

**EFFECTS OF ONE STOP BORDER POST ON TRADE FACILITATION
AT THE LUNGALUNGA BORDER POST**

JOB SUDI

**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 THE POST
GRADUATE DIPLOMA IN CUSTOMS ADMINISTRATION AT JOMO KENYATTA
UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

2018

DECLARATION

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

.....

Signature

JOB SUDI

HDB335-C16-2496/2016

.....

Date

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

.....

Signature

BEN MUMIA- CPA-K, M.I.N.C.U

LECTURER KESRA

.....

Date

TABLE OF CONTENTS

DECLARATION.....	I
ABSTRACT.....	1
TABLE OF CONTENTS	II
LIST OF FIGURES	V
LIST OF TABLES	VI
ACRONYMS	VII
DEFINITION OF TERMS.....	VIII
CHAPTER ONE: INTRODUCTION TO THE STUDY	2
1.1 Background to the study.....	2
1.1.1 The OSBP.....	3
1.1.2 Trade Facilitation.....	4
1.1.3 Lungalunga OSBP	4
1.2 Statement of the Problem	5
1.3 Objectives.....	6
1.3.1 General Objective	6
1.3.2 Specific Objectives	6
1.4 Research Questions	6
1.5 Justification	7
1.6 Scope	8
1.7 Limitations of the study.....	8
CHAPTER TWO: LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Theoretical Framework	9
2.2.1 The resource based theory.	9
1.2.2 Stakeholder’s Theory	10
2.2.2 Systems Theory.....	11
2.3 Empirical Review	12
2.4 Conceptual Frame work	13
2.4.1 Shared infrastructure at the OSBP	14

2.4.2 Integrated ICT Systems at the OSBP	14
2.4.3 Risk based management initiatives.....	15
2.5 Critique of the existing literature	15
2.6 Summary.....	15
2.7 Research gap.....	16
CHAPTER THREE: RESEARCH METHODOLOGY	17
3.1 Introduction	17
3.2 Research Design.....	17
3.3 Population.....	17
3.4 Sampling Frame	18
3.5 Sample and Sampling Technique	18
3.6 Data collection Instruments.....	19
3.8. Pilot Testing	19
3.7 Data Collection Procedure	20
3.9 Data Analysis	20
3.9.1 Data Analysis tool	20
CHAPTER FOUR: RESEARCH FINDINGS AND ANALYSIS.....	22
4.1 Introduction	22
4.2.1 Questionnaire return rate	22
4.2 Demographic analysis	22
4.2.1 Gender of the respondents	23
4.2.2 Age of the respondents	24
4.2.3 Level of Education.....	25
4.2.4 Distribution of respondents by their roles at the OSBP.....	25
4.2.5 Period worked at Lungalunga One Stop Border Post.....	26
4.3 Variable Specific analysis	27
4.3.1 Infrastructure at the OSBP.....	27
4.3.2 Influence of the integrated ICT system on trade facilitation at the OSBP	28
4.3.3 Influence of Risk based management initiatives on Trade Facilitation.....	29
4.3.4 Trade facilitation.....	30

4.4 Correlation Analysis.....	30
4.4.1 Coefficient of Correlations	31
4.4.2 Coefficient determination	31
4.5 Regression Analysis	32
4.5.1 Analysis of Variance	32
4.5.2 Multiple Regression Analysis.....	33
CHAPTER FIVE: SUMMARY CONCLLISION AND RECOMMENDATION	35
5.1. Introduction	35
5.2 Summary of findings.....	35
5.3. Conclusions	36
5.4 Recommendations	36
5.5 Areas of Future research	36
REFERENCES.....	38
APPENDICES	41

LIST OF FIGURES

Figure 2:1 systems	11
Figure 2:2 conceptual framework	13
Figure 4:1 Gender of the respondents	23
Figure 4:2 Age of the respondents	24
Figure 4:3 Level of Education	25
Figure 4:4 Period worked at Lunga-lunga One Stop Border Post	26

LIST OF TABLES

Table 3.1 Sample Frame.....	18
Table 3.2 Sample	19
Table 4.2 Questionnaire return rate.....	22
Table 4.4 Distribution of respondents by their roles at the OSBP	25
Table 4.5 Infrastructure at the OSBP	27
Table 4.6 Influence of the integrated ICT system on trade facilitation at the OSBP	28
Table 4.7 Influence of Risk based management initiatives on Trade Facilitation	29
Table 4.8 Trade facilitation	30
Table 4.9 Person Correlation.....	31
Table 4.10 Coefficient of determination (R ²).....	32
Table 4.11 ANOVA ^a	32
Table 4.12 Multiple Regression Analysis	33

ACRONYMS

CBCD:	Customs and Border Control Department
CBM:	Coordinated Border Management
CRMP:	Customs Reform Modernization Program
EAC:	East Africa Community
ICT:	Information Communication Technology
KEBS:	Kenya Bureau of Standards
KEPHIS:	Kenya Plant Health Inspectorate Service
KRA:	Kenya Revenue Authority
OSBP:	One Stop Border post
RKC:	Revised Kyoto Convention
UN:	United Nations
UNCTAD:	United Nations Conference on Trade and Development
USAID:	United States Agency for International Development
WTO:	World Trade Organization
WCO:	World Customs Organization

DEFINITION OF TERMS

Revised Kyoto Convention- this is the main trade facilitation customs convention and was developed by the WTO. It focuses on the simplification and harmonization of customs procedures. (World Customs Organization, 2009)

Virtual integration: it is the use of IT to replace physical components of an institution with information and combining or binding together a dispersed network of suppliers manufacturers and distributors. (Kraemer & Dedrick, 2001)

One Stop Border post- could be defined as a coordinated border management system at which all persons using the borders only need to use one station or post on either side of the border. (Gashayija, 2015)

Trade Facilitation- these are controls and procedures that help in seamless movement of the factors of production in legitimate trade (Grainger, 2013)

Integrated ICT- this can be defined as the unification of telecommunications, communications and technologies like institutional software and storage systems in order to enable its users access, transmit and store data. In doing so it introduces and extends skills. (Pisapia, 1994)

Risk Based Management- This is the projecting and appraisal prevention and detection of threats to an institution in this case threats associated with revenue leakages, smuggling, money laundering, terrorism etc., and processes aimed at minimizing and controlling their impact. (Simon & Hillson, 2012)

Infrastructure- these are the primary facilities and systems serving the bordering countries. They include: the buildings, water systems, sewerage, telecommunications, electricity, and all other physical facilities needed for the operations of the OSBP. (Fitzmaurice, 2017)

ABSTRACT

The evolution that has been brought about by globalization has seen the continent transform itself into a major global village and from that there is increasing need for faster and more efficient service delivery. Organizations engaging in cross border trade and international trade must be able to develop and implement plans to take advantage of their changing environment globally. Lungalunga/ Hororo Border is one of the prime border between Kenya and Tanzania. The border has sometimes been accused of hindering trade in the community due to the fact that it has all the hallmarks of a very productive border post but still experiences very low transit traffic with a lot of delays.

This study sought to establish the processes that the One Stop Border Post strategy implementation was pegged on and the challenges that may have been faced in facilitating trade. The study collected primary data through the use of questionnaires and analyzed through the use of Microsoft PSSP. The relationship of the variables was expressed using the linear regression model.

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Background to the study

The operating environment for Customs in the 21st Century has evolved and this has necessitated adaptation of modern operations and mind set. This is to serve the expectations of the international trading community working environment that envisages the most affordable, less complex, time saving, and most efficient way of doing business. The varying needs of the contemporary trade in the international scene are built on profitable actualities. Traders are looking for simplicity, speed and certainty in their trade (World Trade Organization, 2009).

In sight of the operating environment and challenges faced by the Customs around the world, they have embraced Reforms and Modernization programs (CRMP) to adapt faster and more efficient procedures one of them being Coordinated Border Management (CBM) (World Customs Organization, 2007)

Proper Co-ordinated border management (CBM) is simplification and coordination of control activities at the border by border agencies in order to ensure easy movement of goods and people while at the same time ensuring that there is security at the border posts (World Bank Group, 2005).

The current operational environment requires an approach that provides the right distribution of resources at the correct time to ensure there is facilitation and control of activities combined set of facilitation and control activities, and merging information that is paramount to security from all stakeholders to ensure risk management is optimized. It involves streamlining and ensuring procedures are harmonious, ensuring businesses throughout the supply chain are secured and enhancing modern techniques and technology. World Customs Organization (2007)

The Revised Kyoto Convention e has guiding principles on the inspection of goods emphasizing participation of inspection with other government authorities that are competent. Particularly the SAFE Framework of Standards which has an identical approach to the trade facilitation agreement on inspection of goods and people. (World Customs Organization, 2007)

Among the activities that are in the coordinated border management include the formation of one stop border posts between neighboring nations and ‘virtual integration’ agencies at the

borders of countries participate in modern and advance electronic data transmission, and undertake in the inspections together or on each other's behalf through shared recognition arrangements (Kieck, 2010)

One of the key purposes of the RKC is the simplification and harmonization of procedures related to customs. The General Annex chapter 3 of the RKC has implementation guidelines on the OSBP. (World Customs Organization, 2007)

1.1.1 The OSBP

According to Gashayija (2015), An OSBP (One Stop Border Post) is a post allocated at the border of neighboring countries that pools two stops for processing the clearance of people and goods into one and combines all functions at the border control into one area space. This makes it simple to conduct joint processing and appropriate procedures as one unit.

The idea behind OSBPs introduction in Africa was to address delays in movement of people and goods particularly on major border routs. OSBPs join two neighboring border posts into a single unit and combine functions in a common work space for both countries leading to a reduces transit time for both freight and passenger vehicles. (Gashayija, 2015).

