The results obtained from the SPSS are presented in tables and figures for ease of understanding and interpretation.

4.2 Response Rate

Response rate was critical for this study due to the fact that the fixed sample quantitative data obtained from primary data of the qualifying respondents implied that there was need for a similar response rate from the questionnaire used for the construction of the quantitative primary information. The study targeted 172 top and middle management of cargo sheds and 86 top and middle management employees of the customs department in JKIA. From this population, a sample of 51 respondents was selected to participate in the study and the response rate obtained is as per Table 4.1.

Table 4.1: Response Rate

Population category	Responded		Not Responded		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Customs employees	14	27.5	3	5.9	17	33.3
Cargo shed Employees	30	58.8	4	7.8	34	66.7
Total	44	86.3	7	13.7	51	100.0

The instruments that were completed and taken as valid for data analysis were obtained from 44 respondents which translated to a response rate of 86.3%. On the other hand, seven (7) questionnaires (accounting for 13.7%) were not considered in this study since they were either not at all or they were not fully filled as per the expectations of the researcher. Of all the 44 questionnaires received, 30 (58.8%) of them were obtained from the staffs working in the cargo sheds, while 14 (27.5%) of them were filled by the staffs working in the customs department in JKIA. According to Kothari (2013), a 50% or more response rate is adequate for analysis and making conclusions and recommendations. Consequently, 86.3% percent are excellent and satisfactory response rate warranting the researcher to continue with the analysis and interpretation. This response rate demonstrated the validity of the study.

4.3 Demographic Characteristics

This section seeks to establish the distribution of the respondents' demographic data. These aspects were essential in informing the study. In the questionnaire the information presented was contained in the section under gender, age bracket and designations of the respondents.

4.3.1 Gender of the Respondents

The research was interested in establishing the distribution of the respondents in terms of Gender. The subject of sexual category is viewed as central in this investigation to a great extent since it could enable the study to get a reasonable view from the two sexes. From the outcomes delineated in Figure 4.1, 54.5 percent of the respondents that took an interest in the examination were male while 45.5 percent were female. These outcomes demonstrate that the cargo sheds as well as customs department in JKIA have utilized both male and female staffs and perspectives communicated in these discoveries are illustrative of the assessments of the two sexes. The discoveries suggest that the perspectives communicated in these discoveries are sexual orientation delicate and can be taken as illustrative of the assessments of the two sexes since sex assumes a critical job in comprehension to customs procedures and trade facilitation.

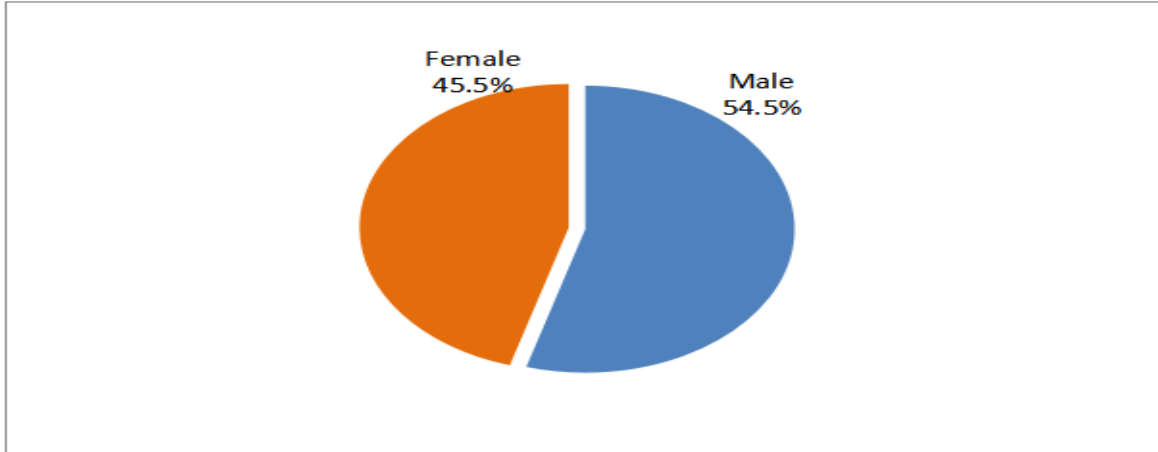


Figure 4.1: Gender of the Respondents

4.3.2 Age Brackets

The study also ensured that the age bracket of the participants was distributed evenly with the study noticing the age group of its participants to be spread evenly between the years of 20 years to slightly above 50 years. The results are as depicted in Table 4.2.

Table 4.2: Age Brackets of the Respondents

Age Bracket in Years	Frequency	Percentage
26-30	3	6.8
31-35	5	11.4
46-50	10	22.7
36-40	13	29.5
41-45	13	29.5
Total	44	100

From the study, the respondents with ages falling between 36 and 40 years as well as 41-45 years formed the largest proportion of population studied with 29.5% in each case. In addition, these were followed by 22.7% of the respondents whose ages fell between 46 and 50 years. 11% of the respondents indicated that their ages were between 31 and 35 years old while 6.8 percent of the respondents were between the age of 26 and 30 years. These results suggest that the organizations studied have employed staff of different age brackets hence the results depicted in this study are likely to be representative of the situation as investigated by the study.

4.3.3 Level of Education

Level of education is important in customs industry and for one to work in the industry, institutions consider education as one of the basic requirements for employment and probable consideration for managerial positions. The study findings for education are as shown in Table 4.3.

Table 4.3: Level of Education of the Respondents

Education Level	Frequency	Percent
------------------------	------------------	----------------

College	3	6.8
Bachelors degree	32	72.7
Postgraduate degree	9	20.5
Total	44	100.0

The study revealed that a large majority (72.7%) of the respondents specified that they had attained bachelors' degrees. This was followed by the category consist of 20.5% of postgraduate degrees' holders, while 6.8% of respondents were college diploma holders. The results show that a large majority of the respondents are degree holders and understand the questions and issues being asked. The amount of time utilized in learning and acquiring academic qualifications is among the crucial elements required management's participation in a management of customs and trade facilitation affairs and their associated benefits.

4.3.4 Designation of the Respondents

This study sought to establish the distribution of the respondents' current job level in their organizational structures. The results are as outlined in Table 4.4.

Table 4.4: Designation of the Respondents

Designation	Frequency	Percentage
Top Management	3	6.8
Middle level management	15	34.1
Other (assistant managers)	26	59.1
Total	44	100

According to Table 4.4, 59.1% of the respondents specified that they were assistant managers in the cargo sheds as well as customs department in JKIA. In addition, 34.1% of them were middle level management staff, while 6.8% of the respondents comprised

of top management staff in the cargo sheds and the customs department in JKIA. These results show that the respondents that took part in the study were predominantly those involved in the making and implementation of the decisions concerned with customs procedures and trade facilitation in the cargo sheds and the customs department in JKIA.

