

EFFECT OF CUSTOMS CONTROLS ON NATIONAL SECURITY RISK IN KENYA

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DECLARATION

This research project is my authentic work and is yet to be submitted for a diploma in another university.

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

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DEDICATION

This research project is dedicated to my guardian and my friends for the unconditional monetary assistance and inspiration offered to facilitate this training.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACAS	Air Cargo Advance Screening
CBP	Customs and Border Protection
COMCEC	Committee for Economic and Commercial Cooperation
DTIS	Diagnostic Trade Integration Study
EU	European Union
EAC	East Africa Community
FDA	Food and Drug Administration
INCB	International Narcotics Control Board
IOM	International Organization for Migration
ISCC	Integrated Scanner Command Centre
KRA	Kenya Revenue Authority
NSA	National Security Agency
OECD	Organization for Economic Cooperation and Development
PREDICT	Predictive Risk based Evaluation for Dynamic Import Compliance Targeting
RECTS	Regional Electronic Cargo Tracking System
UNMAS	United Nations Mine Action Service
UNODC	United Nations Office on Drug and Crime
US	United States
WCO	World Customs Organization

DEFINITION OF OPERATIONAL TERMS

National security refers to the potential to uphold a country's territorial integrity and sovereignty, to retain its economic relations with other parts of the world on rational terms; to conserve its nature, institution and governance from interference emanating from foreign countries and to manage its borders (Rogers, 2010).

Post-clearance audit refers to the verification process used by customs to convince themselves that the information provided in the declarations is factual through the checking of pertinent books, records, business systems and commercial data possessed by a particular entity (Clark, 2017).

Risk Targeting is the methodical application of the information gathered by the Customs administration to determine the root and circumstance of risk occurrence, their identification and selectively verifying goods (WCO, 2015)

Verification of goods refers to the confirmation of goods either by physical inspection or through non-intrusive methods by customs to satisfy themselves as to whether the imported or exported cargo is in such quantities and qualities as declared and complies with available laws and regulations (Bakshi, 2010).

ABSTRACT

The main goal of the research study was to find out the effect of Customs controls on national security risk in Kenya. The specific objectives of the study were: to find out how post-clearance audit affects national security risk in Kenya, to establish how risk targeting affects national security risk in Kenya and to find out how verification of goods impacts on national security risk in Kenya. The relevant theories that the research study used include agency theory, prospect theory, queuing theory and regional security complex theory. The target population of the study was 262 Customs officers based at the Inland Container Depot in Embakasi and Times Towers. The stratified random sampling technique was used to sample the target population. The sampling rate applied to the study was 30% according to studies by (Mugenda & Mugenda, 2014) who recommended that a sampling rate of between 10%-30% is enough to use when making inferences about the target population. The closed questionnaire was used to collect data from the target population. Pilot testing was carried out to test the validity and reliability of the research instrument. data collected was presented using tables. Data analysis was done using mean, correlation analysis, analysis of variance and multiple regression in SPSS. Multiple Regression Model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$. The study found a positive correlation between verification of goods, risk management and post-clearance audit. Regression analysis results showed that there was a significant relationship between independent variables and the dependent variable as shown by regression equation $Y = 1.197 + 0.913x_1 + 0.628x_2 + 0.255x_3 + \epsilon$. The study concluded that verification of goods is an important Customs control process that help in the confiscation of goods thought to threaten the security of the society. From the study, risk targeting is the perfect control measure in ensuring security while facilitating trade because it gives an opportunity for customs to selectively verify goods. Post-clearance audit process is very important in the monitoring of goods capable of good and bad use. The study recommended that Customs should place dual use goods under specialized verification and monitoring processes for better control. The study also recommended that Customs should enhance advance information acquisition for better performance in the application of risk management. The study recommended that post-clearance unit should be facilitated with enough resources to intensify field audits for most of the security risk sources are in the premises where dual use goods are delivered.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Customs controls are regulatory processes put in place to ensure traders comply with the laws and regulation which customs are tasked to enforce (WCO, 2010). According to EU regulation number 952/2013, article 5, point 3 of the European parliament and Council of 9 October 2013, Customs controls are particular functions carried out by Customs administrations with the aim of ensuring customs traders are complying with the Customs legislation concerned with the import, export, transit, storage and end-use of goods moved between the Customs territory of the union and countries or territories outside that territory. Customs implements laws and regulations concerning importation and exportation of goods in a customs territory.

To ensure that Customs is able to apply laws and regulations, all goods imported and exported have to be declared to before use or transit to another territory (WCO, 2010). Customs controls include determination of duties due and accurate description of items, their origin and value; controls on security and safety guidelines on drug trafficking, smuggling of cigarettes, weapons, counterfeit goods and fight against terrorism; compliance with environmental regulations; health requirements, veterinary, phyto-sanitary and quality regulations (EU, 2019). Customs controls must be agile, effective and based on modern risk management techniques to ensure trade is facilitated in a legitimate manner.

1.1.1 Global Perspective of Customs Controls

In the past, US Customs and border protection faced structural stagnancy specifically in the inspection of cargo at entry ports as every cargo was to be examined causing tremendous delays and increased cost (Coyle, 2012). Food and drug administration (FDA) developed a computer-based algorithm system called Predictive Risk-based Evaluation for Dynamic Import Compliance Targeting (PREDICT) which is a tool used for screening imports and exports. PREDICT was put in place as a substitute to the initial process of inspecting shipment manually. The FDA previously relied on entry document review and inspector intuition to make decisions (Silver, 2011). This technological enhancement has enabled quick separation of likely law breakers or high risk shipments from low risk shipments. This was accomplished by developing algorithmically-driven software that uses relevant variables and assigns a score to shipment. The higher the PREDICT targeting score, the more likely the violation (Silver, 2011).

Risk targeting is integral part of border management in Canada as it supports state security and public safety preferences. It massively enables the identification and interception of risk posing passengers, cargo and modes of transport that may threaten the security of Canada (Aniszewski, 2011). Some of the major gains made by Customs in Canada include the ability to now focus resources, making them more effective at intercepting high-risk goods and this allows the economy to grow as there is free flow of low risk travelers and trade. In a move to implement a targeted response to national security hindrances and complement the targeting program in place at border points, the national risk assessment center was established to concentrate on national security threats and ensure the identification of high risk cargo in 2004.

1.1.2 Regional Perspective of Customs Controls

According to 2015 Customs Act in Ghana, the Ghanaian Customs conducts several customs controls including risk management, post clearance audit, laboratory testing, verification and release of goods. The authority conducts customs controls including random checks primarily using risk management so as to identify and evaluate risks and develop preventive tactics. The Ghanaian Customs service in coordination with co-operating customs administrations, do control and targeting activities based on risk management to increase effectiveness and ensure security in shipment and combat cross-border crimes. The authority also conducts post clearance audits based on the risk profiling for compliance purposes.

According to Standing Committee for Economic and Commercial Cooperation of the Organization of Islamic Cooperation (COMCEC) (2018), the port of Dakar is equipped with non-intrusive inspection and scanners for screening means of transport, sea containers as well as personal luggage. The scanners are placed at the port of Dakar, Yof airport, Kidira border control point with Mali and Rosco border control point on the border with Mauritania. The orange channel composed of scanners is integrated into the risk management. A mixed unit of Customs, Police and Gendarmerie with the assistance of UNODC use scanners to combat drugs and other forms of crime (COMCEC, 2018).

According to the Diagnostic Trade Integration Study (DTIS) 2015 report, Madagascar Customs does post-clearance audits but the audits are undertaken internally as they do not rely on extra risk criteria for selection. Moreover, post-clearance audits of importing firms that would result in automatic sanctioning of non-compliant traders are never carried out.

Right now, the scanners at Toamasina presents a verifying obstacle at the port. In 2013, virtually half of the total containers passing through the port were scanned.

Two years later, Customs was directed to escalate the share of imported containers to be scanned to 100 percent, leading to an alarming increase in overall clearance times and delays (DTIS, 2015).

1.1.3 Local Perspective of Customs Controls

Customs controls are meant to ensure all imports and exports and their carriage means are thoroughly checked. The controls focus is on ensuring national security while still ensuring trade facilitation. This means there is a balance that customs has to strike to ensure this works. To address this challenge, Customs apply risk management to target high risk goods only (KRA, 2016). Customs control systems used in Kenya also include post-clearance audit and cargo scanning. To improve Customs control, Customs administration in Kenya have incorporated technological systems such as single window systems, customs integrated management system and electronic cargo tracking system.

According to the Star (2020) report, Kenya revenue authority (KRA) investment in cargo scanning has helped curb diversion, Misdeclaration and illicit trade in wildlife and small arms boosting revenues by 18.8 percent. This is attributed to the successful implementation of the Integrated Scanner Command center (ISCC) and the Regional Electronic Cargo Tracking System (RECTS), whose central command center is Times Towers, Nairobi. The systems implementation has been lauded by the World Customs Organization (WCO) for reducing cargo verification at ports of entry from 60 percent to below 10 percent increasing the clearance speed and cargo dwell time along the Northern Corridor. The Business Daily (2019) reports that

scanners have helped in the interception of contrabands and harmful products to the local markets.

