

**EFFECTS OF CUSTOMS ENFORCEMENT STRATEGIES ON TRADE
FACILITATION IN KENYA CUSTOMS ADMINISTRATION**

JANE WAMUITA KIMANI

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

2018

DECLARATION

This research project is my original work and has not been presented for examination to in any other university

JANE WAMUITA KIMANI

HDB335-C016-4533/2016

Signed

Date.....

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

Signed

Date.....

PROFESSOR BEATRICE WARUE

ACKNOWLEDGMENTS

First I give thanks to the Almighty for His sufficient grace and blessings upon my life. Secondly I am highly indebted to my dear husband Karuri whose encouragement and support have been instrumental to my life.

I sincerely thank Professor Beatrice Warue for her scholarly assistance, self-sacrifice, patience and guidance. I would like to thank my classmates and my friends who in their own unique ways made contributions.

DEDICATION

I dedicate this work to my dear husband Karuri and our children Ayanna and Alwyn for their endless love that have truly inspired me to achieve this goal. To Mum, brother and sisters God bless abundantly.

TABLE OF CONTENT

DECLARATION	ii
ACKNOWLEDGMENTS	iii
DEDICATION	iv
ABSTRACT	viii
ABBREVIATIONS	ix
DEFINITION OF TERMS	x
LIST OF TABLES	xi
LIST OF FIGURES	xii
Chapter 1	1
Introduction	1
1.1 Background	1
1.2 Statement of the problem	5
1.3 Kenya Revenue Authority and Custom Service Department	6
1.4 Objectives of the study	8
1.4.1 Specific objectives	8
1.5 Research questions	8
1.6 Significance of the study	8
Chapter 2	9
LITERATURE REVIEW	9
2.2 Theoretical Framework	9
2.2.1 Modern organisational theory	9
2.3 Empirical literature review	10
2.3.1 Trade facilitation	10
2.3.2 Coordinated border management	11
2.3.3 Scanners imaging inspection	13

2.3.4	Risk profiling	14
2.3.5	Authorized Economic Operators (AEO).....	16
2.4	Conceptual framework	17
2.5	Research Gap	17
Chapter 3.....		18
RESEARCH METHODOLOGY.....		18
3.1	Introduction	18
3.2	Research design	18
3.3	Population.....	18
3.4	Sampling technique	19
3.5	Data collection techniques.....	19
3.6	Research instrument.....	19
3.7	Data analysis	19
3.8	Statistical model.....	20
Chapter 4.....		21
RESEARCH FINDINGS AND DISCUSSION.....		21
4.1	Introduction	21
4.2	Analysis of the response rate.....	21
4.3	Data on trade facilitation	21
4.4	Customs Eenforcement Sstrategies	23
4.4.1	Data on co-ordinated border management	23
4.4.2	Data on Scanners imaging inspection	24
4.4.3	Data on Risk profiling.....	26
4.4.4	Data on Authorized Economic Operators	27
4.5	Statistical model.....	28
4.6	Correlation matrix.....	29
4.7	Discussion of Findings	30

Chapter 5.....	31
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	31
5.1 Introduction	31
5.2 Summary of the findings.....	31
5.2.1 To find out how coordinated border management strategy affects the trade facilitation in Kenya Customs Administration.....	31
5.2.2 To determine how Scanners strategy affects the trade facilitation in Kenya Customs Administration	31
5.2.3 To find out how Risk profiling affects trade facilitation in Kenya Customs Administration ...	32
5.2.4 To establish how Authorized Economic Operators program affects trade facilitation in Kenya Customs Administration	32
5.3 Conclusions	32
5.4 Recommendation.....	33
5.5 Suggestion for further studies`	33
REFERENCE.....	34
APPENDIX 1: LETTER OF INTRODUCTION	37
APPENDIX 2: Questionnaire	38

ABSTRACT

The Kenya Revenue Authority (KRA) Customs Services department acknowledges that its primary function is trade facilitation, account for import duty & VAT on imports and to collect other taxes on an agency basis. The environment in which organizations operate is constantly changing with different factors influencing the organizations Survival and success of an organization occurs when the organization creates and maintains a match between its strategy and the environment and also between its internal capability and its strategy. The purpose of the study was to establish the effects of the Customs enforcement strategies that are implemented by the customs administration on trade facilitation. The research was done through a descriptive survey design with a target population of 106 staffs of the Customs Service Department. The response rate was 57%. Significant that was considered adequate for the purpose of the study. Primary data was collected by administering questionnaires, the data was analyzed using the Excel spreadsheet and XLSTAT a Microsoft based statistical software. The findings were presented in bar charts, tables and in percentages. Key findings included, the introduction of use of scanners imaging inspections processes improved the rate at which customs officers processed goods through the Simba system, which increased trade volumes and improved Customs quality services the finding aligns to US government policy that all cargo entering its Border must be subjected to imaging scanning (US Public Law 110-153, 2007). Coordinated border management showed that increased information sharing and willingness to share information improved on legitimate trade (Ratcliffe, 2008) concluded that sharing of information among government agencies enhances transparency and reduces bureaucracy which benefits importers. The use of risk profiling and risk management approach should help the customs to understand the types of risk that are likely to be encountered and what controls are to be put place however the study showed that risk profiling had a negative effect on trade facilitation, finally the establishment of the Authorized Economic operator program that was launched in November 2011 improved on security of the supply chain through trust and facilitation relationship that has become a clarion call between Customs Service Department and AEOs this aligns with WCO SAFE Framework and self-assessment approach to tax administration that has been embraced by most tax authority, This study established strategies put in place changes release time of goods to facilitate trade in the external environment in which the Customs Services Department of KRA operates and then identified the various strategic responses above, through Customs Reforms and Modernization Program, The regression model shows that coordinated border management, scanners imaging inspection and AEOs variables have a positive relationship with trade facilitation and they tested statistically significant except risk profiling which had a negative effect and it is not statistically .

ABBREVIATIONS

AEOS	Authorized Economic Operators
CSD	Customs Service Department
CRM	Customs Reforms and Modernization
CRMS	Computerized Risk Management System.
EACCMA	East African Community Customs Management Act
IT	Information Technology
ILP	Intelligence-led policing
ICT	Information and Communication Technology
KRA	Kenya Revenue Authority
NII	Non-Intrusive Inspection
RARMP	Revenue Administration Reform and Modernization Program
TRS	Time Release Study
WCO	World Customs Organization
WTO	World Trade Organization

DEFINITION OF TERMS

Authorized Economic Operators - is defined by the **WCO SAFE** Framework of Standards as a party involved in the international movement of goods, in whatever function, that has been approved by, or on behalf of, a national Customs administration as complying with **WCO** or equivalent supply chain security standards. (WCO, 2007)

Coordinated border management - It refers to a coordination approach by border agencies, both domestic and international, in the context of seeking greater efficiencies over managing trade and travel flows, while maintaining a balance with compliance requirement. (World Bank, 2011)

Customs enforcement strategies -are reform strategies which are enunciated in KRA three-year corporate plans through Customs Reform and Modernization program which includes undertaking a comprehensive Business Process Re-engineering (BPR) to simplify Customs procedures; implementing a modern IT system with an aim of ultimately eliminating paper based transactions and drastically reducing physical interventions; develop audit-based procedures for transit goods, Bonded Warehouses and Excise administration; develop integrated cross border clearance and documentation processes; Developing competencies and design strategies in risk profiling approaches to cargo and post release verification and audit.

Risk profiling- it is the Intensive use of Information Technology for data mining that greatly enhance the possibility of preparing relevant profiles. Risk coefficients for particular shipments are determined by, among other factors, the classification of goods, origin of the goods, the traders involved, and the mode of transportation. (WCO, 2007)

Trade facilitation-concerns the simplification and predictability of customs formalities, lowering physical inspection and reducing customs clearance times. (WCO, 2007)

LIST OF TABLES

Table 1.1:	Population	18
Table 4.2:	Trade Facilitation	22
Table 4.3:	Coordinated border management	24
Table 4.4:	scanners imaging inspection	25
Table 4.5:	Risk profiling	26
Table 4.6:	Authorized Economic Operators.....	28
Table 4.7:	Coefficients of the statistical model.....	28
Table 4.8:	Correlation Matrix.....	29

LIST OF FIGURES

Figure 1.1:	Conceptual Framework	17
Figure 4.2:	Response on Trade facilitation.....	22
Figure 4.3:	Coordinated border management	23
Figure 4.4:	scanners imaging inspection	25
Figure 4.5:	Risk profiling	26
Figure 4.6:	Authorized Economic Operators.....	27

Chapter 1

Introduction

1.1 Background

Since its inception,(KRA, 2005) KRA faced a number of challenges included modern globalised market, illustrated expanding international trade volumes, coupled with the targeted practice of trade liberalisation, where minimal tariffs and non-tariffs barriers are encountered that generally required enhancement of professionalism in revenue administration. KRA has increasingly introduced changes in its activities every succeeding year through reform strategies which are enunciated in its three-year corporate plans. KRA's second corporate plan included strategies to address these challenges and it actuated the Revenue Administration Reform and Modernization Program (RARMP) which commenced in 2004/05 with the objective of transforming KRA into a modern, fully integrated and client-focused organization.

In the year 2005, KRA-Customs Services Department deployed the simba customs system (formerly known as GAINDE 2000), as a turnaround strategy in management of customs operations- clearing of cargo at Kenya's entry points. Unlike the boffin IT system the simba system supports Direct Trader Input, allows for Cross-departmental information sharing and has an intelligence and risk-based selectivity. The application is a web-based system with a centralized relational database. Kenya Revenue Authority applied organic change management model in the implementation of automation of customs procedures.