4.3.5 Working Experience

Years of service are critical since they reveal the understanding of key indicators investigated and the ability of the customs institutions to enable, facilitate and sustain trade. The data from the study showed that a huge majority (covering 43.2%) of the respondents had a working experience of between 6 and 10 years, 25.0% of them had worked with their firms for between 11 and 15 years, 18.2 percent of the participants had worked with customs department and cargo sheds in JKIA for 16 to 20 years, whereas 13.6% of them specified that they had been working with the cargo sheds and the customs department in JKIA for a period of less than 5 years. The results of the study were explained to mean that most participants had been working in the firm a significant period. This enabled them to give answers with precision on the happenings within their firms.

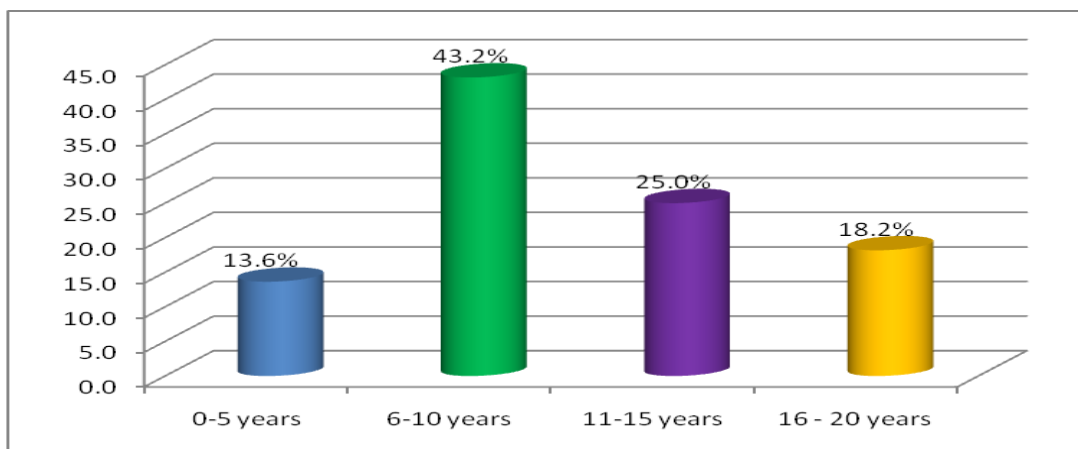


Figure 4.2: Working Experience in Cargo Sheds and Customs Department

4.4 Influence of Verification Procedures on Trade Facilitation

The research sought to determine the influence of verification procedures on trade facilitation in JKIA. As such, the researcher asked the participants to indicate the degree to which verification procedures affect trade facilitation in JKIA.

Table 4.5: Extent to which Verification Procedures affect Trade Facilitation

Extent	Frequency	Percentage
No extent	0	0.0
Little extent	4	9.1
Moderate extent	16	36.4
Great extent	17	38.6
Very great extent	7	15.9
Total	44	100.0

From the results showed in the table, 38.6% of the respondents indicated that verification procedures affect trade facilitation in JKIA to a great extent, 36.4% of them maintained that verification procedures affect trade facilitation in JKIA to a moderate extent, 15.9% selected to a very great extent and 9.10% of the participants conveyed that verification procedures affect trade facilitation in JKIA to a little extent. According to these results, verification procedures considerably affect trade facilitation operations among the cargo sheds in JKIA. In the same view, the institutional theory pointed that when traders do not have complete information on the market or regulations such as customs procedures, they are unable to fully exploit the opportunities available in cross border trade (North, 1991).

The respondents were also required to rate the extent in which various aspects of verification procedures affect trade facilitation in JKIA. These are the responses obtained regarding this question.

Table 4.6: Extent in which aspects of verification procedures affect trade facilitation

Aspects of verification procedures	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Std. Dev.
Scanning	13.6	61.4	25.0	0.0	0.0	3.8864	0.6182
Verification of document	14.6	41.5	34.1	7.3	2.4	3.5852	0.6289
Physical verification of goods	9.1	50.0	29.5	11.4	0.0	3.5682	0.7183
Goods assessment	4.5	52.3	31.8	11.4	0.0	3.5000	0.7625

According to the study, a mean score of 3.8864 showed scanning affects trade facilitation to a great extent in JKIA, a mean of 3.5852 showed that verification of documents affects trade facilitation to a great extent in JKIA, a mean of 3.5682 shows physical verification of goods affect trade facilitation to a great extent in JKIA, and a mean score of 3.5000 show that good assessment affects trade facilitation by a great extent. These results imply that verification procedures have a great effect on trade facilitation in JKIA.

The respondents were additionally surveyed to show the extent to which they agreed with various statements regarding the influence of verification procedures on trade facilitation in JKIA. Table 4.7 shows the results obtained.

Table 4.7: Agreement with the Effects of Verification procedures on Trade Facilitation

Verification procedures and trade facilitation	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Std. Dev.
Verification processes are automated to reduce intervention	4.5	52.3	31.8	11.4	0.0	3.5000	0.7625
Verification controls are positioned at points where they would be most effective without obstructing business	13.6	27.3	45.5	13.6	0.0	3.4091	0.8975
Remote facilities are provided for lodging declarations	11.4	31.8	47.7	9.1	0.0	3.4545	0.8199
Agencies participating in the verification system are linked electronically	9.1	50.0	29.5	11.4	0.0	3.5682	0.7183
Verification automation leads to an increase in number of clients for the customs agents and freedom for agents and traders to work outside customs normal working hours	14.6	41.5	34.1	7.3	2.4	3.5852	0.6289
Customs is deeply involved in Verification control of goods which cross borders	11.4	31.8	40.9	15.9	0.0	3.3864	0.8948
Verification procedures help in determining goods nomenclature and origin	6.3	43.8	46.9	3.1	0	3.531	0.73136
Verification procedures are essential for collecting revenue and administering trade policies	25.0	36.4	38.6	0.0	0.0	3.2093	0.8326

According to the results shown in Table 4.7, majority of the respondents agreed to a great extent that automation of verification brings about an increase in number of customers for the customs agents and freedom for agents and traders to work outside customs normal working hours represented by a mean of 3.5852, the agencies participating in the verification system are linked electronically represented by a mean of 3.5682, verification procedures help in determining goods nomenclature and origin as represented by a mean of 3.531 and verification processes are automated to reduce intervention represented by a mean of 3.5000. Nevertheless, the Participants showed neutrality by stating that remote facilities are provided for lodging declarations to a

moderate extent as represented by a mean of 3.4545, customs is deeply involved in verification control of goods which cross borders to a moderate extent as represented by a mean of 3.3864 ,verification controls are positioned at points where they would be most effective without obstructing business to a moderate extent as represented by a mean of 3.4091 and that verification procedures are essential for collecting revenue and administering trade policies to a moderate extent as represented by a mean of 3.2093. This is an affirmation that verification is a crucial aspect in trade facilitation and its processes are automated, its controls are positioned at points where they would be most effective, its system are linked electronically, its automation leads to an increase in number of clients, its procedures help in determining goods nomenclature and origin and its procedures are essential for collecting revenue and administering trade policies.

