

**THE INFLUENCE OF TRANSPORT BASED NON-TARIFF BARRIERS ON TRADE
FACILITATION ALONG THE KENYAN SECTION OF THE NORTHERN CORRIDOR**

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DECLARATION

This project is my original work and has not been presented for a diploma, degree or masters in any other University

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Signature

Date

HDB335-C016-4446/2016

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

TIMONAH NAMUTILA

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Signature

Date

DEDICATION

The work is entirely dedicated to my family members for their continued support.

ACKNOWLEDGEMENT.

First I would like to express my sincere gratitude to my Supervisor Mr. Timonah Namutula for his support, patience and guidance which has resulted in the successful finalizing of this project.

Lastly, I would like to thank my beloved family for their continued support.

ABSTRACT

The study examines the impact of Transport Based Non-Tariff Barriers on trade facilitation along the Kenyan Section of the Northern Corridor. Specifically, the study looks at how Non-Tariff Barriers including; weigh bridges, police road blocks, corruption and security influences trade along the corridor. The study is guided by the descriptive design of its simplicity and relevancy to guide the study. The target populations of the study are transit goods transporters, transporters of export cargo, clearing agents, custom officers, police and Kenyan exporters who use the Kenyan Section of the Northern Corridor. The study adopts simple random sampling techniques to determine the sample size. After which, Yamane's formula is used to calculate the sample size based on the total population. The sample size of the study has constituted 122 respondents. Primary data from respondents has been collected through the use of self-administered questionnaires and analyzed using the Statistical Package for Social Scientists (SPSS). The study found that transport based non-tariff barriers had a big impact on trade facilitation along the Kenyan section of the northern corridor. The study revealed that non-tariff barriers including weighbridges, roadblocks, insecurity and corruption had a strong positive relationship with trade facilitation along the northern corridor. The study revealed that majority of weighbridges and roadblocks caused prolonged delay resulting in unnecessary costs and malpractices. Therefore, it is imperative for the government to consider modernizing weighbridges and reducing roadblocks in the road. This will also contribute in reduction of corruption. Through the Electronic Cargo Tracking System, the government can also monitor any delays and identify which roadblocks are causing delays. The study findings showed that security is a major impediment affecting trade along the corridor. Therefore, there is need for the government to provide security along the corridor in order to mitigate against cases of banditry, theft and terrorist attacks.

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LIST OF ABBREVIATIONS

COMESA:	Common Market for Eastern and Southern Africa
DAFF:	Department of Agriculture, Forestry and Fisheries
DRC:	Democratic Republic of Congo
EABC:	East African Business Council
EAC:	East African Community
EU:	European Union
GATT:	General Agreement on Tariffs and Trade
GTZ:	Deutsche Gesellschaft für Technische Zusammenarbeit
NCTTCA:	Northern Corridor Transit and Transport Coordination Authority
NTBs:	Non-Tariff Barriers
NTM:	Non-Tariff Measures
SADC:	Southern African Development Community
SPS:	Sanitary and Phytosanitary
WTO:	World Trade Organization

DEFINITION OF TERMS

Corruption- refers to fraudulent conduct by those in power, typically involving bribery.

Influence - the power to change or affect trade.

Non-tariff barriers-This refers to the policies or regulations which control trade operations.

Northern corridor-refers to the multimodal trade route linking the landlocked countries of the Great Lakes Region with the Kenyan maritime sea port of Mombasa.

Road blocks - a barrier on a road set up by the authorities to stop and examine traffic.

Security- refers to the state of being free from danger or threat.

Tariff barriers-refers to a barrier to trade between certain countries.

Trade facilitation-refers to removing obstacles to the movement of goods across borders.