According to the Global Alliance for Trade Facilitation (2018) report, Kenya was introducing a risk based pre-arrival Customs process. Pre-arrival processing is a core objective of the world trade organization's trade facilitation agreement which has specifications for improving infrastructure to speed up transportation, release and clearance of goods. The introduction of the process will speed up the clearance and release of goods, increase predictability, improve risk assessment allowing Customs to facilitate low-risk shipment and focus its resources on high risks minimizing threats to national security in the process. This definitely balances between regulatory control and legitimate trade facilitation.

1.1.4 National Security

One of the key themes that have been widely discussed in the study of International Relations is the issue of national security. According to Hough (2008), national security is a state's potential to protect its citizens and its own values from outside interference. National security concept addresses the key factors of social vulnerabilities that directly affect the security of a state. According to Article 238 of 2010 Kenya constitution, National security is ensuring the wellbeing of a nation by eliminating inside and outside threats to territorial integrity and sovereignty, its citizens, their rights, property and peace.

According to Paleri (2008), national security implies that a country is able subdue a wider scale of security challenges likely to interfere with peace and survival of a nation at any point in time by instituting and implementing all policy measures through state agencies and is linked to international security according to relational engagement with other countries. Potential causes of national security threats include human and drug trafficking, money laundering, smuggling of

fire arms and weapons of mass destruction, terrorism and natural catastrophes widely grouped as economic, environmental, border and cyber security (Farah, 2015).

Since the October 2010 Yemen tragedy, where a cargo with improvised explosive devices was detected on an air plane on transit through EU to the US, many countries are now focusing on enhancing air security. Customs are now using advanced electronic data in line with WCO guidelines in order to detect weapons before being placed onboard a conveyance in the country of departure. Globalization and liberalization of international trade came with its effects that threatens national security. They include transnational crimes such drug trafficking, small arms and weapons smuggling, environmental crimes and human trafficking. Drug trafficking in East Africa has increased over the last ten years (Kones, 2017).

Drug traffickers prefer the region as a transit point for drugs from Afghanistan, Europe and United States. According to Kones (2017), the region is being exploited because of the weak maritime borders. Migrant smuggling in Kenya also pose a security threat and emanates mainly from the horn of African and occurs through land, sea and air. According to the Danish Refugee Council (DRC) in Kenya, migrant smuggling affects 80% of migrants from the East African community (EAC) region.

1.2 Statement of the Problem

Customs controls are essential in ensuring national security in Kenya. However, there are still cases of insecurity in the country. Lack of stability in EAC borders has undesired ripple effects to the citizens of Tanzania, Uganda, Burundi, Rwanda, South Sudan and Kenya, cases in point being money laundering, human trafficking, terrorism, drug trafficking and firearms smuggling (Maroa, 2013). There is need to formulate a practical peace initiative to prevent some security

tragedies from taking place. At the center of this strategy is Customs and its border control procedures and processes that controls what enters or exits the border.

East African region has had a hike in incidences of weapons unlawfully acquired with a consequent spike in terrorism. With the collapse of Somalia in 1991, recent conflicts in Burundi, the civil war in South Sudan and the instability of DRC, there was a constant stream of refugees into Kenya.

This inflow contributed to the proliferation of small arms which abet criminal gangs and fuel insecurity (Awa, 2010). The Al-Shabaab militia and other illegal immigrants use illegal border points where there is limited patrols by Customs officials (Onsarigo, 2015). According to the 2017 annual police crime report in Kenya, the country still faces terrorist attacks. Since 1975, Kenya has faced around 350 terror attacks 70% of them involving grenades, land mines and improvised explosive devices (Odipo, 2015). Kenya is a source, transit and destination country and is on tier 2 in its annual trafficking in persons reports implying that the state is yet to implement all stipulated policies but is making adequate steps to do so according to US Department of state (2014). Most people join human trafficking trade to consolidate funds meant for funding terrorist and rebel groups (Shelley, 2010).

According to the UNODC 2013 report, East African mainly Kenya and Tanzania are the main transit points of bhang, cocaine and heroin as well as wildlife products. Drugs seizures are mainly done at seaport due to inadequate maritime border controls and airports in these countries (Kones, 2017). There is a growing concern attached to the link between drug and wildlife trafficking and the financing of terrorism (Lawson & Vines , 2014). According to the 2019 report by the United States Department of State Bureau for International Narcotics and Law Enforcement Kenya is on a list of cash laundering hives with inadequate measures on currency

circulation that is ill-acquired. Kenya like other developing countries is suffering from scourge of capital flight via miss-invoicing which often takes advantage of the complexity of the international trade system (Boyce & Ndikumana, 2015).

Maroa (2013) carried out a research assessing the East African community initiative in managing emerging cross border criminal trends. Abdullahi (2017) did a study on migrant smuggling, human trafficking and national security in Kenya. Achieng (2017) did a research on the principle of border coherence as a decider of Kenya's national security policy and Nguyen (2012) did a study on the changes in the role of US Customs and border protection and the impact of 100% scanning law these studies however did not look at how Customs controls impact on national security. Therefore, this study aims to find out the effect of Customs controls on national security in Kenya.

1.3 Research Objectives

1.3.1 General Objective

The aim of the study was to establish the effect of Customs controls on national security risk in Kenya.

1.3.2 Specific Objectives

1. To determine the effect of verification of goods on national security risk in Kenya.
2. To determine the effect of risk targeting on national security risk in Kenya.
3. To determine the effect of post clearance audit on national security risk in Kenya.

1.4 Research Questions

1. How does verification of goods affect national security risk in Kenya?

2. To what extent does risk targeting affect national security risk in Kenya?
3. What is the effect of post clearance audit on national security risk in Kenya?

1.5 Justification of the Study

Threats to national security in Kenya have increased rapidly due to globalization and liberalization of trade since taking the forms of conventional weapons and psycho-active agents and other deadly chemicals weapons. This has resulted in deaths, injuries and loss of property as well as personal items of people in Kenya. If not checked sooner through the modern techniques, mass loss of property and lives may just become a new normal in Kenya. This study will help a number of stakeholders in their way of doing things. These stakeholders include the government of Kenya, Customs and researchers.

1.5.1 Government

Customs and border control department constitute the front line of every country's defense against transboundary movement of goods. This protective role of Customs administrations needs to be prioritized as the world opens up to create more trading opportunities. Thus, this study shall give recommendations on what the government needs to do in terms of equipping Customs with the much needed resources to curb transnational threats to national security.

1.5.2 Customs and Border Control Department

The findings from this study would be useful to Kenyan Customs and border control department in the sense that recommendation on what ought to be done to ensure efficiency and effectiveness in protecting the society will be given and if implemented would make the Customs role of protecting society against transnational threats to national security a lot easier. The study will also reveal how weapons, illegal drugs, wildlife products and environmentally sensitive goods are smuggled so that Customs can devise a fitting strategy to counter the smuggling.

1.5.3 Researchers

This research study will definitely help the researchers in future by providing them with literature for review while compiling their work as an improvement to this research on the same variables in different locations. The study also outlined the research design and sampling technique with reasons for the choice to use them so that future researchers may find easy time choosing the methodology to use in their research studies.

1.6 Scope of the Study

The study aimed to look at the effects of Customs controls on national security risk in Kenya. Three factors; post clearance audit, risk targeting and verification of goods were studied to find out their effect on national security risk in Kenya. The target population of the study was 262 Customs officers based at Inland Container Depot in Embakasi and risk management and post-clearance audit unit at Times Towers in Nairobi. The locations were chosen because they handle most of the cargo imported into the country.

1.7 Limitation of the Study

Although national security threats have existed for long, there is limited literature concerning how Customs controls influences national security. Thus, limited literature and empirical studies in this area of study has been a major constraint in conducting this research. In addition, absence of compiled data for earlier reports and records on impact of Customs control on national security was also a limitation in conducting this study. Some of the non-responsiveness of the targeted respondents included the challenges facing information collection; the limited resources to conduct the research; and the limited time available to conduct the studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers theoretical review, conceptual framework, empirical review, summary of literature, critique of literature and the research gaps. Literature review summarizes content from journals, books and documents describing previous and prevailing information about a phenomenon (Creswell, 2013). Previous work by researchers was reviewed in areas pertinent to the objectives of the study. Reviewing literature gives the researcher knowledge and important matters in the area of study (Galvan, 2015). Literature review locates the researcher's topic in a wider information source (Creswell, 2013).

2.2 Theoretical Review

Theoretical review is the analysis of concepts and model related to the variables of the study (Torraco, 2016). These models tend to give a clear prediction of what will happen if the variables are modified. Theoretical framework gives guidance the research procedure with the use of accepted theories made through a determined, binding explanation of given situation and relationships (Anthea, 2016). A theory is a thought out and rational abstract or generalizing thinking about a phenomenon, or the outcomes of that thinking (pfeiffer, 2017). Theories that the research study used include; queueing theory, prospect theory, agency theory and regional security complex theory.

2.2.1 Queueing Theory

Queueing theory is linked to verification of goods as it tries to explain airport queues and their importance. Queueing theory was designed by A.K. Erlang in 1904 to aid in establishing the ability of the Danish telephone system. Its application has been in a variety of fields including airports, financial institutions, police patrols and fire response.