4.5 Influence of Enforcement Procedures on Trade Facilitation

The second objective of the research was to find the influence of enforcement procedures on trade facilitation in JKIA. To find out the, participants were requested to indicate the extent to which enforcement procedures affect trade facilitation in JKIA. From the results presented in Figure 4.3, 41.5% of the respondents affirmed that enforcement procedures affect trade facilitation in JKIA to a great extent. Furthermore, 29.3% of the participants specified that enforcement procedures affect trade facilitation in JKIA to a moderate extent, 23.2% of the participants specified to a very great extent, whereas 7.3% of the answers indicated that enforcement procedures affect trade facilitation in JKIA to a little extent. These results imply that enforcement procedures play a very significant role in facilitation of trade among the cargo sheds in JKIA.

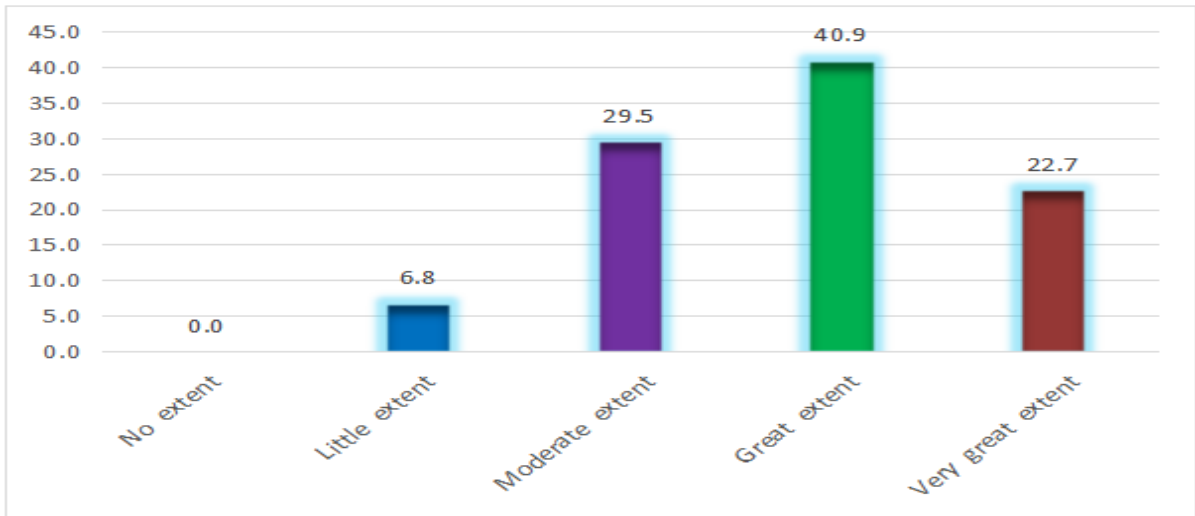


Figure 4.3: Extent to which Enforcement Procedures affect Trade Facilitation

The participants were requested to identify the extent to which the numerous aspects of enforcement procedures affect trade facilitation in JKIA. Table 4.8 reveals the study results.

Table 4.8: Aspects of Enforcement Procedures affecting Trade Facilitation in JKIA

Aspects of enforcement procedures	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Std. Dev.
Joint border controls	9.4	43.8	40.6	6.3	0	3.563	0.2078
Bond securities & bank guarantees	9.4	34.4	43.8	12.5	0	3.406	0.228
Inward declarations of vessels, aircrafts, etc	9.4	37.5	43.8	9.4	0	3.469	0.1925
Rummaging and search	9.3	55.6	20.4	11.1	3.7	3.560	0.7780
Patrols and surveillance	12.5	50	34.4	3.1	0	3.719	0.2266

Based on the findings majority of the participants stated that patrols and surveillance affect trade facilitation in JKIA to a great extent as represented by a mean of 3.719, joint border controls affect trade facilitation in JKIA to a great extent as represented by a mean

score of 3.563 and rummaging and search affect trade facilitation in JKIA to a great extent as represented by a mean of 3.560. Alternatively, inward declarations of vessels and aircrafts among others and bond securities as well as bank guarantees affect trade facilitation in JKIA to moderate extents as shown by mean scores of 3.469 and 3.406 respectively. This is an indication that enforcement procedures are critical in establishing a sustainable business environment.

The study additionally wanted to determine the extent to which the participants agreed with the different statements provided on the effect of enforcement procedures on trade facilitation in JKIA. The results obtained were tabulated as shown in 4.9.

Table 4.9: Agreements Enforcement Procedures and Trade Facilitation in JKIA

Statements on enforcement procedures	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Std. Dev.
Customs regulation reforms respond appropriately to the demands for revenue optimization	25.9	37	20.4	16.7	0	3.721	0.5541
Customs modernization of regulatory policies affect trade facilitation in the cargo sheds	5.6	50	27.8	13	3.7	3.411	0.9254
The enforcement working group formulates policies that affect operations of cargo sheds	18.5	27.8	37	16.7	0	3.481	0.1381
Government agencies define the arrangements relating to customs enforcement procedures	11.1	51.9	29.6	7.4	0	3.667	0.5090

Majority of the participants indicated to a great extent that customs regulation reforms respond appropriately to the demands for revenue optimization as represented by a mean of 3.721 and government agencies define the arrangements relating to customs enforcement procedures as represented by a mean of 3.667. Nevertheless, there was

modest agreement with the statement that enforcement working group formulates policies that affect operations of cargo sheds as represented by a mean of 3.481 and customs modernization of regulatory policies affect trade facilitation in the cargo sheds as represented by a mean of 3.411. These findings imply that enforcement procedures customs regulation reforms, modernization, regulatory policies, working group and agencies are essential in enhancing trade.

4.6 Influence of Release Procedures on Trade Facilitation

The research also wanted to identify the influence of release procedures on trade facilitation in JKIA. The findings revealed that release procedures affect trade facilitation to various degrees. Most (56.8%) of the participants pointed that release procedures affect trade facilitation in Kenya to a moderate extent, 29.5% of the respondents indicated to a great extent, 9.1% of the respondents indicated that release procedures affect trade facilitation in Kenya to a little extent, while 4.5% of them indicated that release procedures affect trade facilitation in Kenya to a very great extent. Release procedures moderately influence trade facilitation in Kenya