It is prudent to appreciate the rational of the creation of borders and the roles of the various agencies located at the border posts. Border posts were initially established to protect the security on the nations and also to ensure autonomy. Today border agencies are evolved and are usually comprised of very many different agencies each with its own mandate in relation to the processing of movements of both cargo and people from either country. Controls have been established that ensure there is maximum revenue collection with minimal leakages, illegal trade is curbed, public health is protected and general trace is facilitated (Kwaramba, 2010).

It is paramount to consider legal, operational issues and issues to do with infrastructural requirements are properly adhered to. Issues to do with operation mainly involve the harmonization and harmonization of customs rules and procedures, arranging of controls and the standard operating procedures for joint processes and coordination amongst the different agencies at the borders.

Information Communication Technology is an integral part of OSBPs in the sharing of data particularly for risk management and increasing speed of clearing through reducing time on procedures.

Changes to do with infrastructure are important when it comes to the formation of an OSBP. They may include the placement of offices and structures and their nearness to one another in a manner that can allow joint controls and joint sharing. (Kwaramba., 2010).

Without simultaneously improving procedures, taking advantage of information technologies and developing an enabling legal framework, constructing an OSBP is unlikely to achieve its potential benefits. Therefore, each of these aspects must be developed to achieve the close cooperation between countries that is required to operate an effective OSBP (Kieck, 2010).

A bill was developed for the OSBP which envisioned common border posts, among them include: Lungalunga-Horohoro border (Kenya-Tanzania), Holili-Taveta border (between Kenya and Tanzania), Malaba-Busia borders (Uganda-Kenya), Namanga border (Kenya-Tanzania), and the Kanyaru-Akanyaru border (Burundi-Rwanda). (Gashayija, 2015).

1.1.2 Trade Facilitation

According to the WTO (2001) and the UNCTAD (2001), Trade facilitation is defined as the Harmonization & Simplification of procedures involving international trade including formalities, actions and practices involving the collection, interpreting and presenting data necessary for the movement of goods. In recent times, there has been a broadening of the definition to incorporate also environments within which trade involving transactions take place. E.g. The competence of customs officers, transparency and also conformity to regional and international regulations. Trade facilitation should help countries in lowering their costs of trade in order to increase their competitiveness in the global world (WTO, 2001).

The whole idea of starting the OSBP was to ensure more trade facilitation by activities associated with clearance and utilizing economies of scale. (Walkenhorst & Yasui, 2003). In addition, the OSBP was aimed at making optimum use of available resources like office accommodation and scanning facilities. It is anticipated that revenue collection would be enhanced through the utilization and sharing of these resources. (Mwawasi, 2012).

1.1.3 Lungalunga OSBP

The OSBP at Lungalunga was completed in the month of September 2015 after the principal secretary in the state department of EAC affairs announced that the Kenya revenue Authority would be in charge of all borders and was to be assisted by immigration officers to ensure smooth operations at the OSBPs (Jebet, 2017).

The construction was funded by the World Bank. Lungalunga OSBP just like all other OSBPs in the EAC, the entry and parking into the building is only done once. All processes concerned with

documentation are processed in one public area for entering and exiting either adjacent country (Gashayija, 2015).

When cargo is being inspected, only one joint inspection is conducted and this joint inspection will involve all agents represented by both countries concurrently. Scanning of cargo, if deemed necessary, is also done once. For commuting persons e.g. those in buses and vehicles, the OSBP will help reduce the processing by almost half. In the old border settings, the commuters are required to alight from their vehicles and asked to proceed at the terminal. The cargo is then inspected; the vehicle is then driven to the other country where the procedure is repeated. The procedure might end up taking even four hours, two on either side. In an OSBP, passengers enter one terminal and do both the entry and exit processing. Cargo only needs to be off loaded once and inspection is a joint process. In an OSBP, most bus clearances are now done in one hour in an OSBP. Freight processing is more complicated and the gains are dependent on a great deal of coordination which takes more time to achieve. Nevertheless, the potential time reductions are also considerable, if more gradual (Jebet, 2017).

1.2 Statement of the Problem

One of the main roles of Customs and Border Control Department is trade facilitation. To achieve this, the department envisaged the construction of an infrastructure that would accommodate the various operations in the borders. These facilities would integrate the functions of the two countries sharing the border in our case; Kenya and Tanzania (WCO, 2007).

Lungalunga Border is one of the borders where the OSBP has been allocated. The area has basically been lagging behind in terms of traffic despite the fact that it has all the hallmarks of being a major trade route between Kenya and Tanzania. Although the post has relatively minimal traffic, the area still experiences delays in movement and clearance of people and goods. This clearly points out to a problem at the border post. Expectations on the OSBP were that it would facilitate trade and boost the regions they have been placed in terms of growth. This has however not always been the case in most OSBPs.

Various studies conducted on especially on the cost of cross border trade as very high in East Africa and this can mainly be attributed to the delays at the border posts. This has in turn led to the inability of African countries to lag behind in competitive international trade. In particular the time taken to clear goods in the borders during crossing has been a major factor (World Bank, 2014).

The various cases of dysfunction and inefficient border procedures at the OSBPs have had a significant impact on the both countries trade and economic growth and this has been a major cause of concern. The population growth in the region and the growth of middle income have led to an increase in demand for consumer goods in the region this is crippled by very little supply of said goods. There is still too much time being wasted at the border posts. There have been episodes of chaos brought about by the delays at the borders. The Country has seen constant demonstrations by truck drivers some of whom have found themselves even having to wait for a whole week for their trucks to be cleared, slow movement of goods and people at various borders in Kenya because of strenuous customs, immigration and security procedures compromises trade facilitation in the region and beyond. Consequently Kenya's products lose their competitiveness on the international market because of late delivery as well as high prices which are passed on to the final consumer (World Economic Forum, 2014). These issues led to the visualization of the study.

1.3 Objectives

1.3.1 General Objective

To establish the effect of one stop border post on trade facilitation in Lungalunga OSBP.es

1.3.2 Specific Objectives

- i. To determine the effect of the shared infrastructure on trade facilitation at Lungalunga OSBP
- ii. To determine the effect of the integrated ICT systems on trade facilitation at Lungalunga OSBP
- iii. To determine the effect of risk based management initiatives on trade facilitation at Lungalunga OSBP

1.4 Research Questions

The following will comprise the guiding questions for the research

- i. What is the effect of infrastructure at the OSBP on the improvement of trade facilitation in the region?
- ii. What is the effect if the integrated ICT system on the implement of trade facilitation in the OSBP?
- iii. What is the effect of risk based management initiatives on trade facilitation at Lungalunga Border Post?

1.5 Justification

There will be several institutions and organizations that will benefit from the study. They include the EAC government, the Revenue Authorities in the respective countries as well as future researchers. The government will be able to identify areas of priority in terms of investment in the OSBPs. They will be able to carry out improvements in infrastructure and processes in order to enhance trade facilitation in the region.

Recommendations made from this research if implemented will lead to Improvements will further affect the whole national value chain. The costs associated with delays will be dramatically reduced. Importers and the business community will be able to realize faster clearance of cargo from an efficient clearance process at the OSBPs which will lead enable them transport larger volumes at a faster rate therefore increasing their output.

The Population region and in the nation will also be able to see tremendous growth due to increased traffic of importers and travelers and the lower costs associated with fast and efficient trade. Insurance agencies, Banks and other financial institutions will also benefit from the improvements since the growth of trade will lead to a need for trade finance and trade insurance. The banks will be facilitating the trade finance through Letters of Credit, Discounting, Documentary collections and other business loans for the importers and exporters.

The bordering governments will also benefit through the contributions of the OSBP in building trust between itself and the neighboring countries. The partner states will see the trading block increase its competitiveness and therefore placing itself at as a more attractive destination for doing business. This will in turn favor manufacturers in the region who will be able to appeal to a wider consumer base and therefore increase their sales.

The various government agencies will also be able to identify improvements, prioritize investment plans for the OSBP, and improve on the working capital deployed on the OSBPs. They will also go a long way to improve on challenges facing the ICT at the OSBP.

This research will also open the door for further research which will be beneficial to the academia. The emergence of trends from this research and others like it will lead to improvements over time as technology shifts.

1.6 Scope

The focus of this study will be the Lungalunga OSBP situated in the Kenya Tanzania Border. the main focus shall be residents and travelers on the Kenyan side. Lungalunga being a relatively small town will see the sample size be a larger representation of the whole population therefore expectations on the result of the study will be nearly precise. The target group will be passengers plying the border, customs officials, cross border traders and truck drivers.

1.7 Limitations of the study

The study is limited to OSBP and shall not be focusing on other trade facilitation measures implemented under the EAC and their levels of efficiency like the single window system, Post clearance audit, The AEO program etc.

Resource constraints like finances and time will also limit the depth of the research.

The research will also focus on the Kenyan side of the OSBP where the Kenyan customs officials will be the responds, cross border traders interviewed will be the ones on the Kenyan side as well as the truck drivers

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature in this study is appraised based on the study objectives. It will focus on three theories as the main pinning of this study i.e. the resource based theory, stakeholder's theory and the system based theory. The literature review shall further explain the conceptual framework of the study.

In Kenya the facilitation of trade remained a challenge even though Kenya has signed several major reform initiatives and multilateral trade agreements. An lack of an efficient legal and regulatory framework, poor facilities at the border stations, lack of institution and human skills, poor road and rail infrastructure and the inefficiency of trade documentation procedures and processes add up to affecting trade by causing costly delays in the movement and clearance of people and cargo at the border posts. (EAC Transit Transport Authority, 2011)

2.2 Theoretical Framework

Theoretical structures are the fundamental tenets that can support and hold a research study theory. The context introduces and further explains the existence of the research problem being studied. (Abeid & Gabriel, 2008). The theoretical review should include the variables the researcher intends to measure and their relationships. The framework must further demonstrate a clear know how of concepts and the theories that are paramount to the research (Swanson & Richard, 2013)

2.2.1 The resource based theory.

This is an approach that was aimed at realizing competitive advantage for firms and it was theorized in the 1980s and 1990s. It majorly focuses on the application of packages of resources both tangible and intangible at the firm's use (Wenerfelt, 1984). The factions in support of this school of thought are for the argument that a firm should look inside itself for resources necessary to achieve a competitive advantage instead of looking outside the competitive environment. Dunford & Snell, (2009) explained resources as the principle fundamentals of strategy which determine what an organization intends to do, from what it can do and what it cannot do.