The RARMP included the Customs Reforms & Modernization Project, the Domestic Taxes Reform & Modernization Project, the Road Transport Reform & Modernization Project, Investigation & Enforcement Reform & Modernization project, KRA Infrastructure Development Project, KRA Business Automation Project and the Human Resource Revitalization Project.

According to Customs Reforms and Modernization strategies and action plan 2017-2021(Government of Nepal, 2017) the government has recognized the importance of trade facilitation and its links to Customs Reforms and Modernization. The Customs Reform and Modernization(CRM) includes undertaking a comprehensive Business Process Re-engineering (BPR) to simplify Customs procedures; implementing a modern IT system with an aim of

ultimately eliminating paper based transactions and drastically reducing physical interventions; develop audit-based procedures for transit goods, develop integrated cross border clearance and documentation processes; Developing competencies and design strategies in risk profiling approaches to cargo and post release verification and audit.

Costs for Kenya related to implementation of the resultant trade facilitation agreement include: investment costs related to port and customs operations infrastructure, upgrading and human resource capacity building of the key institutions involved in international trade processes, and costs related to development or changes to existing domestic legislation to accommodate the WCO agreement requirements. Benefits for Kenya include: saving of costs due to less documentation, reduced delays and other more efficient procedures, which reduce trade transaction costs. With introduction of use of scanners goods inspections process have improved and goods clearance is fast, through the use of risk profiling and risk management approach helps the customs to know types of risk that are likely to be encountered and what controls place, finally the establishment of the Authorized Economic operator program that was launched in November 2011, Some of the benefits expedited document processing expedited cargo release due to minimal checks at the control and release point, lower storage costs due to faster release of cargo and reduced transit time from faster clearance of the transit points and fewer road-block checks. To understand coping mechanisms for dealing with customs-clearance uncertainties, we need to consider explicitly their influence on the supply chain. Unfortunately, there is a “curious disparity” between the limited treatments in the literature of issues like customs clearance, and the widespread recognition of their importance (Haughton & Desmeules, Recent reforms in customs administration, 2001)

A case study on customs modernization initiatives carried out by the (World Bank in Morocco 1990 - 2004 and edited by Marcel and Wulf) emphasized that introduction of automated customs procedures had led to a reduction in average processing time for customs clearance. The time between the validation of a customs declaration and release of goods had been reduced. In the year 2005, KRA-Customs Services Department deployed the simba customs system (formerly known as GAINDE 2000), as a turnaround strategy in management of customs operations-clearing of cargo at Kenya’s entry points. Unlike the boffin IT system the simba system supports Direct Trader Input, allows for Cross-departmental information sharing and has an intelligence and risk-based selectivity. The application is a web-based system with a centralized relational

database. Kenya Revenue Authority applied organic change management model in the implementation of automation of customs procedures. At the Customs Service Department has the Customs Services Department Reform and Modernization Project (CRM) whose objectives included among others improving service delivery to customers by ensuring quick clearance of cargo, facilitating electronic trading and adopting a modern and open system capable of interfacing with internal and external systems.

Experiences from Ghana, Philippines and Morocco as cited by the World Bank in a report done in 2004 (Customs modernization) initiatives have shown that the automated customs procedures have ensured that data required by different bodies are centralized and easily accessible by all the relevant bodies. Trade facilitation reforms effectively enable economies to reduce trade costs, increase competitiveness, improve trade performance, create jobs and income opportunities, promote sustainable economic growth and prosperity, and thereby lead to poverty reduction (WorldBank, 2011). trade facilitation, but from the Customs' perspective, it is generally interpreted as facilitating legitimate trade whilst not compromising the regulatory controls on trade in accordance with domestic and international laws and regulations (Grainger, 2008). To identify potential bottlenecks in border procedures, the WCO has emphasized the importance of regularly measuring times to release the goods at borders, and promoted the use of the WCO Time Release Study (TRS) Guide.

Beyond the WCO, in response to dramatic increases in trade volume and heightened requirements for security, many customs administrations are reviewing their operations in the context of international standards and best practices to assess the need for introducing legal reforms. Modernization of customs laws, regulations, and supporting legal systems is essential for modern customs administrations to cope with the increasing demands for their services. The International Convention on the Simplification and Harmonization of Customs Procedures (entered into force in 1974 and revised in June 1999), also known as the Revised Kyoto Convention, provides an excellent blueprint for such reforms (WCO, 1997).

Trade facilitation encompasses the domestic policies regulations, institutions, standards and infrastructure associated with the goods across borders. In this regard, trade facilitation can be conceptualized improving efficiency in administration and procedures, along with improving at ports and customs, streamlining regulatory environment, deepening harmonization standards and

conforming to international regulations in the drive to attaining movement of goods and global trade competitiveness

Scholars have broadly classified the trade facilitation instruments into two: the Revised Kyoto convention and the WCO safe framework procedures. The Revised Kyoto Conventions: (Honoham.P, 2003) facilitation of international trade is one of the most important objectives of the Convention, and modern customs procedures are the key to achieving this goal. The Revised Kyoto Convention was developed to standardize customs policies and procedures worldwide. It embodies best practices of national legislation around the world, and its implementation would enable countries to meet international commitments concerning trade and border procedures, including the rules of the World Trade Organization (WTO). Since its inception in 1952, the World Customs Organization (WCO) has been working to develop modern principles that would buttress effective customs administrations by examining customs policies and practices worldwide, cooperating with its member administrations, and working with trade communities and international agencies. The early efforts for simplifying and harmonizing customs procedures culminated in the Kyoto Convention, which was adopted by the WCO in 1973 and entered into force in 1974. Globalization, rapid transformation of international trade patterns, and advances in information technology (IT) since then have compelled the WCO and its members to review.

The principles include the following: (a) standardization and simplification of goods declaration and supporting documents, (b) minimum necessary control, (c) risk management and audit-based control, (d) fast track procedures for authorized persons and entities, (e) coordinated interventions with other agencies, (f) maximum use of IT, (g) transparency and predictability, and (h) availability of appeals processes. Tangible benefits of implementing specific RKC measures, recognizing the difficulty of assessing overall benefits related to RKC implementation due to many external variables. Faster release of goods, lower trade costs, increased revenue, more FDI and economic competitiveness, various non-economic benefits, and a basis for implementing other Customs instruments and tools are among the benefits related to RKC implementation most frequently cited in existing literature, although they are closely linked.

WCO Frame work of standards to secure and facilitate Global Trade, the SAFE Frame work is a set of voluntary standards to which most WCO Members have committed to pursue adherence.

Confidence in efficacy of risk assessment is at the heart of the SAFE Framework which draws on the contention that by analyzing risk, a customs administration can balance security controls with trade facilitation and the costs with benefits. The SAFE Framework is organized into two pillars, the first being Customs-customs network arrangement and the second being Customs-business partnerships (WCO, 2011 edition).

Pillar 1 provides for the ability of a customs administration to receive the essential control data on exports, imports or goods in transit in advance and electronically; analysis of the information to determine whether the shipment is high-risk in terms of national security; and scrutiny of high risk consignment, preferably using non intrusive inspection (NII) techniques. The facilitative aspect of this process is that a shipment deemed to be low-risk need not be scanned or physically inspected. Pillar 2 builds on pillar 1 with a recommended process where Customs administrations validate as AEOs businesses that comply with security requirements and whose cargo would, therefore, generally be deemed low-risk under the procedures of pillar 1.

1.2 Statement of the problem

Customs enforcement strategies are reforms strategies that embrace trade facilitation, especially to improve import and export performance, involve streamlining and simplifying border procedures, adoption of risk management, audit based controls, the maximum use of information technology, and cooperation with other border agencies. One of the most widely used performance indicators to measure trade facilitation is the time it takes for customs to release goods. Measurement of time release is a worthwhile exercise as it can establish a pre-reform benchmark and thus help in assessing progress made by modernization initiatives. The magnitude of transaction costs in terms of the number of documents required, transportation costs and time taken for imports and exports to be cleared are high and in conflict with desired global standards.

Moreover, there was lack of co-ordination among agencies, in that authorities were based at different locations and had different hours of operation leading to additional delays and expense. The internal system in use were inefficient and thus leading to time consuming bureaucratic procedures, delay in decision making and dispute resolution. This led to clients incurring high demurrage/storage charges (Mwangi, 2006).

The lack of transparency, unclear and unspecified import and export procedures was also a hindrance. Procedures were usually unclear and inconsistently applied with officers often having significant discretionary powers, creating uncertainty and unpredictability. Consequently, the high transaction costs, trade supply chain insecurity uncertainties and border security and protection have an adverse effect on trade facilitation, by identifying where these bottlenecks exist and how they can be eased by actions and initiatives in which customs is the primary authority. To disentangle the responsibility of various actors within customs, one could measure the time between the different customs-related steps. Time release may differ among different types of products, depending on what control agencies are involved, port of entry (airport or seaport), country of origins, and which verification channels (green, yellow, or red) the goods are assigned to after risk analysis has been performed. With the ever increasing growth in the flow of trade coupled with other 21st Century challenges as experienced by African and global border agencies, contrasted by the limited resources available to Customs administrations, the implementation of Customs enforcement strategies within the Customs environment has been increasingly recognized as one of the most effective methodologies to achieve Trade Facilitation

1.3 Kenya Revenue Authority and Custom Service Department

The Kenya Revenue Authority (KRA) was established by an Act of Parliament, Chapter 469 of the laws of Kenya, which became effective on 1st July 1995. The Authority is charged with the responsibility of collecting revenue on behalf of the Government of Kenya and its main purpose is the assessment, collection, administration and enforcement of laws relating to revenue.