Queueing models have been found to be helpful in determination of adequate manpower, equipment and in making decisions concerning resource allotment and methods. According to the theory, utilization is the number of busy servers divided by the total number of servers multiplied by 100 (Green & Nguyen, 2001).

Security screening is a significant process in airport security checks and customs inspection. 100% scanning results in longer waiting time for goods and passengers to pass security system (Song , Wang, & Zhuang , 2015). Queueing theory helps in the determination of waiting time and the strategic interactions between the approver and the applicant of airport service. Reducing the probability of scanning causes more error while high scanning probability causes congestion (Song , Wang, & Zhuang , 2015). Therefore, Customs has to strike a balance between congestion and intensity of scanning to secure borders and promote trading activities.

2.2.2 Prospect Theory

Prospect theory is linked to risk targeting since it presents an elaborate decision-making method in a risk situation. The theory was developed by Tversky and Kahneman in 1979. Decisions may entail inside difference of opinion on importance trade-offs. The theory was developed to give an explanation and predict the design to better describe, explain, and predict the course of action that one takes when faced with inconstancy. The theory shows how this course of action is modelled and assessed in the process of deciding what ought to be done.

The theory furthers the thinking that utility curves are not similar in domains of benefit from those in domains of loss. In concept prospect theory gives known decision making pattern. There are two sections in making a decision, that is, framing part and the assessment part (Kahneman & Tversky, 1979). Framing involves the way in which a decision is influenced by the fashion with which it is presented to the decision making authority.

The evaluation bit involves another two sections which are the value function and weighting function. The value function is explained as either loss or gain in comparison to the standard measure in terms of total wealth. In prospect theory, value is a function of change from a start point giving a negative or positive measure of change. This theory therefore shows a likelihood where risk proneness is influenced by domain. Losses cause devastating impact as compared to gains and thus considered more in decision- making (Kahneman & Tversky, 1979). While taking a course of action, the person responsible multiplies the value of each result by its decision weight. Decision weights are a symbol of evidence based analysis of how one gets to their prediction of an outcome. The significance of weighing function is that minimal possibilities overweighed as high and average possibilities are underweighted based on personal feeling (Kahneman & Tversky, 1979).

Risk is predisposition to the probability of economic loss or benefit, delay in the outcome of uncertainty that is linked with making a particular decision (Chapman C.B., 1983). Like in mathematical field, the chance of an occurrence is presented statistically using measures of central tendencies which require data collection for analysis. In the absence of data, experience and knowledge of the person taking action is crucial in evaluating the possibility of devastating situation. Customs risk management department must thus use available information on traders, goods and means of transport in selecting cargo to be targeted.

Therefore, this theory is important to Customs as it shows the need to have data about imported and exported goods, persons involved for better prediction of an outcome and course of action.

2.2.3 Agency Theory

Agency theory is linked to post clearance audit as it tries to explain the importance of monitoring the business activities of managements through audits. It was designed by Jensen and Meckling in 1976. The theory emphasizes that audit services are employed in both the interest of third parties and management (Jensen & Meckling , 1976). An agency relationship exists between the management and the shareholders where the authority of decision making is delegated to the management. If both the management and shareholders want to maximize utility, the management may not always act in the best interests of the shareholders as their interests differ.

Agency theory holds that in most cases the agent possesses the capacity to access more information as compared to the principal and therefore leading to information asymmetry and forcing the principle to assess whether interests of their organization are served by their agents. This theory therefore acknowledges that organizations must maintain set structures and ways of handling their business activities. This makes it possible to undertake controls that are aimed at minimizing the unwanted behaviors of agents. According to Jensen and Meckling (1976), to harmonize agent and principle interests, there is need to include professional as well as other auditing and control systems that help in monitoring the agent.

This theory is therefore applicable is Customs post clearance audits since customs needs to verify that companies are conducting their businesses in compliance with customs and tax requirement. Since businesses tend to show notable levels of dishonesty Customs must conduct audits to ensure goods imported for a specified use are being used for that purpose and in accordance to the stipulated conditions for instance the dual use goods.

2.2.4 Regional Security Complex Theory

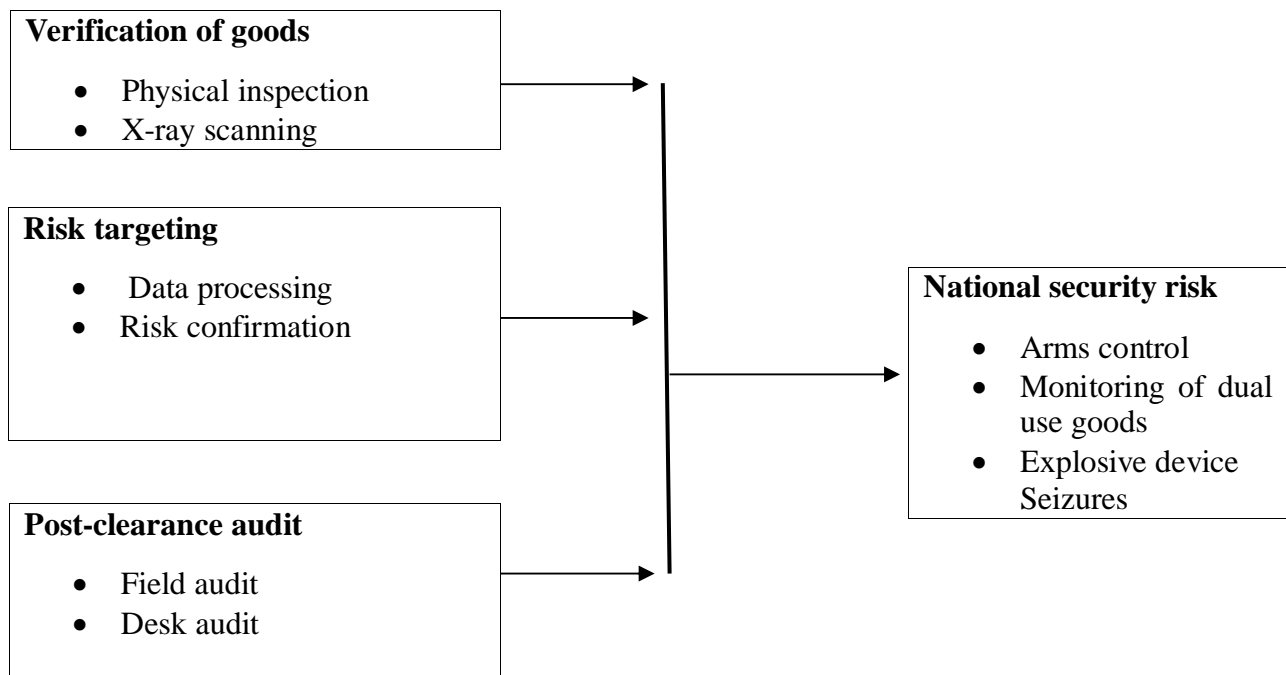
Regional security complex theory is linked to national security as it explains how states in a region are interdependent on each other in terms of security. It is an international relations theory designed by Barry Buzan and Ole Waever and progressed in their studies concerning the framework of international security in 2003. Regional security complex theory opines that international security ought be looked at from a regional perspective and associations among countries and actors sometimes show consistent, physically grouped patterns (Buzan & Waever, 2003).

Regional security complex is a batch of countries that are geographically neighbors sharing common security issues that make one countries state of security affairs affected by another's (Buzan, 1991). They are separated from another by level of association. Countries in one regional complex have high degree of association unlike those from other regional complexes which are usually minimal. This is also emphasized by Walt (1987) who opines that regional security complexes are normally separated from each other by physical features, borders or man-made barriers. The regional security complex theory opines that individual country's deeds and inspirations in international security are highly regional in behavior. This implies that one country's security issues are mostly created in its close neighborhood. The issues in one country affects the other state in that region. Buzan and waever tries to explain their studies as advancement of monolithic neorealist schools of international relation, encompassing it as they fill the gaps in previous theories. They underscore the significance of applying regional strategies and giving much needed focus to non-state actors rather than states. Therefore, this theory is relevant to customs as it outlines the benefits of having regional security addressing initiatives as opposed to individual efforts.

This theory in application of the security actor’s perspective encourages Customs among regional states to cooperate in sharing information on suspected movements of high security risk goods within the region.

2.3 Conceptual Framework

A conceptual framework is a batch of thoughts and underpinning of wide coverage sourced from useful areas of enquiry and applied to give existence comprehension of a situation (Maxwell, 2009). Conceptual framework represents a view that area picked for survey and any expected relationships between them will be handful in a research under study (Ravitch, 2012). The ideas that make up a conceptual framework complement each other and explain well a situation being studied. The conceptual framework essentially contributes to the research by giving the variables and showing the relationship among them. The figure below shows the interrelationship between variables being studied.



Independent variable
Figure 2.1 Conceptual Framework.