Weighbridges -a platform scale that stands flush with a road and is used for weighing trucks.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Around the globe, trade is considered as a conduit for economic growth and social transformation. Throughout history the concept of trade continue to gain more prominence and focus among scholars. Beginning from the time of agrarian revolution, right through the age of industrialization and now, the era of information, trade has always been the mainstay of any society. However, despite the significant role trade plays in the global sphere, recent studies have shown that transport based Non-Trade Barriers (NTBs) are the main obstacles impeding free trade in the international economy (DAFF, 2012). The NTBs are import or export targeted policy measures other than ordinary custom tariffs that alter the conduct of trade. The NTBs distort the movement of goods and services, prices of commodities, the quantities or structure of trade. NTBs include restrictive and discriminatory measures such as sanitary and phytosanitary (SPS) measures and other technical barriers (Okumu and Nyankori, 2010).

The application of NTBs in regulating trade across the world has become more common while the use of tariffs has drastically declined. According to the World Trade Organization Report (2012) observes that many countries around the world have either adopted the NTBs either as a multilateral, preferential or through unilateral action. The report further indicates that many governments prefer using NTBs to actualize a broader public goal other than safeguarding local producers from unhealthy import competition (WTO, 2012).

In Africa, some countries have forged a common front with the aim of bolstering economic integration. Gillson (2011) observes that evolution of trade in the globe has led to the creation of regional trade agreements such as COMESA, SADC and SACU, all with a single most goal of creating a free market and common market in order to enhance the movement of goods and services between two or more countries without any hindrance or restriction. It has been noted that NTBs are the major obstacle towards full realization of a united East African community which was agreed among five countries in the year 2011 (East African Secretariat website, 2011). The proponents of NTBs argue that the non-tariff barriers are meant to protect

the general wellbeing, safety and security of human beings, animals and plants against environmental degradation as well as shielding local producers and consumers from unhealthy competition which may lead to loss of income or failure of a business.

A report by East African Community (2011) on the measures taken by East African countries to eliminate NTBs shows that Tanzania ranked the highest source of NTBs in the region, followed by Kenya and Burundi respectively. The performing country in the elimination of NTBs was Rwanda and no complaints reported against it from the region. This therefore means that Uganda, Rwanda Burundi, Tanzania, and Kenya are largely affected by NTBs. The ultimate impact of non-tariff barriers (NTBs) in the EAC region, like elsewhere, causes trade delays and increased costs. In the end, this hampers the free movement of goods and services.

In Kenya, key stakeholders in trade facilitation have called for a complete abolishment of NTBs in order to enhance the local, regional and international trade. The significance of removal of NTBs is supported by the work of Karugia et al. (2009), whose study focuses on the effect of the removal/reduction of NTBs in maize and beef trade in the East African region on the welfare and success of the business. The study found that the impact of NTBs in East African community may either end up in a complete elimination of all the existing NTBs within the EAC; a 50 percent reduction in NTBs; and the separate elimination of individual types of NTBs such as roadblocks, permits, and customs clearance. Additionally, the study established that the three main types of NTBs within Kenya, Uganda and Tanzania were similar. The similar NTBs were mainly, administrative requirements (mainly licenses, municipal and council permits), taxes/duties (mainly excise and cess duty), roadblocks, customs barriers, weighbridges, licensing, corruption (for example, bribes), and transiting.

Evidence shows that NTBs increase the cost of exports and imports. In his study on the relationship between trade liberation and economic growth in South African agricultural industries, Teweldemedhin (2009) found that the Gini coefficient of exports and imports which were set at 0.55 and 0.62 respectively, were higher compared to advanced countries. Therefore, South Africa needs to enhance economic integration by eliminating NTBs which affect its regional and multilateral liberalization. As a result, this will enhance a good balance of trade among South African industries to implement and increase trade liberalization on the diversified level of industrial specialization thereby attaining a significant level of economic stability.