The functional departments and sections of Kenya Revenue Authority comprise the Customs Services Department, the Domestic Taxes Department, the Road Transport Department and the Support Services Department which comprises Legal Affairs, Internal Audit, Research and Corporate Planning, Information and Communication Technology (ICT), Investigations, Human Resource and Administration, Finance, Corporate & Public Affairs, Revenue Protection Services and Tax Programmes & New Business Initiatives.

Since its inception, KRA faced a number of challenges that generally required enhancement of professionalism in revenue administration. KRA has increasingly introduced changes in its activities every succeeding year through reform strategies which are enunciated in its three-year corporate plans. KRA's second corporate plan included strategies to address these challenges and

it actuated the Revenue Administration Reform and Modernization Program (RARMP) which commenced in 2004/05 with the objective of transforming KRA into a modern, fully integrated and client-focused organization.

The RARMP included the Customs Reforms & Modernization Project, the Domestic Taxes Reform & Modernization Project, the Road Transport Reform & Modernization Project, Investigations & Enforcement Reform & Modernization project, KRA Infrastructure Development Project, KRA Business Automation Project and the Human Resource Revitalization Project. The terms of reference for the CRM project team included undertaking a comprehensive Business Process Re-engineering (BPR) to simplify Customs procedures; implementing a modern IT system with an aim of ultimately eliminating paper based transactions and drastically reducing physical interventions; develop audit-based procedures for transit goods, Bonded Warehouses and Excise administration; develop integrated cross border clearance and documentation processes; Developing competencies and design strategies in risk profiling approaches to cargo and post release verification and audit; developing strategies for taking over the functions of Pre Shipment Inspection companies.

The Customs and Excise Department of the Kenya Revenue Authority was established by an Act of Parliament in 1978. It is the largest of the four revenue departments in KRA in terms of manpower, revenue collection and countrywide operational network. The Primary function of the Department is to collect and account for customs and excise taxes. Some of the taxes collected include import duty, excise duty (on imports and local commodities) and VAT (Value Added Tax) on imports. Some other taxes collected by the Department are on agency basis. These are Petroleum Development levy, Road Maintenance Levy, Import Declaration Form / Pre-Shipment Inspection Fees, Road Transit Toll, Directorate of Civil Aviation Fees and Fees on motor vehicle permits. The non- fiscal responsibilities of the Department include collection of trade statistics, facilitation of trade and protection of society.

The aforementioned Customs reform and modernization project comprised the following sub-projects: Customs replacement system; Review of Customs procedures and processes; Implementing an Electronic Cargo tracking system; Scanner imaging systems implementation; Direct banking; Community Based System; Taking-over from Pre Shipment Inspection(PSI)

Companies; Patrol boats & Helicopter; Restructuring of CPS (Customs Preventative Services); K9 section; Preparation of Excise Act.

1.4 Objectives of the study

To establish how customs enforcement strategies affects trade facilitation in Kenya Customs Administration.

1.4.1 Specific objectives

- I. To find out how coordinated border management strategy affects the trade facilitation in Kenya Customs Administration.
- II. To determine how Scanners strategy affects the trade facilitation in Kenya Customs Administration.
- III. To find out how Risk Profiling strategy affects trade facilitation in Kenya Customs Administration.
- IV. To establish how Authorized Economic Operators program affects trade facilitation in Kenya Customs Administration.

1.5 Research questions

- I. How does coordinated border management strategy affect trade facilitation?
- II. How does use of Scanner imaging inspection imaging strategy affect trade facilitation?
- III. How does Risk Profiling strategy affect trade facilitation?
- IV. What are the effects of Authorized Economic Operator programs strategy on trade facilitation?

1.6 Significance of the study

A TRS is considered as a useful tool for identifying bottlenecks in border-related procedures and for improving their efficiency and effectiveness. It has increasingly become a measure by which the international trading community assesses the effectiveness of border procedures, including Customs procedures. It also assists in the addressing of the concerns of trade circles regarding long delays in Customs clearance. It helps Customs to respond to trade requirements where the operators need to plan ahead for the movement of goods across borders.

Chapter 2

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review on Effects of Customs Enforcement Strategies on Trade Facilitation, It provides a summary of information from various scholars who have carried out research in the same field of study. The chapter gives the theoretical framework, conceptual framework, and empirical review, research gaps. It expounds on the conceptual and theoretical framework within which the findings and recommendations of this study was conceptualized including the study gaps.

2.2 Theoretical Framework

2.2.1 Modern organisational theory

According to (Hicks & Gullet Ray, 1975), an organisation is a designed and structured process in which individuals interact to achieve. The modern approach to the organisation is collaborative, multidisciplinary and emphasizes the dynamic nature of communication and importance of integration of an individual and organisation's interests'. The central theme in modern organisational theory is that since organisations operate in a dynamic environment, change has to be constantly adopted to suit the changes in the environments they operate in. Modern organisational theory is relevant in introducing reforms and modernization of a customs administration since the administrations continue to face changes to their operating environment which emphasize the need to adjust and modernize their processes accordingly. These changes include more sophisticated and demanding clients, greater policy and procedural requirements associated with international commitments, the proliferation of regional and bilateral trade agreements which significantly increase the complexity of administering border formalities and controls and heightened security concerns and demands to respond to the threats posed by international terrorism and transnational organized crime including counterfeiting. For example, KRA recognizes that it faces challenges that inhibit the achievement of a fully integrated and modern Customs administration system. Consequently it has set up a Revenue Administration Reform and Modernization Programme (RARMP) to ensure that it maintains the reforms

momentum to keep up with the dynamic changes in the environment it operates in. Despite its reforms efforts, KRA notes that it still faces challenges due to inadequate funding and resources to effectively meet the objectives of RARMP, inadequate skills and timeliness of legislative changes among others. To address the challenge of inadequate funding and resources, the WCO recommends the use of risk management techniques as an essential tool for customs administrations to effectively and efficiently perform their diverse responsibilities associated with revenue collection, trade policy implementation, community protection and trade facilitation. KRA recognizes the need for risk management to mitigate the problem of inadequate funding and resources.

2.3 Empirical literature review

2.3.1 Trade facilitation

Recent customs reforms, especially in developed countries, have raised the potential of buyer-supplier like collaboration in customs dealings (Ellram, Zsidisin, Siferd, & Stanly, 2002). As global trade continues to expand, governments worldwide are increasingly engaging in customs reforms. In recent years the international trading environment has been transformed dramatically in terms of the manner in which goods are carried and traded, the speed of such transactions, and the sheer volume of goods now being traded around the globe. This, together with mounting pressure from the international trading community to minimize government intervention, has caused customs authorities to place an increasing emphasis on the facilitation of trade. In an effort to achieve an appropriate balance between trade facilitation and regulatory control, customs administrations are generally abandoning their traditional, routine “gateway” checks and are now applying reforms in customs administration (Haughton & Desmeules, 2001) and the principles of risk management, with varying degrees of sophistication and success.

(WorldBank, Customs Modernization Handbook, 2005) The two key objectives of customs are commonly referred to as “facilitation” and “control.” In seeking to achieve an appropriate balance between trade facilitation and regulatory control, customs must simultaneously manage two risks the potential failure to facilitate international trade and the potential for noncompliance with customs laws.

Facilitation maybe achieved by loosening the reins of control. Such a contention is fundamentally flawed, because the concepts of facilitation and control represent two distinct variables, as depicted in a matrix.

The top left quadrant of the matrix (high control, low facilitation) represents a high-control regime in which customs requirements are stringent, to the detriment of facilitation. This may be described as the red tape approach, which is often representative of a risk-averse management style. In most modern societies such an approach is likely to attract a great deal of public criticism and complaint, due to the increasing expectations of the trading community that customs intervention should be minimized. The bottom left quadrant (low control, low facilitation) depicts the approach of an administration that exercises little control and achieves equally little in the way of facilitation. This crisis management approach is one that benefits neither the government nor the trading community. The bottom right quadrant (low control, high facilitation) represents an approach in which facilitation is the order of the day, but with it comes little in the way of customs control.

This *laissez-faire* approach would be an appropriate method of managing compliance in an idyllic world in which the trading community complies fully without any threat or inducement from government, because such an environment would present no risk of noncompliance. Finally, the top right quadrant (high control, high facilitation) represents a balanced approach to both regulatory control and trade facilitation, resulting in high levels of both. This approach to compliance management maximizes the benefits to both customs and the international trading community. It is this approach that administrations should be seeking to achieve. Administrations that are able to achieve high levels of both facilitation and control (the balanced approach quadrant of the Facilitation and Control Matrix) do so through the effective use of risk management.

2.3.2 Coordinated border management

It refers to a coordination approach by border agencies, both domestic and international, in the context of seeking greater efficiencies over managing trade and travel flows, while maintaining a balance with compliance requirement. Coordinated border management shows a greater understanding of the risks environment involved and the recognition of unique contributions each agency brings to managing the border and developing an approach that delivers high levels

of synergies between them. The wider sharing of information and intelligence will benefit all border agencies and enable them to conduct more efficient risk management to more efficiently deliver and facilitation and intervention program.

The organs involved in trade facilitation in Kenya include: Customs services Department (formally the Customs and Exercise Department), Kenya Ports Authority, Kenya Railways, Customs Clearing and Forwarding agents, Ministry of health, Department of Veterinary Services, Kenya Bureau of Standards, Kenya Plant and Health Inspectorate Service and the Narcotic Police. (Ratcliffe, 2008) Intelligence-led policing (ILP) widely advocates intelligence sharing and coordination; (Cordner & Scarborough, 2010). Policing allows for agencies to more efficiently and strategically target offenders and broader threats through information and intelligence coordinated across agency contexts. When this information is accurate, error-free, concise, usable, and consistent, there are multiple benefits to this exchange, including avoidance of data collection duplication and better decision making (Carter & Carter, 2009b). (Zhu & Wang, 2008), Moreover, information sharing can maximize the use of limited resources. Despite these recent trends, information sharing between law enforcement continues to be limited both in terms of the ability to share information and the willingness of those involved to adequately share (Carter & Carter, 2009b). These limitations originate from several sources, including competitiveness, organizational culture, concerns of privacy and legality, and technological limitations.