Dependent variable

2.3.1 Verification of Goods

Verification of goods involves the physical inspection of goods, non-intrusive scanning, and laboratory testing as well as documentary verification. The main tool for identification of goods in international trade is examination of the goods by way of inspection, sampling and lab analysis (Girgenti, 2015). Customs authorities are entitled to carry out controls which may be documental which aims to determine the veracity and completeness of the information availed in a declaration or notification or physical which involves the inspection of the means of transport, inspection of a luggage, inspection of the goods which may involve taking samples for laboratory tests (Girgenti, 2015). The consequence of verification of goods is that if the goods are incompliant with security regulations, they will be seized and trigger criminal investigation. Thus customs verification procedures help detect and seize goods that may cause a security threat which consequently eliminates threats to national security.

2.3.2 Risk Targeting

Risk targeting involves the analysis of available data with respect to a particular risk followed by checking of selected goods presumed to cause risk as predicted by risk indicators. (Aziza, 2016). Increased trade as a result of globalization, supply chain challenges and increased transnational crimes are major hurdles that customs faces as they aim to secure borders whilst still ensuring legitimate trade across the borders. For this reason, risk targeting is adopted to ensure trade is secure through selective verification based on analyzed data. Risk targeting approach assists Customs to achieve their objective of securing the country through control of what gets into the country with reduced resources.

This enables customs to focus on high risk goods as they do minimal checks on low risk goods and effectively using available resources in the process (Hints, 2011). This process of selective targeting together with reliable information gathering followed by adequate data assessment makes profiling a possibility and this way it is easier to target marked consignments before they arrive at the port. This ensures that marked consignments are thoroughly examined and seized in case of risk detection. Thus, risk targeting plays a significant role in detection of national security threatening cargo which are seized by the Customs at the borders.

2.3.3 Post-Clearance Audit

Post clearance audit is autonomous assessment of business dealings in records kept by a business entity by customs audit team appointed to help Customs ascertain the truth on declarations made, check compliance with specified regulations and conditions and is mostly carried out after the goods have been released but within a period of five years since the release from customs area (UNCTAD, 2011). Audit is a risk-based tool where Customs auditors scrutinizes all records of chosen businesses in consideration to risk pointers regarding the type of import, history of the firm involved and the amount of tax involved.

Post clearance audits is carried out at the premise of the firm and mainly takes into consideration the specific individual transactions referred to as transaction-based audit or involve imports and exports made within a specified period not exceeding five years since the release of goods (UNCTAD, 2011). The importance of post clearance audit is to ensure trade flow is seamless and at the same time improve level of adherence to the law regarding importation and exportation of goods (Hossain, 2015). Thus, the audits carried out within the premises of the auditee ensure imported dual use goods are used for their intended purpose and not for terrorist purpose. This has a positive effect on national security as it ensures threats are eliminated.

2.3.4 National Security

Complying with WTO guidelines on trade facilitation brings with it undesired effects of increased trade volume making the customs administration overwhelmed and in such situations borders easily permissible (Bersin, 2012). In some cases, this free movement of goods may contribute to unpredictable supply chain as a result of increased security concerns. A variety of contexts enable illegal importation of prohibited and restricted weapons such firearms and dual use goods. These goods may be imported in accordance with customs requirement but put to other harmful uses for instance gasoline dynamite are used in mining but can be converted to explosive devices for terrorist activities (Squires, 2014).

According to the Small Arms Survey's (2015) blank-firing handguns have the ability to be altered. Furthermore, a wide numbers of gun replicas have high chances of being convertible. This makes customs shouldered with the responsibility of determining which guns are convertible and alert other security agencies in order to ensure they are not used for the unintended purpose. Therefore, post clearance audit should be conducted in relation to risk analysis to eliminate national security risks. This shows how national security is highly dependent on post clearance audit, risk management and verifications of goods.

2.4 Empirical review

Empirical review is the analysis of previous literature done by researchers related to the research study. Empirical study is the gaining of knowledge through direct and indirect observation or experience (Hoek, 2012). The empirical review offers best design of making an academic knowledge bank, finding likely efficient method of building a professional knowledge base, identifying potential intervention and measuring styles , giving a basis for relevant questions in research and describing usual practices in firms (Kothari, 2014).

2.4.1 Verification of Goods

Nguyen (2012) did a study on the changes in the US Customs and border protection role with a focus on effect of 100% scanning law. The 100% container scanning law aims to identify and eliminate nuclear weapons use in the United States (Bakshi, 2011). The study found that scanning of goods will ease the costs of doing business. This is supported by Bakshi (2010) who suggests that the policy would lead to urgent restoration of international movement of goods to a stable level while reducing the costs that would have been realized from delays in case a terrorist attack is carried out leading to inflamed congestion at clearance borders. However, the study points out the indirect cost and time constraints as the implications of 100% scanning procedures when dealing with perishable goods and fresh foods. 100% scanning means there will be delays since large quantities of goods are imported into the US. The resulting sluggishness at borders the affected ports would affect trade seriously while the cost burdens and technological issues for cargo being exported would negatively affect trade facilitation (Nguyen, 2012).

Ireland (2011) did a study on the Customs supply chain security patterns since 9/11, ten years on and the future. According to the study, application of cargo scanning systems for consignments is crucial part of Customs supply chain security advancement. This is because the x-ray, gamma-ray scanners, radiation portal monitors used are able to identify nuclear, radiological, biological and chemical weapons together with their precursors concealed in cargo containers. However, scanning should only be used to complement an existing risk management system that includes selectivity (WCO, 2016). Cargo scanning has greatly improved supply chain security and national security in territories that have implemented the system (Ireland, 2011).

2.4.2 Risk Targeting

Afonin P (2017) did a research on Customs risk management. The study aimed to find out the benefits of risk management in Customs, to find out whether risk management in Customs has to balance between cost and benefits and whether a criterion is needed to decide whether a risk is acceptable or unacceptable. The study found that the benefit of risk management includes good allotment of workforce, rise in duties and taxes collected and improved adherence to stipulated regulations and conditions of doing business and increased cooperation between Customs and traders (Afonin, 2017). The study also found that threats such as smuggling, terrorists, weapons and narcotics are better detected due to improved overall customs control whilst still allowing facilitation of trade (Afonin, 2017).

Biljan and Trajkov (2012) did a research study on risk management and Customs performance improvements in the Republic of Macedonia. The objective of the study was to find out the significance of risk management process for enhancing Customs performance quality. The study shows a positive implication on the effectiveness of implementation of risk management. Macedonia Customs effectiveness score had gone up from 2.00 in 2007 to 2.55 in 2010 which showed a great improvement (Biljan & Trajkov, 2012). The Customs effectiveness and timelines have a close association with performance indicators. Macedonia timelines score rose from 2.83 in 2007 to 3.1 in 2010. The world bank group (2011) also shows reduced time of export and import in Macedonia due to risk management and selectivity approach by Customs. According to the United States Customs and Border Protection (CBP) (2018) report on Air Cargo Advance Screening (ACAS), the implementation of compulsory air cargo advance inspection for outgoing aircraft is needed to make an entry if it has business goods onboard.

The ACAS program makes it a must for outgoing conveyances to electronically submit particular information earlier to CBP for goods transported by aircraft onboard to the United States in time for pre-verification. The ACAS program has enhanced the security in the air transport sector in the United States incoming aircrafts since risk targeting and assessment is done prior to arrival (CBP, 2018). The risk assessment identifies and bars security risk posing cargo from being loaded on crafts.

Hayashi (2014) did a research study on the Custom brazils risk management: towards a new paradigm of management in Brazil. The study found that creation of national centers for Customs Risk management could be the beginning of re-engineering required for modernization as well as the signing of cooperation agreements between consenting agencies and the introduction of paperless controls. Risk management is crucial because of so many traders in international business, giving essential designs to manage, mitigate and circumvent uncertainty in the international trade (Hints, 2011). Risk management cannot be used as an instrument of trade policy against a backdrop of a sluggish international economy and must be uncoupled from the elasticity of the demand for imported economy (Hayashi, 2014).

2.4.3 Post Clearance Audit

Kirkham (2017) studied international measures to minimize diversion of arms and dual-use goods transfers, challenges and matters of urgent focus and found that US Customs engage in on-site post clearance audits of industrial facilities in order to identify cases of diversion and misuse of dual-use goods. The study found that this audits were helpful but not always successful because of inadequate marking and poor record keeping.

A 2016 report by Swiss Customs on important aspects of impressive arms transfer control system shows that they are able to conduct post shipment audits of Swiss arms and dual-use exports with the help of licensing clause which gives Swiss authorities the right to verify the end-use location of any supplied item at any time on their demand through audits. Niu (2010) carried out a research on the effect of audit on willingness to comply with regulations. The study used secondary data of New York economic state sector. Findings show a positive correlation between audit and level of complying. The study pointed out that other than audit revenue collection, the effect of audit compliance should be analyzed to determine its usefulness and areas to strengthen to achieve desired outcome. The study recommended that customs should be well facilitated to enhance audit power and to device well their audit framework to achieve more results in wider areas other than revenue collection.