Brown, (2007), defined resources as a set of capacities and assets that may be tangible or intangible which when have superiority in their competitive nature, or are scarce; have the ability to result in value due to diversification

In the resource based theory, the focus is on resources as the main factor that leads firms and organizations to achieve a superior organization performance. The theory has assumptions that the resources are immobile and heterogeneous.

The theory has been pinned to this study because of the competitive nature of today's customs authorities. Most western countries have adopted customs border management practices as a way of adhering to recommendations proposed by the revised Kyoto Convention. Kenya and her neighbors had to seek resources within themselves in order to achieve a competitive advantage against other regional blocs. These resources included assets like land, buildings, capital, ICT and equipment. The OSBPs actualization was created to enable facilitation of trade through ease of clearance of goods so that investors and other stakeholders would view the region as the most preferred destination for doing business and therefore generate more revenue for the governments.

1.2.2 Stakeholder's Theory

Stakeholder's theory emphasizes on values and morals in the management of a firm. It focuses on the concept of "who really counts" and was formerly detailed by Mitroff, (1983). The theory claims that the fundamental parties involved in the running of an organization include: trade unions and associations, employees, shareholders, customers, suppliers, financiers, communities, trade associations, and government bodies. It emphasizes on prioritizing these stakeholders in the cause of the organization's decision making process. It looks at how the stakeholder's connections and relationship with the organization influence how the business makes its decisions and conducts its activities.

Freeman, (1984), mentions that the fundamental indication of stakeholder's theory is that firms who strive to manage relationships with their stakeholders efficiently and effectively have a longer survival rate and a better performance score card as compared to those that do not. Freeman suggested certain competencies that a firm needs to develop i.e.:

Splitting and classifying interests into controllable segments, making sure that the organization and its functions take care of the stakeholders needs, creating an obligation to constantly observe the interest of stakeholders and developing methods effectively in order to deal with the concerns of the stakeholders.

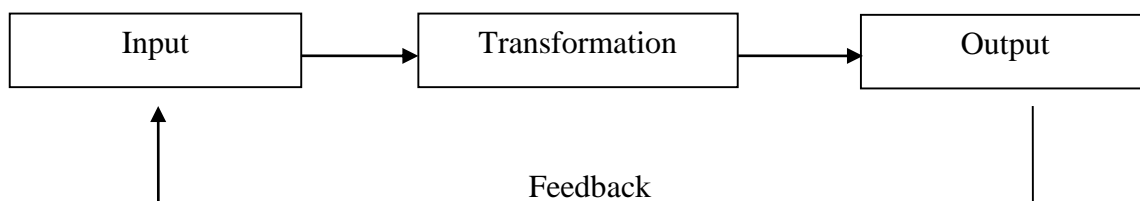
To ensure that the success of OSBP is realized and maintained for a long time, it is very prudent that the stakeholders of the OSBP are considered. In this case the Stakeholders include: customs and Border Control Department of bordering countries, the governments, Traders and Travelers plying the border etc. With reference to the stakeholder approach, every decision that the management of the OSBP makes has to consider all entities. This is the only way the OSBP will be seen as successful.

2.2.2 Systems Theory

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

A system is an entity with interdependent and interrelated parts that's defined by its boundaries and can be more than the sum of its parts. This simply means that a change in one part of the system automatically affects the whole system. Systems can be categorized as either open or closed. Closed systems are systems that are not affected by their environment. It does not consume information and it therefore has a high likelihood of failing. An open system is one that interacts with its environment through inputs, throughputs, and outputs. It takes in information from the environment through feedback and is therefore affected by its environment. An organization is therefore an open system. It receives inputs in the form of resources employee skills, natural resources and equipment. The inputs are transformed by the throughputs e.g. through processing and then produce outputs in the form of services and products Feedback very paramount in open systems as it avails information to the organization by linking the outputs to the inputs resulting in improved quality and evolution. (Luhman, 1995)

Figure 2:1 systems



The OSBP also has many systems with the major one being the clearance of people and cargo at the Border station. The inputs are the traders, travelers and their cargo. The transformation involves the clearing process where the customs and border control staff will be scrutinizing all the documents and the cargo before final release. The final stage will involve the actual clearance where the traders or travelers will now be cleared to enter the foreign country. The feedback can be made through social media, emails or suggestion boxes on how they see the system and how they think the system can be improved.

2.3 Empirical Review

Mubaiwa (2013) examined the effectiveness of the OSBP concept implemented by COMESA and how it has improved trade facilitation. The data was obtained through interviews and questionnaires. The main respondents were truck drivers, Zimbabwean Revenue authority employees and Clearing agents at the Chirundu OSBP with a total response rate of 77%. The study focused OSBP's role in the reduction of clearance time and its effects on the welfare of the residents in the region. The results from this study confirmed that the OSBP at Chirundu improved the flow of trade due to faster clearance of goods and it also emerged that the OSBP in the region lacks adequate resources to be even more effective since it still depended a lot on donor funding for its operations.

Ndunda, (2013) sought to establish the processes that the One stop Border post was pegged on and the challenges that may have been faced. The research was a case study for the Busia Border post. The data in the study was collected through primary and secondary sources and was analyzed through content analysis. The primary data was collected through personal interviews with the help of an open ended interview guide. A response rate of 100% was achieved. The study had limitations on the basis of restrictions due to office codes of the KRA officers and other government agencies which led to less information being obtained. The results of the study concluded that the OSBP in Busia was faced with several difficulties that hindered its successful implementation. The study recommended higher involvement of stakeholders in the implementation process.

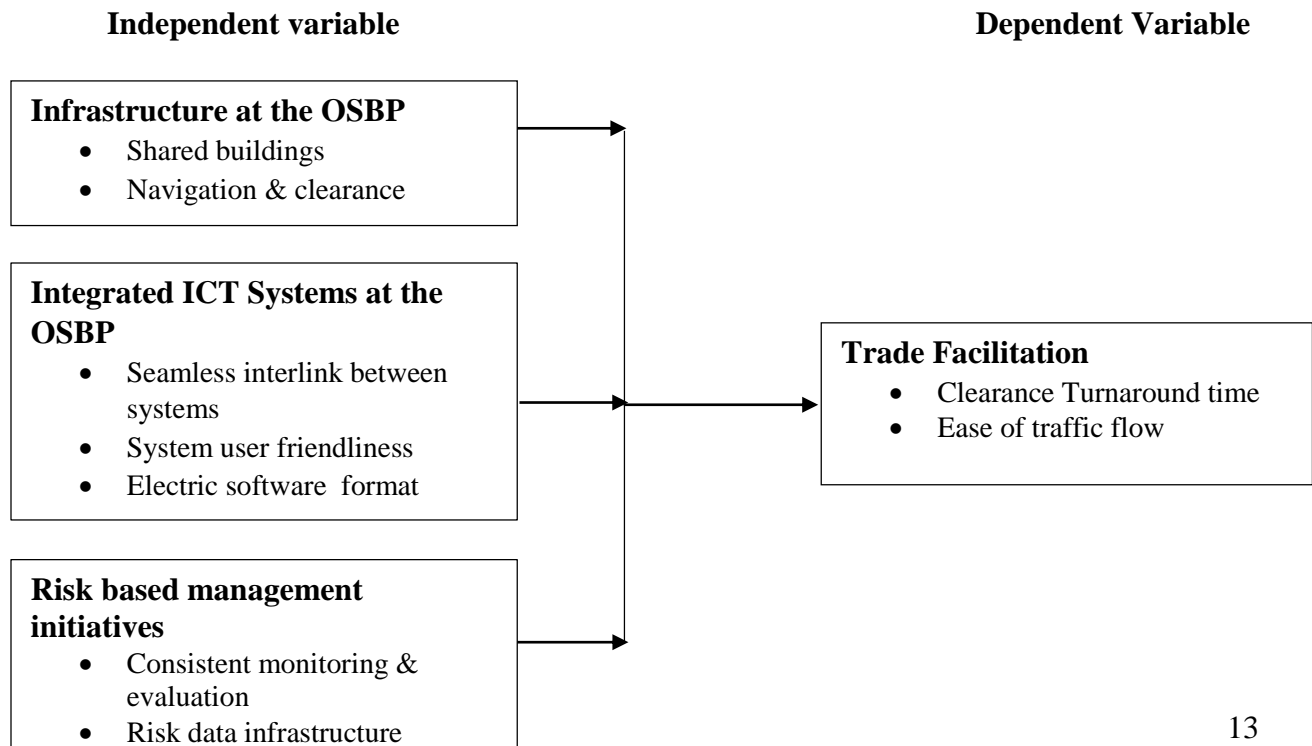
Ojatum, (2017) examined efforts adopted by Uganda to stimulate intraregional trade at the Busia OSBP. The case focus of the study was trade facilitation through the Integrated Border Management Systems. The data obtained were from personnel from the Uganda Revenue Authority, the Immigration department as well as specialists who support the study. A total of 65

people were interviewed. The study was conducted in a duration of for the duration of 3 months. This was the time period for its successful completion. The provate sector influenced an approach aimed at insuring value for money considerations, while the budget and timelines were maintained through controls and project monitoring. The study showed significant results due to the organization of the Busia- Malaba OSBP. The average time taken to cross the border was effectively reduced by 80%.

