

**EFFECTS OF CUSTOMS CLEARANCE PROCEDURES ON THE COST OF DOING  
BUSINESS IN KENYA**

**DAVELYNE MORAA OMENYI**

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

**2019**

## DECLARATION

I hereby declare that this is my original work, submitted after a thorough field and book research on this topic and that it has been submitted in its original form without any erasure whatsoever.

Student

Name: Davelyne Moraa Omenyi

Date:

Signature: .....

Supervisor

Name: Sammy Ominde

Date:

Signature: .....

## **DEDICATION**

I dedicate this research to all my friends and colleagues at the Kenya School of Revenue Administration.

## **ACKNOWLEDGMENT**

First and foremost I would like to acknowledge the almighty God for His tender care and guidance to me through the entire period of this research. Secondly, a research of this magnitude would not have been successful without the assistance, guidance and inspiration of many individuals. I would like to extend my sincere thanks to my project supervisor Sammy Ominde, my fellow students, and family members, for their great support through the program. I would also like to acknowledge the management at the Kenya School of Revenue Administration for facilitating our study at the institution.

## TABLE OF CONTENTS

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGMENT.....	iii
LIST OF FIGURES.....	vii
LIST OF TABLES.....	viii
LIST OF ABBREVIATIONS AND ACRONYMS.....	x
DEFINITION OF TERMS.....	xi
ABSTRACT.....	xii
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1    Background of the Study.....	1
1.1.1    Global Perspective of Customs Clearance Procedures.....	2
1.1.2    Regional Perspective of Customs Clearance Procedures.....	3
1.1.3    Local Perspective of Customs Clearance Procedures.....	4
1.2    Statement of the Problem.....	5
1.3    Research Objectives.....	6
1.3.1    General Objective.....	6
1.3.2    Specific Objectives.....	6
1.4    Research Questions.....	6
1.5    Justification of the Study.....	7
1.5.1    Traders.....	7
1.5.2    Customs and Border Control Department.....	8
1.5.3    Government.....	8
1.5.4    Future Researchers and Scholars.....	8
1.6    Scope of the Study.....	8
CHAPTER TWO.....	9
LITERATURE REVIEW.....	9
2.1    Introduction.....	9
2.2    Theoretical Review.....	9
2.2.1    Agency Theory.....	10
2.2.2    Decision Theory Based on Inspection Planning.....	11
2.2.3    Deontological Class of Ethical Theories.....	12

2.2.4	Decision Theory .....	12
2.3	Conceptual Framework .....	13
2.3.1	Declaration of Goods .....	14
2.3.2	Verification of Goods.....	16
2.3.3	Release of Goods .....	16
2.3.4	Cost of Doing Business .....	17
2.4	Empirical Review.....	18
2.4.1	Declaration of Goods .....	19
2.4.2	Verification of Goods.....	19
2.4.3	Release of Goods .....	20
2.4.4	Cost of Doing Business .....	21
2.5	Critique of the Literature Review.....	22
2.6	Summary of Literature Review .....	23
2.7	Research Gaps.....	24
CHAPTER THREE .....		25
RESEARCH METHODOLOGY .....		25
3.1	Introduction.....	25
3.2	Research Design .....	25
3.3	Target Population.....	26
3.4	Sampling Technique and Sample size.....	27
3.5	Data Collection Instrument .....	27
3.6	Data Collection Procedure .....	28
3.7	Pilot Testing.....	28
3.7.1	Reliability Test.....	28
3.7.2	Validity Test .....	29
3.8	Data Analysis and Presentation.....	29
CHAPTER FOUR .....		31
RESEARCH FINDINGS AND DISCUSSIONS .....		31
4.1	Introduction.....	31
4.1.1	Response Rate.....	31
4.1.2	Pilot Study Results.....	32
4.2	Demographics Characteristics of Respondents .....	33
4.2.1	Gender Distribution.....	33

4.2.2 Age of the Respondents .....	33
4.2.3 Level of Education .....	34
4.2.4 Type of Organization .....	35
4.2.5 Current Position in the Organization .....	35
4.2.6 Number of Years Worked in Organization.....	36
4.3 Descriptive Analysis .....	37
4.3.1 Declaration of Goods .....	37
4.3.2 Verification of goods .....	41
4.3.3 Release of goods .....	45
4.3.4 Cost of doing business .....	49
4.4 Inferential Analysis .....	50
4.4.1 Multiple Regression Analysis .....	50
4.4.2 Correlation .....	51
4.4.3 Analysis of Variance .....	54
CHAPTER FIVE .....	58
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	58
5.1 Introduction.....	58
5.2 Summary of the Study.....	58
5.2.1 Declaration of Goods .....	58
5.2.2 Verification of Goods.....	59
5.2.3 Release of Goods.....	59
5.3 Conclusion. ....	60
5.4 Recommendation .....	60
5.5 Area for further study.....	61
REFERENCES .....	62
APPENDIX I: .....	67
INTRODUCTORY LETTER TO THE RESPONDENT .....	67
APPENDIX II.....	68
QUESTIONNAIRE .....	68

## LIST OF FIGURES

Figure 2.1 Conceptual Framework .....	25
---------------------------------------	----

## LIST OF TABLES

<b>Table 3.1</b> Target Population.....	38
<b>Table 4.1</b> Response Rate.....	43
<b>Table 4.2</b> Realiability Test Results.....	44
<b>Table 4.3</b> Gender of the Respondents.....	45
<b>Table 4.4</b> Age of the Respondents.....	45
<b>Table 4.5</b> Level of Education.....	46
<b>Table 4.6</b> Type of Organization.....	47
<b>Table 4.7</b> Respondent Position.....	48
<b>Table 4.8</b> Number of Years Worked in the Organization.....	36
<b>Table 4.9</b> Mean, Standard Deviation and Coefficient of Variation of Online Submission of Documents.....	50
<b>Table 4.10</b> Mean, Standard Deviation and Coefficient of Variation of Communication Between Control Agencies and Customs Authorities.....	51
<b>Table 4.11</b> Mean, Standard Deviation and Coefficient of Variation of Human Resource.....	52
<b>Table 4.12</b> Mean, Standard Deviation and Coefficient of Variation of Communication of various customs systems on various sectors.....	54
<b>Table 4.13</b> Mean, Standard Deviation and Coefficient of Variation of Machine Technologies...55	55
<b>Table 4.14</b> Mean, Standard Deviation and Coefficient of Variation of Customs Electric procedures.....	56
<b>Table 4.15</b> Mean, Standard Deviation and Coefficient of Variation ICT Systems Installation...57	57
<b>Table 4.16</b> Mean, Standard Deviation and Coefficient of Variation of Port Infrastructure.....	58
<b>Table 4.17</b> Mean, Standard Deviation and Coefficient of Variation of Automated Machine Systems.....	48
<b>Table 4.18</b> Mean, Standard Deviation and Coefficient of Variation of Cost of doing business...61	61
<b>Table 4.19</b> Regression Model Summary.....	62
<b>Table 4.20</b> Correlation Analysis.....	64

<b>Table 4.21</b> Analysis of Variance.....	66
<b>Table 4.22</b> Regression Coefficient Container Dwell Time.....	67

## **LIST OF ABBREVIATIONS AND ACRONYMS**

<b>AEO</b>	Authorized Economic Operator
<b>ANOVA</b>	Analysis of Variance
<b>CSD</b>	Customs Services Department
<b>DPC</b>	Document Processing Centre
<b>EAC</b>	East African Community
<b>EACCMA</b>	East African Community Customs Union Management Act
<b>ICD</b>	Inland Container Depot
<b>KEBS</b>	Kenya Bureau of Standards
<b>KEPHIS</b>	Kenya Plant Health Inspectorate Service
<b>SADC</b>	Southern African Development Community
<b>WCO</b>	World Customs Organization
<b>WTO</b>	World Trade Organization
<b>ZIMRA</b>	Zimbabwe Revenue Authority
<b>ASYCUDA</b>	Automated System for Customs Data

## DEFINITION OF TERMS

**Customs** – Customs is the customs Department of a partner state (EACCMA, 2011).

**Customs Administration** - customs administrations is the individuals in the customs department performing significant and broad functions to facilitate the flow of goods and services across borders (Peterson, 2017).

**Customs and service department**–is the official organization or department responsible for collecting duties on goods leaving or entering a partner state, on behalf of the state’s revenue authority (Cusco, 2013).

**Customs clearance procedures**–these are formalities and activities undertaken by customs authorities following admission of goods into customs, until complete release of the goods from customs control (Gahigi, 2017)

**Declaration of Goods**–these are the activities into admission of goods into customs control (Gahigi, 2017).

**Verification of Goods**–this is the checking of goods for compliance of the goods into the state’s regulations, standards and declaration by customs authorities (Gahigi, 2017)

**Release of goods** – this is the finalization of customs clearance procedures from customs control (Gahigi, 2017)

**Cost of doing Business** – these are the costs traders incur through there processes into their businesses being possible (Teklu& Negus, 2011).

## **ABSTRACT**

This study is being conducted with the aim of investigating the effects of customs clearance procedures on the cost of doing business in Kenya. The independent variables to be studied are declaration of goods, verification of goods and release of goods. A research through the literature review demonstrated that there is little reliable information on the subject topic's independent variables, in relation with the cost of doing business. Also, most of the information available dates back to the years beyond 2010, yet major changes have been implemented over recent years. In this study, the target population was KPA officers, KRA Customs Officers, importers/traders, clearing and forwarding firms. Data was collected using questionnaire and a census was done. The data collection procedure was the drop and pick later procedure, and pilot testing was conducted on five percent of the members, not from the sample size. The research then found that verification of goods and release of goods have a significant relationship to cost of doing business in Kenya, and all the dependent variables, including declaration of goods had a strong relationship to the independent variable, cost of doing business in Kenya. The study then recommended that because declaration of goods is conceptually perceived to have a strong significant relationship to the cost of doing business in Kenya, it would be best if studied from other perspectives besides those studied in this study. Also, the cost of doing business in a state may as well be affected by other trading states' practices, other dependent variables do exist that affect cost of doing business and government agencies like KRA and KPA were given to be possible areas of further studies.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

According to the East African Community Customs Management Act, 2011, Customs is the customs Department of a partner state. The Collins dictionary as well defines customs as the official organization or department responsible for collecting taxes on goods leaving or entering a partner state, on behalf of the state's revenue authority. It is also responsible for securing the partner state from illegal goods from foreign countries. The customs department can be an organization or department in the Ministry of Finance and Planning like in Kenya, though it can as well be in the ministry of Foreign Affairs for states like in China. Customs as well refers to the controls and duties of merchandise and people have to undergo when leaving or entering a partner state (Cusco, 2013). Peterson (2017) recognizes customs administrations as the individuals in the customs department performing significant and broad functions to facilitate the flow of goods and services across borders. They are responsible for collecting duties and protecting the country and economy. They have to be guided by guidelines, laws, and reforms efficient and effective clearance. Countries are continually improving their customs systems, under the World Customs Organization (WCO) and the World Trade Organization (WTO)'s recommendations and guidelines.

Customs administration is conducted in customs areas. According to the East African Community Customs Management Act (2011), a customs area is any place, appointed by the commissioner for carrying out customs operations. Some of these customs areas include some areas at the: airport stations, Export processing zones, Inland container depot, document

processing centers, valuation offices, and one-stop border posts, among other possibly appointed areas. An inland container depot is a dry port that is equipped to handle and store containerized cargo temporarily. Importers and exporters can access all port services at their convenience and close to their premises. In international trade, one major concern is the time spent in clearance of importers/exporters goods; in compliance with the customs regulations and procedures for a partner state and the possible transaction costs associated therein (Teklu & Negus, 2011). These then affect the cost of doing business. Cost of doing business is the expenses a firm or an individual incurs in order to produce or sell a good or a service.