Ayuma (2013) did a research study on the impact of post clearance audit on tax in Mombasa County. The study aimed to determine the impact of tax audit on tax collection in the Kenya, to determine the effect of audit processes, auditing standards, field audit visits and pre-arrival clearance on tax collection. The findings showed that tax collection increased with corresponding increase in field audits the most. Audit processes, standards and pre-arrival clearance has effect on tax collection but to a moderate extent (Ayuma, 2013). Findings also showed that customs auditing cuts down the time taken to clear cargo thus the study recommended that customs should focus on following post-clearance procedures exhaustively.

2.4.4 National Security Risk

Achieng (2017) did a research study on state coherence as a decider of Kenya's national security policy. The study aimed to find out how porosity of Kenya-Somalia border has affected security in Kenya, the effect of increased fire arms in civilian hands and crimes on security and how the country is dealing with security challenges. The study findings showed that border porosity has increased the entry of refugees in Kenya but are mixed with terrorists that are difficult to trace while in the country. This exacerbates firearms smuggling and fueling of crimes in the country. Kenya took steps to fight the Al Shaabab by sending military troops to Somalia with the aim to enhance northern border patrols due to numerous border attacks and kidnapping that were carried out by Al-Shabaab (Zimmerman & Khatip, 2012).

Kirkham (2017) report on international efforts to stop diversion of arms and dual-use goods transfer, challenges and matters of immediate attention suggests that diversion is a major challenge to the control of international trade in arms and dual-use goods. The diversion of dual-use goods from their authorized user or intended use to non-authorized actors or use is major cause of insecurity in regions of conflict and instability. The report however proposes a range of security measures required to minimize the risk of diversion in the post-licensing and authorization phase of a transfer, during transfer, and up to and potentially beyond arrival of the arms or dual use goods with the intended end-user. The report suggests that clear marking and record-keeping of arms and ammunitions manufactured and transferred in line with international standards, ensuring physical security measures for items stored or in transit and post-shipment controls like on-site follow-up checks on the location and use of goods should be done.

2.5 Critique of Literature Review

Niu (2010) researched the influence of audit on willingness to comply with regulations. The study used secondary data of New York economic state sector. Findings show a positive correlation between audit and level of complying. The study pointed out that other than audit revenue collection, the effect of audit compliance should be analyzed to determine its usefulness and areas to strengthen to achieve desired outcome. The study recommended that customs should be well facilitated to enhance audit power and to device well their audit framework to achieve more results in wider areas other than revenue collection. This study however, failed to examine to what level post-clearance audit affects national security.

Nguyen (2012) did a study on the changes in the US Customs and border protection role with a focus on effect of 100% scanning law. The 100% container scanning law aims to identify and eliminate nuclear weapons use in the United States (Bakshi, 2011). The study found that scanning of goods will ease the costs of doing business. This is supported by Bakshi (2010) who suggests that the policy would lead to urgent restoration of international movement of goods to a stable level while reducing the costs that would be realized from delays in case a terrorist attack is carried out leading to inflamed congestion at clearance borders. However, this study was done in the US. The research will therefore undertake to find out how scanning of goods impact on national security in Kenyan context.

2.6 Summary of Literature Review

Tax audit is directly proportional to revenue collection that is, revenue collection increases with number of tax audits conducted (Nyakamba, 2014). The audit promotes voluntary compliance which consequently leads to increased revenue. Voluntary compliance is enhanced through frequent field audits according to Niu (2010). Customs should measure the audit gains on early basis to provide comparisons which helps in addressing gaps. Auditing is an important tool ensuring all the taxes due are collected while also reducing clearance time as some imports are slated for future verification especially those involving authorized economic operators (Ayuma, 2013). Container scanning can help ease the cost of doing business as it also targets to detect and neutralize nuclear weapons threat (Nguyen, 2012). The 100% non-intrusive inspection policy would lead to stabilized inflows and outflows of goods as security is maintained most of the time (Bakshi, 2010). Kenya- Somalia border porosity has led to entry of many refugees in Kenya and the unfortunate bit is that they are accompanied by terrorists mostly of the Al Shaabab group (Zimmerman & Khatip, 2012). According to Kirkham (2017) the diversion of dual-use goods from their authorized user or intended use to non-authorized actors or use is major cause of insecurity in regions of conflict and instability.

2.7 Research Gaps

Empirical evidence shows that research related to this study has been done. Afonin P (2017) did a study on Customs risk management. The purpose of the research was to find out the benefits of risk management in Customs, to find out whether risk management in Customs must strike a balance between cost and benefits and whether a criterion is needed to decide whether a risk is acceptable or unacceptable.

Hayashi (2014) did a research study on the custom brazils risk management: towards a new paradigm of management in Brazil. Nguyen (2012) did a study on the changes in the role of US Customs and border protection and the impact of 100% scanning law. Kirkham (2017) report on international efforts to prevent diversion of arms and dual-use goods transfer: challenges and priorities suggests that diversion is a major challenge to the responsible regulation of the international trade in arms and dual-use goods. However, this studies did not specify the effect of Customs controls on national security which the researcher aims to look at in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter looks at the methodology that was applied to attain the already set up research objectives and questions. The research design, target population, sampling design, sample size, data collection and analysis, reliability and validity were discussed under this chapter. Research methodology is a strategy indicating the manner in which research is to be carried out and provides methods to be applied in it (Howell, 2013)

3.2 Research Design

Research design gives a mode and procedure to be followed in gathering data and analyzing variables in the topic under study (Cresswell, 2014). Descriptive research design was applied in this study. Descriptive research is procedural gathering and analysis of data in order to provide conclusions on the state of affairs of given phenomena (Kothari, 2014). Descriptive design depicts the state of affairs as it exists, where the researcher has no control over the variables and can only report what is happening and attempts to discover causes of the uncontrollable variables (Cresswell, 2014).

3.3 Target Population

Target population are the units being studied so as to make inferences or conclusions concerning the rest of the units (Mugenda & Mugenda, 2014). A study population is composed of people, forest tree distribution houses, business units with same features about which a researcher plans to make inferences (Cooper & Schindler, 2014). The target population of the study was 262 Customs officers based at Times Towers and Inland Container Depot.

Table 3.1 Target Population distribution

Section	Respondents
Inland container depot Embakasi	129
Risk management unit	51
Post-clearance audit unit	82
Total	262

3.4 Sampling Frame

A sampling frame is a list of all things subject to investigation by the researcher (Kothari, 2014). Cooper and Schindler (2014) also agree to this by suggesting that sampling frame constitutes the elements from which a sample is actually drawn. The objective of a sampling frame is to give a formula of selecting the particular units of the target population that are to be interviewed (Lance, 2016). The sampling frame of the study was the Customs officers based at Inland container depot in Embakasi and Times Towers risk management and post-clearance unit

3.5 Sample and Sampling Technique

A sample refers to a collection of units chosen from the target population to represent the universe (Kothari, 2014). The rate that was used for sampling was 30% based on studies by Mugenda and Mugenda (2013) who opined that a sampling rate of between 10%-30% is enough to make inferences that reflect the characteristics of the population being studied. Therefore, a sample of 78 respondents was used in data collection. Sampling techniques are strategies used by the researcher in extracting a portion of the target population in statistical sampling process

(McLeod, 2019). The study used stratified random sampling where the respondents were proportionately selected with a purpose of ensuring adequate representation of the target population (Mugenda & Mugenda, 2014). Stratified random sampling is appropriate in this study population that is segregated into two or more mutually exclusive strata (Bryman, 2015).

Table 3.2 Sample distribution

Section	Respondents	Sample Size
Inland container depot Embakasi	129	39
Risk management unit	51	15
Post-clearance audit unit	82	24
Total	262	78

3.6 Research Instrument

According to Mugenda and Mugenda (2014), research instruments refers to the tools used in the collection of data and measurement of variables in research. Data was collected using questionnaires. A questionnaire is a method of collecting data where an individual is handed a questionnaire to which they respond in a given manner (Burns, 2012). Questionnaires were used because they enable collection of data in a short time and are affordable thus cutting on researcher’s expenditure (Kothari, 2014). The closed ended questionnaire was used because items are easy to administer, analyze and also time saving (Mugenda & Mugenda, 2014). The questionnaire used the Likert scale. A Likert scale gives options in which one can respond to questions in the questionnaire (Liddell, 2018).

3.7 Data Collection Procedure

Data collection involves distribution of questionnaires to respondents and picking them after they have been attended to (Ainley, 2014). The questionnaire was administered through the drop and pick method where the researcher went to the field and handed over the pre-written questionnaires to the respondents. This method is suitable because it allows the researcher to have close contact with respondents and to explain the purpose of the study as well as explaining to respondent questions that are difficult (Farooq, 2013)

3.8 Pilot Testing

A pilot test is a test which rehearsal studies use that are implemented to establish whether there is an existing problem that requires attention before putting the actual survey in the field (Cheng, 2010). The test is carried out to determine the validity and reliability of a research instrument thus giving the researcher a step to take in case of predicted inconsistency and inaccuracy (Sekaran & Bourge, 2010). It points out weakness for immediate addressing by the researcher before continuing with the research process (Cooper & Schindler, 2014). A sample size of 10% was drawn from the Customs officers based at JKIA which is considered adequate for pilot study according to Mugenda and Mugenda (2012).