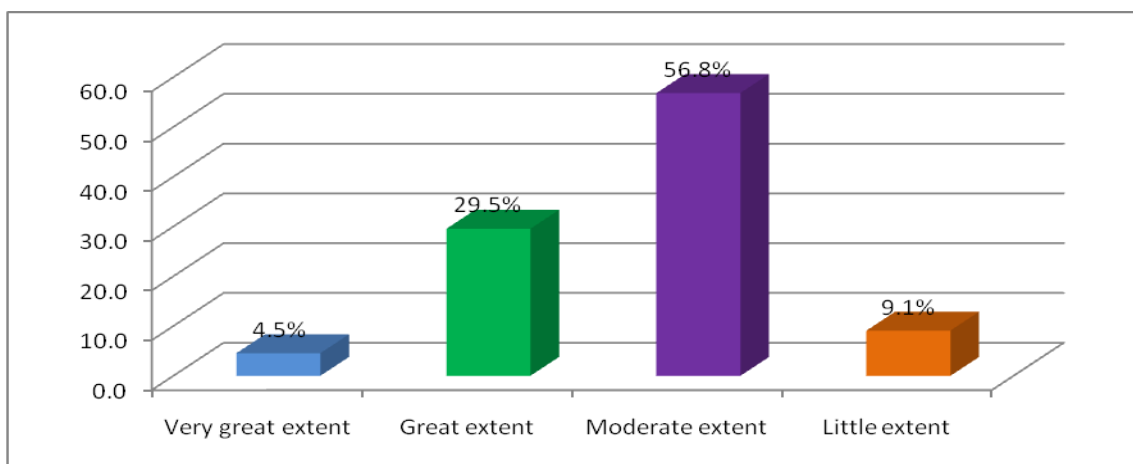


Figure 4.4: Extent to which Release Procedures affect Trade Facilitation

The participants were required to specify the extent to which various aspects of release procedures affect trade facilitation in JKIA. The results obtained are shown in Table 4.10.

Table 4.10: Aspects of Release Procedures affect Trade Facilitation in JKIA

Aspects of release procedures	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Std. Dev.
Discharge operations	13.4	47.6	30.5	8.5	0	3.659	0.6567
KPA pickup order or CFs release order	18.5	27.8	37	16.7	0	3.481	0.7951
Gate pass	14.6	29.3	51.2	4.9	0	3.537	0.7314

According to Table 4.10, majority of the participants specified that discharge operations affect trade facilitation in JKIA to a great extent represented by a mean of 3.659 and gate pass affect trade facilitation in JKIA to a great extent as shown by a mean score of 3.537. Alternatively, the respondents reported that KPA pickup order or CFs release order affect trade facilitation in JKIA to a moderate extent as shown by a mean score of 3.481. These findings indicate that gate pass and discharge operations are the most influential aspects of release procedures that play a role in trade facilitation.

The study was inquisitive of the extent to which the respondents agree with various statements regarding the influence of release procedures on trade facilitation in JKIA.

Table 4.11 shows the study results.

Table 4.11: Agreements on influence of Release Procedures on Trade Facilitation

Release procedures and trade facilitation	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Std. Dev.
Customs release procedure affects service delivery in custom sheds	13.4	47.6	30.5	8.5	0	3.659	0.6567

Clearance procedures in real time improves the ability of trade activities	8.9	29	26.8	27.8	7.6	3.000	0.689
Cargo release processes are automated to reduce transactions costs	14.6	29.3	51.2	4.9	0	3.537	0.7314
Customs release control is designed to enhance efficiency in trade	9.8	45.1	36.6	4.9	3.7	3.524	0.5455

According to the results depicted in Table 4.11, the statements were interpreted according to the weighted mean scores in a descending order. As per the findings, majority of the respondents agreed that customs release procedure affects service delivery in JKIA as represented by a mean of 3.659, cargo release processes are automated to reduce transactions costs as represented by a mean of 3.537 and customs release control is designed to enhance efficiency in trade as shown by represented by a mean of 3.524. The participants exhibited neutrality with regards to clearance procedures in real time improves the ability of trade activities as shown by a mean score of 3.000. According to these results, customs release procedure affects service delivery, improves the ability of trade activities, automation reduces transactions cost and enhances efficiency in trade.

4.7 Trade Facilitation

The study sought to establish the extent to which customs procedures affect trade facilitation in JKIA. Customs procedures contributes to trade facilitation in JKIA in various ways. As per the research 46.3% of the participants specified that in general customs procedures affect trade facilitation in JKIA to a great extent, 41.5% specified to a moderate extent, 7.3% of the responses indicated that the customs procedures affect trade facilitation in JKIA to a very great extent, whereas 4.9% of the participants

specified to a little extent. Based on the findings, it is evident that customs procedures have a great effect on trade facilitation in JKIA.

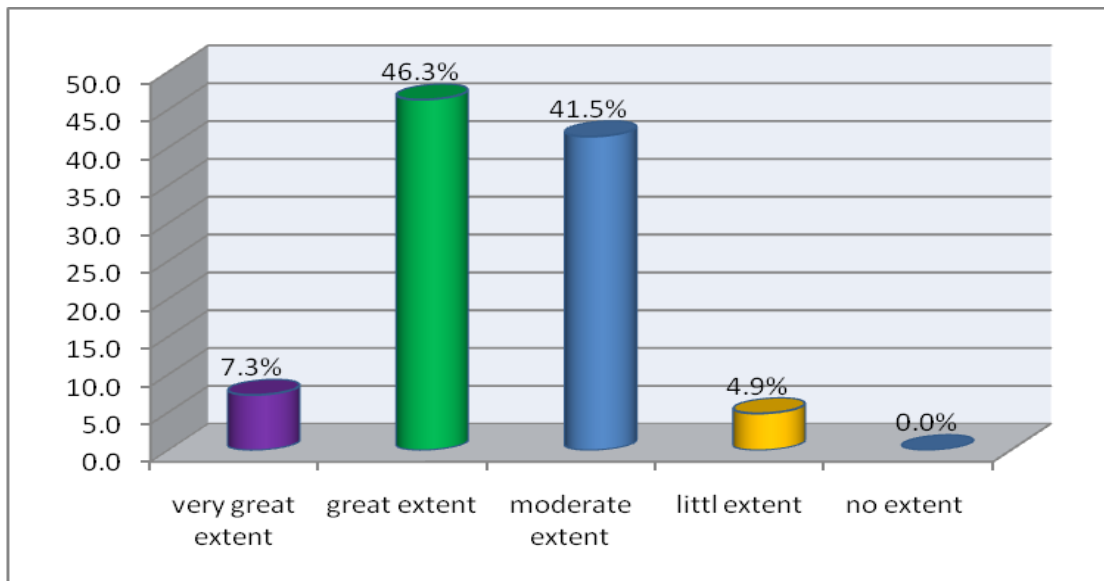


Figure 4.5: Extent to Which Customs Procedures affect trade facilitation in JKIA

The study also sought to establish the extent to which the customs procedures in general affect the various aspects of trade facilitation in JKIA. The results are as depicted in Table 4.12.

Table 4.12: Extent to which customs procedures affect aspects of trade facilitation

Measures of trade facilitation						Mean	Std. Dev.
	Very great extent	Great extent	Moderate extent	Little extent	No extent		
Revenue optimization	9.1	50	29.5	11.4	0	3.5682	0.7183
Trade transaction cost	14.6	41.5	34.1	7.3	2.4	3.5852	0.6289
Reduction of trade barriers	11.4	31.8	40.9	15.9	0	3.3864	0.8948
Market competitiveness	6.3	43.8	46.9	3.1	0	3.5310	0.73136

According to the results in Table 4.12, in general the customs procedures greatly affect trade transaction cost as indicated by a scoring of 3.5852, as well as revenue optimization as indicated by a scoring of 3.5682, market competitiveness as indicated by a scoring of 3.5310 and reduction of trade barriers as indicated by a scoring of 3.3864. This is an indication that to customs procedures have a great influence on trade facilitation.