### **1.1.1 Global Perspective of Customs Clearance Procedures**

The World Customs Organization helps developing countries improve capacity by, for instance, diagnostics and recommendations to the customs administrations and workshops for customs modernization. With the World Customs Organization's capacity, multiple programs, like the time release studies had been conducted for support building. The programs had developed most of Asia – Pacific regions to be among the leading economies globally. These regions include Singapore, Japan, Korea, Australia, New Zealand, and Hong Kong. In 2009, Australia's clearance performance was in that of the sea cargo, approximately 52 percent of the cargo was released on arrival, 27 percent was ready for payment and only 13 percent had the document incomplete status (Teklu& Negus, 2011). Harmonization of systems as well has the potential to reducing paperwork. For instance, trade documents between China and Hong Kong SAR, when harmonized reduce paperwork by approximately 60 percent in China (Doing Business, 2012). Also, through the cooperation agreement with Finland and Sweden, that allows harmonization of documents and procedures, Norway reduced customs authorities cost by approximately \$9

million in a year, and \$48 million in costs to businesses, also in a year (Montagnat-Rentier & Parent, 2012).

### **1.1.2 Regional Perspective of Customs Clearance Procedures**

According to (Bonga, 2014), Zimbabwe, like many other developing countries, relies on revenue collection from customs for the economy. Customs administration has the responsibility of revenue collection from duties, ensure security from restricted goods, and trade facilitation for goods in transit, collecting statistics for policy formulation, and customs acts as the government ministries advisor. Tariff regimes are significant in relation to importers and exporters. Zimbabwe, the tariff structure is very dispersed with some tariff lines as high as 100% (Mugano, Brookes & Le Roux, 2013). In this evolving and digital world, e-commerce is common, yet significant in duty collection. Makoni, Tsikirayi & Mandizha (2013), studied the Zimbabwe Revenue Authority (ZIMRA) and realized that though there were desires to net these duties, Zimbabwe, like many developing countries, lacked the capacity to get it.

Teklu & Negus (2011) recognized the adoption of the time release studies by many countries in a bid to ease the cost of doing business, hence benefiting national economies, following the World Customs Organization guidelines. According to the Ethiopian Revenue and customs authority, 2010, Ethiopia's export approximated 1,626.9 million tons and imports approximated 7051.5 million tons. With this turnover, the World Bank report (2009) indicated that Ethiopians were facing specific constraints in relation to the clearance of goods, hence making business running difficult and frustrating the national economy. In recognizing country's experiences; landlocked countries associate to high costs in logistics and developmental, hence their often poor performance. Gahigi (2017) reported that a container destined to Angola would be required to present five sets of invoices, 28 SADC certificates, 84 customs stamps, 56 customs signatures,

and 83 export documents. Although, over time the processes have been simplified, for instance, Uganda is a landlocked country; the clearance of imports is simple as it is cleared mostly at the point of entry port of Mombasa, Kenya through the One Stop Border Post.

### **1.1.3 Local Perspective of Customs Clearance Procedures**

Presently, approximately 82 percent of the world's economies electronically transfer their trade-related documents, though some states, like Kenya, have difficulties in this. In Kenya, in some clearance department, hard copies are still being considered necessary, some significant agencies using the manual systems and some systems not being linked to the internet (Doing Business, 2012). These result in more time used in lodging the documents, and for the agencies to verify the documents. Cost as well increase not only due to the delays but also due to the costs incurred in transferring the necessary documents and supporting documents for verification. Also, Kenya, like more developing countries, has adopted the use of scanners for container verification. However, though scanners limit the cumbersome physical verification of containers, they also increase costs to traders. This is through scanning the containers at every customs stop post and the incurred mandatory scanning fees paid by the traders. Efficient use of scanners, and other verification means, in conjunction with risk-based profiling can balance and streamline the costs of doing business for traders (Raballand *et al*, 2012). However, for a Kenyan firm to attain the Authorized Economic Operator (AEO), the pre-requisites are macro, including: have the capability in measurement analysis and improvement, complex security and safety requirements and financial viability. This then discourages low resourced firms from being profiled as AEOs, hence incurring lots of trading costs, due to customs clearance procedures being the length and cumbersome for business operations (KRA, 2009). Another great limitation with the East African Community traders is the use of un-integrated systems. Tanzania and Uganda use the

ASYCUDA++, yet Kenya is still implementing the SIMBA System. This makes it difficult for communication of the systems, hence more time is taken in following the clearance procedures.

## **1.2 Statement of the Problem**

International trade in Kenya has faced a huge boost in the recent times; this is because information on doing international trade is readily available especially from the internet. According to Tchamyou (2017), knowledge on economies substantially boosts the beginning and doing of business among Africans. Bilateral agreements between countries have also promoted the ease of doing international trade. The removal of some trade barriers has made the international trade attractive to businesses. In Kenya, most products that are being sold in the markets are imported goods. From the cars on our roads, including home appliances such as cups and spoons. It is, therefore, safe to say that the Kenyan economy relies heavily on imports.

African trade policy center (ATPC) (2004) recognizes that the key international trade huddles in Africa are the high transaction costs due to high communication and transportation costs, border posts and port delays, and international trade standards being stringent. Raballand, Refas, Beuran & Isik (2012) state that in African ports, approximately 20 days are spent by cargo at ports waiting clearance, compared to the 4 or 3 days in most international ports. The delay in release of goods further affects some traders due to delays in further trading, and other incidental costs through their production systems (Martincus & Graziano, 2012). Unfortunately, some traders choose to be sneaky by taking advantage of the long dwell time of their cargo and ports acting as their cheap storage facilities for cargo.

The slow movement of cargo through border posts and ports could as well be linked to the volumes of trade documents and copies required, and the cumbersomeness of the information

needed in these documents (ATPC, 2004). Gahigi (2017) cited that trade barriers similar to these are the contributors to ever increasing costs of doing business. Seck (2016) also clarifies that a decrease in trade costs relates to document preparation, customs and port charges, and inland transportation. During transportation of cargo, through the customs clearance procedures, lots of transportation costs are incurred. For instance, according to the customs and Excise Act CAP.472, Provision 127B, the vehicles transporting dutiable goods must meet specific requirements, and must be inspected and have a valid permit from a proper officer. To meet these requirements, more costs than normal are incurred (The East African, 2017). A decrease in these costs by approximately 10 percent would potentially result to an increase in international trading by approximately 3 to 4 percent.

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

The study aims at determining the effects of customs clearance procedures on the cost of doing business in Kenya.

#### **1.3.2 Specific Objectives**

1. To determine the effects of the declaration of goods on the cost of doing business in Kenya.
2. To determine the effects of verification of goods on the cost of doing business in Kenya.
3. To determine the effects of the release of goods at the cost of doing business in Kenya.

### **1.4 Research Questions**

1. How does declaration of goods affect the cost of doing business in Kenya?
2. How does verification of goods affect the cost of doing business in Kenya?

3. How does release of goods affect the cost of doing business in Kenya?

## **1.5 Justification of the Study**

According to Kenya's Vision 2030, 'Kenya is expected to be a globally competitive and prosperous country with a high quality of life'. Based on Gahigi (2017), it is evident that African countries have potential through international trade, though African countries are poorly performing in international trade. For global competitiveness, international trade is significant, and customs administrations are significant as they are the doorkeepers. The processes through the doors (borders and ports) are significant as they either discourage trade or encourage trade. Therefore, businesses, especially Small and Medium-sized enterprises, will benefit from the study, and hence improve the economy and the quality of life in a state. Policy makers will as well benefit as it will study current issues in customs clearance procedures. Future researches and scholars will benefit as this study will add up to existing knowledge. Customs and border control department will as well benefit from the study in their key responsibility to facilitate trade.

### **1.5.1 Traders**

This study is important to traders because they will be able to gauge and see how customs procedures affect the costs of doing business. They will be able to identify all cost that is involved in the customs clearance procedures and estimate their prices, and time probably is taken to clear goods through customs administration. New traders are often worried about the international market due to uncertainties, but the adequacy of information can build their confidence into engaging in international trade.

### **1.5.2 Customs and Border Control Department**

One of the major roles of customs is to facilitate the trade this is in line with the Kyoto Convention. This study will help customs and border control department with this role because they will get an insight on how they can conduct their roles with the aim of minimizing the cost of doing business. They will be able to train their staff in efficient and fast clearance methods and they can be able to update their systems in case the study finds out that there is a problem.

### **1.5.3 Government**

The government will benefit from this study because, from statistics taken from the research the government can tell the amount of revenue collected from the export and import business, and identify areas it can intervene to minimize the cost of doing business. The Integrated Customs Management System and infrastructural developments are examples of how policy formulators and the government can best intervene for traders, through research like this.

### **1.5.4 Future Researchers and Scholars**

The study can be used as a reference by future researchers who have an interest in this topic. From the findings and results that will be gotten from the research, they can be able to get how the customs clearance procedures impact on the cost of doing business in future and add up to the already existing studies.

## **1.6 Scope of the Study**

The scope of the study involves investigating the effects of customs clearance procedures on the cost of doing business in Kenya. The study will, therefore, be conducted in Kenya, aiming to study a population of 10 KRA Customs Officers, 25 KPA Officers, 40 clearing and forwarding agents, and 17 traders/importers.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Fink (2013) defined Literature review as the systematic, explicit, reproductive method for identifying, evaluating, synthesizing existing body of recorded and completed work by practitioners, scholars, and researchers. Machi & McEvoy (2008) as well as define the literature review as a summary of previous studies on that particular topic. It surveys scholarly books, articles, and other significant sources. It goes beyond being a descriptive annotated bibliography, hence shows the relationships between the pieces of literature, the literature is articulated, in relation to the field of study (CQUniversity Library). A literature review bases its conclusion on original work by researchers and scholars (Fink, 2013). A literature review is significant in justifying one's study as it illustrates the significance of the study, highlights flaws on previous studies, and shows that the current study will be adding to existing knowledge, hence adding knowledge and understanding to the field of study (Machi & McEvoy, 2008). This chapter covers a review of previous studies that have been carried out in customs clearance procedures. The chapter will also discuss how the declaration of goods, verification of goods and release of goods happens. Specifically, the chapter will cover theoretical review, conceptual framework, and empirical review, the critique of existing literature relevant to the study, research gaps and a summary of the literature.

#### **2.2 Theoretical Review**

A theoretical framework consists of concepts together with their definitions and reference to relevant scholarly literature, existing theory that is used for a particular study. A theory is a

formulation used to explain, predict, and understand phenomena and, in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions (Labaree, 2013). Theoretical review is therefore a review of the theories identified, and the illustration of how the theories relate to the subject variables. It is significant because it can act as the lens through which you evaluate your research problem and research questions.

### **2.2.1 Agency Theory**

Over time, many scholars have referred to the agency theory in the financial and economic fields. The Agency theory independently originated from Barry Mitnick and Stephen Ross. Barry Mitnick's was responsible for the institutional theory of agency and Stephen Ross was responsible for the economic theory of agency. Though different, the basic concepts underlying the approaches were similar (Mitnick, 2013). The agency theory best defines the relationship between the agents of a business and the business's principals. The agency theory understands aims at best resolving the problems that could exist in agency relationships. The problems can be issues in unaligned goals and the differences in levels of risk to the business agents and the business principals.

In Kenya, a clearing agent is responsible for documentation and declaring of the goods in a single entry form (Single Administration Document). The clearing agent has to complete the entry, assess the duties, pay the duties at the bank and present the entry and the supporting documents to customs. The supporting documents include an Import Declaration form, Certificate of Conformity, Bill of Lading, Packing list, and Commercial invoice. All these procedures are done on behalf of the importer, hence have to be minimizing cost on the importer (Arnold, 2017). The agency theory relates to the declaration of goods procedure in that although the clearing agent has no direct link to the performance of business of the importer after the

importation of the goods, the clearing agent has to perform these duties in a manner that the importer would not suffer much cost on the business through the customs clearance procedures, and after importation.