3.8.1 Validity of the Research Instrument

Validity is a measure of how well a test measures what it is supposed to measure (Robson, 2011). Validity of a measurement tool is the degree to which the tool measures what it claims to measure (Pallant, 2011). It is the extent to which a concept, conclusion or measurement is well founded and likely corresponds accurately to realities on the ground (Creswell, 2014). Validity accounts in the best possible way what a research is supposed to yield (Drost, 2011).

3.8.2 Reliability of the Research Instrument

Reliability is the level to which results are consistent over time in the sense that they can be reproduced under a similar methodology (Drost, 2011). It gives confidence to the researcher that the outcomes of the research can be used to make inferences over the target population using the specified sample. Reliability tries to determine how dependable data and the instrument fit the research (Chakrabartty, 2013). Reliability of the instrument was tested using the population which was not part of the target population. Cronbach Alpha was used to test the reliability of the research instrument. Cronbach's alpha was proposed by Lee Cronbach in 1951.

It is a function of the number of items, the average covariance between item-pairs, and the variance of the total score (Durach, 2017). An alpha of $0.7 \leq \alpha < 0.8$ is acceptable according to Ritter (2010).

3.9 Data analysis and Presentation

Data analysis involves the accumulation of data for research purpose and grouping it into forms which make it easy to make inferences which will uphold the main purpose of the research (Cathy, 2013). The data collected was analyzed using Analysis of variance, correlation analysis and regression models and the findings were presented in the form of tables. Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent and independent variable. It is used to estimate the strength of the relationship and predict future relationships of such variables. The regression analysis used in this study was the Multiple Regression Model with the following mathematical representation.

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

Where:

Y denotes the dependent variable (National Security Risk)

β_0 denotes the unknown parameters which may represent a scalar or a vector

$\beta_1, \beta_2, \beta_3$ denotes the sensitivity of Y to the independent variables X_1, X_2 and X_3 respectively

X_1 denotes Verification of Goods

X_2 denotes Risk Targeting

X_3 denotes Post-Clearance Audit

ε denotes an error term at 95% confidence level

A regression model relates Y to a function of X and β

3.10 Operationalization of Study Variables

The study is on factors affecting Customs control of illicit wildlife trade in Kenya.

Operationalization of study variables is as shown in Table 3.3.

Table 3.3 Operationalization of study variables.

Objectives analysis	Variable	Indicators	Tool of
To determine the effect of verification of goods on national security risk in Kenya	Verification of goods (independent)	Regular field audits compliance Detection of risk goods	Mean Correlation Regression analysis Analysis of variance
To determine the effect of Risk targeting on National security risk in Kenya	Risk targeting (independent)	Use of pre-arrival information Improved detection Resource allocation	Mean Correlation Regression analysis Analysis of variance
To determine the effect of post-clearance audit on national security risk in Kenya	Post-clearance audit (independent)	Inspection reports Goods identification through scanning Improved speed and decongestion through scanning	Mean Correlation Regression analysis Analysis of variance
	National security risk (dependent)		Correlation Regression Analysis Analysis of variance

CHAPTER FOUR

RESEARCH FINDINGS AND ANALYSIS

4.1 Introduction

This chapter gives the effects of the evaluation of the statistics that had been discovered from the questionnaire as outlined in the study's methodology in the previous chapter. The primary element delivered a general description of the respondents in terms of age, gender, the education level and the working experience. The second part supply relational evaluation of the variables under the study.

4.2 Response Rate

From the results, there have been 66 respondents out of a complete sample of 78 translating to 85%. According to Mugenda and Mugenda (2012) a rate of 50% is sufficient for analyzing while a rate of 60% is good and above 70% is excellent. Therefore, the study will use this data for it is excellent for data collection and analysis

Table 4. 1 Response Rate

Response rate	frequency	percentage
Response	66	85
No response	12	15
Total	78	100

4.2.1 Reliability Test

Table 4.2 illustrates the results of the study concerning the reliability and validity analysis. In this study, reliability and validity were ensured through pilot testing on a sample of 15 respondents. The findings of the pilot study showed that verification of goods had a Cronbach's reliability of 0.934, risk targeting had a reliability alpha value of 0.850, and post clearance audits had a reliability alpha value of 0.958.

From the findings, the Cronbach's reliability was higher than 0.70 thresholds showing that the instrument was sufficiently reliable and valid. This was in line with Ritter (2010) studies showing that the reliability value of 0.70 for Cronbach suggests that adequate proof exists for the reliability and validity of study instruments.

Table 4. 2 Reliability and Validity Results

Variable	Cronbach's Alpha
Verification of goods	0.934
Risk targeting	0.850
Post-clearance audit	0.958

4.3 Demographics Characteristics

Demographics offers a description of the respondents, giving age, gender, working experience and the level of education.

4.3.1 Gender

This research aimed to establish the sex of the respondents. The results are represented in Table

4.3

Table 4. 3 Gender

Gender	Frequency	Percentage
Male	53	68
Female	25	32
Total	78	100

From the study findings 68% (53) of the respondents were male while the female respondents were 32% (25). From the results most of the respondents were male. However, it is noted that the difference in gender was slightly high.

This means that the organization has balanced gender diversity which brings with it diverse talent that improves organizations performance (Bibi & Naima, 2015).

4.3.2 Age

This study aimed to determine the age of the respondents. The results are represented in Table

4.4

Table 4. 4 Age

Age	Frequency	Percentage
21-30 years	31	40
31-40 years	27	35
41-50 years	14	18
51-60 years	6	7
Total	78	100

The above table 4.3 above shows the ages of respondents who participated in the research study. Respondents (7%) were respondents between 51-60 years participated, (18%), 41-50 years, participated (35%), 31-40 years participated and (40%) between 21-30 years participated. This indicates that most of the respondents ranged between 21-30 years. Age heterogeneous workforce yields multiple skills, intellectual styles and preferences that may result in productivity (Boehm & Kunze, 2013).

4.3.3 Education Level

This study's aim was to find out the education level of the respondents. The findings are represented in Table 4.5

Table 4. 5 Education level

Education Level	Frequency	Percentage
Diploma	9	12
Degree	16	20
Postgraduate diploma	30	39
Masters	18	23
PHD	5	6
Total	78	100

From the findings 12% (9) of the respondents were diploma holders, 20% (16) of the respondents were degree holders, 39% (30) of the respondents were postgraduate diploma holder, 23% (18) of the respondents were masters' holder while 6% (5) of the respondents were PHD holders. From these results it is clear that most of the respondents were educated past diploma level which has a significant bearing on employee performance in line with findings of Bwendo (2015) that as one progresses with their education, they are more likely they are to perform due to increase in skill set.

4.3.4 Working Experience

This study sought to establish working experience of the respondents. The results are represented in Table 4.6

Table 4. 6 Working Experience

Years of Work	Frequency	Percentage
0-5	27	34
5-10	19	24
10-15	22	28
15-20	10	14
Total	78	100

From the results 34% of the respondents had worked in the organization for 0-5 years, 24% of the respondents had worked for 5-10 years, 28% of the respondents had worked for 10- 15 years, and 14% of the respondents had worked for more than 15 years. From these findings it is clear that the majority of the respondents had work experience of more than five years which is very crucial for the performance of the firm according to the study by Global force (2016).

4.3 Descriptive Statistics

4.3.1 Verification of Goods Effect on National Security Risk

The objective of the research study was to analyze the effect of verification of goods on national security risk. The findings of the study regarding the effect of verification of goods on national risk were explored by the questionnaires that were issued. A Likert scale of 1-5 was used where; 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree 5 = strongly agree. The findings are indicated in table 4.7.

Table 4. 7 Verification of Goods Effect on National Security Risk

Statement	1	2	3	4	5	Mean	SD
Inspection reports help to determine whether cargo poses a security risk	5.9%	4.4%	5.9%	41.2%	42.6%	4.10	1.095
Most cargo is scanned and images used to determine types of goods	5.9%	1.5%	10.3%	39.7%	42.6%	4.12	1.058
Cargo scanning improves verification speed hence reduce security risk posed by congestion of ports	8.8%	2.9%	5.9%	41.2%	41.2%	4.03	1.184
Average						4.08	1.112

Table 4.7 shows that most of the respondents (84%) agreed that inspection reports determine whether cargo poses a security risk while (6%) were not sure and 10% disagreed. Results also indicated that most (82%) of the respondents agreed that most cargo is scanned and images used to determine types of goods while 10% were not sure and 8% disagreed. The results also indicate that majority of respondents (82%) agreed that cargo scanning improves verification speed reducing security risk posed by congestion of ports in the process while 6% were not sure and 12% disagreed. The average mean of all statements was 4.08 indicating that most of the respondents agreed that verification of goods has a positive effect on national security, in line with Baksi (2010) findings.

4.3.2 Risk Targeting Effect on National Security Risk

The objective of the research study was to analyze the effect of risk management on national security risk. The findings of the study regarding the effect of risk targeting on national security risk were explored by the questionnaires that were issued. A Likert scale of 1-5 was used where Strongly Agree=5, Agree=4, Not Sure=3, Disagree=2, Strongly Disagree=1. The findings are indicated in table 4.8.