2.4 Conceptual Frame work

McGaghie, *et al.* (2001) stated that: The conceptual framework arrays the platform for the exhibition of the research questions and guides the study based on the problem statement. Here the focus is on the independent and dependent variables and their relationships towards each other. The dependent variable in this case is trade facilitation whose outcome is depends on the independent variable. The independent variables include the main activities or factors that are involved in the One Stop Border posts. We expect any changes on the independent variable to also have a net effect on the dependent variable. The concept shall best be illustrated using a research paradigm explicitly depicting the variables. The main activities or pillars that comprise the OSBP include: shared infrastructure, integrated ICT systems, combined risk based management and intelligence sharing

Figure 2:2 conceptual Frame work



This study focuses on how the change in the independent variable effectiveness of the OSBP has in turn affected the dependent variable i.e. trade facilitation. The study focuses on how the change in simplification of procedures, shared use of resources, combined risk based management and the legal and institutional framework, which are the major pillars of OSBP have affected trade facilitation i.e. ease in movement of goods and services across the Lungalunga Border

2.4.1 Shared infrastructure at the OSBP

Kwaramba (2010) evaluated opportunities and challenges a centralized infrastructure presents . His focus was on the first fully fledged OSBP which was Chirundu One Stop Border post which is situated in the border point between Zambia and Zimbabwe. The study explored the implementation guidelines of the one stop border posts and one of the major pillars which is centralized system of clearance. The study determined that a centralized system greatly reduces time and manpower required to clear cargo and people from one border to the next. The study noted that the design of the facilities should also be inclusive of both countries in the border and the examination of data and physical examination of goods should be streamlined so that there is no duplication.

Fitzmaurice, (2017) examined the regulatory framework, infrastructure and process flow of the OSBP at Port Elizabeth. His study further looked at the objectives of the OSBP, Border operational procedures and how the OSBP comes into the whole process of reducing transit time and facilitating trade. The infrastructure should include human capital specifically the Joint OSBP coordination committee. The committee needs to be established in accordance with the bilateral trade agreement.

2.4.2 Integrated ICT Systems at the OSBP

Asiimwe, (2014) examined the integrated systems that should comprise the OSBP. The study mentioned the Integrated Border management system (IBMS) which was to be accessible to many institutions at the border post including: immigration authorities, national drug authorities, revenue authorities, police and National Bureau of Standards along the border posts that are involved in clearing of goods. Asiimwe, (2014)noted that the clearing time along the border post would reduce by nearly 60% as the systems on both border posts would be using the same data in the same mode therefore easier interpretation from both sides. Kenya Still Uses the Simba System according to Asiimwe (2014) and most of the other neighboring countries in the bloc use ASSYCUDA. These systems are built in such a way that information from one country about a

particular entry can be easily interpreted by other systems in the region therefor making it unnecessary to duplicate information.

2.4.3 Risk based management initiatives

Polner, (2012) cited some tools that can be used to improve border transit movements. One of the major tools and one which has been constantly duplicated at OSBPs are the risk management programs which provides incentives for customs to comply with other agency regulations it involves identifying companies and individuals who have a habit of avoiding payment of duties and set controls. Software were designed that would identify easy identification of transporters, shippers, importers and exporters with a good reputation for compliance as well as those who are notorious for fraud.

Hints (2016) sought to explain a risk based approach to security which he said should comprise of using a model to identify threats and vulnerabilities to the system and applying intelligence to address the existing and emerging threats. Minor security threats can be automated leaving enough room for customs personnel to deal with major threats. Risk based management assumes that an outsider can easily beat the system. Customs and Border control departments have jointly integrated their systems across border at the OSBP to ensure that the entire environment and documents are free from criminal threats.

2.5 Critique of the existing literature

Previous researches on the concept of the one stop border post had been focusing on the conceptualizing of OSBPs with most of them being written prior to the year 2015 which was when most OSBPs were being operationalized in East Africa (Asiimwe, 2014; Polner, 2012).

The existing literature focused mainly on opportunities that could arise as a result of OSBPs. But none of them focused on the pillars in totality (Mubaiwa, 2013; Ndunda, 2013). Some researches only highlighted on single pillars that comprise the OSBP's and trade facilitation and not all pillars in totality (Ojatum, 2017). Some studies also looks at the risk based approach as a pillar in OSBP but did not incorporate intelligence sharing in the study (Hints, 2016)

2.6 Summary

The theoretical framework basically focused on three main theories that felt would have had a huge impact on the literature review. These theories include the resource based theory, the stakeholder's theory and the system based theory. The resource based theory was pinned to this study because of today's competitive customs authorities around the world. Kenya Customs

authority will also be required to utilize resources within their disposal to gain a competitive edge against other customs authorities.

The shareholders theory was pinned to the study because all firms have an obligation towards their stakeholders and the Kenya Customs and Border control department is no exception. Stakeholders in this case will involve both Customs authorities and Businesses that utilize the Customs borders. The system based theory was pinned also due to the nature of Kenya customs and Border Control department which acts as a system. Empirical framework focused on similar studies done on the similar subjects and in our case we looked at (Polner 2012; Doyle, 2011) case which focused on border management controls in European countries, Curtis, (2009) examined Chirundu OSBP and the transport policy in sub Saharan Africa, We also focused on Kieck, (2010) study on trade opportunities brought about by the use of OSBP

2.7 Research gap

From the empirical review it is evident that there are a number of researches that aimed at showing the effects of the OSBP on trade facilitation including the EAC. Research conducted in the area of OSBPs has been mainly focusing on single elements of the OSBP and not the all elements (Ojatum, 2017; Mubaiwa, 2013). The researches that have come close to touch on the area were those that are in the developed countries and countries that are outside the EAC (Fitzmaurice, 2017). None of the researches in East Africa has touched on the matter of trade facilitation at Lungalunga OSBP

This research will go towards trying to bridge the gap left by previous researches and will focus on the pillars that comprise the OSBP affect trade facilitation in the region. Though the case study focusses on Lungalunga, the economic, political and social environment in the region is very similar and therefore the results and recommendations can therefore be applied in all the OSBPs in the region to ensure growth in trade facilitation

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deliberates on the style of methodology being applied in order to address the objectives of the study and the research questions. The main topics drawn in the study methodology include: research design, population, sampling frame and techniques, data gathering and the instruments and data analysis.

3.2 Research Design

The study used a descriptive research design. This is because the nature of the study required an orderly pragmatic surveillance of the element of the study which is Lungalunga One Stop Border Post. A descriptive study leans towards to making comprehensive examinations using arithmetical and statistical analysis of available data collected through the use of questionnaires, surveys and polls. (Babbie, 2010)

The main purpose of the study was to determine the impact of one stop Border posts on the facilitation of trade at the Lungalunga Border. According to Kiptoo, (2008), a quantitative research design is appropriate where an objective analysis of variables unit is desired as it provides a focused and variable insight into a phenomenon.

Lungalunga border post Kenya provided a satisfactory unit of study as is one of the closest borders and also relatively very busy. The border deals with majority cross border trade between Kenya and Tanzania.

Further, it is manned by all relevant government agencies concerned with clearance of goods and persons moving across borders.

3.3 Population

A population is an entire group of people on an area where the researcher intends to investigate (Sekeran, 2001). According to the Kwale District Strategic plan (2010), Lungalunga border has an estimated population of 3,670 persons most of whom are local residents, business people, traders, truck drivers, government officers and KRA officers. The target population in this research included: the customs and border control officers, cross border traders using the Lungalunga OSBP, The police and other government agencies at the border, clearing agents and

truck drivers who comprised of a total population of about 562 (Kwale District strategic plan, 2010).

3.4 Sampling Frame

A Sample frame is simply a list of all the items to be studied in the target population. It is the basic material that is used to produce the sample (Salant & Dillman, 1995). It is a selected few from a bigger group to become the basis of ascertaining information about a bigger group (Yaesmin, 2012). The table below illustrates the intended sampling frame:

Table 3.1 Sample frame

Subsets	Estimated Number of individuals
Truck Drivers	200
KRA Officials	16
Cross-Border traders	206
Clearing Agents	100
Other government Agency Officials	40

3.5 Sample and Sampling Technique

The technique used in sampling was stratified sampling. In this type of sampling, the population is divided into sub populations also called strata after which a probability sampling is conducted on each group. (Bryman & Bell, 2007).

The sample was derived from the sampling frame. A sample is a representation of the population chosen for the study. (Bryman & Bell, 2007). In order to avoid uncertainty and minimize errors it is prudent to increase the confidence level over the results. The numbers were acquired using surveysystem.com which has the Cochrans formula as the basis for determining the sample size i.e.

$$N_0 = \frac{Z^2 pq}{E^2}$$

Where :

- E is the desired level of precision
- p is the portion of the population which had the desired attributes
- q is 1-p

- Z represents percentages under the curve

By imputing the data on Surveysystem.com, a sample size of 50 was derived as ideal to determine a confidence level 90%, out of a sample frame of 562.

The table below highlights the sample size for the study

Table 3.2 Sample

Subsets	Sample size
Truck Drivers	9
KRA Officials	8
Cross-Border traders	9
Clearing Agents	15
Other government Agency Officials	9
Sample size	50

3.6 Data collection Instruments

The types of data gathering methods that were used for the study included questionnaires. to Yeasmin, (2012), Questionnaires will be better suited for the collection of primary data. This is because they can enable the respondents to consider carefully their responses without interference especially from the interviewer.

Bryman & Bell (2007) pointed out that in order to scale responses and to elicit attitudes on a particular variable Likert scales should be used. Likert scales on the questionnaire made the respondents feel less burdened in answering the questionnaires. A Likert scale bridges the gap of an open ended question and a simple yes/no questionnaire.

The Likert scale in this study had nominal options ranging from 1-5 where 1 represented Strongly disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 Strongly Agree

3.8. Pilot Testing

A pilot test is a preparation for the study in form of a trial run. It measures the rationality of the instruments used in the study and the reliability of the collected data. The reliability will be enhanced if the instruments used in the data collection are free from error and result in consistent

outcomes. (Collins et al, 2003). Mugenda & Mugenda, (1999) observed those participants ranging from at least 10-30 are sufficient for the pilot study. The pilot study participants should not be included in the study.