### **2.2.2 Decision Theory Based on Inspection Planning**

An inspection assesses the conformity of product characteristics with their expected specifications. In customs, the expected specifications are the particulars filled in the declaration process (Schmitt, 2014). Inspection planning comprises the planning of all processes and procedures related to quality inspections with an aim of determining the extent to which the products and activities meet the specifications as declared in the declaration forms (Basse, Janßen, Schmitt, & Schmitt, 2013) The model allows cost-efficient decisions by planning for inspections. Quality inspections are supposed to be made within the framework of inspection planning from when goods are received to when they are dispatched.

In customs verification of goods, inspection has to be planned, the customs officers have particular times when they go for physical inspection of goods. Over some specific period, customs are run by a developed programme planned for better verification of goods (Iqbal, 2014). The goods are inspected if they conform to specified standards and whether the physical goods tally with what is presented on the supporting documents. The decision on whether to release these goods is based on the inspection planning. This means if goods meet the specified standards they can be released but if they don't they are condemned, penalized or destroyed. This is because it is the role of customs to safeguard the nationals by regulating what enters or leaves the country.

### **2.2.3 Deontological Class of Ethical Theories**

Deontological class of ethical theories indicates that individuals should adhere to their duties and obligations when engaged in situations that require decision making and ethics are in play (Alistair, 1998). The first philosopher to refer to the deontological principles was Immanuel Kant, during the 18th Century, where he held that goodwill is best without qualification and that goodwill is the will to act in accordance with the moral law, with respect to the law, rather than natural inclinations (Encyclopedia Britannica). Meaning a person does what he or she is supposed to do because it's considered morally upright. Individuals produce consistent results since they are based on an individual's duties and obligations.

The theory best relates to the release of goods from customs through the customs clearance procedure. For goods to be released effectively, with little or no negative impact on the cost of doing business, it has to be done with all parties involved in the process carrying out their duties in the required way. Importers and exporters should import/ export quality goods and goods conforming to the country's regulations and laws so that they are not faced with the challenge of substandard goods. Clearing agent should do proper documentation on the subject, submit the proper documents and pay duties as expected and on time. Customs clearance officials should effectively verify the documents and goods as soon as possible and effectively, and clear the goods for quick release of the good through the customs clearance procedures.

### **2.2.4 Decision Theory**

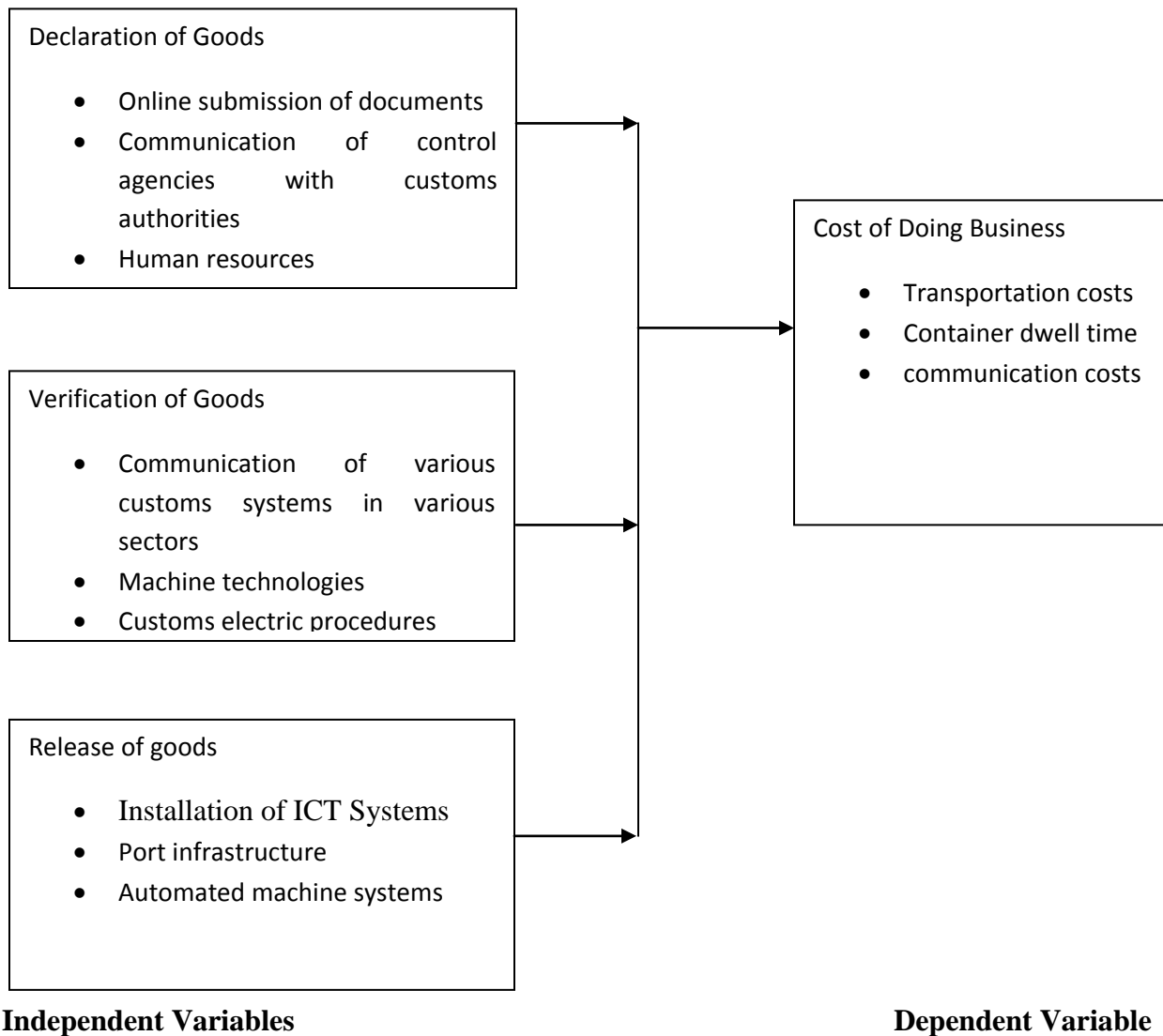
Decision theory is an interdisciplinary approach in decision making, using an unknown variable and in an uncertain decision environment. The theory encourages the use of statistics, philosophy, mathematics, and psychology for decision making (Investopedia). The theory was developed by John Von Neumann (1903 – 1957) and Oskar Morgenstern (1902 – 1976) as a

rational choice model in lotteries. Encyclopedia defines decision theory as the study of reasoning underlying an individual's choice. Decision theory can be broken down into normative decision theory which provides advice on how to develop the best decisions, given a set of uncertain beliefs and a set of values; prescriptive decision theory that guides and gives procedures on how or what is to be done for the best decisions; and descriptive decision theory that analyses existing irrational agents actually make decisions.

In doing business, the environment is definitely uncertain. In the international field, the Kenyan market is just realizing the international market. the decision theory best aligns with the dependent variable 'cost of doing business' in the sense that it offers businesses the advice to formulate the best decisions within a set of values, and uncertain beliefs; by analyzing existing irrational businesses make decisions and by trying to offer them with guidance on how and what to do to formulate the best decisions. The decision, in this case, is reducing the cost of doing business for these importers and/or exporters.

### **2.3 Conceptual Framework**

Maxwell (2005) defines conceptual framework as the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs one's research. According to Maxwell (2005) it can as well be defined as the visual or written product, that explain, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them. It is a researcher's understanding of how the particular variables in his study connect with each other. It is significant in helping the readers understand variables from the researcher's perspective.



**Figure 2.1 Conceptual Framework**

### **2.3.1 Declaration of Goods**

For commercial importation, an import declaration form is applied for and obtained from the Kenya Revenue Authority’s SIMBA System. This can be done through a clearing and forwarding agent, done on behalf of the importer. During the passing of the Import declaration form, key information includes the value of the cargo. The value of the cargo depends on the quantity of the cargo, the quality of the cargo and the classification of the cargo. These details

have to be inputted into the single Administration document and the Import declaration form correctly, an inspection has to conform to the details keyed in. Inspection can be done by control bodies like Kenya Bureau of Standards (KEBS) and Kenya Plant Health Inspectorate Service (KEPHIS). During the declaration process, the special treatments like the preferential tariff treatment and the exemption duty treatment can be determined and allocated. In such cases, a notification, like an exemption letter, for goods liable for exemption, like major project goods.

Also, the certificate of conformity is another through the declaration of goods. The Certificate of Conformity is issued by control bodies like the Kenya Bureau of Standards, through its agents like Bureau Veritas, after inspection of the subject goods. The goods can be tested and based on the results, the certificate is issued. The bill of lading, a commercial invoice and packing lists are as well necessary. They, however, have to be detailed, and have consistent information, like the item cost, insurance, and freight charges. Additionally, depending on the subject goods, the declaration process on behalf of the importer may be different, requiring these or more documents. The documents and summary declaration have to be logged in the system for the appointed customs representative and the customs authorities to access them before the subject goods get to the appointed customs area (Cusco, 2013). When the clearing agent logs all these details into the Simba 2005 System, they are first received at the Document processing center, for verification of the documents provided. The customs officers there will confirm if the documents provided are legit if the goods value provided conform to the possibilities provided customs value, and if the documents have consistency, among other services for verification of goods.

### **2.3.2 Verification of Goods**

The verification process begins from the moment customs officers at the Document processing center has complete verification of documents and supporting documents, hence cleared the documents. Verification of goods is the process that involves the verification officer checking if the prices indicated are correct, this is done by comparing prices of similar and identical goods from the same country of exportation. Verification goes further to check the quality and quantity of the goods, the container's specifications, among other factors in order to determine if the goods have complied with the specified standards. Checking the stuffing of containers and sealing all containers are all part of the verification process and all this is carried out by a verification officer stationed at the Inland Container Depot.

Basically, during verification, the verification officer compares the physical goods with the entry and the supporting documents provided by the clearing agent. Technologies like the scanning technology expedites cargo clearance, hence less time spent through verification (Musyoki, 2017). The Human Resources are identified and plans are made for satisfactory verification of goods and documents. In addressing the issues in verification of goods, risk management techniques have often been referred to be the solution. This resulted in the emergence of technologies like scanners to replace cumbersome physical examination of all cargo (Wanyama, 2017).

### **2.3.3 Release of Goods**

Musyoki (2017) claims that the Kenya Revenue Authority was in the process of installing smart gate technology at the points of entry that will automate the capture of container and vehicle registration marks and numbers prior to the release of cargo from the ports and container freight stations, effectively phasing out manual processes and enhancing the integrity of cargo release

records. During verification, the customs officers ensure all duties are paid via a bank account. After the payment of duties, the clearing agent pays such port charges as wharfage charges, handling charges and any port rent which may be due. The cargo may then be released from the port. Sokolova (2017) claims that it is also to be realized that the clearance procedures through the documentation and verifications, they all directly affect the release of goods. Following the particulars during the declaration of goods, goods can be released from the port for transit, or free circulation and consumption, among other releases like for repair, hence expected to be back into the country. A release document guarantees that freight is paid, including all other charges and duties, and that company then legally owns the container.

#### **2.3.4 Cost of Doing Business**

Alesón (2014) claims that in recent times, politicians, academics, and managers have recognized the significance of businesses, especially the small and medium enterprises in the global economy. These enterprises improve the economy through the creation of jobs, driving innovation and competition, and its gross domestic product (GDP) contribution to the government economy. For businesses to be effective for a country's economy, they have to engage in major trade, hence major returns. In recent years, the numbers of businesses are increasing and so is the contribution of Kenya in the international market. However, the businesses' contribution has little impact on an economy, if the businesses are not encouraged to trade more and consistently. For them to be encouraged, their cost of importing, exporting needs to have little or no negative impact on the cost of doing business. The cost of doing business is determined by the level of resource commitment the traders have to invest and the availability of the resources for trading. These resources can be classified into domestic resources (technological and human resources), experience related resources (International and

organizational experiences), and foreign resources (foreign shareholders and subsidiaries) (Alesón, 2014).