The ability and willingness to share information between law enforcement agencies is of central importance to developing a comprehensive understanding of criminal behavior and creating informed strategies to prevent and reduce crime. This is particularly true in an era where national security is at the forefront of many law enforcement activities, and where crime is becoming more of a global, transnational activity (Gerspacher, 2008). As a result of this recognition, many law enforcement agencies have developed techniques to maximize their access to and use of information from other agencies (Duekmedjian & De Lint, 2007). Yet the practice of information sharing across different agencies continues to be restrained by privacy and technological inconsistencies, test clearly pointed toward the substantial effect that data quality issues, such as duplicate entities, have when sharing information (Grano, Webster, Ostergaard, Romney, Cohen, & Miron, 2005).

2.3.3 Scanners imaging inspection

Physical inspections can be intrusive, time consuming, and costly. Imported goods arriving into a country typically must be cleared by the customs agency. Customs-clearance worldwide involves “tedious checks, irritating delays and complicated form filling” (Appels & Swielande, 1998). As a result, the time taken by customs agencies to clear imported goods can be long and/or uncertain. (laws, Act of 2007) (US Public Law 110-153, 2007) a container that was loaded on a vessel in a foreign port shall not enter USA unless the container was scanned by non-intrusive imaging equipment and radiation detection equipment. Supply chain security policies include three aforementioned customs controls outlined by (Martonosi, Ortis, & Willis, 2006) screening, scanning or physical inspection should be emphasized. In conducting policy analysis, selection or evaluation criteria should be established to compare and measure among alternative options. Cost, efficiency, effectiveness and political feasibility are commonly used measures (Patton, Carl, & Sawicki, 1993)

According to (L.D.Wulf & O.Matityahu, 2005) the purpose of container scanning equipment is to allow inspection of what is inside a container without opening the container; a process often called “nonintrusive examination.” Container scanning equipment increases the number of consignments that are received by Customs without causing undue delay, and can identify illicit goods. The acquisition of scanning equipment should be based on sound cost-benefit analysis. Costs include the capital, Maintenance, and operational costs, while the benefits expected from the use of the scanner will depend on the specific objective for its introduction. Potential returns will, however, vary depending on the volume of traffic, its nature, and the assessed risk. the rate of container inspection, is faster than with manual inspection; the integration of the use of the scanner with the availability of well trained and experienced image analyzers; and the adequacy of the infrastructure for the equipment.

In Kenya, With the Customs Reform Program, selection of goods to undergo the verification process is undertaken through a Computerized Risk Management System (CRMS). Depending on this system of analysis, some goods could be released immediately; others could be subjected to the scanning process while others will have to be 100% inspected. The scanners supplements the operations of KRA’s border security unit that is tasked with monitoring cargo and human movement to prevent tax leaks and tackle security threats.

(Appels & Swielande, 1998) describe a three-stage evolution of customs operations. Stage I customs operations focus on physically checking all traded goods, and are paper and labor intensive. In Stage II, the focus shifts to checking information regarding the traded goods. In Stage III, the focus is on processes, i.e. “the extent to which a company’s internal processes and systems are leak proof and secure”. With Stage III customs, transportation firms compete on their ability to “electronically pre-alert customs so dutiable packages are cleared before the plane lands”.

2.3.4 Risk profiling

The quality of the risk profile depends, of course, on the data that are used to draw up the profile. Intensive use of Information Technology and data mining has, in recent times, greatly enhanced the possibility of preparing relevant profiles. Modern Information Technology can periodically update the risk profiles of transactions to ensure that profiles adjust to changes in trade patterns or to seasonality. Risk coefficients for particular shipments are determined by, among other factors, the classification of goods, origin of the goods, the traders involved, and the mode of transportation. (Sheffi, 2001)

The Compendium includes practical and operational tools that allow Customs to assess profile and target the flows of goods, people and means of conveyance that cross international borders and to determine what levels of intervention may or may not be required. Customs administrations are increasingly adopting risk management techniques to determine where the greatest areas of exposure to risk exist and how to effectively allocate scarce resources to manage these risks. In the Customs context, control and risk management of goods, conveyances or people commences at the export or departure point and continues with ongoing verification actions at the point of import or arrival and, in post-control audit circumstances, beyond. A modern compliance management approach recognizes that risk mitigation strategies can and should be applied throughout the supply chain (Whipple & Gentry, 2000). Where appropriate legal, technological and operational arrangements are in place, a multi-layered approach can also facilitate risk identification, response coordination and collaboration across and between governments.

Four categories of risks: supply, demand, operational, and security risks (Zsidisin, Ellram, Carter, & Cavinato, 2004), supply risk is the distribution of outcomes related to adverse events in

inbound supply that affect the ability of the focal firm to meet customer demand (in terms of both quantity and quality) within anticipated costs and time, or causes threats to customer life and safety. Operations risk is the distribution of outcomes related to adverse events within the firm that affect a firm's internal ability to produce goods and services, quality and timeliness of production, and/or profitability. Demand risk is the distribution of outcomes related to adverse events in the outbound flows that affect the likelihood of customers placing orders with the focal firm, and/or variance in the volume and assortment desired by the customer. Security risk is the distribution of outcomes related to adverse events that threaten human resources, operations integrity, and information systems; and may lead to outcomes such as freight breaches, stolen data or proprietary knowledge, vandalism, crime, and sabotage.

The risk events most salient to the global supply chain are currency, transit time variability, forecasts, quality, safety, business disruption, survival, inventory (and tools) ownership, culture, dependency and opportunism, oil price fluctuation, and risk events affecting suppliers and customers (Zsidisin, Ellram, Carter, & Cavinato, 2004). Several conditions that create risks in a supply chain, include product availability (Singh, 1998), distance from sources, industry capacity, demand fluctuations, changes in technology (Iyer, 1996), and labor markets, financial instability and management turnover. Security (Downey, 2004), Global supply chain security encompasses information systems security, freight breaches, terrorism, vandalism, crime, and sabotage. Security strategy is aimed at increasing a supply chain's ability to sort out what is moving, and identify unusual or suspicious elements and avoidance the Customs Trade Partnership Against Terrorism (CTPAT), and the overarching operation safe commerce initiative provide directions to gradually enhance the security of global commerce (Kajuter & Schneidewind, 2003). Customs practitioners should be guided by the WCO Global Information and Intelligence Strategy (GIIS) when developing their risk management approach.

Risk treatment refers to the decisions or actions taken in response to identified risk. Tolerating risk would be acceptable in many instances, for example where resources are scarce or the risk is considered to be as well managed as possible with existing controls in place. Treating risks is often the most used option by Customs in terms of managing the risks it faces in its operations. This means reducing the likelihood or consequence of risks occurring by putting in place control measures and actions that are intended to modify the level of risk to fit the organizational tolerance.

2.3.5 Authorized Economic Operators (AEO)

WCO SAFE Framework defines an AEO as, partly involved in the international movement of goods in whatever function that has been approved by or on behalf of a national (Kale, Singh, & Perlmutter, 2000) Customs administration as complying with WCO or equivalent supply chain security standards (AEOs) include inter lia manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses, distributors (WCO, 2007) Pillar Two of the SAFE Framework concentrates on Customs-to-Business partnerships of WCO Members and the major idea of this cooperation is the following:

“Companies that demonstrate a verifiable willingness to enhance supply chain security will benefit. Minimizing risk in this way helps Customs in performing their security functions, and in facilitating legitimate trade. AEO program conditions and requirements for customs, the process by which customs validate and authorize AEOs and the benefits (Mikuriya & Kunio, 2007)

To date 164 out of 177 World Customs Organization (WCO) Members have signed Letters of Intent committing to implement the SAFE Framework of Standards to Secure and Facilitate Global Trade (SAFE Framework). Pillar Two of the SAFE Framework has been of continued interest to many WCO Members as they move to implement Authorized Economic Operator (AEO) programmes.

Pillar Two of the WCO SAFE Framework of Standards to Secure and Facilitate Global Trade provides global standards for launching an Authorized Economic Operator (AEO) programme. Under an AEO programme all economic operators involved in the international movement of goods may potentially apply for AEO status, thereby reducing their security risk if accredited. AEO programmes thus allow Customs to focus on high risk trade whilst facilitating legitimate trade (Mariya, 2009)

Kenya AEO program was launched in November 2011. (KRA) Operators includes 38 importers and exporters, 24 the clearing agents and 2 transporters under EACCMA 2004. Some of the benefits expedited document processing expedited cargo release due to minimal checks at the control and release point, lower storage costs due to faster release of cargo and reduced transit time from faster clearance of the transit points and fewer road-block checks (Mariya, 2009)

Accreditation and obligations of the AEO includes; compliance with all statutory requirements and laws as per SAFE Framework of standard, EACCMA and Regulation, compliance with all KRA and Customs requirements and laws, submit monthly reports on declarations made to customs among others. Mutual Recognition Agreement (MRA) provides mutual recognition of status (Maureen, 2009)