In this study, a total of 10 participants were sampled who included: KRA officers, Some traders who have had some experience with borders, KESRA students and security officers.

3.7 Data Collection Procedure

The researcher used questionnaires in the collection of data, The researchers had to seek permission from the respective office management and the interviewees to distribute the questionnaires. The questionnaires were left with the respondents for 6 hours and later collected during a time span of 4 days. The questionnaire were then collected and checked if all areas had been dully filled. The respondents who had not completely filled were given an hour to do so and questionnaires then collected.

3.9 Data Analysis

Mugenda and Mugenda (1999) observed that data analysis as the progression of creating Order, structure and meaning to the mass of information collected. Data collected from the questionnaires was analyzed using PSSP version 25 and the data collected was presented in excel tables, pie charts and graphs. Pictorial presentations are more advantageous due to their ability to clearly display findings in an easy manner to understand.

The researcher conducted a correlational analysis which is an analysis used to determine the strength of the relationship between the independent variables and the dependent variables (Bonet, 2008). The researcher had to estimate the correlational co-efficient rage to determine the strength of the association.

3.9.1 Data Analysis tool

The tool used for the data analysis was IBM SPSS Statistics, Version 25.

The relationship of the variables were expressed as a linear regression model:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + \epsilon$$

Where;

Y = Trade Facilitation

B₀ = Constant term, y intercept defined as level of trade facilitation when there is no OSBP

B₁, B₂ B₃ Coefficient explaining variables X₁, X₂ and X₃ respectively

X₁ = Infrastructure at the OSBP

X₂ = Integrated ICT Systems at the OSBP

X₃ = Risk based management initiatives

€ = error term, other effects of OSBP in trade facilitation which have not been included in the study.

CHAPTER FOUR

RESEARCH FINDINGS AND ANALYSIS

4.1 Introduction

The chapter presents findings on factor determine the effects of one stop border posts on the facilitation of trade at the Lungalunga OSBP. It highlights data analysis, presentation and interpretation. The data analysis was done using IBM SPSS statistics version 25. This chapter is divided into three sections based on the dependent variables which include: Influence of the Infrastructure at the OSBP on Trade Facilitation, Influence of Integrated ICT Systems at the OSBP on Trade Facilitation and lastly Influence of Risk based management initiatives on Trade Facilitation.

4.2.1 Questionnaire return rate

The questionnaires a target of 50 respondents out of whom 41 managed to fill and return their questionnaires duly filled. The remaining 9 respondents either lost their questionnaires at the time of collection or simply did not fill.

Table 4.2 Questionnaire return rate

	Frequency	Percentage
No. of Questionnaires returned	41	82%
No. of Questionnaires not returned	9	18%
Total No. of Questionnaires	50	100%

The return rate was 82% as is evident in the table above, Edwards (2002), Stated that, in a questionnaire, an absolutely satisfactory questionnaire should have a return rate of 80% and above, a satisfactory questionnaire, 60%-80%, while below 60% is unacceptable. Satisfactory questionnaires are important to minimize assumptions and also in diminishing bias

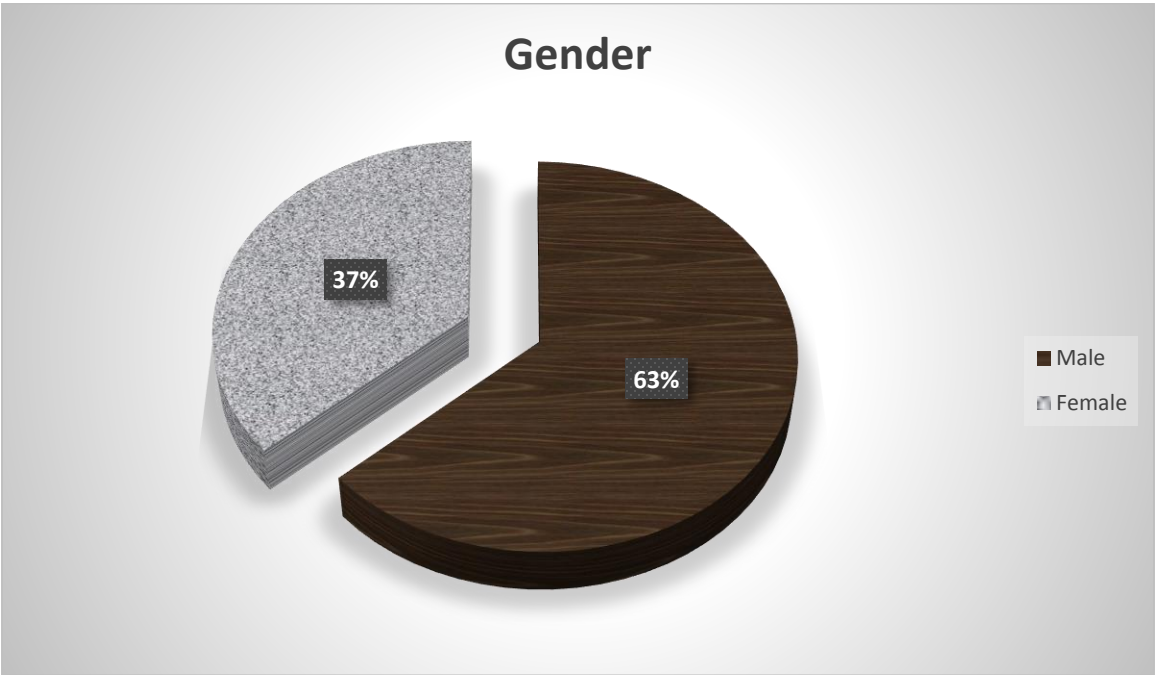
4.2 Demographic analysis

Gregory & Kristen, (2003) stated that Demographic analysis are the methods which can be used to measure the differences in the population in the area and how the different elements of the population have changed in the cause of time. It describes the connected population to the area. The section focuses on the gender of the respondents, the roles they play at the border, their level of education and the number of years they have worked at the border post

The figures below highlight the demographic analysis of the respondents

4.2.1 Gender of the respondents

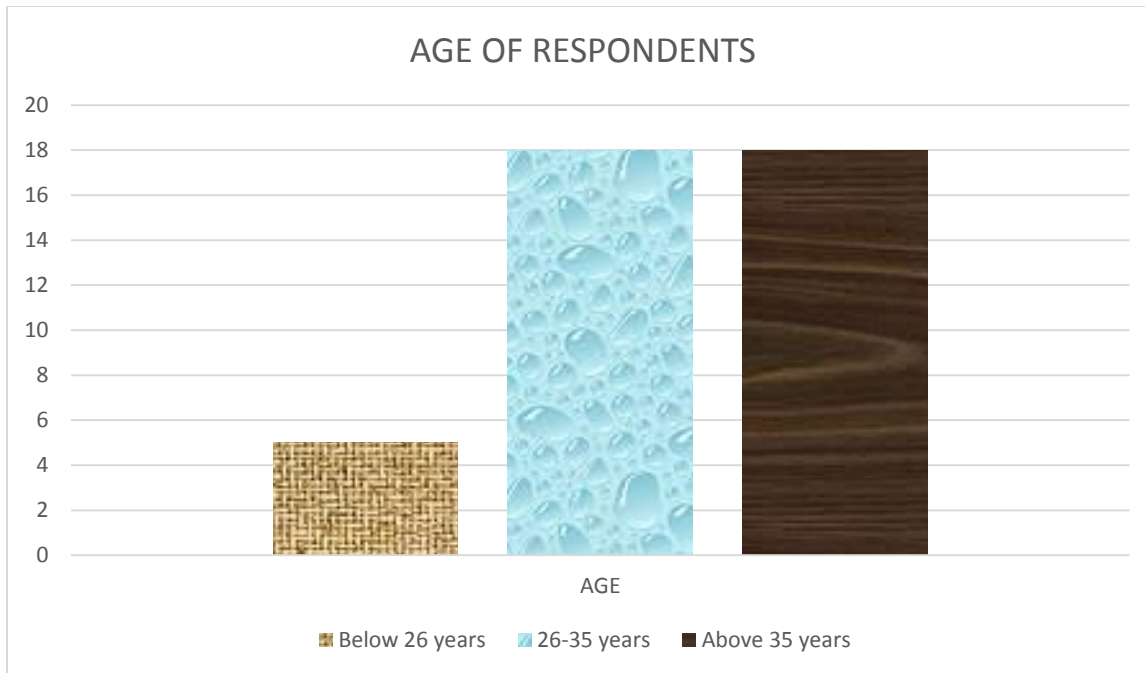
Figure 4:1 Gender of the respondents



The research had a total of 41 respondents 24 of whom were male and 17 of whom were female. From the above pie chart we can conclude that the majority of the respondents were male at 63.41% while 36.59% were female. This implies that a majority of the stakeholders at the border posts are male and most of the businesses were male dominated