With more involvement in international trade, businesses are not only vulnerable to high transaction costs during the ports clearance procedures, but also are vulnerable to environmental threats. Environmental threats can be dumping practices by competitors, among other business running threats in the environment. Customs authorities then have to do activities that restrict such practices, so that to ensure the trading environment is fair and attractive for all traders. Trading patterns are often between connected parties. For new traders, connections then have to be developed, and depending on the relationships, the cost the businesses will incur through their businesses will be determined.

#### **2.4 Empirical Review**

Penn state University libraries define empirical research as the research based on observed and measured phenomena and derives knowledge from actual experience rather than from theory or belief. These studies are recognized by going through headings and subheadings within articles, books, reports, and recognizing the relationship between them and the researcher's topic. Enogo academy as well defines it as a way of gaining knowledge by both direct or indirect experience and observation. Empirical evidence can then be analyzed either quantitatively or qualitatively. An empirical review is significant in giving insight on what other scholars and researches experienced and had to report about the variables.

### **2.4.1 Declaration of Goods**

In customs, data comes from declaration and declaration is a result of lines of inspection, including inspection from private companies like Kenya Plant Health Inspectorate Service (KEPHIS). Based on this information, customs information systems are developed allowing risk management systems to be constructed. Therefore, declarations are then channeled to different customs clearance channels (Gellert, 2011). The law as well requires clearing and forwarding agents to submit declarations prior to the arrival of cargo. Earlier and accurate reporting and declaration of the subject cargo to customs allows customs officers to assess the cargoes, and where appropriate, clear the cargo prior to their physical arrival. In documentation, verification of document by customs is necessary and significant. For it to be effective on the costs back to businesses, verification has to be carried out as quickly as possible and requiring minimum paperwork for verification (Zubair, 2017). This can be accomplished by streamlining communications with relevant authorities and improving the system to accomplish the effective delivery of services performed. Turner (2015), states that the costs and delay in obtaining relevant documents, like certifications, largely depend on the controlling authorities' stringency of the document verification procedures

### **2.4.2 Verification of Goods**

Risk-based verification of goods is a significant avenue for trade facilitation. According to the Revised Kyoto Convention, it is required that through risk profiling, customs are to replace random examination of goods and documents with the risk-based selection and examination of goods, persons and transport (Gellert, 2011). In customs procedures, risk management is implemented, like the scanner for high quality, quantity, and other goods not effectively verified physically. Drobot, Klevleeva, Afonin & Gamidullaev (2017) claim that minimization of human

factors in customs control, through the implementation of non-intrusive inspection equipment is useful, though the risk management systems may as well bring about difficulties in the customs clearance procedures. The authors then claim that though the risk management systems are effective, there needs to be a balance between costs and benefits to address all risks relating to verification of goods equally.

Verification of goods procedures is one field that has evolved over the years, in many countries' customs administration. The processes through are gradually the implementation of customs reforms for trade facilitation. Godden & Allen (2017), as well recognize that the most used trade facilitation measures are the physical inspection of goods based on risk analysis, and the use of non-intrusive equipment, by approximately 83.3 percent. In order to realize customs efficiency during verification of goods, data reconciliation and integration should be conducted in a timely manner into one data dictionary that will serve as a standard for the clearance process (Funkhouser & Vanderslice, 2013).

### **2.4.3 Release of Goods**

Through the entire customs clearance procedures, Customs administrations are expected to provide extensive facilities, all at the same time, for streamlined international movement of vehicles, goods, luggage and people (Drobot *et al*, 2017). During the release of goods, the green channel is a channel for the release of goods without physical verification, and with little or no documentation checks (Gellert, 2011). The Red channel is a channel used by an individual with goods that have to be declared, hence vulnerable to customs clearance procedures. Koley, Datta & Mukherjee (2016) develops a literature that figures out that possible reduction on the time the cargo takes through the entire clearance procedure, until the release of the goods from the port,

has potential to reduce the opportunity cost to traders' businesses, can increase productivity and efficiency of the ports.

Godden & Allen (2017), as well recognized that reducing the time spent on physical conferences and the delivery of release of goods from customs control can result to fewer costs accumulated by the traders' businesses, and increase revenue collected to the national government. In determining the effectiveness and efficiency of customs clearance procedures, the release of goods is significant as it used to determine the time the cargo spent at the customs area; port. It measures the speed for the clearance of goods through studies like the Time Release report (Wanyama, 2017)

#### **2.4.4 Cost of Doing Business**

Excessive control and inefficiencies of customs procedures, including a monopoly of services providers at entry points during importation are common in many developing countries around the world. Some importers as well have a tendency of engaging in wrong practices, like submitting false invoices so to minimize duties, hence aiming to reduce their costs of doing business (Gellert, 2011). In 2011, detections of under-invoicing and wrong classification of goods by big businesses like GrameenPhone and Airtel at Bangladesh (The Daily Jugantor, 7 February 2011). The detection showed tendencies by businesses to under-invoice so to evade duties. However, there are unwritten procedures, implemented without proper communication. These procedures, regulations or requirements consequently increase customs clearance time, hence consecutively increasing the cost of doing business.

Awareness of changes or updates on regulations or customs clearance procedure as well challenge businesses in their cost back to businesses. This awareness often affects the businesses

in costs from possible penalties due to potential mistakes, and increase the time taken through clearance, hence costs accumulating on the subject goods (Turner, 2015). It is, therefore, necessary for customs officers and traders to understand the details of certifications, administrative and verification procedures and differences in procedure, law, and regulation with every trading regime (Zubair, 2017).

## **2.5 Critique of the Literature Review**

Declaration of goods is evidently a significant field. Authors have reviewed in various disciplines, including how documentation is done. Customs Clearance procedures have been studied the customs clearance procedure, though individually. For instance, Zubair(2017) studied the changing the role of Customs Officers and possible mistakes in the declaration of goods clearance procedures. Gellert(2011) as well studied the Authorized Economic Operator (AEO) Status, how it can be obtained, withdrawn, revoked, and suspended and its effect on the exporters/importers business. However, all these scholars have given the study a general view, unspecific to Inland Container deport customs clearance procedures. Verification of goods is as well a significant field as it is then as multiple authors have studied in terms of technologies used in the verification of goods. It has been studied in terms of time spent and technologies released to ease verification of goods. For instance Koley, Datta, & Mukherjee, (2016) studied the Kolkata Sea and Air Ports in terms of reducing dwell time in relation to clearing and forwarding of export and import goods. Mosyoki (2017) as well studied on the scanning technology at ports, how it expedites cargo clearance, and on how the processes has been streamlined. Cost of doing business has as well been studied in terms of risk management. According to Dejo-Oricain, &Alesón (2014), risk management in customs control, and even on how verification of goods

affect the overall time and costs incurred to traders. However, there is little information and resources available to give more insight. Evidently, verification for common goods is different from delicate goods, like pharmaceutical products. The effects on these importers/exporters are significant when viewed from their specific perspectives.

The release of goods has as well been studied, though often from the perspective on the time release studies; Turner (2015) studied on the barriers to customs entry at the time of the disaster in developing countries: mitigating the delay of life-saving materials and activities into release of goods were realized to play significant roles. . However, there was hardly much information found on the procedures in the release of goods, like the gate pass formulation and implementation procedure, and their effect on the cost to traders. There are other many procedures that happen after verification of goods that scholars have hardly captured, though significant to traders. In Kenya, it is alarming as the most emphasis is given to the Mombasa port. Wanyama (2017) studied on the causes of delay in clearance of goods at the port of Mombasa'. Though Mombasa serves many traders, Nairobi as well as a significant station, for instance, the Inland Container Depot, Embakasi, of study, though neglected.

## **2.6 Summary of Literature Review**

Researchers and scholars have studied customs clearance procedures and its effects on doing business in various ways. Some have studied the customs clearance procedures independently; (Zubair, 2017), (Gellert, 2011), and (Koley, Datta, & Mukherjee, 2016), some have studied single customs clearance procedures in relation to costs on traders; (Mosyoki, 2017), and some have studied regions or areas not equal to Kenya, especially not the Inland container Depot. However, the literature review shows that little information exist in relation to customs clearance procedures and their effects on the cost of doing business. Most of the

information available date back to the years beyond 2010, hence unreliable due to acute changes in the international market. The literature review revealed that there is little information around on the variables for this study. The studies have neglected the Inland Container Depot, for study, and most emphasis is on the Mombasa port. Also, most scholar and researcher resources available date back to the years beyond 2010, yet significant changes have been experienced in recent years.

## **2.7 Research Gaps**

However, most of the researchers in the declaration of goods have given the study a general view, unspecific to Inland Container deport customs clearance procedures. Also in verification of goods, there is little information and resources available to give more insight on the different verification procedures, for specific goods. Evidently, verification for common goods is different from delicate goods, like pharmaceutical products. Also, many significant procedures happen after verification of goods, into release, that researchers hardly capture when referring to customs clearance procedures. Additionally, In Kenya, it is unfortunate as most researchers' emphasis is given to the Mombasa port, neglecting other ports, like the Inland container depot.

## CHAPTER THREE

### RESEARCH METHODOLOGY

This chapter presents the research methodology of the study. It describes the methods and procedures that will be used in order to collect data that answer the research questions. The chapter will be presented in the following sections namely, research design, study population, sampling procedures, sample size, data collection instruments, data collection procedures, pilot testing, and data analysis.

#### **3.1 Introduction**

Research methodology refers to the way how a research problem can be solved in a logical manner (Davies & Hughes, 2014). Research methodology is the process that will be used to collect information and data for the purpose of solving a research problem (Creswell & Creswell, 2017). The methodology may include publication research, interviews, surveys, and other research techniques (Hair, Wolfinbarger, Money, Samuel, & Page, 2015). This chapter involved presenting the choice of method of collecting and analyzing data, from a practical point of view, comparing relative advantages and disadvantages of other alternative methods that may be more or less appropriate to the context of this study with the aim of finding answers to the research questions.

#### **3.2 Research Design**

A research design is a plan and structure of the investigation so concessive to obtain answers to research questions (Davies & Hughes, 2014). It's an outline of what an investigator or researcher will do from writing hypothesis or objectives to the found data analysis. A research design constitutes the blueprint for collection, measurement, and analysis of data (Hair *et al*, 2015). It's

the measurement of condition for collection and analysis of data in a manner that aims to combine relevance with the following in procedure (Creswell & Creswell, 2017). Therefore, research design provided answers to the research questions that the researcher was able to investigate. The researcher used a descriptive research design which included collecting information by administering questionnaires to customs officers, traders, and clearing and forwarding agents to be able to compile data analyzed and interpret the data from the contents and measuring tools to authenticate the research study. The study under this research was to find out factors influencing the cost of doing business in Kenya.

### **3.3 Target Population**

Hair *et al* (2015), refer to the population as all members of interest that the researcher aims to assess. Target population, as well is defined by Creswell & Creswell (2017), as an entire group of individual or objects having the common observable characteristic. A Target population carries all the aspects possible, hence significant for research. Therefore, depending on the sampling technique, the target population can yield all possible variables. The study took all the significant stakeholders who are directly involved in the declaration of goods, verification of goods and release of goods in Kenya. The target population was, therefore, KRA customs officers, KPA officers, traders, and clearing and forwarding agents. The target population was organized as shown in table 3.1

**Table 3.1: Target Population**

Target population	Number of respondents
KRA Customs Officers,	10
KPA Officers	25
Traders/Importers	17
Clearing and forwarding Agents	40
<b>Total</b>	<b>92</b>

### **3.4 Sampling Technique and Sample size**

A sample is defined as the subject of a population that has been selected to represent characteristics of a population. Creswell & Creswell, (2017) indicate that a sample is a set drawn from the entire population in situations where the population is too large or it is impossible to study the whole population. A census was therefore employed for analysis. The population was heterogeneous and all respondents had an equal opportunity for participation.

### **3.5 Data Collection Instrument**

The instrument employed for data collection in this research was a questionnaire. Davies & Hughes (2014) defined a questionnaire as a research instrument consisting of a series of questions for the purpose of gathering information from respondents. Creswell & Creswell, (2017) also defined questionnaire as a list of research or survey questions asked to respondents and designed to extract specific information. Hair *et al* (2015), note that a questionnaire serves four basic purposes to collect the appropriate data, make data comparable and amenable to

analysis, minimize bias in formulating and asking a question and make questions engaging and varied. Likert scale questionnaire was administered to the respondents.