2.4 Conceptual framework

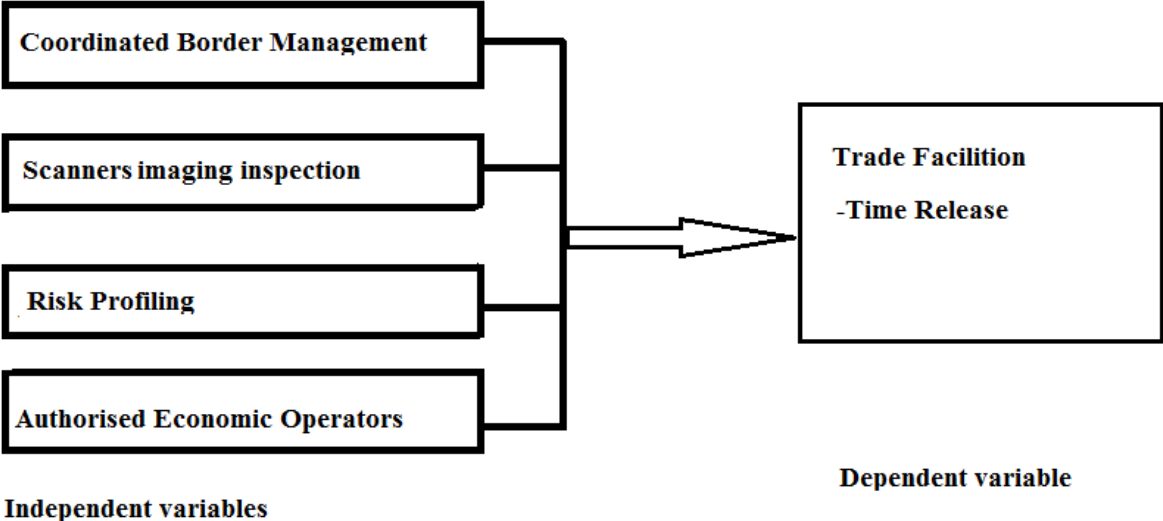


Figure 2.1: Conceptual Framework

2.5 Research Gap

One of the core findings is that Customs administrations worldwide generally operate automated cargo clearance systems, enabling economic operators’ electronic reporting and lodgment of Customs declarations. Most Customs administrations, however, are running a non-single window system. The majority of single window systems appear to have become operational after 2000, and the number keeps rising as many new systems are under development. The unprecedented advancement of information and communication technology (ICT) in the last decade or so is certainly behind this trend. The survey also confirmed that Customs administrations generally take the initiative in providing single window service either alone or in collaboration with other government agencies, most notably, using government finance.

Chapter 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research technique that was used in the study. It covered research design, the target population, data collection method and data analysis that was used during the study

3.2 Research design

The research design was conducted through a descriptive research, which is concerned with describing the characteristics of a particular individuals or a group, concerned with predictions, with narration of facts and characteristics concerning individual, group or situation (Mugenda & Mugenda, 2003). According to (Cooper & P, 2003), a descriptive study attempts to describe or define a subject, often by creating a profile of a group of problems, people, or events.

3.3 Population

Customs Service Department employees

Table 3.1: Population

Rank	Population	Sample	Percentage of sample selected
Supervisor	70	21	0.3
Verification officer	260	78	0.3
Border control officer	27	8	0.3
Total	357	107	0.3

According to (KRA 5th corporate plan) Customs Services Department (CSD) has 357 employees in the Nairobi region (JKIA and Times towers). The target population was drawn from the

Customs Service Department. Mugenda and Mugenda (2003) contend that a sample size should be at least 10% of the population.

3.4 Sampling technique

The study adopted the simple random sampling method. Issuing the questionnaires gave every member in the target population an equal opportunity to participate without been bias.

3.5 Data collection techniques

The study relied on primary data of sources, informed by the Customs Service Department staffs. The data collection was quantitative, for the purpose of this study, the use of the quantitative method to quantify the problem by the way of generating numerical data.

3.6 Research instrument

The data was collected by way of self-administered questionnaires. The questionnaires included closed questions developed in line with objectives of the research. The questionnaires target Customs Service Department staffs. The questionnaires were structured to focus the effects of customs enforcement strategies on trade facilitation. The study adopted a 5 point Likert scale the values will range from 1-5. Each respondent was asked to rate each item on the response scale. 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree.

3.7 Data analysis

Data analysis was seeking to establish the measures customs enforcement strategies helps in trade facilitation and what KRA has ensured that the Customs Service Department staffs implements the strategies to facilitate simplified clearance process and procedures.

Data analysis is the whole process that starts immediately after data collection ends at the point of interpretation and processing results which includes data sorting, data editing, data coding, data entry, data processing and interpretation of results (Leedy, 2002).

Questionnaires were checked for completeness of entries, consistency and coding. The data was coded, entered and then analyzed using a simple excels spreadsheet and XLSTAT a Microsoft based statistical software. The findings are presented in tables, bar charts and in percentages. A five Likert scale was used and descriptive statistics was used to analyze the data

3.8 Statistical model

Linear regression analysis that was used to test the relative relationship between the independent and dependent variables

$$Y=A+BX_1+BX_2+BX_3+BX_4$$

Where;

Y – Dependent variables (Trade facilitation)

A – Constant (representing activities that are beyond customs control such as unloading of containers from ships)

BX₁ – Independent Variable (Coordinated border management)

BX₂ . Independent Variable (Risk profiling)

BX₃ . Independent Variable (Scanner imaging inspection)

BX₄ . Independent Variable (Authorized Economic operator)

Chapter 4

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter discusses the manner in which the data collected from the field was presented and analyzed. Primary data was collected in this study through questionnaires. The data collected is presented in for of bar charts, tables and figures based on the response rate on the variables of study

4.2 Analysis of the response rate

Out of a target population of 107 staffs, 60 staffs representing 57% responded to questionnaires. This was considered adequate for the objective of this study.

4.3 Data on trade facilitation

The question as to whether customs enforcement strategies have helped in facilitation of trade. Out of 60 that responded to the questionnaires, on efficiency of customs reforms modernization program 5% neutral, 33% agreed and 58% strongly agreed, On improved balance between facilitation and control 65% agreed and 35% strongly agreed, on improved balance between costs and benefits 40% agreed and 60% strongly agreed and on improvement on harmonized customs procedures through trade facilitation instruments 33% agreed and 67% strongly agreed. figure 4.2 provides a graphical presentation of the response.

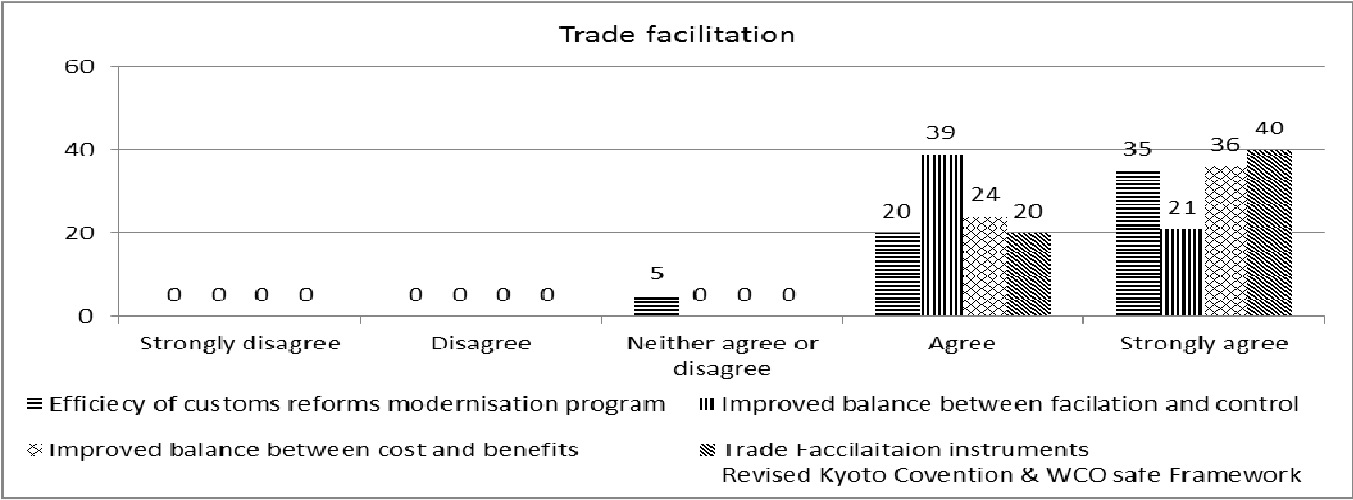


Figure 4.2: Response on Trade facilitation

Table 4.1: Trade Facilitation

Trade facilitation	Mean	STDEV
Efficiency of customs reforms modernization programs	3.4	1.61
Improved balance between facilitation and control	3.40	1.61
Improved balance between costs and benefits	4.5	0.65
Trade facilitation instruments: Revised Kyoto Convention and WCO Safe Framework	4.60	0.49
AVERAGE	4.53	0.54

Trade facilitation had the following means scores, Efficiency of customs reforms modernization programs (mean=3.4), improved balance between facilitation and control (mean=3.4), improved balance between costs and benefits (mean=4.5) and Trade facilitation instruments: Revised Kyoto Convention and WCO Safe Framework (mean=4.6) Overall, Trade Facilitation had a (mean = 4.51) and (STEDV = 0.73). Table 4.2 represents the responses.

The use of trade facilitation instruments (The Revised Kyoto Convention and WCO Safe Framework) have greatly contributed to trade facilitation because of standardized, simplified procedures and there is also transparency and predictability while balance in facilitation and control with a mean of 3.4 shows some customs requirements are stringent thus there are still more regulatory controls than facilitation.

4.4 Customs Enforcement Strategies

The study examined data on coordinated border management, Scanners imaging inspection, Risk profiling and Authorized Economic Operators the findings are reported between 4.4.1 to 4.4.4. Authorized economic operator had the greatest impact on trade facilitation.