4.2.2 Age of the respondents

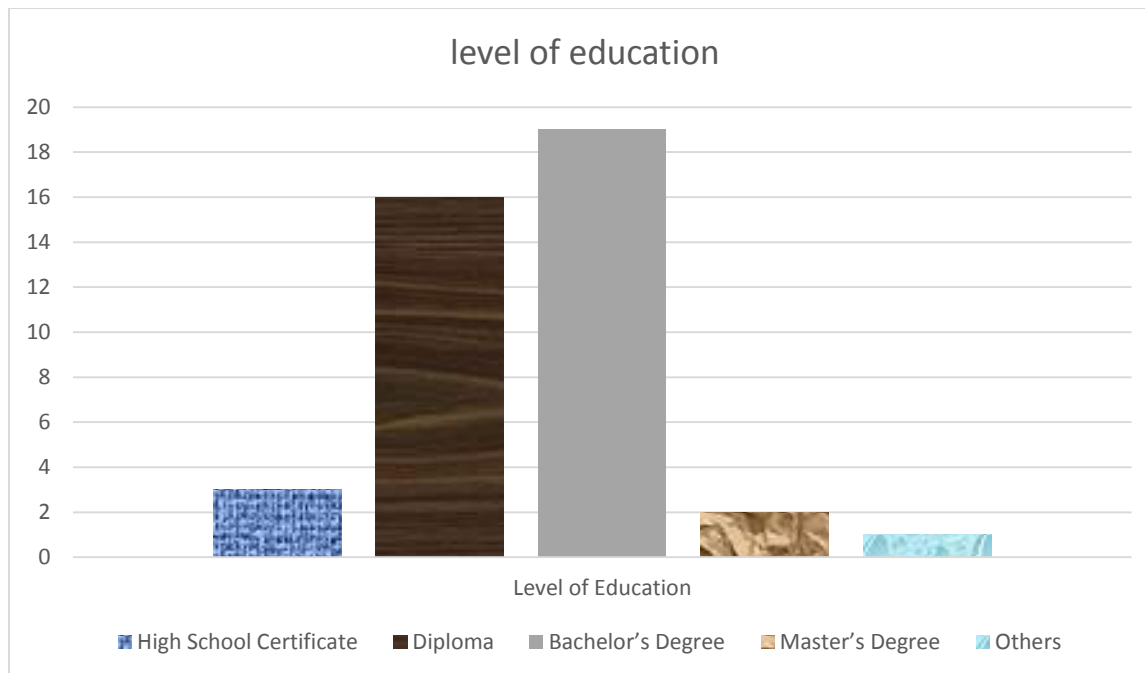
Figure 4:2 Age of the respondents



From the 41 respondents interviewed a vast majority of them lay below the age of 35 years with 43.33% being below 26 years and 43.33% being between the ages of 26-35 years. Young people tend to easily adapt to changes and constantly keep up with the procedures and processes at the border post.

4.2.3 Level of Education

Figure 4:3 Level of Education



Findings from the respondents' levels of education showed that the respondents were majorly well educated with 46.34% having a bachelor's degree, 39.03% with a diploma 7.32% with a high school certificate 4.87% with a master's degree and 2.44% not having completed high school. The high literacy will ensure information collected by the researcher is at a higher level of accuracy.

4.2.4 Distribution of respondents by their roles at the OSBP

Table 4.3 Distribution of respondents by their roles at the OSBP

	Frequency	Percentage
KRA Officials	8	19.4%
Clearing Agents	10	24.4%
Importer/exporter	4	9.8%
Transporters	6	14.6%
Traders	7	17.1%
KEBS Officials	2	4.9%
KEPHIS officials	4	9.8%
TOTAL	41	100%

From the above table, most of the respondents were clearing agents with a percentage of 24.4% as they were the ones who were readily available at the border post. A substantial number were also transporters and traders. The distribution was in accordance with the population of the subgroups. Despite the busy schedule of some transporters and traders, data was still acquired. The numbers were carefully selected to ensure that each subgroup was duly represented by their samples at the same time ensuring that careful consideration was put on the time and financial resources available.

4.2.5 Period worked at Lungalunga One Stop Border Post

Figure 4:4 Period worked at Lungalunga One Stop Border Post



A majority of the respondents were not older than 4 years at the border post. This can be attested to the fact that the OSBP is relatively new though the border point itself is not. Those who worked above eight years were there even before the border post came into place. These respondents gave some insights on the difference the border post has brought to their arrears of specialty and the region in general. Some of the respondents who were at the border and had worked for less than ten years had experienced other border posts and those who hadn't gave information on their expectations and experiences after arriving at the border post.

4.3 Variable Specific analysis

4.3.1 Infrastructure at the OSBP

This variable shows the relationship between infrastructure and the facilitation of trade at the OSBP. A Likert scale questionnaire was used with ordinal scale of 1 as strongly Disagree to 5 as strongly agree. Several research questions were raised for the purpose of determining whether infrastructural setup has been wholly beneficial in facilitating trade. The respondents agree with the statements; The infrastructure at the OSBP is designed to ease information sharing between all shareholders has a mean of 3.56 with a standard deviation of 1.550. Easy and structured navigation in and around the OSBP has a mean of 3.44 and a standard deviation of 1.644. Respondents are neutral in answering the statement that there is cohesion when it comes to centralized clearance of people and goods from both sides. They agree with the statement Infrastructure at the border post is efficient in accommodation and operations. The infrastructure allows government agents from both sides to work harmoniously with minimal repetition as shown in the table 4.5 below.

Table 4.4 Infrastructure at the OSBP

	N	Mean	STD dev
The shared set up at the OSBP is designed to ease information sharing between all shareholders	41	3.56	1.550
Easy and structured navigation in and around the OSBP	41	3.44	1.644
There is cohesion when it comes to centralized clearance of people and goods from both sides	41	3.29	1.601
The buildings at the border post is efficient in accommodation and operations	41	3.49	1.630
Physical set up allows government agents from both sides to work harmoniously with minimal repetition	41	3.66	1.527

In the above table the values are ranked from strongly disagree, disagree, neutral, agree, and strongly agree with numbers 1,2,3,4 and 5 representing each value respectively and a standard deviation was ultimately also conducted.

The above table shows the responses of the various questions on the effects of infrastructure on trade facilitation. A large majority of the respondents agreed that the infrastructure improved trade facilitation and was paramount in the quick service delivery on either side of the borders. The table confirms what the various respondents felt that the OSBP had a huge potential when it

came to facilitating trade since the infrastructure was already in existence. Lungalunga has adequate infrastructure particularly on the accommodation and operations at the border post. The graph above shows that a majority of the respondents were either neutral or disagreed on the fact that government agents from both sides worked together harmoniously with minimal repetition. This was because they felt that the OSBP should have all agents on one building from both countries in order to ensure that there is minimal repetition. There still existed two checkpoints because agents from either country had not allocated a single building for the clearance at the Border post.

4.3.2 Influence of the integrated ICT system on trade facilitation at the OSBP

In this section the questionnaire has an ordinal scale ranging between 1 -5 responses with 1 as strongly disagreeing while 5 as strongly agreeing. The respondents agree with the statements; Electric format for use at the border post is efficient in easing access of information with a mean of 3.54, ICT Systems at the border posts are effective with minimal downtimes has a mean of 3.39 being on average the neutral response. A 3.73 average response on the statement that There is a seamless interlink between the systems implored by Kenya and Tanzania. Service delivery has improved since the introduction of the integrated ICT systems at the OSBP has a mean of 3.71 which is average agree on the statement. Integrated ICT Systems at the Border post are user friendly has a mean of 3.73 with a standard deviation of 1.550.

Table 4.5 Influence of the integrated ICT system on trade facilitation at the OSBP

	N	Mean	STD dev
The Electric format for use at the border post is efficient in easing access of information	41	3.54	1.660
ICT Systems at the border posts are effective with minimal downtimes	41	3.39	1.759
There is a seamless interlink between the systems implored by Kenya and Tanzania	41	3.73	1.689
Service delivery has improved since the introduction of the integrated ICT systems at the OSBP	41	3.71	1.569
Integrated ICT Systems at the Border post are user friendly	41	3.73	1.550

In the above table the values are ranked from strongly disagree, disagree, neutral, agree, and strongly agree with numbers 1,2,3,4 and 5 representing each value respectively 50% that the electronic format used at the border post is efficient I easing access of information while 30%

strongly agreed. The remaining 20% were either neutral or disagreed. The high percentages suggest that the operational systems were working efficiently though some still felt that a lot more can be done to improve the systems in order to enable them compete more favorably internationally.

There was a mixed reaction when it came to opinions of respondents on the seamlessness of the inter-link between the systems employed by the bordering countries. This was disagreed manly by respondents who were traders, transporters and travelers; those who had more than 4 years' experience at the border post. 15% strongly disagreed while 35% of the respondents disagreed. 25% agreed and 5 % strongly agree. This brought some concern especially since a majority of the respondents were to the opinion that the inter-link was not as seamless as it should be. The respondents who disagreed justified their disagreements by terming the lack of cohesion at the border post between customs officers from the bordering counties as the main cause of the lack of interlink.

From the responses, more that 60% of the respondents felt that the systems were user friendly. Most of the once who were neutral felt that it still could be made better as they felt there were still a lot of challenges with the system. More than 70& felt that there was a huge improvement on the systems employed by both neighboring countries. The issue of cohesion still popped up as some respondents saw that there was still some issues with cohesion between the two countries.

4.3.3 Influence of Risk based management initiatives on Trade Facilitation

The respondents are in agreement with the statement that There is a consistent monitoring and evaluation system that mitigates operational risk evidenced by a mean of 3.49 and standard deviation of 1.468. There is a robust risk data infrastructure that helps in accessing and storing data for the prevention and detection of risk have a mean of 3.41. Data sourcing is easy and reliable from all members of the EAC and especially the Bordering country has a mean of 3.15. Risk based management initiatives implored have been paramount in detecting and Eliminating potential risk with a mean of 3.15. There is a collaborative cross functional team approach at the border post in risk management has a mean of 3.41 and a standard deviation of 1.606.

Table 4.6 Influence of Risk based management initiatives on Trade Facilitation

	N	Mean	STD dev
There is a consistent monitoring and evaluation system that mitigates operational risk	41	3.49	1.468

There is a robust risk data infrastructure that helps in accessing and storing data for the prevention and detection of risk	41	3.41	1.643
Data sourcing is easy and reliable from all members of the EAC and especially the Bordering country	41	3.15	1.606
Risk based management initiatives implored have been paramount in detecting and Eliminating potential risk	41	3.46	1.286
There is a collaborative cross functional team approach at the border post in risk management	41	3.41	1.581

4.3.4 Trade facilitation

Majority of the respondents agree with the statement Infrastructure has improved speed and service delivery at the OSBP with a mean of 4.22 and a standard deviation of 1.509. The use of Integrated ICT Systems at the OSBP has improved on the speed of clearance at the OSBP Lungalunga has an average responses of Agree with 4.02. Risk based management initiatives have been paramount in reducing transit time mean of 3.63. Service delivery could be further improved at the border post having a 4.07 mean. The OSBP operation improved the trading at the borders has a mean of 3.85 with a standard deviation of 1.606.