### **3.6 Data Collection Procedure**

According to Hair *et al* (2015), there are many procedures of data collection. The choice of procedure one can use depends mainly on the attributes of the subjects the main interest in data collection and possible alternatives. Davies & Hughes, 2014 notes that the drop and pick later method is often considered and yields best results. The method has proven to offer flexibility in response to the respondents, and the researchers get high levels of responses from the questionnaires (Hair *et al*, 2015).

### **3.7 Pilot Testing**

It is important that all surveys are tested before the actual survey is conducted (Davies & Hughes, 2014). This is done to ensure that the questionnaire is clear to respondents and can be completed in the way the researcher wishes (Hair *et al*, 2015). Pilot testing is an activity that will help this study in determining whether there are errors, limitations, or other weaknesses within the design and will allow the researcher to make necessary adjustments and corrections before embarking on the survey (Creswell & Creswell, 2017). A pilot study was undertaken on five percent of the target population. The five percent pilot testing sample did not involve the target population, though the members are directly involved with operations of the port to test the reliability and validity of the questionnaire.

#### **3.7.1 Reliability Test**

Davies & Hughes (2014) reliability is defined as a measure of how consistent a research method is. Pre-testing the questionnaire would also help in gaining the reliability of the test instrument

the questionnaire. The pre-test will test the clarity of the questions and any ambiguity will be removed and corrected (Hair *et al*, 2015). A measure is said to have a high reliability if it produces similar results under consistent conditions. In research, the term reliability means repeatability or consistency (Creswell & Creswell, 2017). In this study, Cronbach alpha will be used to measure internal consistency, that is, how closely related a set of items are as a group.

### **3.7.2 Validity Test**

Davies & Hughes (2014) states that validity indicates the degree to which an instrument measures what it is supposed to measure. Validity ensures accuracy and meaningfulness of inferences based on the research results and makes sure that analysis of the data actually represents the phenomenon under study (Hair *et al*, 2015). Validity refers to the degree to which a test is truly measuring what it purports to measure (Creswell & Creswell, 2017). In this study, the test and retest technique will be used in order to test for validity at the pre-testing point

### **3.8 Data Analysis and Presentation**

According to Creswell & Creswell (2017), data analysis is the computation of certain measures along with searching for patterns of relationships that exist among data groups. Data will be thoroughly examined and checked for consistence, comprehensibility, completeness. It will then be coded and analyzed for a conclusion. Descriptive analysis will be conducted using the Microsoft Excel and the Statistical Package for Social Sciences (SPSS). Inferential analysis will as well be conducted using Analysis of Variance (ANOVA), multiple regression analysis, correlation analysis, coefficient analysis and regression analysis. Both quantitative analysis and regression analysis were used as a data analysis technique. The data collected was run through various models so as to clearly bring out the factors which determine container dwell time. The researcher will use a multivariate regression analysis to determine the relationship between the

independent variables and the dependent variable. The findings will then be presented on a graph.

The regression equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where;

Y = Dependent variable (Container Dwell Time)

$\beta_0$  = constant

$\beta_1, \beta_2$  and  $\beta_3$  = the regression coefficient

X = Independent variable

X<sub>1</sub>- Port Infrastructure

X<sub>2</sub>- Customs Clearance Procedures

X<sub>3</sub> – Cargo Handling Equipment

$\varepsilon$  = Stochastic term or error term

An error term is a variable in a statistical or mathematical model, which is created when the model does not fully represent the actual relationship between the independent variables and the dependent variables. The error term is also known as the residual, disturbance or remainder term (Hair *et al*, 2015).

## CHAPTER FOUR

### RESEARCH FINDINGS AND DISCUSSIONS

#### 4.1 Introduction

The chapter represents the empirical findings and results of the research. The data presented includes response rate, background information of the respondents and the presentation of research findings against each individual specific objective. The study sought to establish the background information of the respondents by using the following parameters: gender, age, level of education, type of organization, position held by the respondents and number of years respondents have been working with the organization. Descriptive statistics and inferential statistics were employed in analyzing the findings.

##### 4.1.1 Response Rate

Questionnaire	Frequency	Percentage
Filled	64	69.6%
Not Filled	28	30.4%
<b>Total</b>	<b>92</b>	<b>100</b>

*Table 4.1: Response Rate*

From the data collected, out of the 92 questionnaires prepared, only 64 questionnaires were filled and returned which represented 69.4% response rate. According to Mugenda & Mugenda (2013) that a 50% response rate is adequate, 60% good and above, while 70% is rated very good. Bailey (2014) as well stated that a response rate of 50% is adequate, while a response rate greater

than 70% is very good. This therefore translated that the response rate in this case of 69.4% will be a very good representation of the entire targeted population.

#### **4.1.2 Pilot Study Results**

The study conducted pilot study to test the reliability and validity of the research instrument. The study used 5 percent of the sampled population for pilot testing. Consequently, 5 respondents best represent 5% of the census population. The study used random sampling to select the 5 respondents who were not included in the main survey. The result showed that the Cronbach's alpha for the variable cost of doing business is 0.827 with a total of 5 items. This implies that the items included in measuring cost of doing business constructs are indicative of the same underlying disposition. The Cronbach's alpha for declaration of goods, verification of goods and release of goods were 0.872, 0.886 and 0.787 respectively implying that the items in the construct are indicative of the same underlying disposition. Nunnally (2015) recommends that instruments used in research should have reliability of at 0.70 or above. The results are as shown in table 4.2;

<b>Variable</b>	<b>Number of Items</b>	<b>Cronbach's Alpha</b>
Declaration of goods	5	0.872
Verification of goods	5	0.886
Release of goods	5	0.787
Cost of doing business	5	0.827

*Table 4.2: Reliability Test Results*

Further the study tested for construct validity through in-depth interviews with key informants (Retired customs officers) prior to the construction of the questionnaire so as to solicit valid concepts and to modify the questionnaire thereby coming up with constructs that were valid.

## 4.2 Demographics Characteristics of Respondents

### 4.2.1 Gender Distribution

Gender	Frequency	Percentage
Male	53	82.8%
Female	11	17.2%
<b>Total</b>	<b>64</b>	<b>100</b>

*Table 4.3: Gender of the Respondents*

During research, gender is significant in recognizing the social phenomenon. The descriptive statistics of the gender distribution indicated that 53 of the respondents were male, while the remaining 11 were female as shown in table 4.3. The limited response from the female was not due to unwillingness but the target population had a few female in it.

### 4.2.2 Age of the Respondents

Age	Frequency	Percentage
Less than 24 years	00	0.0%
25 – 35 years	21	32.81%
36 – 45 years	35	54.69%
46 – 55 years	07	10.94%
Above 55 years	01	0.02%
<b>Total</b>	<b>64</b>	<b>100</b>

*Table 4.4: Age of the Respondents*

Age is a significant characteristic in understanding various opinions. Often, opinions on a number of topics differ between different age groups and age indicates the level of maturity of individuals. The finding found that 0 respondents (0%) were aged less than 24 years. Although for the age group 25 – 35 years, the number of respondents was 21 accounting to 32.81% of the total respondents. For the age group 36 – 45 years the number of respondents was 35 accounting to 56.69% of the total respondents and for the age group 46 – 55 years the number of respondents was 7 accounting for 10.94% of the total respondent. Also for the age group of above 55 only one respondent was found accounting to 0.02% of total population. This implied that majority of the respondents were aged between 36 – 45 years.

#### 4.2.3 Level of Education

Level of Education	Frequency	Percentage
Post Graduate degree	22	34.4%
First degree	11	17.2%
Diploma	26	40.6%
Certificate	5	7.8%
<b>Total</b>	<b>64</b>	<b>100</b>

*Table 4.5: Level of Education*

Evidently, education is one of the most significant attribute in data collection and analysis. Education level might affect individuals' attitudes and perspective on how they view and understand situations. From the descriptive statistics shown in table 4.5, the number of respondents that hold a post graduate degree/diploma was 22 respondents (34.4%). The number of respondents that hold a first degree was 11 respondents (17.2%) and the number of

respondents that hold a diploma was 26 respondents (40.6%). The number of respondents that were certificate holders was 5 respondents (7.8 %).

#### 4.2.4 Type of Organization

Organization Type	Frequency	Percentage
KPA	9	14.1%
KRA	15	23.4%
Clearing and Forwarding Firms	36	56.25%
Traders	4	6.25%
<b>Total</b>	<b>64</b>	<b>100</b>

*Table 4.6: Type of Organization*

Different environments often have different practices and prone to different experiences. Collection of data from different environments is significant, hence inclusion of type of organization in the study. It was found that 9 respondents were from the Kenya Ports Authority (KPA) (14.1%) 15 respondents were from the Kenya Revenue Authority (KRA) (23.4%) 36 respondents were from Clearing and Forwarding Firms (56.25%) and 4 respondents were from Traders (6.25%).

#### 4.2.5 Current Position in the Organization

The office position of individuals always has a bearing on the attitude individuals have to a situation before them. This is linked to leadership and experience held. The finding from table 4.7 indicated that 7.8% of the respondents hold Senior Managers positions, 29.7% of the respondents hold Middle Managers positions and 62.5% of the respondents hold Junior Managers positions in their respective organizations.

<b>Position</b>	<b>Frequency</b>	<b>Percentage</b>
Senior Managers	05	7.8%
Middle Managers	19	29.7%
Junior Managers	40	62.5%
<b>Total</b>	<b>64</b>	<b>100</b>

*Table 4.7: Respondent Position*

#### **4.2.6 Number of Years Worked in Organization**

Experience to a given environment indicates familiarity and complete understanding of the specific environment. The finding from table 4.8 showed that 24 of the respondents (37.5%) have had their job positions for over 15 years, 13 of the respondents (20.3%) have had their job positions for 11 – 15 years, 11 of the respondents (17.2%) have had their job positions for 6 – 10 years, and 10 of the respondents (25%) have had their positions for less than 5 years.

<b>Year</b>	<b>Frequency</b>	<b>Percentage</b>
Over 15 years	24	37.5%
11 – 15 years	13	20.3%
6 – 10 years	11	17.2%
Less than 5 years	16	25%
<b>Total</b>	<b>64</b>	<b>100</b>

*Table 4.8: Number of Years worked in the organization*

### **4.3 Descriptive Analysis**

For the research analysis the researcher used a tool rating scale of 5 to 1; whereby 5 represented the highest positivity and 1 the highest negativity. Opinions given by the respondents were rated as follows, 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree and 1= Strongly Disagree. The analysis for mean, standard deviation and coefficient of variation were based on this rating scale.

#### **4.3.1 Declaration of Goods**

The study sought to determine factors affecting cost of doing business in Kenya. The first objective was to determine the effects of declaration of goods on the cost of doing business in Kenya. In carrying out this task the study used table of means, standard deviations and coefficient of variation to help interpret the results. A 5-point Likert Scale was used to determine the effects of declaration of goods on the cost of doing business in Kenya.

#### 4.3.1.1 Online Submission of Documents

**Table 4.9 Mean, Standard deviation and Coefficient of Variation of Online Submission of Documents.**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation (%)</b>
Online submission of documents reduces transportation cost	2.84375	1.011344	35.5637%
Online submission of documents reduces container dwell time	1.859375	0.350382	18.8441%
Online submission of documents minimizes communication cost.	1.984375	0.453984	22.8779%

Based on the respondents' response to the set of statements, the respondents that were in agreement that online submission of documents reduces transportation cost had a mean of 2.84375, a standard deviation of 1.011344, and a dispersion of 35.5637% on the statement. This signified a relatively good level of agreement to the statement. Also the respondents' response to the statement online submission of documents reduces container dwell time had a mean of 1.859375 a standard deviation of 0.350382 and a dispersion of 18.8441% that showed a relatively high level of agreement to the statement. With the opinion online submission of documents minimizes communication cost the response in agreement to the statement had a mean of 1.984375, standard deviation of 0.453984 and a dispersion of 22.8779% illustrating a high level of agreement to the statement. This concedes with Lester, Mercurio & Bartels (2016)

who stated that improvement in e-customs environment benefit economic operators but continued demand for supporting documents in paper format diminishes some of the benefits.