4.4.1 Data on co-ordinated border management

Responses on coordinated border management, on increased efficiency on transit goods 7% neutral, 22% agreed and 67% strongly agreed, on improved information sharing 17% strongly disagreed, 23% disagreed, 50% neutral, 10% agreed, on increased willingness to share information 15% strongly disagreed, 30% neutral, 37% agreed and 18% strongly agreed, on Increment of legitimate trade 16% neutral, 32% agreed and 52% strongly agreed. Figure 4.2 represents the responses

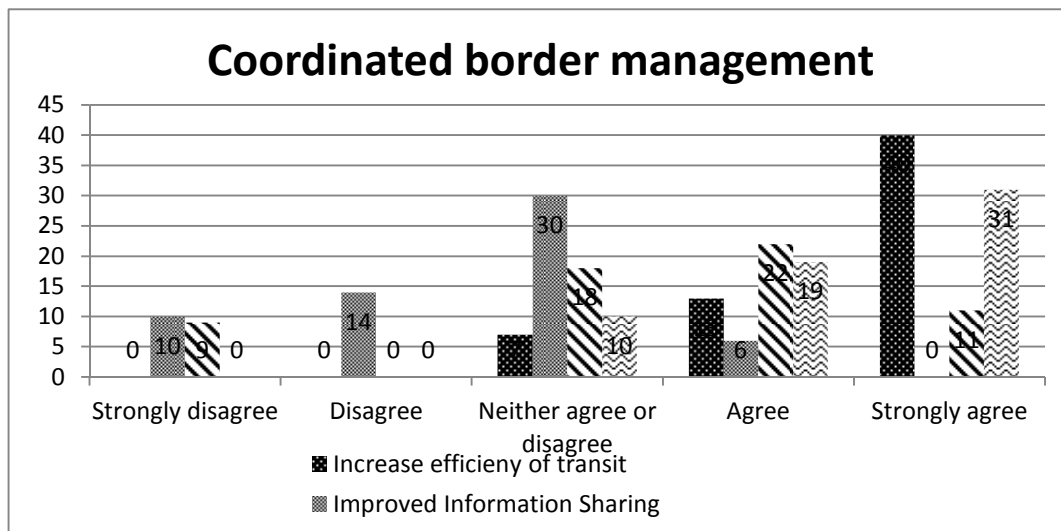


Figure 4.3: Coordinated border management

Table 4.2: Coordinated border management

Coordinated border management	Mean	STDEV
Increased efficiency of transit	4.55	0.69
Improved information sharing reliability and consistency	2.53	2.20
Increased willingness to share information	3.43	1.66
Increased legitimate trade	4.35	0.78
AVERAGE	3.72	1.22

Coordinated border management was measured by increased efficiency on transit goods with (mean=4.55), improved information sharing (mean=2.53), increased willingness to share information (mean=3.43), increased legitimate trade (mean=4.35) overall, coordinated border management had a (mean = 3.72) and (STEDV = 1.22) as illustrated in table 4.3 above.

The finding agrees that there is great efficiency over managing of legitimate trade and travel flows while maintaining balance with compliance, there is wider willingness to share information and intelligence by other agencies because there is greater understanding and recognition of unique contributions and synergies which enables fast release of goods while information reliability and consistency are affected more by technology and competitiveness among agencies.

4.4.2 Data on Scanners imaging inspection

Responses on usage of scanners imaging inspection shows increased trade volumes of goods cleared 15% agreed and 75% strongly agreed, on improved quality services 8% neutral, 28% agreed and 63% strongly agreed, on easy detection of miss-declarations 17% agreed and 83% strongly agreed, and on improvement on efficiency and compliance 10% disagreed, 17% neutral, 45% agreed and 28% strongly agreed as illustrated in figure 4.3 below

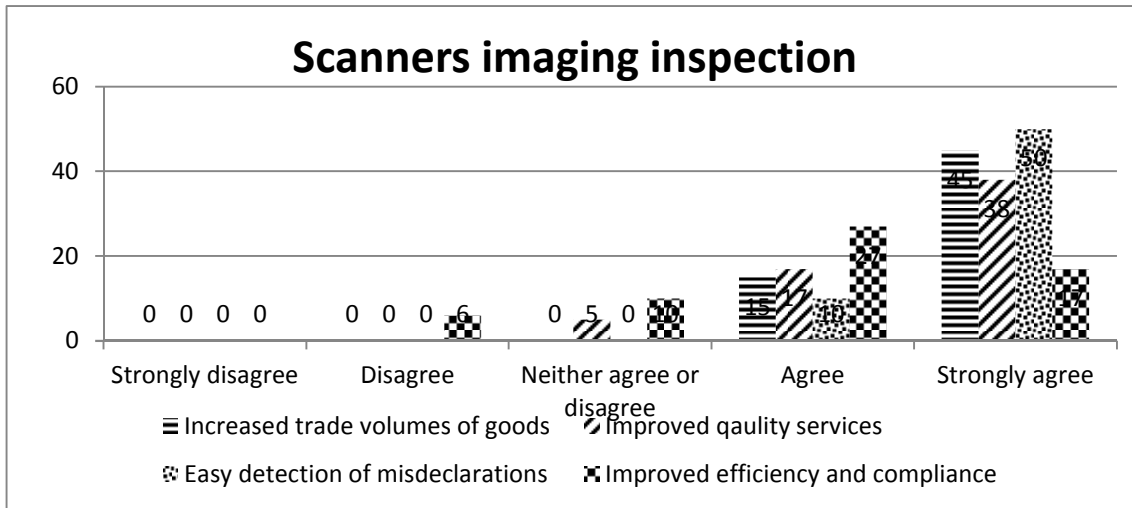


Figure 4.4: scanners imaging inspection

Table 4.3: scanners imaging inspection

Scanners imaging inspection	Mean	STDEV
Increased trade volumes of goods	4.75	0.48
Improved quality services	4.55	0.64
Easy detection of miss-declarations	4.83	0.47
Improved efficiency and compliance	3.38	1.60
AVERAGE	4.51	0.73

Scanners imaging inspection was measured by increased trade volumes with (mean=4.75), improve quality services (4.55), easy detection of miss-declarations (mean=4.83), and improved efficiency and compliance (mean=3.38). Overall, scanners imaging inspection had a (mean = 4.51) and (STEDV = 0.73). Table 4.3 represents the responses.

The study strongly agrees that use of scanners has increased trade volumes this was because the scanners takes less time to inspecting cargo which translates to shorter turnaround times at the customs and increased quality service due to reduced delays. Scanners are able to detect some of the goods that may be concealed goods and these helps in compliance on declarations and prevents smuggling and loss of revenue.

4.4.3 Data on Risk profiling

The responses on whether risk profiling led to shortened time to clear goods 12% neutral, 52% agreed and 37% strongly agreed, on to the adjustment to trade patterns 13% strongly disagreed, 18% disagreed, 13% neutral, 45% agreed and 10% strongly agreed, on reliability and consistency of profiles 30% disagreed, 20% neutral, 32% agreed and 18% strongly agreed, and on assessment of target level of risks 62%neutral, 27% agreed and 12% strongly agreed. figure 4.5 shows the responses.

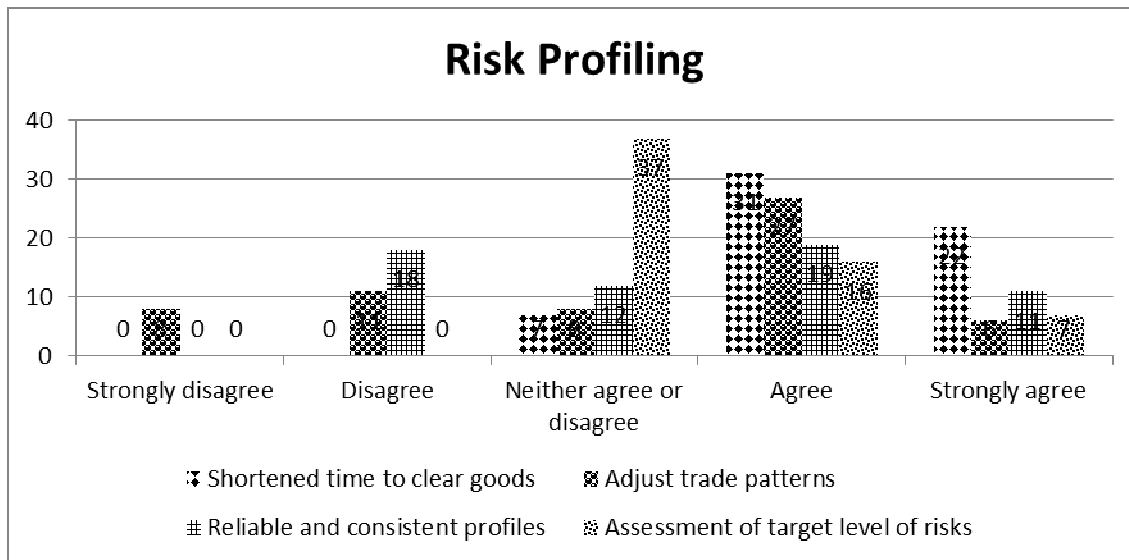


Figure 4.5: Risk profiling

Table 4.4: Risk profiling

Risk profiling	Mean	STDEV
Shortened time to clear goods	4.25	0.71
Adjusts to trade patterns	3.20	1.83
Reliable and consistent profiles	3.38	1.60
Assessments of target level risks	3.50	1.26
AVERAGE	3.58	1.04

Risk profiling was measured by shortened time to clear goods with a (mean=4.25), adjusting to trade patterns (mean=3.20), reliability and consistency of profiles (mean=3.38), assessments of

target level risks (mean 3.50). Overall, Risk profiling had a (mean = 3.58) and (STEDV = 1.04), as shown in table 4.5 above.