Locally, several NTBs exist and persist despite efforts to remove them. Available literature shows that the existence of the NTB not only impedes smooth movement of goods and services but also has a detrimental effect on the ease of doing business. Okumu and Nyankori (2010) in his study on NTB in East Africa Customs Union found that customs documentation requirements, cumbersome formalities, and limited testing and certification arrangements were the major impediments affecting trade within the East African Community. Consequently, the study also revealed that in EAC, the existence of substandard weighbridges, several road blocks and poor compliance to individual country's standards as well as the use of multiple un-harmonized standards hinder trade. The simulation results of spatial equilibrium model of maize trade with and without NTBs show that at the EAC level there are positive production, trade and welfare implications attributable to elimination of NTBs in intra-regional maize trade. The gains are greatest in trade and production in Uganda compared to Kenya and Tanzania.

In another study, Mellado et al., (2010) examines the implication of Non-tariff measures on agro-food trade between the EU and Africa and found that tariff equivalent ranged between 36 per cent and 190 per cent. On importing countries, the study found a strong preference of more than 99 per cent for domestic frozen fish fillets and an important variation of the tariff equivalent for all the products among the EU importing countries and over time. The tariff equivalents obtained are used in a gravity econometric estimation to quantify the trade effect of these NTMs on imports.

The Kenyan section of the Northern Corridor has gained much focus over the recent years because of its strategic position and its potential to improve trade among the east African countries. The Northern Corridor starts at the Port of Mombasa and covers east and central African countries including; Kenya, Uganda, Tanzania, Rwanda, Burundi, South Sudan and Democratic Republic of Congo. The corridor is epicenter of national, regional and international trade for the Eastern Africa nations. However, it has been observed that due to inadequate infrastructure and inefficiency, the corridor is characterized by long transit times and high cost. Freight cost per kilometer is more than 50 percent higher than in the United States of America and Europe and for the landlocked countries; transport costs can be as high as 75 percent of the value of exports. Modernization of transport infrastructure and removal of non-tariff barriers along the corridor is critical for trade expansion and economic growth. The port also serves the neighbouring countries in the region including Uganda, Rwanda, Northern Tanzania, DRC, and

South Sudan. In the recent past the port has improved performance in container traffic and turn-around time. However, it remains less competitive in terms of connectivity to global shipping networks, cost of importing containers, and the burden of custom procedures (Trademark East Africa, 2014). It is against this backdrop that the study intends to examine the impact of Non-Tariff Barriers on trade facilitation along the Kenyan section of the Northern Corridor.

1.2 Statement of the Problem

While there has been a concerted effort to eliminate or reduce the impact of Non-Tariff Barriers in Kenya, evidence shows that NTB still persists. The continued existence of NTBs is detrimental to regional trade because they affects the potential benefits of trade preferences such as regional trading arrangements and hinders growth of intraregional trade and their associated benefits. The NTBs may also increase the cost of doing business thereby causing huge welfare losses (EABC, 2005). However, the available studies do not show the impact of NTBs on trade facilitation.

Kenya's access to markets within the EAC region faces difficulties because of NTBs (Mmasi & Ihiga, 2007). A report by the Northern Corridor Transit and Transport Coordination Authority (NCTTCA, 2015) establishes various NTB impediments such as custom bonds, roadblocks, weigh bridges, corruption and congestion has greatly impacted on development of trade within the region. The report points out that the introduction of a single Customs bond for transit (for transit cargo moving under the warehousing regime) affects trade because the bond is not in fact 100% compliant with the agreed regional format. Further, the report by NCTTCA (2015) indicates that police checks/roadblocks en-route and charge of transit fees on goods transiting their territory is likely to cause additional delays for collection along the corridor as well as increasing out-of-pocket costs for truckers and shippers. Along the corridor, the multiple weighbridges and multiple checks of documents on the roads linking Mombasa to the Ugandan border results in delays and become sources of corruption between Mombasa and Kigali. The delays extend to the Kenya/Uganda border for both truck and rail traffic due to inspections and other technical barriers. This leaves a big problem on how these barriers prohibits Kenya from exploiting available trade opportunities in the East Africa Market and beyond. Also, little has been explored on Kenya's ability to overcome the barriers because the impact of NTBs is an area

that is understudied. This study seeks to fill this gap by looking at the impact of Non-Tariff Barriers on trade facilitation along the Northern Corridor.