4.8 Correlation Analysis

The study conducted a Karl Pearson Moment correlation analysis which explains the relationship between customary procedures and trade facilitation. Table 4.13 shows the findings.

Table 4.13: Correlations between customary procedures and trade facilitation

Variables	Correlations	Trade facilitation	verification procedures	Release procedures	Enforcement procedures
Trade facilitation	Pearson Correlation	1	.321	.526	.166
	Sig. (2-tailed)	.	.020	.032	.024
Verification procedures	Pearson Correlation	.321	1	.426	.174
	Sig. (2-tailed)	.020	.	.002	.030
Release procedures	Pearson Correlation	.526	.426	1	.103
	Sig. (2-tailed)	.032	.002	.	.043
Enforcement procedures	Pearson Correlation	.166	.235	.103	1
	Sig. (2-tailed)	.024	.047	.043	

Trade facilitation, verification procedures, release procedures and enforcement procedures have a significant relationship among themselves. It was evident that there was a positive correlation between trade facilitation and release procedures with a correlation rate of 0.526 ($p < 0.05$); there was a positive correlation between trade facilitation and verification procedures with a correlation rate of 0.321 ($p < 0.05$) while there was a positive correlation between trade facilitation and enforcement procedures with a correlation rate of 0.166 ($p < 0.05$). These results show that there were positive correlations between trade facilitation and verification procedures, release procedures as well as enforcement procedures. This implies that for every unit change in the variables, there is a positive change on trade facilitation.

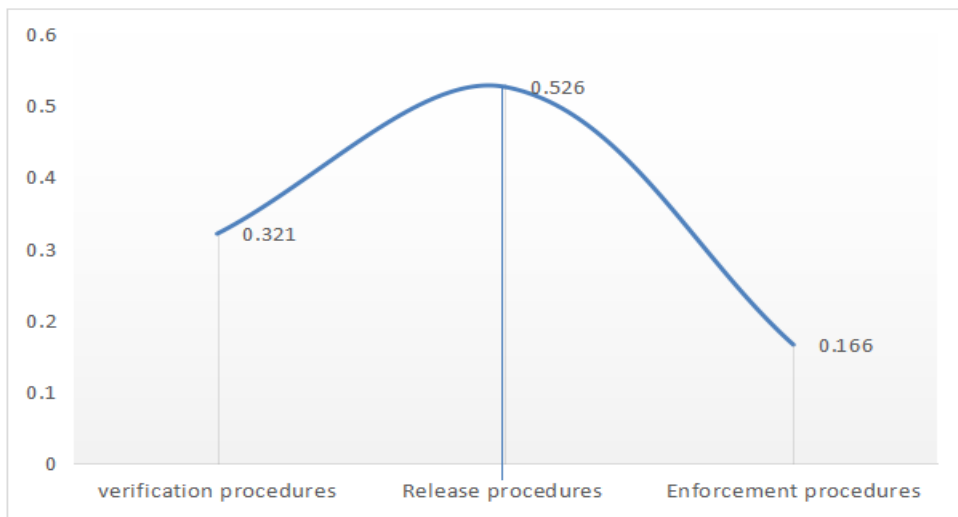


Figure 4.6: Graph for Correlation Analysis

4.9 Regression Analysis

A linear regression analysis was conducted to predict the influence of customs procedures on trade facilitation at JKIA. The predictors included verification procedures,

enforcement procedures and release procedures. The researcher extracted the model summary which portrays the coefficient of determination. Table 4.14 shows the results of the model summary.

Table 4.14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.908 ^a	.825	.789	.0323

From the model summary, $R^2 = 0.825$ and adjusted R square 0.789 reveal that 82.5% change in trade facilitation can be explained by the changes of all the predictor variables. It shows that the independent variables had a strong correlation with the dependent variable. On the contrary, 17.5% was described by other factors that were not part of this study. The results indicate that custom procedures contribute a major part of the trade facilitation in JKIA.

The Analysis of variance (ANOVA) was used to find whether there was a regression relationship between customs procedures and trade facilitation in JKIA. The F-ratio in the ANOVA table tested whether the overall regression model was good and fit for the data. The results attained are found in Table 4.15.

Table 4.15: ANOVA Test Results

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	6.33	3	2.11	2.912	0.001
Residual	2.16	40	0.72		
Total	4.245	43			

Dependent variable: trade facilitation
Independent variables: custom procedures

The results indicate that $F=2.912$, and is significant since $p=0.001$ which is less than p value ($p =0.05$). The critical alpha value for F-test (3, 43, at 0.05) is 2.82 which is less than the computed F-value (2.912). This therefore shows that the model is fit for finding out the relationship between the dependent and independent variables.

Table 4.16: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.580	.189		3.069	.004
Verification procedures	.489	.093	.227	5.258	.024
Enforcement procedures	.384	.113	.425	3.398	.039
Release procedures	.619	.145	.103	4.269	.033

The coefficients in Table 4.16 answer the regression equation relating the dependent and the independent variables. Testing the significance of the coefficients at 95% confidence level, the table indicates that all the variables had a significance value less than 0.05 thus confirming the significance of the results. Also, from the table, all the variables indicated a positive coefficient indicating a positive relationship between the dependent and independent variables. Based on these coefficients, the regression model ($Y= \alpha_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \epsilon_0$) therefore becomes;

$$Y=0.580+0.489X_1+0.384X_2+0.619X_3$$

where X_1 is verification procedures, X_2 is enforcement procedures and X_3 is release procedures

The model indicates that, holding the predictor variables constant, the trade facilitation would have a coefficient of 0.580. From the results, the regression coefficient for verification procedures is 0.489. This had a significant value of 0.024 which is less than

0.05 depicting the significance of the relationship between verification procedures and trade facilitation. Therefore, based on these, there is a positive and significant relationship between unit verification procedures and trade facilitation. This shows that, a unit increase in the verification procedures reforms would result to 0.489 times increase in trade facilitation.

Enforcement procedures were found to have a positive effect on the trade facilitation. This is presented by the regression coefficient of 0.384 with a significance value of 0.039 which is less than 0.05 the critical value at the 5% level of significance. This therefore establishes that given a unit increase in enforcement procedures would result to 0.384 increase in trade facilitation.

The data findings also indicate that keeping all other independent variables at zero, a unit increase in release procedures will lead to a 0.619 increase in trade facilitation in Kenya. release procedures had significance value of 0.033 which is less than 0.05. Therefore, according to the study findings, release procedures contribute more to the increase of trade facilitation followed by verification procedures, while enforcement procedures contributes the least to trade facilitation in JKIA Kenya.