Findings agree that there is shortened time to clear goods because they are subjected to the drawn up profiles and risk categories which determines the kind inspection that should be done on the goods. However due to trade diversity and technology the profiles are not timely adjusted to changes in trade patterns which make it hard for Customs Service Department to maintain reliable and consistent profiles and this leads to missing of the targeted level of risks that are meant to be assessed.

4.4.4 Data on Authorized Economic Operators

The question whether Authorized Economic Operators program influences trade facilitation had the following responses, on improved relationship and trust 17% neutral, 33% agreed and 50% strongly agreed, on improved competitiveness of AEOs status 8% strongly disagreed, 10% disagreed, 32% neutral, 33% agreed and 17% strongly agreed, on improved compliance and security of the supply chain 42% neutral, 8% agreed and 50% strongly agreed and on improved intelligence and analytical skills 17% strongly disagreed, 22% disagreed, 13% neutral, 18% agreed and 30% strongly agreed as shown by figure 4.5.

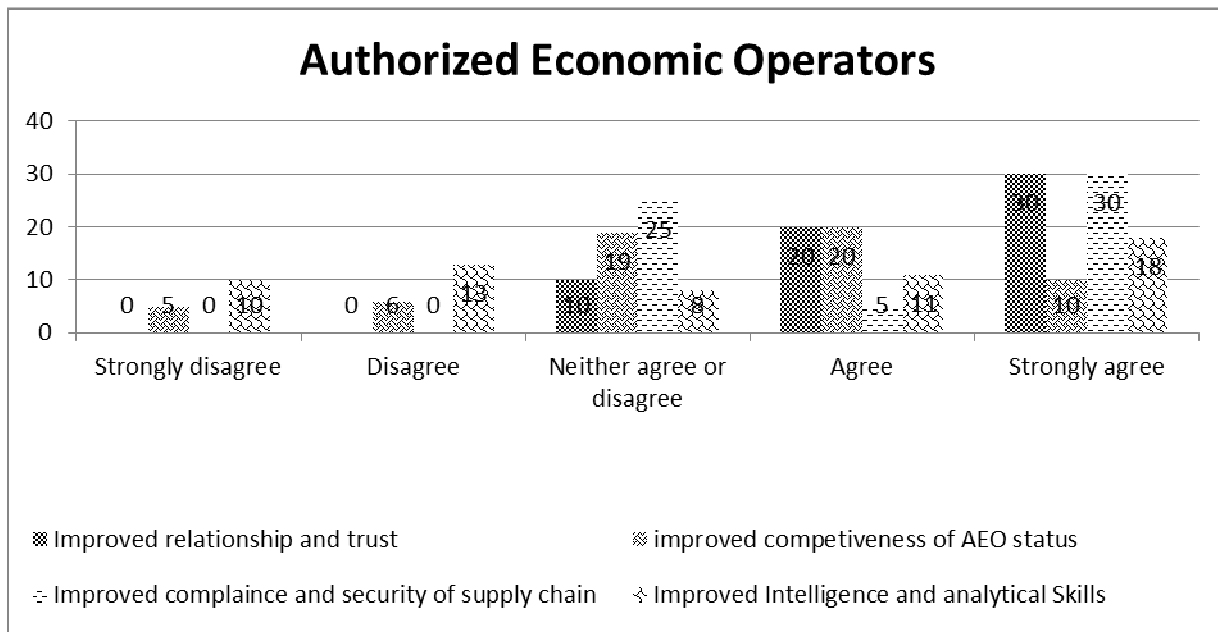


Figure 4.6: Authorized Economic Operators

Table 4.5: Authorized Economic Operators

Authorized Economic Operators	Mean	STDEV
Improved relationship and trust	3.8	1.62
Improved competitiveness of AEOs status	3.30	1.70
Improved compliance and security of supply chain	3.50	1.78
Improved intelligence and analytical skills	1.70	1.78
AVERAGE	3.73	1.58

Authorized economic operators was measured by the improved relationship with a (mean=3.8), improved competitiveness of AEOs status (3.3), improved compliance and security of supply chain (3.5) and improved intelligence and analytical skills (mean=1.7). Overall, Authorized Economic Operators had a (mean = 3.73) and (STEDV = 1.58) as shown in table 4.5 above.

Data on AEOs agree that more importers and exporters are more interest on getting the AEOs status because the goods are released immediately but are subjected to post clearance audit this has improved on the relationship between the Customs and the AEOs which show that they are willing to keep and maintain a secure supply chain however the Customs officer intelligence and analytical skills should be enhanced so that they can be able to detect non-compliance of the any AEOs.

4.5 Statistical model

Table 4.6: Coefficients of the statistical model

Model parameters (Trade facilitation):

Source	Value	Standard error	t	Pr > t	Lower bound (95%)	Upper bound (95%)
Intercept	2.778	0.877	3.167	0.019	0.631	4.925
Coordinated border Management	0.003	0.001	4.140	0.006	0.001	0.005
risk profiling	0.007	0.003	2.094	0.081	-0.001	0.015
Scanners	-0.001	0.001	4.062	0.007	-0.002	0.001
AEO	0.016	0.005	3.208	0.018	0.004	0.028

Data collected was analyzed using XLSTAT a Microsoft based statistical software the regression model the output is given in table 4.7

$$\text{Trade facilitation} = 2.65.143 + 0.856 * \text{Coordinated border Management} - 1.18 * \text{risk profiling} + 0.98 * \text{Scanners} + 0.0158 * \text{AEO}$$

$$Y = 2.778 + 0.856 X_1 - 1.18 X_2 + 0.98 X_3 + 0.0158 X_4$$

Y – Dependent variables (Trade facilitation)

BX₁ – Independent Variable (Coordinated border management)

BX₂ . Independent Variable (Scanner imaging inspection)

BX₃ . Independent Variable (Risk profiling)

BX₄ . Independent Variable (Authorized Economic operator)

The regression model shows that coordinated border management, scanners imaging inspection and AEOs variables have a positive relationship with trade facilitation and they tested statistically significant except risk profiling which had a negative effect and it is not statistically significant

4.6 Correlation matrix

Table 4.7: Correlation Matrix

	Coordinated border Management	risk profiling	Scanners	AEO	Trade facilitation
Coordinated border Management	1	0.728	0.822	0.850	0.907
risk profiling	0.728	1	0.607	0.583	0.750
Scanners	0.822	0.607	1	0.801	0.606
AEO	0.850	0.583	0.801	1	0.843
Trade facilitation	0.907	0.750	0.606	0.843	1

4.7 Discussion of Findings

The changes in the operating environment which included more sophisticated and demanding clients, greater policy and procedural requirements associated with international commitments, the proliferation of regional and bilateral trade agreements which significantly increase the complexity of administering border formalities and controls and heightened security concerns and demands to respond to the threats posed by international terrorism and transnational organized crime including counterfeiting.

With coordinated border management the agency's ability and willingness to share information has improve on accuracy of information without duplication which helps in better decision making which has increased flow of legitimate trade for local and transit goods. The study found that scanners imaging inspection has contributed greatly because the inspection process is fast, takes less time and its more accurate and a large volume of goods are inspected compared to physical inspection which was intrusive, time consuming and costly. AEOs program has contributed to the security of the supply chain because they endeavors to maintain compliance and customs requirements for the validity of the status which has in turn improved the relationship, trust and competitiveness of the status by other operators. The study found that risk profiling contribution is very minimal because of trade diversity and changes in trade pattern technology and terrorism whereby customs are not able to maintain reliable and consistent profiles and missing of the target levels that need to be assessed. .

Chapter 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter consists of three sections, summary of the findings, conclusions and recommendation

5.2 Summary of the findings

The summary give an analysis of the findings of the study in chapter 4 against literature review in chapter 2

5.2.1 To find out how coordinated border management strategy affects the trade facilitation in Kenya Customs Administration

The study showed that coordinated border management has positive effects on trade facilitation. In addition a tcalc of 0.770 that was higher than the t critical of 0.582 at 95% confidence level that indicates that it was statistically significant. That us in line with increase on legitimate trade for local and transit and also other agencies increased their willingness to share information thus reduction to the time taken to clear goods. (Duekmedjian & De Lint, 2007) study noted that many law enforcement agencies have developed techniques to maximize their access to and use of information from other agencies and the recognition of unique contributions each agency brings to managing the border and developing an approach that delivers high levels of synergies between them.

5.2.2 To determine how Scanners strategy affects the trade facilitation in Kenya Customs Administration

The study showed that the use of scanners had a positive effect on trade facilitation with at tcalc of 0.961 that was higher than the t critical of 0.513 at 95% confidence level that indicates that it was statistically significant. This is due to the shortened the time taken to inspect goods that increased volume of goods traded mainly because it is less intrusive, inexpensive and less time consuming. Scanners easily detect concealed goods and have improved customs quality services. (L.D.Wulf & O.Matityahu, 2005) study showed the purpose of container scanning equipment is to allow inspection of what is inside a container without opening the container; a process often

called “nonintrusive examination.” Container scanning equipment increases the number of consignments that are received by Customs without causing undue delay, and can identify illicit goods.

5.2.3 To find out how Risk profiling affects trade facilitation in Kenya Customs

Administration

The study indicates that risk profiling had a negative effect on trade facilitation, in addition the t calculated of 0.190 against t critical of 0.881 which indicates that It was not statically significant, Risk profiling is a weak strategy and a challenge to trade facilitation, this aligns to what (Sheffi, 2001).noted in his study that trade diversity; trade patterns are changing rapidly which also makes it hard to keep reliable and consistent profiles. The quality of the risk profile depends, of course, on the data that are used to draw up the profile, Risk coefficients for particular shipments are determined by, among other factors, the classification of goods, origin of the goods, the traders involved, and the mode of transportation.