**4.3.1.2 Communication between control agencies with customs authorities**

**Table 4.10 Mean, Standard deviation and Coefficient of Variation of Communication between control agencies with customs authorities.**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation</b>
Effective communication between control agencies and customs authorities reduces transportation cost.	2.734375	0.877265	32.0828%
Effective communication between control agencies and customs authorities reduces container dwell time.	1.859375	0.350382	18.8441%
Effective communication between control agencies and customs authorities minimizes communication cost	2.765625	0.849691	30.7233%

From the respondents’ response to the set of statements, the respondents that were in agreement that effective communication between control agencies and customs authorities reduces transportation cost had a mean of 2.734375, a standard deviation of 0.877265, and a dispersion of 32.0828% on the statement. This signified a relatively good level of agreement to the statement. Also the respondents’ response to the statement effective communication between control agencies and customs authorities reduces container dwell time had a mean of 1.859375 a

standard deviation of 0.350382 and a dispersion of 18.8441% that showed a relatively high level of agreement to the statement. With the opinion effective communication between control agencies and customs authorities minimizes communication cost the response in agreement to the statement had a mean of 2.765625, standard deviation of 0.849691 and a dispersion of 30.7233% illustrating a relatively good level of agreement to the statement. Coincidentally, according to Antov (2017), proper communication between control agencies and customs administration lead to an increase in the competitiveness of economic operators acting in the EU Member States, to a reduction in the costs for compliance with the legal requirements and to an increase in security at the borders of the Union

#### **4.3.1.3 Human Resources**

**Table 4.11 Mean, Standard deviation and Coefficient of Variation of Human Resources**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation</b>
Adequate human resources in the ports reduces transportation cost.	1.828125	0.380254	20.8002%
Adequate human resources reduce container dwell time.	1.875	0.333333	17.7778%
Adequate human resources in the ports minimize communication cost.	2.71875	0.881354	32.4176%

Looking at the respondents' response to the set of statements, the respondents that were in agreement that adequate human resources in the ports reduces transportation cost had a mean of 1.828125, a standard deviation of 0.380254, and a dispersion of 20.8002% on the statement. This signified a relatively high level of agreement to the statement. Also the respondents' response to

the statement adequate human resources reduce container dwell time had a mean of 1.875 a standard deviation of 0.333333 and a dispersion of 17.7778% that showed a relatively high level of agreement to the statement. With the opinion adequate human resources in the ports minimize communication cost the response in agreement to the statement had a mean of 2.71875, standard deviation of 0.881354 and a dispersion of 32.4176% illustrating a relatively good level of agreement to the statement. Hervas-Oliver (2013) supports this study by claiming that for the competitive advantage, it is necessary to consider a connected human resource practices, rather than simply considering isolated individual practices.

#### **4.3.2 Verification of goods**

For the study the second objective was to determine the effects of verification of goods on the cost of doing business in Kenya. In carrying out this task the study used tables of means, standard deviations and coefficient of variation to help interpret the results. A 5-point Likert Scale was used to determine the effects of verification of goods on the cost of doing business in Kenya.

#### 4.3.2.1 Communication of various customs systems on various sectors

**Table 4.12 Mean, Standard deviation and Coefficient of Variation of Communication of various customs systems on various sectors**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation</b>
Effective communication of various customs systems in various units transportation cost	2.75	0.854493	31.0725%
Effective communication of various customs systems in various units reduces container dwell time.	1.859375	0.350382	18.8441%
Effective communication of various customs systems in various units minimizes communication cost.	2.734375	0.840298	30.7310%

From the respondents' response to the set of statements, the respondents that were in agreement that effective communication of various customs systems in various units reduces transportation cost had a mean of 2.75, a standard deviation of 0.854493, and a dispersion of 31.0725% on the statement. This signified a relatively good level of agreement to the statement. Also the respondents' response to the statement effective communication of various customs systems in various units reduces container dwell time had a mean of 1.859375 a standard deviation of 0.350382 and a dispersion of 18.8441% that showed a relatively high level of agreement to the statement. With the opinion effective communication of various customs systems in various units minimizes communication cost the response in agreement to the statement had a mean of 2.734375, standard deviation of 0.840298 and a dispersion of 30.7310% illustrating a relatively

good level of agreement to the statement. Antov (2017) as well states that a robust communication chain of systems between all customs offices in the Union, satisfies the needs of modern logistics due to improved security and reduced cost.

#### 4.3.2.2 Machine Technologies

**Table 4.13 Mean, Standard deviation and Coefficient of Variation of Machine Technologies**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation</b>
Proficiency to machine technologies reduces transportation cost	1.828125	0.380254	20.8002%
Proficiency to machine technologies reduces container dwell time.	1.828125	0.380254	20.8002%
Proficiency to machine technologies minimizes communication cost.	1.828125	0.380254	20.8002%

Based on the respondents' response to the set of statements, the respondents that were in agreement that proficiency to machine technologies reduces transportation cost had a mean of 1.828125, a standard deviation of 0.380254, and a dispersion of 20.8002% on the statement. This signified a relatively high level of agreement to the statement. Also the respondents' response to the statement proficiency to machine technologies reduces container dwell time had a mean of 1.828125 a standard deviation of 0.380254 and a dispersion of 20.8002% that showed a relatively high level of agreement to the statement. With the opinion proficiency to machine technologies minimizes communication cost had a mean of 1.828125, standard deviation of 0.380254 and a dispersion of 20.8002% illustrating a high level of agreement to the statement.

Bakshi, Flynn & Gans (2011) state that the scanning technologies had logistic, cost and coverage, and security effectiveness effects. Limited delays reduced cost; security was improved, hence benefiting the players in the logistics industry.

#### 4.3.2.3 Customs electric procedures

**Table 4.14 Mean, Standard deviation and Coefficient of Variation of Customs electric procedures**

Statements	Mean	Standard Deviation	Coefficient of Variation
Good customs electric procedures reduces transportation cost	2.75	0.854493	31.0725%
Good customs electric procedures reduce container dwell time.	1.859375	0.350382	18.8441%
Good customs electric procedures minimize communication cost.	1.859375	0.350382	20.8002%

Based on the respondents' response to the set of statements, the respondents that were in agreement that good customs systems performance reduces transportation cost had a mean of 2.75, a standard deviation of 0.854493, and a dispersion of 31.0725% on the statement. This signified a relatively good level of agreement to the statement. Also the respondents' response to the statement good customs systems performance reduces container dwell time had a mean of 1.859375 a standard deviation of 0.350382 and a dispersion of 18.8441% that showed a relatively high level of agreement to the statement. With the opinion proficiency to machine technologies minimizes communication cost had a mean of 1.859375, standard deviation of

0.350382 and a dispersion of 20.8002% illustrating a relatively high level of agreement to the statement. Kesino (2012) claimed that the implementation of the customs electric procedures had drastic reduction in lodgment time, as well the clearance time and lodgment cost, overall affecting total cost to clearing and forwarding agents.

### 4.3.3 Release of goods

The third objective for the study was to determine the effects of release of goods on the cost of doing business in Kenya. In carrying out this task the study used tables of means, standard deviations and coefficient of variation to help interpret the results. A 5-point Likert Scale was used to determine the effects of release of goods on the cost of doing business in Kenya.

#### 4.3.3.1 Installation of ICT Systems

**Table 4.15 Mean, Standard deviation and Coefficient of Variation of Installation of ICT Systems**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation</b>
Proper installation of ICT systems reduces transportation cost.	2.75	0.854493	31.0725%
Proper installation of ICT systems reduces container dwell time.	1.859375	0.350382	18.8441%
Proper installation of ICT systems minimizes communication cost.	2.734375	0.840298	30.7310%

From the respondents' response to the set of statements, the respondents that were in agreement that proper installation of ICT systems reduces transportation cost had a mean of 2.75, a standard

deviation of 0.854493, and a dispersion of 31.0725% on the statement. This signified a relatively good level of agreement to the statement. Also the respondents' response to the statement proper installation of ICT systems reduces container dwell time had a mean of 1.859375 a standard deviation of 0.350382 and a dispersion of 18.8441% that showed a relatively high level of agreement to the statement. With the opinion proper installation of ICT systems minimizes communication cost the response in agreement to the statement had a mean of 2.734375, standard deviation of 0.840298 and a dispersion of 30.7310% illustrating a relatively good level of agreement to the statement. This is supported by the Government of India, GOI, (2013) that suggested that use of ICT for scanning and improving security can enhance efficient clearance of goods thus lowering container dwell time. It further said that there is need to use ICT to share information and trade policies between government agencies and relevant stakeholders.

#### 4.3.3.2 Port infrastructure

**Table 4.16 Mean, Standard deviation and Coefficient of Variation of Port infrastructure**

Statements	Mean	Standard Deviation	Coefficient of Variation
Sufficient port infrastructure reduces transportation cost.	1.828125	0.380254	20.8002%
Sufficient port infrastructure reduces container dwell time.	1.828125	0.380254	20.8002%
Sufficient port infrastructure minimizes communication cost.	1.828125	0.380254	20.8002%

Based on the respondents' response to the set of statements, the respondents that were in agreement that sufficient port infrastructure reduces transportation cost had a mean of 1.828125, a standard deviation of 0.380254, and a dispersion of 20.8002% on the statement. This signified a relatively high level of agreement to the statement. Also the respondents' response to the statement sufficient port infrastructure reduces container dwell time had a mean of 1.828125 a standard deviation of 0.380254 and a dispersion of 20.8002% that showed a relatively high level of agreement to the statement. With the opinion sufficient port infrastructure minimizes communication cost had a mean of 1.828125, standard deviation of 0.380254 and a dispersion of 20.8002% illustrating a high level of agreement to the statement. This concurs with Roso & Lumsden (2015) who claimed that poor infrastructure in ports caused delays in clearance of goods.

### 4.3.3.3 Automated Machine Systems

**Table 4.10 Mean, Standard deviation and Coefficient of Variation of Automated Machine Systems**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation</b>
Properly automated machine systems reduces transportation cost.	2.75	0.854493	31.0725%
Properly automated machine systems reduce container dwell time.	1.859375	0.350382	18.8441%
Properly automated machine systems minimize communication cost.	1.828125	0.380254	20.8002%

With the respondents' response to the set of statements, the respondents that were in agreement that properly automated machine systems reduces transportation cost had a mean of 2.75, a standard deviation of 0.854493, and a dispersion of 31.0725% on the statement. This signified a relatively good level of agreement to the statement. Also the respondents' response to the statement properly automated machine systems reduce container dwell time had a mean of 1.859375 a standard deviation of 0.350382 and a dispersion of 18.8441% that showed a relatively high level of agreement to the statement. With the opinion properly automated machine systems minimize communication cost had a mean of 1.859375, standard deviation of 0.350382 and a dispersion of 20.8002% illustrating a relatively high level of agreement to the statement. This study is in agreement with Robin (2014) who notes that that increase in

congestion associated with larger vessel size, is likely to influence the container dwell time forcing them to handle higher volumes in the same period of time, but also to reduce the variability of their operations in order to guarantee seamless flows of cargo at the ports.