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter is a synthesis of the entire study on the influence of customs procedures on trade facilitation at JKIA, Kenya. The chapter summarizes the outcomes of the study based on the research findings. Additionally, the chapter gives the recommendations and conclusions from the analysis of the data done in chapter four. The chapter finally presents the suggestions for further studies.

5.2 Summary

The research determined that verification procedures affect trade facilitation in JKIA to a great extent, it also found out that scanning operations affects trade facilitation in JKIA to a great extent, verification of documents affects trade facilitation in JKIA, physical verification of goods affects trade facilitation in JKIA and goods assessment affects trade facilitation in JKIA to a great extent. According to the results, verification automation has positive results exhibited by growth in number of customers for the customs agents and liberty for agents and traders to work outside customs regular working hours, the agencies participating in the verification system are linked electronically, verification procedures help in determining goods nomenclature and origin and verification processes are automated to reduce intervention.

The study established that enforcement procedures affect trade facilitation in JKIA to a great extent. The results revealed that patrols and surveillance, joint border controls and rummaging and search affect trade facilitation in JKIA to great extents, while inward declarations of vessels and aircrafts among others and bond securities as well as bank

guarantees affect trade facilitation in JKIA to moderate extents. The study found agreement to a great extent on that customs regulation reforms respond appropriately to the demands for revenue optimization and government agencies define the arrangements relating to customs enforcement procedures, There was moderate agreement with that the enforcement working group formulates policies that affect operations of cargo sheds.

The study found that release procedures affect trade facilitation in Kenya to a moderate extent. Discharge operations and gate pass affect trade facilitation in JKIA to great extents while KPA pickup order or CFs release order affect trade facilitation in JKIA to a moderate extent. Customs release procedure affects service delivery in JKIA, cargo release processes are automated to reduce transactions costs and customs release control is designed to enhance efficiency in trade while clearance procedures in real time improves the ability of trade activities to a moderate extent.

The study further established that in overall customs procedures affect trade facilitation in JKIA to a great extent. In overall the customs procedures affect trade transaction cost, revenue optimization, market competitiveness and reduction of trade barriers to great extents. From the model summary 82.5% change in trade facilitation can be explained by the changes of the variables. The critical alpha value for F-test was 2.82 which is less than the computed F-value (2.912) implying that the model is fit for finding out the relationship between the dependent and independent variables. the regression coefficient for verification procedures is 0.489, the regression coefficient of enforcement procedures was 0.384 and a unit increase in release procedures will lead to a 0.619 increase in trade facilitation.

5.3 Conclusion

The study concludes that verification procedures considerably affect trade facilitation operations among the cargo sheds in JKIA. Verification procedures, scanning, verification of document, physical verification and goods assessment have major influence on trade facilitation in JKIA. Verification is a crucial aspect in trade facilitation and its processes are automated, its controls are positioned at points where they would be most effective, its system are linked electronically, its automation leads to an increase in number of clients, its procedures help in determining goods nomenclature and origin and its procedures are essential for collecting revenue and administering trade policies.

The study deduces that enforcement procedures play a very significant role in facilitation of trade among the cargo sheds in JKIA. From the findings, enforcement procedures, joint border controls, bond securities and bank guarantees, inward declarations of vessels, aircrafts, rummaging and search and patrols and surveillance are critical in establishing a sustainable business environment. As such, enforcement procedures customs regulation reforms, modernization, regulatory policies, working group and agencies are essential in enhancing trade.

The study concludes that there is a moderate effect of release procedures on trade facilitation in Kenya. The study cleared that gate pass and discharge operations are the most influential aspects of release procedures that play a role in trade facilitation. From the study, customs release procedure affects service delivery, improves the ability of trade activities, automation reduces transactions cost and enhances efficiency in trade.

The study finally deduces that customs procedures have a great influence on trade facilitation. Its influence is felt on revenue optimization, trade transaction cost, reduction of trade barriers and market competitiveness of JKIA. Release procedures contribute more to the increase of trade facilitation followed by verification procedures, while enforcement procedures contributes the least to trade facilitation in JKIA Kenya.

5.4 Recommendations

The study recommends the need for enhanced verification procedures at JKIA. The major cause of lengthy verification process were long procedures involved in passing through scanning, verification of document, physical verification of goods and goods assessment. The streamlining and harmonization of verification procedures in JKIA would result in significant reduction of processing times. This can be achieved by initiatives such as joint inspections and harmonization of verification procedures at the Airport.

The study recommends that the Government should strive to set enforcement policies and laws for trade facilitation in Kenya by charging optimal rates on importation for those goods. There is need for streamlining some of the enforcement procedures for cross border trade. Some of these procedures are administrative in nature, for instance, synchronizing the time the border starts operating.

The study finally recommends setting up of more automated release procedures to ease the release process at JKIA. The customs office at JKIA needs to automate its discharge operations, KPA pickup order or CFs release order and gate pass procedures for ease of clearance and release. There is need to convert the semi-automatic release procedure into

a completely electronic format to make it easier for ease of reference and to avail information to institutions.

5.6 Suggestions for Further Studies

The objective of this study was to establish the influence of customs procedures on trade facilitation at JKIA, Kenya. To achieve its objective the study focused on establishing the influence of verification procedures, enforcement procedures and release procedures on trade facilitation in JKIA. The researcher believes that a study that could generalize the relationship between customs procedures and trade facilitation in Kenya would be a milestone in making formulation of policies and strategies that would enhance even better customs and trade facilitation of such organizations hence the realization of Kenya's Vision 2030. This study therefore suggests that another study could be carried out to investigate influence of customs procedures and trade facilitation among organizations dealing with customs operations in Kenya. Such a study would include organizations like, KPA and KAA among others.

REFERENCES

- Adedayo, O.A. Ojo, O., & Obamiro, J.K. (2016). Operations research in decision analysis and production management. Lagos: Pumark Nigeria Ltd.
- Adeniji, M. (2018) The Role of Customs Services in Trade Facilitation: Comparison between Nigeria and Finland. Business Management Thesis, Centria University Of Applied Sciences
- Alexander, C. D. (1990). Successfully Implementing Strategic Decisions. *Long Range Planning* 3 (18): 91-97.
- Ali, Y.S., Mohamed, S.D. & Ali, A.A. (2016) Determinants of Economic Growth: Evidence from Somalia. *International Journal of Economics and Finance*; 9(6): 200-211
- Bank of Tanzania (BoT) (2013) 'Financial Stability Report-March 2013'. Dar es Salaam: Bank of Tanzania.
- Basnett, Y. & Massa, I. (2015) *Trade Facilitation: Rapid Evidence Assessment*. London: Overseas Development Institute.
- Portugal-Perez, A. Wilson, J. (2012) Export Performance and Trade Facilitation Reform: Hard and Soft Infrastructure, *World Development* 40(7): 1295–1307
- Benazic, A. (2012) Measuring Efficiency in the Croatian Customs Service: A Data Envelopment Analysis Approach, *Financial Theory and Practice*, 36(2), 139-178.
- Barreiro-Hurle, J. (2012). Analysis of Incentives and Disincentives for Maize in the United Republic of Tanzania. Technical notes series. Rome: FAO.
- Buyonge, C. (2017). Emerging issues on the role of customs in the 21st Century: An African focus. International Network of Customs Universities. *World Customs Journal*,1(1), 55-62
- Broadman, H.G., Anderson, J., Claessens, C.A., Ryterman, R., Slavova, S., Vagliasindi, M., (2004). *Building market institutions in South Eastern Europe: Comparative prospects for investment and private sector development*. Washington, DC: World Bank Publications
- Bruton, G., Ahlstrom, D. & Han-Lin, L., (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship Theory & Practice* 34 (3), 421–440
- Çakmak, E.H., & Eruygur, H.O., (2017), Food, Rural, Agricultural and Fisheries Policies in Turkey, in *Mediterra 2007*, CIHEAM, Paris.
- Cooper, D.R & Schindler, P.S. (2011) *Business Research Methods* (8th ed) McGraw-Hill: New York.