Table 4.7 Trade facilitation

	N	Mean	STD dev
Infrastructure has improved speed and service delivery at the OSBP	41	4.22	1.509
The use of Integrated ICT Systems at the OSBP has improved on the speed of clearance at the OSBP Lungalunga	41	4.02	1.604
Risk based management initiatives have been paramount in reducing transit time	41	3.63	1.685
Service delivery could be further improved at the border post	41	4.07	1.170
The OSBP operation improved the trading at the borders	41	3.85	1.606

4.4 Correlation Analysis

To establish the relationship between the independent variables and dependent variable the study conducted correlation analysis which involved coefficient of correlation and coefficient determination.

4.4.1 Coefficient of Correlations

Using the Karl Pearson's coefficient of correlation (r) as shown in the Table below. From the finding, it was clear that there was a positive correlation with linear relationship between the independent variables and dependent variable with coefficient of correlation, r equal to 0.148, 0.644 and 0.596 for resource allocation, management decision and customs legislations and are statistically significant with ($p < .005$) for variables.

Table 4.7: Person Correlation

Table 4.8 Person Correlation

	Infrastructure	ICTsystem.	Riskmanagement	T_facilitation
OSBP_infrastructure Pearson Correlation	1	.325**	.489**	.689**
Sig. (2-tailed)		.000	.001	.000
N	41	41	41	41
OSBP_ICTsystem Pearson Correlation	.325**	1	.366**	.593**
Sig. (2-tailed)	.000		.001	.000
N	41	41	41	41
OSBP_Riskmanagement. Pearson Correlation.	.489**	.366**	1	.685**
Sig. (2-tailed)	.001	.001		.000
N	41	41	41	41
Trade_facilitation. Pearson Correlation	.689**	.593**	.685**	1
Sig. (2-tailed)	.000	.000	.000	
N	41	41	41	41

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

4.4.2 Coefficient determination

The Table 4.8 shown below, comprises information about the variance as explained by predictor variables. R is the multiple correlation coefficient between all the predictor variables which in this study are the Infrastructure at the OSBP, Integrated ICT Systems at the OSBP and the Risk management initiatives at the OSBP Lungalunga. In order to determine the goodness of fit R Square is used, from the table below, the value is 0.724 indicating a 72.4% of the variance of dependent variable can be explained by the variables under study.

Table 4.8: Coefficient of determination (R²)Table 4.9 Coefficient of determination (R²)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.851	.724	.702	1.757

a Predictors: (Constant), OSBP_Riskmanagement, OSBP_ICTsystem, OSBP_infrastructure

4.5 Regression Analysis

This is the analytical method for determining relationships between variables. It assists in understanding how the values of the dependent variables changes when one of the independent variables is altered while the other variables remain constant. (Freedman, 2005).

4.5.1 Analysis of Variance

Using ANOVA to determine the significance of the model obtained from the study, a significance p-value of to establish the significance of the regression model. In testing the significance level, the statistical significance is considered significant if the p-value is less or equal 0.05. The overall ANOVA results indicated that model was significant at $F=32.350$, $p = 0.000$. With a confidence level based at 95% therefore inferring a high reliability of the model.

Table 4.10 ANOVA^a

Model		Sum of Squares	df.	Mean Square	F	Sig.
1	Regression	299.765	3	99.922	32.350	.000
	Residual	114.284	37	3.089		
	Total	414.049	40			

Dependent Variable: Trade_facilitation_a

Predictors: (Constant), OSBP_Riskmanagement, OSBP_ICTsystem, OSBP_infrastructure_b

4.5.2 Multiple Regression Analysis

The relationship between the independent and dependent variables was established after the multiple regression analysis was conducted.

Table 4.11 Multiple Regression Analysis

		Unstandardized	Standardized Coefficients			
		Coefficients				
		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.434	1.559		3.485	.000
	OSBP_infrastructure	.288	.072	.402	3.990	.000
	OSBP_ICTsystem	.284	.082	.328	3.473	.001
	OSBP_Riskmanagement	.244	.068	.369	3.606	.001

a Dependent Variable: Trade_facilitation

The general regression Model arrived at was $Y = 5.434 + 0.288X_1 + 0.284X_2 + 0.244X_3$

Where;

Y = Trade Facilitation

B₀ = Constant term, y intercept defined as level of trade facilitation when there is no OSBP

B₁, B₂ B₃ Coefficient explaining variables X1, X2 and X3 respectively

X₁ = Infrastructure at the OSBP

X₂ = Integrated ICT Systems at the OSBP

X₃ = Risk based management initiatives

Trade facilitation in the model is affected by the OSBP as put in the model, therefore Trade facilitation (Y) = 5.434 + 0.288 Infrastructure + 0.284 Integrated ICT systems at the OSBP + 0.244 Risk Based Management initiatives. The model is significant as supported by the p-values obtained in the above table; the p-value is 0.000 which less than the minimum acceptable significance values of $p < 0.05$

The Beta Coefficients in the regression model shows that all of the tested variables had positive relationship and statistically significant with p-values less than 0.05. The Y intercept of the

regression model implies that trade facilitation is achieved even without the risk management initiatives, infrastructure at the OSBP and the use of integrated ICT Systems at the OSBP Therefore a 5.434.

From the findings of the model, a unit change of infrastructure at the OSBP will affect the facilitation of trade at Lungalunga border at a 28.8% positively.

Integrated ICT Systems at the OSBP also affects the trade facilitation with a 0.284 which is a 28.4% improvement on trade facilitation with a unit change in the integrated ICT Systems at Lungalunga OSBP.

A unit change in Risk based management initiatives will improve the trade facilitation by a 0.244 which is a 24.4% improvement on trade facilitation.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Introduction

This chapter covers summary of the results of the findings from both the demographic analysis and the variable analysis explanations in summary of the research, conclusions on the findings and recommendations for future studies.

5.2 Summary of findings

The purpose of the study was to determine the effects of one stop border posts on trade facilitation at Lungalunga OSBP. The study aimed to determine why there was a laxity in the movement of goods and people several years after the launch of the OSBP. The questionnaires had a return rate of 82% making the findings satisfactory.

5.2.1 What is the effect of infrastructure at the OSBP on the improvement of trade facilitation in the region?

Based on the findings, the adoption of the OSBP at Lungalunga has not had a great impact on the facilitation of trade at the border post. One of the major concerns is the fact that the infrastructure has not yet been fully integrated. Customs and other government officials from the bordering countries still are still using separate buildings. Commuters and traders have to alight in their country and walk for some distance before being cleared in the country of destination. This leads to a lot of time being wasted as the traders/ commuters waste valuable time walking across the border into the Tanzania for clearance. There was also a major on the collaborative team approach at the border post in risk management. There appears to be a disconnect at times from the customs officers when it comes to risk management and this again boils down to the issue of infrastructure where the customs officers and other officers are not easily accessible to each other and therefore find it difficult to adopt a collaborative approach to mitigate risk.

5.2.2 What is the effect if the integrated ICT system on the implement of trade facilitation in the OSBP?

Based on the findings, Integrated ICT Systems at the OSBP also has positively affected the trade facilitation with a 0.284 which is a 28.4% improvement on trade facilitation with a unit change in the integrated ICT Systems at Lungalunga OSBP.

5.2.3 What is the effect of risk based management initiatives on trade facilitation at Lungalunga Border Post?

Based on the findings the risk based management initiatives at the OSBP has an effect on the overall trade facilitation, therefore with a 24.4 improvement on the facilitation of trading activities at the OSBP when a unit change in Risk based management initiatives will improve the trade facilitation by a 0.244 which is a 24.4% improvement on trade facilitation.

5.3. Conclusions

The study aimed at establishing the effects of One Stop Border Post on trade facilitation at Lungalunga border post. The study focused mainly on three parameters which were: influence on infrastructure at the OSBP on trade facilitation, influence of integrated ICT at the OSBP on trade facilitation and influence of Risk Based management on trade facilitation at the OSBP.

It can be concluded that the OSBP has a significant effect on trade facilitation. The following can be concluded from the effects the one stop border post has on trade facilitation at the Lungalunga Border post

1. Infrastructure has not had a major impact on the facilitation of trade as was envisioned in its conception. This has mainly been due to the fact that both countries are still working on different buildings which have made movement for the traders very cumbersome.
2. Integrated ICT system has really improved trade facilitation in the region.
3. Risk based management initiatives have also had a positive impact on trade facilitation in the OSBP

5.4 Recommendations

The two neighboring countries should work quickly to operations of the OSBP by designating one area where the clearance should take place as agents from both countries are currently working in their own buildings making it tiring to get cleared.

5.5 Areas of Future research

Integrating of policies from both countries: Some policies from Kenya are not adhered to in the neighboring country and vice versa and this has led to a lot of difficulties at the border particularly when it comes to clearance of goods and services.

The study sought to examine the three objectives which are the effects of the OSBP on Trade facilitation, from the Coefficient of determination R^2 to explain relationship between

infrastructure, integrated ICT and risk Management initiatives indicating a 72.4% of the variance of dependent variable can be explained by the variables under study.