5.2.4 To establish how Authorized Economic Operators program affects trade facilitation in Kenya Customs Administration

The study showed that through authorized economic operator program the trust and relationship between the customs department and AEOs has improved thus improved compliance and a more secure supply chain with at tcalc of 0.911 that was higher than the t critical of 0.530 at 95% confidence level that indicates that it was statistically significant. According to (Mariya, 2009) companies that demonstrate a verifiable willingness to enhance supply chain security will benefit by being accredited and thereby reduce security risk which helps Customs to focus on high risk trade whilst facilitating trade.

5.3 Conclusions

The purpose of the study was to establish the effects of the customs enforcement strategies that are implemented by the customs administration on trade facilitation. The study concludes that customs enforcement strategies; coordinated border management, scanners imaging inspection, and Authorized Economic Operators program have contributed to reduction of time taken to clear goods, through facilitation of legitimate trade, willingness to share information, increased trade volume of goods improved relationships and offering customs quality services. Risk

profiling had a negative effect thus not contributing to trade facilitation as expected due to trade diversity and technology.

5.4 Recommendation

The study recommends that customs service department should offer appropriate training to their staffs on risk profiling especially on assessment of target level of risks, maintenance of reliable and consistent profiles and also to improve their knowledge on intelligence and analytical skills.

5.5 Suggestion for further studies`

There is need to conduct a study on the adoption of Risk management on trade facilitation.

Risk management is a systematic process of establishing the context, identifying the risk, analyzing the risk, evaluating the risk, treating the risk, monitoring the risk, and communicating risks and outcomes. To minimize the occurrence of risks, customs can use risk management as a technique to more effectively set priorities and more efficiently allocate resources necessary for maintaining a proper balance between controls and facilitating legitimate trade.

REFERENCE

- Appels, T., & Swielande, H. (1998). Rolling back the Frontiers the Customs clearance revolution. *International journal of logistics management* , 9 No.1, 111-18.
- Carter, D., & Carter, J. (2009b). *The intelligence fusion process for state, local, and tribal law enforcement ,criminal Justice and Behaviour* , 36, pp1323-39.
- Cooper, D., & Schindler, P. (2003). *Business Research Methods (8th ed)*.
- Cordner, G., & Scarborough, K. (2010). *Information sharing exploring the intersection of policing with national and military intelligence* , 6 No.1, pp1-19.
- Downey, M. (2004). The challenge of transportation security. *supply chain management review* , 8 No.2, pp9-10.
- Duekmedjian, J., & De Lint, W. (2007). *Community into intelligence; resolving information uptake in the RCMP, Policing and society* , 17 No.3, 239-56.
- Ellram, L. M., Zsidisin, G. A., Siferd, S. P., & Stanly, M. J. (2002). The impact of purchasing and supply management activities on corporate success. *Journal of supply chain management* , vol 38 No.1, pg4-17.
- Grainger, A. (2008, April). Customs and Trade Facilitaion: from concepts to implement. *World Customs Journal, Volume 2, Number 1* , .
- Grano, J., Webster, W., Ostergaard, D., Romney, M., Cohen, J., & Miron, M. (2005). *Intelligence and information sharing initiative, Homeland Security* .
- Haughton, M., & Desmeules, R. (2001). Recent reforms in customs administration. *International journal of logostics management* , Vol 12 No.1, pg 65-82.
- Haughton, M., & Desmeules, R. (2001). Recent reforms in Customs administration. *International Journal of Logistics Management* , 12 No.1, pp65-82.
- Hicks, G., & Gullet Ray, C. (1975). *Organisationa Theory Behaviour* .
- Honoham.P. (2003). *Taxation theory and practice* . oxford university press london.
- Iyer, G. (1996). Strategic decision making in industrial procurement: implications for buying decision approaches and buyer-seller relationships. *The Journal of business & Industrial Marketing* , 11 No. 3/4, p 80.
- Kajuter, P., & Schneidewind, E. (2003). *Risk management in supply chain* .
- Kale, P., Singh, H., & Perlmutter, H. (2000). Learning and protection of proprietary assets in strategic alliance: building relation capital. *Strategic management journal* , Vol 21 No.3, pg217-37.
- KRA. (n.d.). *AEO press release*. Retrieved from www.revenue.go.ke.

- laws, U. P. (Act of 2007). *Implementing recommendations of 9/11 commission Act of 2007, section 1701* .
- Leedy, P. (2002). *Practical research: Planning and design*. New York: Macmillan publishing company.
- Luc De Wulf and Omer Matityahu 2005. The role of Customs in Cargo Security. *customs modernization handbook* ,pg 265 .
- Mariya, P. (2009). *survey of authorized economic operators programs: World Customs Organisation working paper* .
- Martonosi, S. E., Ortis, D. S., & Willis, H. H. (2006). *Evaluating the Viability of 100% container inspection at america's ports* .
- Maureen, I. (2009). *Supply chain security program and border administration: World Customs Organisation* , 3 No.2.
- Mikuriya, & Kunio. (2007). Supply chain security: the customs community's response. *World Customs Journal* , 1 No.2.
- Mugenda, A., & Mugenda, O. (2003). *Reading in research methods: Quantitative and Qualitative Approaches* .
- Patton, Carl, V., & Sawicki, D. S. (1993). *Basic methods of policy analysis and planning* .
- Ratcliffe, J. (2008). *Intelligence-Led Policing* .
- Sheffi, Y. (2001). Supply chain management under the threat of international terrorism. *International journal of logistics management* , vol 12 No.2, pg1-11.
- Singh, K. (1998). The impact of technological complexity and interfirm cooperation on business survival. *Academy of management Journal* , 40 No.2, PP 339-69.
- WCO. (1997). *Revised Kyoto Convention* .
- WCO. (2007). *Authorised Economic Operators Program* .
- WCO. (2011 edition). *SAFE Framework of standards* .
- Whipple, J. S., & Gentry, J. J. (2000). A network comparison of alliance motives and achievements. *The journal of business and industrial marketing* , vol 15 No. 5, pg 301.
- World Bank. (2011). *Border Management Modernization*.
- WorldBank. (2011). *Border Management Modernization* .
- WorldBank. (2005). *Customs Modernization Handbook*. (L. D. Wulf, Ed.) Washington D.C.
- Zhu, H., & Wang, R. (2008). *An information quality framework for verifiable intelligence products* .

Zsidisin, G., Ellram, L., Carter, J., & Cavinato, J. (2004). An analysis of supply risk assessment techniques. *International Journal of physical Distribution & Logistics Management* , 34 No.3/4, pp397-413.

APPENDIX 1: LETTER OF INTRODUCTION

Jane Kimani

P.o.Box 10031-00100

Nairobi

Dear Sir/Madam

REF: RESEARCH INFORMATION FOR A POST GRADUTE DIPLOMA PROJECT:

I am a post graduate Diploma student pursuing a Diploma in **Customs Administration at Kenya School of Revenue Authority**. It is a partial fulfillment for the award of Diploma. I am conducting a survey on the “effects of customs enforcement strategies on trade facilitation”. I would like to kindly request for information from the Customs Service Department.

The information you provide will not be used for any other purpose apart from its intended academic use. I hereby undertake not to make any references to your name.

I am aware that filling the questionnaires is time consuming and will greatly appreciate your assistance. Any other information in form of comments or suggestions that you deem necessary to make my research findings more conclusive, relevant and reflective of the study area will be highly appreciated.

Thank you in advance

Yours faithfully,

Jane Kimani

APPENDIX 2: Questionnaire

Effects of customs strategies on trade facilitation

Please rate your level of agreement and disagreement based on the Likert scale of 1-5 as shown below

1= Strongly disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly agree

Trade facilitation

NO.	STATEMENT	1	2	3	4	5
1.	Customs Reforms Modernization program has ensured effectiveness of the customs enforcement strategies					
2.	Balanced between facilitation and control has reduced clearance processing time					
3.	Does customs enforcement strategies balanced the costs and benefits of trade facilitation					
4.	Have the following trade facilitation instruments improved harmonized customs procedures The Revised Kyoto Convention					

	The WCO safe framework					
	Coordinated border management					
5.	The productivity through trade facilitation has improved because of collaborative/coordinated border management					
6.	Does information and intelligence from coordinated border management reliable and consistent					
7.	Has coordinated border management helped in cross border trade through Revenue Authority Digital Data Exchange (RADDEX)					
8.	Does the ability and willingness to share information among agencies affect trade facilitation					
9.	Has one stop border post helped in facilitation of legitimate trade					
	Scanner Imaging Inspection					
10.	Has scanners imaging inspection facilitated faster clearance of increasing trade volumes of goods					
11.	Did establishment of scanner imaging inspection change the culture of the customs service department					
12.	Has scanners helped in detecting uncustomed goods and misdeclaration of containerized cargo					
13.	Has scanners screening increased efficiency and compliance					
14.	Does scanners imaging inspection helped in timely released of goods					

	Risk profiling and risk management					
15.	Has risk profiling and risk management improved clearance process of goods					
16.	Does risk profiling and risk management adjust to change in trade patterns for effective release of goods					
17.	Is risk management and risk profiling structured systematic and structured for reliable outcome and efficiency					
18.	Does risk profiling tools produce more definite assessment of the target level of risk					
	Authorized Economic Operators (AEOS')					
19.	Has AEO's status improved trust between Customs Service Department and exporter/importers					
20.	The market share has grown and improved competitiveness for AEOs status					
21.	Does the post clearance Audit staff have business intelligence and analytical skills					
22.	Has AEOs status improved compliance and security in the supply chain					

END OF QUESTIONNAIRE

Thank you for taking time to complete this questionnaire.