- Mugenda, O. M. & Mugenda, A. G. (2012) Research methods dictionary, Nairobi, Arts Press
- Chen, T. (2016) Examining the effectiveness of the simplified air-cargo express consignment clearance system in Taiwan. *Journal of Shipping and Trade*, 1:12
- Cirera, X., A. Marin, & R. Markwald. (2012). Firm behaviour and the introduction of new exports: Evidence from Brazil. Institute of Development Studies Working Paper Series, volume 2012 No 390.
- Czinkota, M.R. (2012). *Principles of International Marketing*. Ninth Edition. Mason, Ohio: South-Western.
- Corporate (2010) *Cargo Firms Expand Capacity at Jomo Kenyatta Airport*, Business Daily, Friday, November 5
- Griffith, D. A. & Michael, R. & Czinkota, L. (2012), Release the Constraints: Working to Solve the Problems of Export Financing in Troublesome Times, *Business Horizons*, 55(3), 251-260.
- Dennis, A., & B. Shepherd. (2011). Trade facilitation and export diversification. *The World Economy* 34(1):101–22.
- EASSI. (2011). Mapping of Women Engaged in Cross Border Trade in the East African Community. Volume I. May 2011. Kampala: Eastern African Sub-regional Support Initiative for the Advancement of Women.
- European Commission: Electronic customs multi-annual strategic plan, (2013) yearly revision - MASP Rev. 11.0, [available at: http://ec.europa.eu/taxation_customs/resources/documents/customs/policy_issues/ecust_oms_initiative/masp_strategic_plan_en.pdf access 15.08.2018.]
- Hummels, D, & Schaur, G. (2014). Time as a Trade Barrier, *American Economic Review*, 103(7): 2935-59.
- Shepherd, S. B., and J. S. Wilson. 2009. Trade Facilitation in ASEAN Member Countries: Measuring Progress and Assessing Priorities. *Journal of Asian Economics* 20: 367–383.
- Azapmo, J.B. (2017): Regional trade agreements and crossborder trade costs: The case of Pacific island countries, ARTNeT Working Paper Series, No. 165, Asia-Pacific Research and Training Network on Trade (ARTNeT), Bangkok
- Harro. R (2017) *ASN Aircraft accident Fokker 50 5Y-CET Nairobi-Jomo Kenyatta International Airport (NBO)*, *aviation-safety.net*. Retrieved 2017-07-01.
- Hoekstra, R. (2013). *Boosting manufacturing firms' exports? The role of trade facilitation in Africa*. IEE Working Paper no. 197. University of Bochum.

- Hornok, C. (2012) 'Need for speed: Is faster trade in the EU trade creating?' Working Paper, Central European University
- Hoskisson, R.E., Eden, L., Lau, C.M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal*, 43(3), 249–267
- Kenya Airways Authority, (2017). *Cargo Handling At Jomo Kenyatta International Airport – JKIA*
- Lesser, C. & E. Moisé-Leeman (2009), Informal Cross-Border Trade and Trade Facilitation Reform in SubSaharan Africa, OECD Trade Policy Working Papers No. 86, Paris: OECD.
- Kothari, R. C. (2004). *Research Methodology: Methods & techniques*. New Delhi: New age international publishers.
- Zigmond, W. G., Babin, B. J., Carr, J. C., and Griffin, M., (2013), *Business Research Methods*, South Western Cengage Learning, Mason.
- Li, Y & Wilson, JS (2009), Time as a determinant of comparative advantage, World Bank Policy Research Working Paper WPS5128, November, World Bank, Washington, DC
- Melitz, M.J., (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica* 71, 1695–725.
- Mirela, A. P. & C. Marilena (2013). Role of Customs Duties in the Formation of Budget Revenues. *Journal of Knowledge Management, Economics and Information Technology*, 3(1), 156-164
- Mohammad, I.M. (2017) Challenges of Strategy Implementation of Cargo Companies Operating at Jomo Kenyatta International Airport, Nairobi Kenya. Business Administration, School of Business, University of Nairobi
- Moïse, E. & Sorescu, S. (2013) *Trade Facilitation Indicators: The Potential Impact of Trade Facilitation on Developing Countries' Trade*. OECD Trade Policy Papers, no. 144. OECD Publishing, Paris. [online], 23 August 2018. http://www.oecdilibrary.org/trade/trade-facilitationindicators_5k4bw6kg6ws2-en
- Mwajita, M.I., (2016), *The effects of the implementation of the Kenya National Electronic Single Window System on trade facilitation*. World Maritime University Dissertations. 515. http://commons.wmu.se/all_dissertations/515
- North, D. (1991) Institutions. *The Journal of Economic Perspectives*, Vol. 5, 1, pp. 97-112.
- Okumu, L. & Nyankori. J. (2010). Non-Tariff Barriers in EAC Customs Union: Implications for Trade between Uganda and Other EAC Countries. Kampala: Economic Policy Research Centre

- Persson, M. (2010), Trade Facilitation and the Extensive Margin, *Journal of International Trade and Economic Development*. 2(4); 129-142.
- Persson, M. (2013). Trade Facilitation and the Extensive Margin, *Journal of International Trade and Economic Development*, 22(5): 658-693.
- Sanish (2017) Application of queuing to the traffic at the Port. *World Customs Journal*, 1(1), 11-17
- Tassabehji, R., Hackney, R. & Popovič, A., (2016) Emergent digital era governance: Enacting the role of the ‘institutional entrepreneur’ in transformational change. *Government Information Quarterly*, 33 (1): 223–236
- Transparency International, (2012) Corruption Perception Index, <http://transparency.org/cpi2012>
- Raballand, G., Salim, R., Monica, B., & Gözde, I. (2012), Why Does Cargo Spend Weeks in Sub-Saharan African Ports? World Bank, Washington, DC.
- Simon, M.K. & Goes, J. (2011). Developing a Theoretical Framework. Seattle WA: Dissertation Success, LLC.
- Rotich, M. (2014). Struggling with Formal and Informal Trade Barriers: Challenges Facing the Long Distance Trucking Industry in East Africa Community. Nairobi: East Africa Policy Centre.
- Wagner, G. (2017). Information and Process Modeling for Simulation. *Journal of Simulation Engineering*, 1:1. Available from: <http://JSimE.org>.
- Widdowson, D (2017), The changing role of Customs: evolution or revolution?, *World Customs Journal*, 1(1), 31-7.
- Wilson, T. R. & Lewis, J. (2015). The Maize Value Chain In Tanzania: A report from the Southern Highlands Food Systems Programme. FAO: Rome.
- World Bank (2012). Special Focus: Deepening Kenya"s Integration in the East African Community (EAC). Edition No. 6. Washington, DC: The World Bank.
- World Bank (2014). Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises. Washington, DC: The World Bank.
- World Trade Organization (2016) *Joint Statement - Trade Facilitation Assistance: Fifth Global Review of Aid for Trade*, 8 July 2013, Geneva. https://www.wto.org/english/tratop_e/devel_e/a4t_e/global_review13prog_e/joint_statment_sideevent.pdf
- Zaki, C. (2014) An empirical assessment of the trade facilitation imitative: econometric evidence and global economic effects. *World Trade Review* 13(1), 103–130