Table 4. 8 Risk Management Effect on National Security Risk

Statement	1	2	3	4	5	Mean	SD
Risk targeting helps in identifying high risk cargo with pre-arrival clearance	5.9%	3.0%	29.4%	35.3%	26.5%	3.97	1.074
There is improved detection of security risk posing cargo through risk targeting	4.4%	0.9%	23.5%	29.4%	39.7%	4.07	1.079
Risk targeting has to the effective allocation of resources in customs	7.4%	2.9%	5.9%	42.6%	41.2%	4.10	1.124
Average						4.05	1.092

Table 4.8 shows that most of respondents (62%) agreed that risk management helps in identifying high risk cargo with pre-arrival clearance while 29% are not sure and 9% disagreed. Majority of the respondents (69%) agreed that risk targeting leads to improved detection of security risk posing cargo while 26% were not sure and 5% disagreed. The results of the study indicated that a majority of respondents (84%) agreed that risk targeting has helped in effective allocation of resources while 6% were not sure and 10% disagreed. The average mean of all statements was 4.05 indicating that majority of the respondents agreed that risk targeting has a positive effect on national security risk, in line with Aziza (2016) findings.

4.3.3 Post Clearance Audit Effect on National Security Risk

The objective of the research study was to analyze the effect of post-clearance audit on national security risk. The findings of the study regarding how post-clearance audit affects national security risk were explored by the questionnaires that were issued. A Likert scale of 1-5 was used where Strongly Agree=5, Agree=4, Not Sure=3, Disagree=2, Strongly Disagree=1. The findings are indicated in table 4.9.

Table 4.9 Post-Clearance Audit Effect on National Security Risk

Statement	1	2	3	4	5	Mean	SD
Regular field audits contribute to the identification of misdeclared dual use goods	5.9%	2.9%	36.8%	29.8%	25.0%	3.65	1.076
Post-clearance audit has improved compliance with dual use goods restrictions	19.1%	13.2%	19.1%	16.2%	32.4%	3.29	1.517
Desk audit helped in verifying information on security risk posing goods	6.0%	5.8%	5.9%	39.7%	42.6%	4.07	1.124
Average						3.67	1.239

Table 4.9 shows that most of the respondents (55%) agreed that regular field audits contribute to the identification of misdeclared dual use goods while 37% are not sure and 8% disagreed. The results also show that most of the respondents (49%) agreed that post-clearance audit has improved compliance with dual use goods restrictions while 19% of the respondents are not sure and 32% disagreed.

The results also indicate that majority of the respondents (82%) agreed that desk audit helps in verifying information on security risk posing goods while 6% are not sure and 12% disagreed. The average mean of all statements was 3.67 showing that most of the respondents agreed that post-clearance audit has a positive effect on national security risk, in line with Kirkham (2017) findings.

4.3.4 Effect of Customs Controls on National Security

The objective of the research study was to analyze the effect of customs controls on national security risk. Findings of the study regarding how customs controls affect national security risk were explored by the questionnaires that were issued. A Likert scale of 1-5 was used where Strongly Agree=5, Agree=4, Not Sure=3, Disagree=2, Strongly Disagree=1. The findings are indicated in table 4.10.

Table 4.10 Effect of Customs Controls on National Security Risk

Statement	1	2	3	4	5	Mean	SD
Verification of goods improve firearms control through seizing of noncompliant goods	5.9%	2.9%	36.8%	28.8%	26.0%	3.65	1.076
Improved monitoring of Dual use goods is enabled by field audits	19.2%	13.1%	19.1%	16.4%	32.2%	3.29	1.517
Risking targeting leads to confiscation of explosive devices	6.1%	5.7%	5.9%	39.6%	42.7%	4.07	1.124
Average						3.67	1.239

Table 4.10 shows that most of the respondents (55%) agreed that verification of goods improve firearms control through seizing of noncompliant goods while 37% are not sure and 8% disagreed. The results also show that most of the respondents (49%) agreed that improved monitoring of dual use goods is enabled by field audits while 19% of the respondents are not sure and 32% disagreed. The results also indicate that majority of the respondents (82%) agreed that risk targeting leads to confiscation of explosive devices while 6% are not sure and 12% disagreed. The average mean of all statements was 3.67 showing that most of the respondents agreed that Customs controls positively affect national security risk, in line with Kirkham (2017) findings.

4.6 Correlation Analysis

This study used Pearson correlation coefficient which is a measure of the strength of linear relationship between variables. Pearson correlation analysis was used to determine both the significance and level of relationship of the variable and predict the level of variation in the dependent variation caused by the independent variables. The Pearson correlation coefficient, r , value of 0 shows that there is no relationship between variables. A figure higher than 0 shows a positive relationship meaning that as one variable increases, the other variable also increases. When Pearson coefficient is below 0.4, the correlation is weak and above 0.5 shows a strong correlation.

Table 4.11 Correlations Coefficient

Effect of Customs Controls on National Security Risk		Verification of Goods	Risk Targeting	Post-clearance Audit	National Security
Verification of Goods	Pearson correlation	1			
	Sig (2-tailed)	0.02			
	N	66			
Risk Targeting	Pearson correlation	.904**	1		
	Sig (2-tailed)	0.000	0.03		
	N				
Post-clearance Audit	Pearson correlation	.863**	.959**	1	
	Sig (2-tailed)	0.000	0.000	0.000	
	N				
National Security Risk	Pearson correlation	.744**	.721**	.663**	1
	Sig (2-tailed)	0.000	0.000	0.000	0.000
	N				

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

The correlation summary in table 4.11 indicates that the association between each of the independent variable and the dependent variable were all significant at the 95% confidence level.

The correlation analysis to determine the relationship between verification of goods and national security risk found a positive relationship (0.744) which shows a high degree of positive relationship which was statistically significant at ($p=0.000<0.05$). Thus improved verification of goods results in improved national security.

The correlation analysis to determine the relationship between risk targeting and national security risk found a positive relationship (0.721) which shows a high degree of positive relationship which was statistically significant at ($p=0.000 <0.05$). Thus enhancement of risk targeting improves national security. The correlation analysis to determine the relationship between post-clearance audit and national security found a high degree of positive relationship (0.663) which was statistically significant at ($p=0.000, <0.05$). Thus increased post clearance audits improves national security.

The correlation analysis to determine the relationship between verification of goods and risk targeting found a positive relationship (0.904) which was statistically significant at ($p=0.000<0.05$). The correlation analysis to determine the relationship between verification of goods and post-clearance audit found a positive relationship (0.863) which was statistically significant at ($p=0.000<0.05$). The correlation analysis to determine the relationship between risk targeting and post-clearance audit found a positive relationship (0.959) which was statistically significant at ($p=0.000<0.05$).

4.7 Regression Analysis

Regression analysis is a set of statistical methods used for estimating the relationship between dependent and independent variables. It assesses the strength of relationship between variables. Regression analysis was utilized to determine the effect of Customs controls on national security risk in Kenya. This analysis indicated how the independent variable affected the dependent variable collectively as shown in the table 4.11.

Table 4.12 Linear Regression analysis

Model summary				
Model	R	R square	Adjusted Square	R Std. Error of the Estimate
1	0.832 ^a	0.693	0.673	0.1192

a. Predictors: (constant) Verification of Goods, Risk Targeting, Post-clearance Audit

Table 4.12 shows the regression coefficient of independent variables against dependent variable. The results of the regression analysis revealed that there is a significant positive relationship between dependent variable and independent variable. The independent variables reported R value of 0.832 indicating that there is a perfect relationship between dependent and independent variables. R square value of 0.693 means 69.3% of the corresponding variation in national security risk can be explained or predicted by (verification of goods, risk targeting and post-clearance audit). This indicates that 32.7% of the changes are associated with other variables. The results of the regression analysis revealed that there was a significant positive relationship between dependent variable and independent variable at $p=0.000<0.05$.

4.8 Analysis of Variance

Analysis of Variance (ANOVA) was used to determine how well the model fits the data and the results were presented in table as shown below;

Table 4.13 Analysis of Variance

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	1022.67	3	340.89	3.83	0.00 ^b
1	Residual	5516.27	62	88.97		
	Total	6538.93	65			

a. Dependent Variable: National Security Risk

b. Predictors: (Constant), Verification of Goods, Risk targeting and post-clearance Audit.

The study sought to determine the variance between independent variable and the dependent variable as well as the significance level in the research. The sum of squares value of variance which can be explained by independent variables is 1022.67 while sum of squares that cannot be explained by the independent variables is 5516.27. The degree of freedom was 3 while the residual degree of freedom was 62. Therefore, the regression mean square was 340.89 while the residual mean square was 88.97. F-ratio tests whether the overall regression is a good fit for data. The $F(3, 63) = 3.83, p=0.00 < 0.05$ indicates that the independent variables statistically significantly predict the dependent variable.