1.3 Research Objectives

The overall objective of the study was to find out the impact of transport based Non-Tariff Barriers (NTBs) on trade facilitation along the Kenyan section of the Northern Corridor. Specifically, the study seeks to achieve the following objectives:

1. To establish the influence of weigh bridges on trade facilitation along the Kenyan section of the Northern Corridor.
2. To find out the influence of road blocks on trade facilitation along the Kenyan section of the Northern Corridor.
3. To find out the influence of corruption on trade facilitation along the Kenyan section of the Northern Corridor.
4. To establish the influence of security on trade facilitation along the Kenyan section of the Northern Corridor.

1.4 Research Questions

1. How do weigh bridges influence trade facilitation along the Kenyan section of the Northern Corridor?
2. How do road blocks influence trade facilitation along the Kenyan section of the Northern Corridor?
3. How does corruption influence trade facilitation along the Kenyan section of the Northern Corridor?
4. How does security influence trade facilitation along the Kenyan section of the Northern Corridor?

1.5 Significance of the Study

Kenya's vision 2030 master plan and the global sustainable development goals consider bilateral and multilateral trade as the engine of spurring economic growth and development.

Main trade projects such as the Northern Corridor is considered as one of the most important projects in enhancing economic integration in East Africa. Despite the significant role the Northern Corridor plays in meeting Kenya's short and long-term development goals, little is known on how Non-Tariff Barriers affect trade along the corridor. This study therefore makes an important contribution to the existing knowledge about the impact of NTBs on trade facilitation along the Kenyan section of the Northern Corridor. In addition, this study makes certain recommendations that can guide the formulation of public policies that can enhance mitigation of NTBs in Kenya.

1.6 Scope of the Study

The study specifically investigates the impact of Transport Based NTBs on trade facilitation along the Kenyan section of the Northern Corridor. Geographically, the study will be undertaken in Nairobi Kenya. Nairobi is the Capital city of Kenya and will target Kenyan Exporters within the East African Community. Data will be collected from exporters within Nairobi region using questionnaires.

1.7 Limitation of the study.

The respondents to be approached were reluctant in giving information fearing that the information sought was used to portray a negative image about them or their institution. Some of the information sought was confidential in nature, which makes some of the respondents to deliberately refuse to give required information for fear of victimization.

The other challenge was lack of relevant information in the area of study and time which pose as a challenge.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on the impact of Non-Tariff Barriers on trade facilitation. The review adopts a thematic approach and the main themes covered are: weigh bridges, road blocks, insecurity and corruption. The main purpose of reviewing the literature was to identify a gap that our study sought to fill. At the same time, it outlines the conceptual framework that guided the study.

2.2 Theoretical Review

Theoretical review demonstrates an understanding of the theories related to this topic. Theoretical review helps to make research findings meaningful and generalizable, to establish orderly connections between observations and facts, to predict and control situations and lastly to stimulate research.

2.2.1 Customs Union Theory

The customs union theory was proposed by Jacob Viner in 1950 in the book called, Custom Union issues. The theory proposes removal of tariffs on imports from members of an economic bloc, formulation of a standardized external tariff on imports other parts of the world, distribution of customs revenue based on an agreed formula, healthy competition in commodity and factor markets, factor mobility within countries but not between them, and cut of transportation costs. The custom union theory also indicates that tariffs are mostly employed as the only forms of regulating trade among countries to ensure that the prices of commodities conform with the requirements of opportunity costs of production and ideally, countries should have more exports than imports and ensure effective utilization of available resources in production, processing and manufacturing of goods and services.

A closer look at Viner's theory of customs unions reveals that the theory is founded on the basic concepts of trade diversion and trade creation. According to the theory, trade diversion enhances shift of trade from a more efficient exporter towards a less efficient one as a result of the formation of a free trade agreement or a customs union. On the other hand, trade creation enables redirection of the flow of goods and services due to the formation of a free trade area or a customs union (Strielkowski, 2013).