#### 4.3.4 Cost of doing business

**Table 4.28 Mean, Standard deviation and Coefficient of Variation of Cost of doing business**

<b>Statements</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Coefficient of Variation</b>
Decrease in transportation cost lowers cost of doing business.	1.953125	0.213042	10.90775%
Minimized container dwell time decreases the cost of doing business.	1.953125	0.213042	10.90775%
Low communication cost decreases the cost of doing business.	1.953125	0.213042	10.90775%

In relation to the cost of doing business the respondents' response to the set of statements, the respondents that were in agreement that decrease in transportation cost lowers cost of doing business had a mean of 1.953125, a standard deviation of 0.213042, and a dispersion of 10.90775% on the statement. This signified a relatively high level of agreement to the statement. Also the respondents' response to the statement minimized container dwell time decreases the cost of doing business had a mean of 1.953125 a standard deviation of 0.213042 and a dispersion of 10.90775% that showed a relatively high level of agreement to the statement. With the opinion properly low communication cost decreases the cost of doing business had a mean of 1.953125, standard deviation of 0.213042 and a dispersion of 10.90775% illustrating a relatively

high level of agreement to the statement. Corcoran & Gillanders (2015) seem to be in agreement in their statement that the significance of the overall doing business is driven by the ease of trading across borders component; customs laws, regulations and procedure, government relations and compliance.

#### **4.4 Inferential Analysis**

Inferential statistics helps in making prediction or inferences about a given population. The study conducted inferential statistics; correlation analysis, regression analysis, and ANOVA to make inferences on the factors that affect cost of doing business in Kenya. Pearson correlation analysis was used to assess the relationship between the variables while multiple regressions was used to determine the predictive power of factors (dependent variables - declaration of goods, verification of goods, and release of goods) and cost of doing business.

##### **4.4.1 Multiple Regression Analysis**

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used Analysis of Variance (ANOVA) to code, enter and compute the measurements of the multiple regressions. The model summary table provides information about the regression line's ability to account for the total variation in the dependent variable. The results are displayed in the table below.

***Table 4.19: Regression Model Summary***

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std Error of the Estimate</b>
1	0.611966	0.374502	0.263317	0.181921

In the table 4.19 above the R value represents the simple correlation. Based on our study the R value is 0.611966 and this value indicates a high degree of correlation. The  $R^2$  indicates how much of the total variation in the dependent variable, cost of doing business, can be explained by the independent variables, (declaration of goods, verification of goods, and release of goods). In our study, 0.374502 (37.4 %) can be explained. Therefore based on our findings and analysis 37.4% of the relationship is explained the independent variables, (declaration of goods, verification of goods, and release of goods). This as well translates to the rest 62.6% being explained by other variables affecting the cost of doing business in Kenya. Adjusted R square on the other hand shows the variation by only the variables that in reality do affect the dependent variable. In our study, this value is 26 percent (0.2633).

#### **4.4.2 Correlation**

A correlation is a number between -1 and +1 that measures the degree of association between two variables. A positive value for the correlation implies a positive association while a negative value for the correlation implies a negative or inverse association. After the descriptive analysis, the study conducted Pearson correlation analysis to assess the strength of the association between the predicted and explanatory variables or among the latter. It thus helps in determining the strengths of association in the model, that is, which variable best explained the relationship between the dependent variable, cost of doing business, and the independent variables, (declaration of good, verification of goods, and release of goods) in Kenya.

**Table 4.20: Correlation Analysis**

		Cost of doing business in Kenya	Declaration of goods	Verification of goods	Release of goods
Cost of doing business in Kenya	Pearson Correlation	1	.66841	.57861	-.02391
	Sig. (1-tailed)	.000	.01684	.05556	
	Sig. (2-tailed)	.000	.03367	.11112	
	N	64	64	64	64
Declaration of goods	Pearson Correlation	.668411	1	.91832	-.09305
	Sig. (1-tailed)	.000		.000	.000
	Sig. (2-tailed)	.000			
	N	64	64	64	64
Verification of goods	Pearson Correlation	.57861.	.918321	1	.02794
	Sig. (1-tailed)	.01684			
	Sig. (2-tailed)	.03367	.000		
	N	64	64	64	64
Release of goods	Pearson Correlation	-.02391	-.09305	.02794	1
	Sig. (1-tailed)	.05556			
	Sig. (2-tailed)	.11112			
	N	64	64	64	64

\*. Correlation is significant at the 0.05 level (1-tailed).

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

The Correlation coefficient always ranges from -1 to 1, indicating when the relationship is positive or negative. The absolute value as well indicates the strength of the relationship that exists therein. The p-value on the other hand, considered as the significance level is the probability of obtaining results as the one observed. When the significance levels are very small, smaller than 0.05, that indicates the two variables are related, linearly, hence significant, but when the significance levels are large, then then the correlation is not significant and the two variables are not linear related.

From the correlation analysis in the table 4.20, the study found that there is a positive relationship between declarations of goods and cost of doing business in Kenya, where the correlation coefficient was 0.66841, indicating a strong relationship, and a p-value of 0.4840. The study also found that verification of goods and cost of doing business in Kenya correlates positively with correlation coefficients of 0.57861, also indicating a strong relationship. The relationship is also very significant as the p-value is 0.01465. The study however established that there is a negative though significant relationship between release of goods and cost of doing business in Kenya with a correlation coefficient of -0.02391 and a p-value of 0.01933. This therefore infers that declaration of goods and verification of goods affect the cost of doing business in Kenya, though release of goods failed to show relationship to the cost of doing business.

#### 4.4.3 Analysis of Variance

**Table 4.21: Analysis of Variance**

<b>Model</b>		<b>Sum of squares</b>	<b>df</b>	<b>Mean square</b>	<b>f</b>	<b>sig</b>
1	Regression	1.070006	9	0.11889	4.041401	0.000552
	Residual	1.787137	55	0.033095		
	Total	2.857143	64			

In ANOVA, f stands for freedom and df stands for degree of freedom. The f value is the ANOVA coefficient, hence used in testing the equality of treatment means. The Sig is the p value and is to be less than 0.05 for the statistics to be significant at that level. The df can be understood to be the estimate number of independent pieces of information that go into calculating ANOVA.

As per the table 4.21 above, the significance value in testing the reliability of the model for the relationship between declaration of goods, verification of goods and release of goods with the cost of doing business in Kenya. This significance value was obtained as 0.000 which is less than 0.05 the critical value at 95% significance level. Therefore the model is statistically significant in predicting the relationship between the dependent variable (cost of doing business) and the independent variables (declaration of goods, verification of goods and release of goods) of the study. The F value from the table indicates a significant model for the relationship as given by

the regression coefficients. In this case, the F value is 4.041401, showing that the overall model was statistically significant and reliable in explaining the influence of the predictor variables to the cost of doing business in Kenya.

**Table 4.22: Regression Coefficient container dwell time**

Model		Unstandardized Coefficients (B)	Std. Error	t	Sig
1	(Constant)	18.9565	1.3532	14.008	.000
	Declaration of goods	.5115	.726	7.042	.484
	Verification of goods	3.405	1.355	2.5136	.015
	Release of goods	3.195	1.329	2.4039	.019

a. Dependent: Cost of doing business

b. Independent: Declaration of goods, verification of goods, release of goods

The unstandardized coefficients indicate how much the dependent variable (cost of doing business) varies with an independent variable, when all other independent variables (declaration of goods, verification of goods, and release of goods) are held constant.

The findings in the table 4.22 indicate that all the variables had a positive and significant influence on cost of doing business, since all the predictors were significant predictors of the cost of doing business in Kenya because their P-values were less than 0.05. Based on the results, declaration of goods had a significant influence on the cost of doing business as shown by the coefficient (B = 0.5115, t = 7.042, p > 0.484). Verification of goods as well showed a significant influence on cost of doing business with the coefficients (B=3.405, t = 2.5136, p > 0.015) indicating a positive effect on the cost of doing business. Additionally, release of goods indicated a significant positive influence on cost of doing business with coefficients (B = 3.195, t = 2.4039, p > 0.019).

The study used the following regression model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = Dependent variable (cost of doing business)

$\beta_0$  = constant

$\beta_1$ ,  $\beta_2$  and  $\beta_3$  = the regression co-efficient

X = Independent variable

X<sub>1</sub>- Declaration of goods

X<sub>2</sub>- Verification of goods

X<sub>3</sub> – Release of goods

$\varepsilon$  = Stochastic term or error term

Therefore;

Cost of doing business = 18.9565 + 0.5115 Declaration of goods + 3.405 Verification of goods +  
3.195 Release of goods

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter deals with the summary of the findings and a summary of the analysis, as well as provide conclusions of the study. It also highlights recommendations and suggestions for further study.

#### 5.2 Summary of the Study

This section will give a summary on how each variable was responded to by the study population and the analysis for each variable.

##### 5.2.1 Declaration of Goods

The dependent variable, declaration of goods, has sub variables including online submission of documents, communication between control agencies and customs authorities, and human resource. In relation to the independent variables, cost of doing business in Kenya, many respondents were in agreement that the adequacy and effectiveness of the sub variables reduces cost of doing in Kenya. This is illustrated by the high level of agreement to the questionnaire statements, and a low dispersion percentage.

The study also found that there is a positive relationship between declarations of goods and cost of doing business in Kenya, where the correlation coefficients was 0.66841, indicating a strong relationship. However, a p-value of 0.4840 indicates an insignificant relationship due to the  $p < 0.484$ .

### **5.2.2 Verification of Goods.**

Additionally, the dependent variable, verification of goods, has sub variables including communication of various customs systems on various sectors, machine technologies, and customs electric procedures. In relation to the independent variables, cost of doing business in Kenya, many respondents were in agreement that the effectiveness and proficiency of the sub variables reduces cost of doing in Kenya. This is shown by the high level of agreement to the questionnaire statements, and a low dispersion percentage.

The study also found that verification of goods and cost of doing business in Kenya correlates positively with correlation coefficients of 0.57861, also indicating a strong relationship. The relationship is also very significant as the p-value is 0.01465.

### **5.2.3 Release of Goods**

Also, release of goods, has sub variables including Installation of ICT systems, port infrastructure, and automated machine systems. In relation to the independent variables, cost of doing business in Kenya, many respondents were in agreement that proper and sufficiency of the sub variables reduces cost of doing in Kenya. This is illustrated by the high level of agreement to the questionnaire statements, standard deviation and a low dispersion percentage.

The study however established that there is a negative though significant relationship between release of goods and cost of doing business in Kenya with a correlation coefficient of -0.02391 and a p-value of 0.01933.

### **5.3 Conclusion.**

In the descriptive analysis, the mean, standard deviation and coefficient of variation done generally illustrated a low level of dispersion in the responses, hence the information being reliable. During the regression model analysis, it was found that 37.4% of the relationship is explained by the independent variables, (declaration of goods, verification of goods, and release of goods). This as well translates to the rest 62.6% being explained by other variables affecting the cost of doing business in Kenya.

It was concluded that declaration of goods is a significant measure of customs clearance to the cost of doing business though less people have knowledge of it hence the findings indicating a less significance to the study while theoretically it has significance to the cost of doing business. Also verification of goods was found to be most related to the cost of doing business due to its effectiveness in terms of pre-verification of goods scanning of goods physical verification and post clearance audit. This lowers the cost of doing business to importers and exporters due to effective customs procedures. Additionally it was found that release of goods is dependent on customs resources like customs systems and human resources and the effectiveness of the entire customs clearance processes. Timely release of goods through the customs clearance lowers cost of doing business

### **5.4 Recommendation**

From a theoretical perspective, declaration of goods is studied to have a significant relationship to the cost of doing business in Kenya. Unfortunately, our study lacked to identify the significant relationship. It is therefore recommended that other variables in declaration of goods are studied in relation to cost of goods for the identification of the significant relationship between declaration of goods and cost of doing business in Kenya.

Verification of goods and release of goods did show a significant and strong relationship to the cost of doing business. The study also found that Kenya is continually improving in declaration of goods, verification of goods and release of goods measures to ensure minimization of the cost of doing business in the country. The study therefore encourages the government, control agencies and the private sector to keep operating with the intention of minimize the cost of doing business in Kenya and to continually advance in encouraging international trade through the cost of doing business measures.

### **5.5 Area for further study**

Being that only 37.4 % of our study relationship is explained the independent variables, it is therefore recommended that other studies in the field do consider other possible variables affecting the cost of doing business in Kenya. Other studies can study declaration of goods but from different perspectives as the variable conceptually does have a significant relationship to the cost of doing business.