REFERENCES

- Abend, A & Gabriel, E. (2008). The meaning of theory. *Sociological Theory* 26. Sanfransisco, CA. Berett Koehler Publishers
- Asiimwe, D. (2014). One Stop Border Posts to be completed this year. Nairobi. *The East African Standard*.
- Bonet, D. (2008). Meta-analytic interval estimation for bivalent Correlations. *Psychological Methods*, 4 (1), 173-181
- Brown, E. (2007). *Resource Based view of Strategic Management*. London, Oxford University Press
- Bryman, A. & Bell, E. (2007). *The nature of Quantitative Research in Business Research Methods*. New York, Oxford University Press.
- Curtis, B. (2009). The Chirundu Border Post: Detailed Monitoring of Transit Times. *Sub Saharan Africa Transport Policy Program*.
- Doyle, T. et al. (2011). *Border Management Modernization*. Washington: Word Bank.
- Dunford, B., Snell, S. & Wright, P. (2009). *Resources and the Resource Based View of the Firm, Strategic Human Resource Management*. New Jersey: Pearson Prentice Hall.
- EAC Transit Transport Authority, (2011). *EAC Road Transport sub-sectors Projects, East African Community*. Retrieved from EAC International Website: [www.eac.int/Sectors/Infrastructure/Road Transport sub-sector](http://www.eac.int/Sectors/Infrastructure/Road%20Transport%20sub-sector)
- Fitzmaurice, M. (2017). One Stop Border Post (OSBP) Operational Procedures, Port Elizabeth. *Transport logistics Consultants Journal*.
- Freedman, D. (2005). *Statistical Models: Theory & Practice*, Cambridge University Press, Cambridge
- Gashayija N. (2015). *Importance of One Stop Border Posts in EAC integration*. Kigali, News Times.
- Grainger,A. (2011). Trade Facilitation: A conceptual Review. *London, Journal of World Trade*, 45 (1) pp 39-62
- Gregory R & Kristen W, (2003). Demographic analysis, *Margo Anderson (Ed) encyclopedia of the US census*. CQ press, Washington DC
- Hintsaj, et al. (2016). *Improving the Border Agency Cooperation among the IOC Member States for Facilitating Trade*. Ankara, Standing Committee for Economic and Commercial Cooperation for the Organization of Islamic Cooperation (COMCEC)
- Jebet, V. (2017). One stop border posts praised for making EAC a leading trading bloc in Africa. Nairobi, *Daily Nation News Paper*

- Kieck, E. (2010). Coordinated Border Management: Unlocking Trade Opportunities through One Stop Border Posts, *World Customs Journal*, Vol 4, No 1.
- Kiptoo, K. (2008). *Strategic Change Management at the University of Nairobi*, School of Business, University of Nairobi
- Kraemer L & Dedrick, J. (2001). *Information Technology and Economic Importance: A critical Review of Empirical evidence*. New York. ACM Digital Library
- Kumar.R, (2005). *Research Methodology; A Step by Step Guide for Beginners*, 2nd Edition, London, Macmillan.
- Kwaramba, M. (2010). *Evaluation of Chirundu One Stop Border Post- Opportunities and Challenges*, Harare, Trade and Development Studies Centre
- Luhmann, N. (1995). *Social Systems*. Stanford, Cal.: Stanford U.P.
- Mc Gaghie, E. et al. (2001). *Problem statement, Conceptual framework. And research question*.
- Mitroff, I. (1983). *Stakeholders of the Organizational Mind* San Francisco, Oxford University Press
- Mubaiwa, S. (2013). *An evaluation of trade facilitation measures Implemented by the common market for East and Southern Africa (COMESA) since 2005: The case of the Chirundu One Stop Border Post*. Bindura: Bindura University of Science and Technology
- Mugenda O.M, Mugenda A.G. (1999). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.
- Muuka.G.N.,Harrison.E.D and McCoy P.J. (1988). Impediments to Economic Integration in Africa; The case of COMESA, *The Journal of Business in Developing Nations* 2(3)
- Mwawasi, J.K. (2012). *Revised Proposed Procedure for Clearance of Goods at Busia Customs Border Stations*. Busia, KRA CSD work manual.
- Ndunda, R. (2013). *Implementation of One Stop Border post Strategy at the Busia Border*. Nairobi: University of Nairobi .
- Ojatum, M. (2016). *Busia One stop border post planning and coordinating agency and planning*. Kampala, Trade Mark East Africa
- Polner, M. (2014). *Coordinated Border Management from Theory to Practice*. World Customs Journal, 5(2), 49-64
- Pisapia, J. (1994). *Teaching with technology: Exemplary teachers*. Research Brief No. 6, Richmond, VA: Metropolitan Educational Research Consortium (ERIC Document Reproduction Service No. ED 411 359)
- Salant, P & Dillman, D. (1995). *How to Conduct your own survey:Leading professionals give you proven techniques for getting reliable results*.

- Sekeran, U. (2001). *Quantitative Research Method*, Montreal. Canadian Centre of Science and Education. Source: Canadian Centre of Science education; www.ccsenet.org/journal/index.php/ijbm/article/viewFile/39643
- Simon, P & Hillson, D. (2012). *Practical Risk Management: The Atom Methodology*. Management concepts. Nienna, VA.
- Swanson, A & Richard, A. (2013). *Theory Building in applied disciplines*. San Francisco, CA. Berrett-Koehler Publishers.
- Walkenhorst.P. and Yasui, T, (2003). *Quantitative Assessment of Benefits of Trade Facilitation* Organization of Economic Cooperation and Development
- Wernerfelt, B. (1984). *Strategic Management Journal*, Vol. 16, No. 3. (Mar., 1995), pp. 171-174. Source: <https://faculty.fau.edu/wernerfelt>
- World Bank, (2005). *Customs Modernization Handbook*, Washington D.C.
- World Bank. (2014). Measuring the impact of trade Facilitation Reform. <http://www10.iadb.org/intal/intalcdi/PE/2014/14927a13.pdf>
- World Customs Organization (2007). *International Convention on the Harmonization and Simplification of Customs Procedures* (as amended) (Revised Kyoto Convention) General Annex, WCO, Brussels.
- World Economic Forum, (2014). "The Global Enabling Trade Report 2014". *Geneva, the World Economic Forum Journal*.
- World Trade Organization, (2009). *WTO Negotiations on Trade Facilitation: Compilation of Members' Textual Proposals*. Negotiating Group on Trade Facilitation
- Yaesmin, S . (2012). 'Triangulation' Research Method as a tool of social Science Research. *BUP Journal Volume 1*

APPENDICES

APPENDIX I: INTRODUCTION LETTER

Introduction Letter

Job Sudi

P.O. Box 87941 – 80100

Mombasa.

To whom it may Concern,

RE: INTRODUCTION LETTER

My name is Job Sudi. I am a Student at the Kenya School of revenue Authority I am studying for a Post Graduate Diploma in customs Administration. I am carrying a Research on the effects of One Stop Border post on trade facilitation in the Lungalunga Border

I am therefore kindly requesting you for your permission in administering the questionnaires, observing and interviewing officers at the station.

Any information the officers and the travelers provide will be treated with the utmost confidentiality

Yours Sincerely,

Job Sudi

APPENDIX II: RESEARCH QUESTIONNAIRE

Effects of One Stop Border Posts on Trade Facilitation at Lungalunga Border Post, Kindly fill this questionnaire openly and honestly. Confidentiality will be strictly adhered to and there will be no mention of your personal name. Please provide the following information as required

Section A: Background information

Gender

Male { } Female { }

1. Please indicate your role at the OSBP Border

KRA Agent { } Clearing Agent { } Importer/exporter { } Transporter { } Trader { }
 KEBS official { } KEPHIS official { } Police Officer { } Others { }

1.2 What is your current age?

	(Please mark appropriately)
Below 26 Years	
26-35 Years	
Above 35 Years	

1.3 How long have you worked at Lungalunga One Stop Border Post?

	(Please mark appropriately)
Under 2 Years	
2-4 years	
4-6 Years	
Over 6 Years	

1.3 What is your highest academic qualification?

	(Please mark appropriately)
High School Certificate	
Diploma	
Bachelor's Degree	
Master's Degree	
Other (Please Specify)	

Provide the following information by ticking **ONE** answer in the appropriate box that you believe best describes the interplay between variables

SECTION B: INFRASTRUCTURE AT THE OSBP

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

	statements	1	2	3	4	5
1	The shared set up at the OSBP is designed to ease information sharing between all shareholders					
2	Easy and structured navigation in and around the OSBP					
3	There is cohesion when it comes to centralized clearance of people and goods from both sides					
4	Buildings at the border post are efficient in accommodation and operations					
5	Physical set up of the buildings allows government agents from both sides to work harmoniously with minimal repetition					

SECTION C: INTEGRATED ICT SYSTEMS AT THE OSBP

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

	Statements	1	2	3	4	5
1	Electric format for use at the border post is efficient in easing access of information					
2	ICT Systems at the border posts are effective with minimal downtimes					
3	There is a seamless interlink between the systems implored by Kenya and Tanzania					
4	Service delivery has improved since the introduction of the integrated ICT systems at the OSBP					
5	The system software at the Border post are user friendly					

SECTION D: RISK BASED MANAGEMENT INITIATIVES

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

	Statements	1	2	3	4	5
1	There is a consistent monitoring and evaluation system that mitigates operational risk					
2	There is a robust risk data infrastructure that helps in accessing and storing data for the prevention and detection of risk					
3	Data sourcing is easy and reliable from all members of the EAC and especially the Bordering country					
4	Risk based management initiatives implored have been paramount in detecting and Eliminating potential risk					
5	There is a collaborative cross functional team approach at the border post in risk management					

SECTION E: TRADE FACILITATION

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

	Statements	1	2	3	4	5
1	Infrastructure has improved speed and service delivery at the OSBP					
2	The use of Integrated ICT Systems at the OSBP has improved on the speed of clearance at the OSBP Lungalunga					
3	Risk based management initiatives have been paramount in reducing transit time					
4	Service delivery could be further improved at the border post					
5	The OSBP operation improved the trading at the borders					

END