APPENDICES

Appendix I: Introductory Letter

Dear Respondent,

My name is Alpha Kitonga, a postgraduate student at Jomo Kenyatta University of Agriculture and Technology pursuing Post Graduate Diploma in Customs Administration. I am currently undertaking a research on the **INFLUENCE OF CUSTOMS PROCEDURES ON TRADE FACILITATION in JKIA JOMO KENYATTA INTERNATIONAL AIRPORT, KENYA**. The focus of my research will be on the top and middle management staffs working in JKIA as well as employees of the Customs Department. Please accept my invitation to participate in this research by sparing some time to fill the questionnaire.

This questionnaire is being administered for research purposes and any information provided will be used purely for academic purposes and will be treated with confidentiality.

Thank you.

Yours faithfully,

Alpha Kitonga

JKUAT

Appendix II: Research Questionnaire

This questionnaire is designed to collect data on the **Influence of Customs Procedures on Trade Facilitation in JKIA Jomo Kenyatta International Airport, Kenya**. This questionnaire consists of three major parts. Kindly respond to all questions by putting a tick (√) in the box matching your answer or write your answer in the space provided if it is not included in the choices. The information given here will only be used for purposes of this study and will be treated with utmost confidentiality. Your cooperation will be highly appreciated.

SECTION A: GENERAL INFORMATION

1. Gender
 Male Female
2. Age bracket
 0-20 Years 21-30 Years
 31-40 Years 41-50 Years
 51 Years and above
3. Level of education
 College Bachelors degree
 Postgraduate degree Other.....
4. What is your category as a respondent?
 Customs Staff
 Cargo shed staff
5. What is your current job level in the organization structure?
 Top Management Middle level management
 Other.....
6. What is your work experience (in years) in this Organization?
 0-5 yrs 5-10 yrs
 10-15 yrs Over 15 yrs

Influence of Verification Procedures on Trade Facilitation

7. To what extent do verification procedures affect trade facilitation in JKIA?

No extent	Little extent	Moderate extent	Great extent	Very great extent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Please rate the extent to which the following aspects of verification procedures affect trade facilitation in JKIA?

Aspects of verification procedures	No extent	Little extent	Moderate extent	Great extent	Very great extent
Scanning					
Verification of document					
Physical verification of goods					
Goods assessment					
Other.....					

9. To what extent do you agree with the following statements regarding the influence of verification procedures on trade facilitation in the cargo sheds in JKIA?

Verification procedures and trade facilitation	No extent	Little extent	Moderate extent	Great extent	Very great extent
Verification processes are automated to reduce intervention					
Verification controls are positioned at points where they would be most effective without obstructing business					
Remote facilities are provided for lodging declarations					
Agencies participating in the verification system are linked electronically					
Verification automation leads to an increase in number of clients for the customs agents and freedom for agents and traders to work outside customs normal working hours					
Customs is deeply involved in Verification control of goods which cross borders					
Verification procedures help in determining goods nomenclature and origin					
Verification procedures are essential for collecting revenue and administering trade policies					

Influence of Enforcement Procedures on Trade Facilitation

10. To what extent do enforcement procedures affect trade facilitation in JKIA?

No extent	Little extent	Moderate extent	Great extent	Very great extent

11. To what extent do the following aspects of enforcement procedures affect trade facilitation in JKIA?

Aspects of enforcement procedures	No extent	Little extent	Moderate extent	Great extent	Very great extent
Joint border controls					
Bond securities & bank guarantees					
Inward declarations of vessels, aircrafts, etc					
Rummaging and search					
Patrols and surveillance					
Other.....					

12. To what extent do you agree with the following statements on the effect of enforcement procedures on trade facilitation in JKIA?

Statements on enforcement procedures	No extent	Little extent	Moderate extent	Great extent	Very great extent
Customs regulation reforms respond appropriately to the demands for revenue optimization					
Customs modernization of regulatory policies affect trade facilitation in the cargo sheds					
The enforcement working group formulates policies that affect operations of cargo sheds					
Government agencies define the arrangements relating to customs enforcement procedures					

Influence of Release Procedures on Trade Facilitation

13. To what extent do release procedures affect trade facilitation in Kenya?

No extent	Little extent	Moderate extent	Great extent	Very great extent

14. To what extent do the following aspects of release procedures affect trade facilitation in JKIA?

Aspects of release procedures	No extent	Little extent	Moderate extent	Great extent	Very great extent
Discharge operations					
KPA pickup order or CFs release order					
Gate pass					
Other.....					

15. To what extent do you agree with the following statements regarding the influence of release procedures on trade facilitation in JKIA?

Release procedures and trade facilitation	No extent	Little extent	Moderate extent	Great extent	Very great extent
Customs release procedure affects service delivery in custom sheds					
Clearance procedures in real time improves the ability of trade activities					
Cargo release processes are automated to reduce transactions costs					
Customs release control is designed to enhance efficiency in trade					

Trade Facilitation

16. In overall, to what extent do customs procedures affect trade facilitation in JKIA?

No extent	Little extent	Moderate extent	Great extent	Very great extent

17. To what extent do the customs procedures in general affect the following aspects of trade facilitation in JKIA?

Measures of trade facilitation	No extent	Little extent	Moderate extent	Great extent	Very great extent
Revenue optimization					
Trade transaction cost					
Reduction of trade barriers					
Market competitiveness					
Other.....					

THANK YOU

Appendix III: Work plan

Activity	July – September 2018	October- November 2018	December 2018- February 2019
Topic formulation			
Research proposal development			
Review of the available literature			
Presentations of the research proposal			
Field work and report writing			

Appendix IV: Research Budget

Activity	Amount (in Kshs)
stationery	5, 500.00
Travelling	6, 000.00
Data gathering and processing	11, 000.00
Telephone calls, printing and photocopying	3, 000.00
Accompanying expenses	5, 000.00
Overall estimation outlay	30, 500.00