Cost of doing business in a state may be affected by another partners state's practices hence an area for further study. Cost of doing business in Kenya can therefore be studied in relation to another state affects it. Cost of doing business in Kenya can also be studied from other variables, besides from our study's variables; declaration of goods, verification of goods and release of goods. Also, Agencies like Kenya Ports Authority, Kenya Revenue Authority do play a major role in how the cost of doing business in Kenya plays. Studies can therefore be done to study how these agencies affect the cost of doing business in Kenya.

## REFERENCES

AltirribaCuscó, M. (2013). The role of customs in international operations: customs warehousing In Spain

Antov, M. (2017). The role of information technologies in the development of customs control in the Republic of Bulgaria. *World Customs Journal*. 11. 101.

*Approches*. Nairobi, Kenya: ACTS Press.

Arnold, M. (2017). Customs control in the 21st century.

Bakshi, N., Flynn, S. E., &Gans, N. (2011). Estimating the operational impact of container inspections at international ports. *Management Science*, 57(1), 1-20.

Basse, I., Janßen, C., Schmitt, S., & Schmitt, R. (2013, June). A decision model for cost-optimized inspection planning. In *Engineering, Technology and Innovation (ICE) & IEEE International Technology Management Conference, 2013 International Conference on* (pp. 1-15). IEEE.

Bonga, W. G. (2014). Customs Administration, Laws, and Procedures in Zimbabwe. *Laws and Procedures in Zimbabwe (June, 10, 2014)*.

Corcoran, A., &Gillanders, R. (2015). Foreign direct investment and the ease of doing business. *Review of World Economics*, 151(1), 103-126.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Davies, M. B., & Hughes, N. (2014). *Doing a successful research project: Using qualitative or quantitative methods*. Macmillan International Higher Education.

Dejo-Oricain, N., & Alesón, M. R. (2014). Which resources are most important for a successful SME exporter. *International Journal of Business and Commerce*, 3(1).

Drobot, E. V., Klevleeva, A. R., Afonin, P. N., & Gamidullaev, S. N. (2017). Risk management in customs control. *Экономика региона*, 13(2), 550-558.

Encyclopaedia Britannica (2018). Deontological ethics. Retrieved from <https://www.britannica.com/topic/deontological-ethics>, Accessed on 14<sup>th</sup> August, 2018.

Fink, A. (2013). *Conducting research literature reviews: From the Internet to paper*. Sage Publications.

Gaur, A. D., & Jasmin, P. (2017). Ease of Doing Business in India: Challenges & Road Ahead. In *International Conference on Technology and Business Management* (pp. 77-84).

Gellert, L. (2011). Withdrawal, revocation and suspension of AEO certification. *World Customs Journal*, 5(1), 3-16.

Godden, D., & Allen, E. L. (2017). The development of modern revenue controls on alcoholic beverages. *World Customs Journal*, 3.

GOI, (2013). *Position paper on The Port Sectors in India*. Ministry of Finance.

Hair Jr, J. F., Wolfinbarger, M., Money, A. H., Samouel, P., & Page, M. J. (2015). *Essentials of business research methods*. Routledge.

Hervas-Oliver, J. L. (2013). The changing environment: implications for human resource management. *International Journal of Manpower*, 34(8).

Holzner, M., &Peci, F. (2010). The impact of customs procedures on business performance: evidence from Kosovo. *Dynamics*, 67.

Iqbal, M. (2014). *Use of Online Public Access Catalogue (OPAC) by the Users in Niscair and Nassdoc Library, Delhi: a Comparative Study* (Doctoral dissertation, Aligarh Muslim University).

Kesino K. (2012). Impact of adoption of customs electronic procedures by clearing and forwarding agents in nairobi, kenya. University of Nairobi

Koley, S., Datta, B., & Mukherjee, S. (2016). Reducing Dwell Time Related to Clearing and Forwarding of Export and Import Goods at Kolkata Sea and Air Ports. *Foreign Trade Review*, 51(4), 298-327.

Labaree, R. (2013). Organizing Your Social Sciences Research Paper: Theoretical Framework. *USC Libraries, University of Southern California*. Obtained from <http://libguides.usc.edu/content.php>.

Lester, S., Mercurio, B., & Bartels, L. (Eds.). (2016). *Bilateral and regional trade agreements: Commentary and analysis* (Vol. 1). Cambridge University Press.

Makoni, E., Tsikirayi, C. M., &Mandizha, E. (2013). To charge or not to charge customs excise duty on digitized products: An assessmentof the Zimbabwe Revenue Authority (ZIMRA) potential revenue losses through duty exemption on digitized goods.

Maxwell, J. A. (2005). Conceptual framework: What do you think is going on. *Qualitative research design: An interactive approach*, 41, 33-63.

Mitnick, B. (2013). Origin of the theory of agency: an account by one of the theory's originators.

Mosyoki, J. (2017) Scanning technology at ports will expedite cargo clearance. The Star. Retrieved from [https://www.the-star.co.ke/news/2017/11/10/scanning-technology-at-ports-will-expedite-cargo-clearance\\_c1667179](https://www.the-star.co.ke/news/2017/11/10/scanning-technology-at-ports-will-expedite-cargo-clearance_c1667179), accessed on 18<sup>th</sup> September, 2018.

Mugano, G., Brookes, M., & Le Roux, P. (2013). Estimating the impact of a COMESA Customs Union on Zimbabwe using a Tariff Reform Impact Simulation tool (TRIST). *African Journal of Business Management*, 7(38), 4000-4010.

Mugenda, A. and Mugenda, O. (2013). *Research methods; Quantitative and Qualitative*.

Nazarpour, A., Fynes, B., Wiengarten, F., Fischl, M., & Sohrabpour, V. (2015). The effect of country level factors on the trade-off between cost and flexibility in mass customization.

Nunnally, C. (2013). *Psychometric theory* (2<sup>nd</sup>). New York: McGraw-Hill.

Nyatwongi L. (2015). Factors Affecting the Performance of Importing and Exporting Small and Medium Enterprises in Mombasa County, Kenya. University Of Nairobi.

Sokolova, A. (2017). Challenges with features of customs clearance at the Russian-Finnish border: a case of GW Europe Oy.

Teklu, T., & Negus, E. (2011). The Impact of Border Clearance Procedures on the Cost of Doing Business in Ethiopia. Addis Ababa Chamber of Commerce and Sectoral Associations.

The Daily Jugantor, (2011). Detections of under-invoicing and wrong classification. Retrieved from <https://www.jugantor.com/old/archive/2011/02/07/news0006.php>, accessed on 08th September, 2018.

Turner, R. (2015). Barriers to customs entry at the time of disaster in developing countries: mitigating the delay of life-saving materials. *World Customs Journal*, 9(1), 3-14.

Wanyama, T. (2017). Causes of Delay in Clearance of Goods at the Port of Mombasa. *International Journal of Supply Chain and Logistics*, 1(1), 22-43.

Zubair, A., & *أ. زبير*. (2017). Free trade agreements and changing role of Customs Officers.

## **APPENDIX I:**

### **INTRODUCTORY LETTER TO THE RESPONDENT**

Date:

To: Whom It May Concern

#### **RE: REQUEST FOR DATA COLLECTION FOR AN ACADEMIC RESEARCH PROJECT**

The bearer of this questionnaire is a student of post graduate diploma in customs administration in the department of economics, accounts and finance, of the University of Jomo Kenyatta University Agriculture and technology. The subject research project is on the effects of customs clearance procedures on the cost of doing business in Kenya. My interest in the study of this topic is to add up to the existing knowledge, as activities in international trade are continually being realized broadly. As the research, I will be grateful if you could take some time to respond to my questionnaire for this study. The information you will be give will be treated confidentially and used solely for the purpose of this study.

Thank you for your assistance

Yours sincerely,

Davelyne Moraa Omenyi

Student (KESRA/JKUAT)

Mobile Number: +354 (0) 723484117

Email Address: [moraalyne354@gmail.com](mailto:moraalyne354@gmail.com)

## APPENDIX II

### QUESTIONNAIRE

#### EFFECTS OF CUSTOMS CLEARANCE PROCEDURES ON THE COST OF DOING BUSINESS STUDY IN KENYA

I am Davelyne Moraa Omenyi, a Post Graduate student in Customs Administration, at the Kenya School Revenue Administration, doing a research project. This questionnaire is designed to help with data collection of the effect customs clearance procedures have on the cost of doing business in Kenya. I, therefore, request that you respond to the following questions, honestly, by ticking on the most appropriate responses.

NOTE: All information provided in this questionnaire will be used with all confidence, and will only be used for academic purposes.

Please tick where most appropriate:

#### PART I: Demographic Information

1. Age of Respondent: (A) Less than 24 years [ ]

(B) 25- 35 years [ ]

(C) 36-45 years [ ]

(D) 46- 55 years [ ]

(E) Above 55 years [ ]

2. Level of education attained

(A) Certificate [ ]

(B) Diploma [ ]

(C) First Degree [ ]

(D) Post Graduate [ ]

(E) Other (specify).....

3. Name Section/Department/Unit.....

4. What is your position/status in the organization?

(A) Senior Manager [ ]

(B) Middle Manager [ ]

(C) Junior Manager [ ]

(D) Other (Specify).....

5. How many years have you worked with this organization?

(A) Over 15 years [ ]

(B) 11 – 15 years [ ]

(C) 6 – 10 years [ ]

(D) Less than 5 years [ ]

**Part II: Declaration of Goods**

**a) Online submission of Documents**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Online submission of documents minimizes transportation cost					
Online submission of documents reduces container dwell time.					
Online submission of documents minimizes communication cost.					

**b) Communication between control agencies with customs authorities**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Effective communication between control agencies and customs authorities minimizes transportation cost.					
Effective communication between control agencies and customs authorities reduces container dwell time.					
Effective communication between control agencies and customs authorities minimizes communication cost					

**c) Human Resources**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Effective human resources in the ports minimize transportation cost.					
Effective human resources reduce container dwell time.					
Effective human resources in the ports minimize communication cost.					

**PART III: Verification of goods**

**a. Communication of various customs systems on various sectors**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Effective communication of various customs systems in various units minimizes transportation cost					
Effective communication of various customs systems in various units reduces container dwell time.					
Effective communication of various customs systems in various units minimizes communication cost.					

**b. Machine technologies**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Proficiency to machine technologies minimizes transportation cost					
Proficiency to machine technologies reduces container dwell time.					
Proficiency to machine technologies minimizes communication cost.					

**c. Customs Electric Procedures**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

Statement	1	2	3	4	5
Good customs electric procedures minimizes transportation cost					
Good customs electric procedures reduce container dwell time.					
Good customs electric procedures minimize communication cost.					

**PART IV: Release of goods**

**a. Installation of ICT Systems**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

Statement	1	2	3	4	5
Proper installation of ICT systems minimizes transportation cost.					
Proper installation of ICT systems reduces container dwell time.					
Proper installation of ICT systems minimizes communication cost.					

**b. Port infrastructure**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

Statement	1	2	3	4	5
Sufficient port infrastructure minimizes transportation cost					
Sufficient port infrastructure reduces container dwell time.					
Sufficient port infrastructure minimizes communication cost.					

**c. Automated Machine Systems**

Indicate your level of satisfaction on the statements below by ticking in the most appropriate box, where; 1= Strongly Agree, 2= Agree, 3= Indifferent, 4= Disagree, 5= Strongly Disagree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Properly automated machine systems minimize transportation cost.					
Properly automated machine systems reduce container dwell time.					
Properly automated machine systems minimize communication cost.					

**PART IV: Cost of doing business**

What is your level of agreement with the following statements that relate to container dwell time? Use a scale of 1-5, where 5= Strongly Agree, 4= Agree, 3= Neutral, 2=Disagree, 1= Strongly Disagree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Decrease in security checks lowers cost of doing business.					
Minimized container dwell time decreases the cost of doing business.					
Low transfer of information cost decreases the cost of doing business.					

**END OF QUESTIONARE**

**Thank you very much for your cooperation**