Table 4.14 Coefficient

	Un-standardized Coefficients		Standardized		
	B	Std. Error	Beta	T	Sig.
	(Constant)	1.197	1.119		1.070
Verification of goods	0.913	0.186	0.821	4.909	0.028
Risk Targeting	0.628	0.268	0.575	2.343	0.002
Post-clearance audit	0.255	0.329	0.206	0.775	0.004

a. Dependent Variable: National Security Risk

From the analyzed data in table 4.14, the established regression equation was:

$$Y = 1.197 + 0.913x_1 + 0.628x_2 + 0.255x_3 + \varepsilon$$

x_1 is Verification of Goods which has a B coefficient value of 0.913 which implies that a unit increase in verification of goods leads to a positive effect on national security which is statistically significant at ($p=0.028 < 0.05$). x_2 is Risk Targeting with a B coefficient value of 0.628 implying that a unit increase in risk targeting leads to a positive effect on national security which is statistically significant at ($p=0.002 < 0.05$). x_3 Post-clearance audit which has a B coefficient value of 0.255 implying that a unit increase in post-clearance audit leads to a positive effect on national security which is statistically significant at ($p=0.004 < 0.05$). The constant is statistically significant at ($p=0.000 < 0.05$).

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the discussion of the findings already presented in previous chapter. Under the discussion, the findings are compared with that of other studies. From the clarifications, suggestions and associations, the conclusions and the recommendations are gathered. The presentation of this section is per the three study objectives. This section makes room for areas of other studies purely based on the limitations as well as the results of this study.

5.2 Summary of the Study Findings

The general objective of the research was to determine the impact of Customs controls on national security risk. The specific objectives of the study were to investigate the effect that verification of goods, risk targeting and post-clearance audit has on national security risk in Kenya. Below is the summary of the findings of the study.

5.2.1 Verification of Goods

In the study majority of respondents (84%) agreed that inspection reports determine whether cargo poses a security risk while (6%) were not sure and 10% disagreed. results showed that most (82%) of the respondents agreed that most cargo is scanned and images used to determine types of goods while 10% were not sure and 8% disagreed. The results also indicate that majority of respondents (82%) agreed that cargo scanning improves verification of speed reducing security risk posed by congestion of ports in the process while 6% were not sure and 12% disagreed. Pearson product correlation (0.744) revealed that there was a strong and positive correlation between verification of goods and national security risk.

5.2.2 Risk Targeting

According to the results, most of the respondents (62%) agreed that risk targeting helps in identifying high risk cargo with pre-arrival clearance while 29% are not sure and 9% disagreed. Most of the respondents (69%) agreed that risk targeting leads to improved detection of security risk posing cargo while 26% were not sure and 5% disagreed. The results of the study indicated that a majority of respondents (84%) agreed that risk targeting has helped in effective allocation of resources while 6% were not sure and 10% disagreed. Pearson correlation coefficient (0.721) revealed that there was a strong and positive correlation between risk targeting and national security risk.

5.2.3 Post-clearance Audit.

The results of the research showed that most of the respondents (55%) agreed that regular field audits contribute to the identification of misdeclared dual use goods while 37% are not sure and 8% disagreed. The results also show that most of the respondents (49%) agreed that post-clearance audit has improved compliance with dual use goods restrictions while 19% of the respondents are not sure and 32% disagreed. The results also indicate that majority of the respondents (82%) agreed that desk audit helps in verifying information on security risk posing goods while 6% are not sure and 12% disagreed. Pearson correlation coefficient (0.663) revealed that there was a strong and positive correlation between post-clearance audit and national security risk.

5.2.4 National Security Risk.

Results of research showed that most of the respondents (55%) agreed that verification of goods improve firearms control through seizing of noncompliant goods while 37% are not sure and 8% disagreed. The results also show that most of the respondents (49%) agreed that improved monitoring of dual use goods is enabled by field audits while 19% of the respondents are not sure and 32% disagreed.

The results also indicate that majority of the respondents (82%) agreed that risk targeting leads to confiscation of explosive devices while 6% are not sure and 12% disagreed. The average mean of all statements was 3.67 showing that most of the respondents agreed that Customs controls positively affect national security risk.

5.3 Conclusions

Based on the study findings on the effect of Customs controls on national security risk, the study found that Customs controls are very significant in determining Kenya's national security risk. Therefore, Customs administration in Kenya should strengthen control processes in order to protect the country from security risks. The study found that there exists a significant relationship between verification of goods and national security risk. Therefore, the study concludes that verification of goods positively affects national security risk. The study also found that there exists a significant relationship between risk targeting and national security. Therefore, risk management application in Controls results in improved national security. The study found that that there is a significant relationship between post-clearance audit and national security risk. Therefore, post-clearance audit control measure is crucial is monitoring dual use goods application to ensure they are not used for prohibited purposes.

5.4 Recommendations

The research findings showed that verification of goods, risk targeting and post clearance of goods greatly affect national security risk in Kenya. Therefore, in order to strengthen supervision, improve the effectiveness of the management system and ensure the achievement of preferred outcomes Customs should eliminate possible concealment of goods by monitoring movement goods transported across the state border through use reliable electronic cargo tracking systems for goods on transit. The study recommends that Customs should take under special control of the procedure of Customs clearance of dual use goods.

The study also recommends that Customs, in order to enhance the effectiveness of risk management, information about shipment should be sent electronically to outbound Customs administrations prior to loading.

The study established that post-clearance audit procedures lead to improvement in national security. The study therefore recommends that Customs department should ensure that post clearance audit procedures are followed to the later. The study further established that pre-arrival clearance reduces goods clearance time through cargo scanning leading to decongestion of ports. However, this can lead to the clearance of wrong which may lead increase chances of smuggling. This study therefore recommends that more policies should be formulated to govern pre-arrival clearance.

5.5 Areas for Further Research

I did research on the effect of Customs controls on national security risk in Kenya, with the study variables being verification of goods, risk targeting and post-clearance audit. I would recommend further studies on how customs controls affect trade facilitation particularly at international Kenya borders. There is also need to carry out studies on how post-clearance audit affects dual use goods compliance to customs regulations. I would also recommend that studies be done on the cost-effectiveness of cargo scanners in the facilitation of compliant trade.

The researcher also recommends a study to be done on the challenges faced in balancing trade facilitation and security within and along Kenyan borders, a case of transit trade facilitation. I would also recommend study to be carried out in the area transit cargo security with a bias in the challenges facing transit cargo security in Kenya. There is scarce literature on environmental safety and security. I therefore recommend a study on the role customs in ensuring environmental safety and security in Kenya.

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APPENDICES

APPENDIX I: INTRODUCTORY LETTER.

I am a student of Kenya school of revenue administration pursuing a post Graduate Diploma in customs administration. As part of the requirement of the course, I intend to carry out research project on the effect of Customs controls on national security risk.

For successful completion of this research, a questionnaire will be submitted to facilitate in collecting data relating to the subject above.

Kindly note that the information that you will provide will be treated with utmost confidentiality and that it will be used purely for academic purpose only.

I thank you in advance for your cooperation.

Yours sincerely,

Moses Juma Wabwire

APPENDIX II: RESEARCH QUESTIONNAIRE

Please answer all the questions by ticking where appropriate

PART ONE: Personal Data

1) Name of the organization.....

2) Gender Male [] Female []

3) Respondents age bracket

Less than 30 years [] 40 – 49 []

30 – 39 [] 50 years and above []

4) Academic/ professional qualification of the respondent

Secondary certificate [] postgraduate diploma []

Diploma [] PhD []

Degree []

5) Level of experience

Less 10 years [] 15 – 19 years []

10 – 14 years [] 20 years and above []

PART TWO: VARIABLES

Section A: Post Clearance Audit

To what extent do you agree with the following statements relating to the effect of post clearance audit on national security risk?

Key: Great Extent=1, Larger Extent=2, Moderate Extent=3, Small Extent=4, Very Small Extent=5

Statement	1	2	3	4	5
Regular field audits positively contributes to the identification of misdeclared dual use goods					
Post clearance audit has achieved a lot in terms of compliance with use restrictions of dual use goods					
Post-importation verification has helped in detection of undeclared security risk posing goods					

Section B: Risk Targeting

10) What is your level of agreement with the statements below regarding the effect of risk targeting on national security?

Key: Strongly Agree=1, Agree=2, Not Sure=3, Disagree=4, Strongly Disagree=5

Statements	1	2	3	4	5
Risk targeting helps in identifying high risk cargo with pre-arrival clearance information					
There is improved detection of security risk posing cargo through risk targeting					
Risk targeting has helped to effectively allocate resources in customs functions.					

Section C: Verification of Goods

8) What is your level of agreement with the statements below that relate to the influence of verification of goods on national security. Key: Strongly Agree=1, Agree=2, Not sure=3, Disagree=4, and Strongly Disagree=5

Statements	1	2	3	4	5
Inspection reports helps in determining whether Cargo poses a security risk					
Most of the cargo is scanned and x-ray images helps to determine types of goods that are undeclared.					
Cargo scanning has improved the speed at which goods verification process is conducted eliminating security risks that result from congestion at ports.					

Section D: National Security

11) To what level do you agree with the statements below relating to the impact of improved national security? Key: Strongly Agree=1, Agree=2, Not Sure=3, Disagree=4, Strongly Disagree=5.

Statements	1	2	3	4	5
Verification of goods improves firearms control through detection and seizing of goods that are noncompliant.					
Improved monitoring of dual use goods is enabled by field audits.					
Risk targeting leads to confiscation of explosives devices					