According to Viner (1950), custom unions are not necessarily beneficial to trade. The custom union may be harmful if not appropriately implemented being that they may lead to hoarding and under quality products due to lack of competition (Hosny, 2013). The main goal of economic integration as observed by customs union theory is to eliminate tariff and non-tariff barriers which impede development of trade, promote development external trade policy which initiates a standard trade restrictions against non-members, free trade as well as free movement of factors of production across national borders, harmonization of policies, unification of national monetary policies, and acceptance of a common currency. These happen in stages which include free trade area, customs union, common market, economic union and complete regional integration (Madyo, 2008).

The aim behind the agitation for economic integration in EAC is to broker agreements with the view of promoting the common interest of both the consumers and producers. Such agreements may include treaties that safeguards member states against the detrimental impact of tariffs and non-tariffs measures. The economic agreements will spur trade in the region and enable consumers to access goods at lower prices due to economies of scale. To the detriment of importers and exporters, absence of elaborate regional integration agreements frameworks on tariffs have a negative impact on traders as they are forced to pay for more imports costs. This in turn, leads to increase in the prices of consumable goods and services. In the EAC, regional economic communities, mitigation of tariffs and non-tariff barriers (NTBs) will work towards enhancing trade in the region. As a result, producers will stand to benefit through intra-industry trade in terms of which input costs of their production become cheaper (Madyo, 2008).

2.2.2 The Classical Theory of Trade

The classical theory of trade was first fronted by the classical economist Adam Smith in 1759. Smith believed that countries benefit more when they endear their efforts on optimizing

their comparative advantage. Those countries which devote their efforts in production of the goods and services in which each have an advantage stand to benefit more than those which have resources but fail to effectively utilize it. This means that each country have an advantage and a disadvantage in production of particular goods and services. Therefore, this will promote exchange of goods and services among countries thereby promoting trade.

The concept of classical theory of trade was subsequently expanded by Adam Smith in his work of 1776 entitled “The Wealth of Nations”. According to him, accumulation of wealth is not an indicator of a country’s economic growth or quality of life of its citizens. Smith (1976) believed that the welfare of a nation rested on its ability to consume (Czinkota, Rivoli and Ronkainen, 1989).

David Ricardo (1817) continued the work of Smith when he developed the theory of comparative advantage which explains how two countries could benefit from participating in international trade. The classical theory of comparative advantage illustrates the reasons why countries may participate even when they have more competent and efficient workers who have the ability of producing every single good than workers in other countries. To proof his idea, Ricardo (1817) gave an example of the exchange in wine and cloth between Portugal and England. He demonstrated that besides the fact that Portugal had an absolute advantage to produce both wine and cloth; the two nations would still trade because this would help Portugal to gain through specialization in the production of wine. Therefore, the Portuguese would put more effort and resources in the production of wine and this will drastically lead to the decline in the quantity of cloth produced thus necessitating the importation of cloth from England (Seetanah et al., 2013). The Classical Theory of Trade is relevant to this study because a country like Kenya has specialized in export of particular commodities in the EAC. As a result, all the members States of the EAC benefit from it as they gain economically where there is surplus of trade and satisfy their demand side of the commodities they do not produce.

2.2.3 Complex Interdependence Theory

The complex interdependence theory was put forth by Keohane and Nye (1977) and indicates that countries are inextricably linked and no country can succeed alone. The concept of economic interdependence was first emphasized by Cooper (1972) who underscored the analytical construct of complex interdependence among countries. Keohane and Nye (1977)

went a notch higher to analyze how international trade is influence by interdependence (Crane & Amawi 1997). The theorists assert that various and complex transnational linkages, collaborations and partnerships among countries have increased while the use of military force and power balancing are decreasing but remain important.

Keohane and Nye (1977) give a distinction between interdependence and dependence in relation to the role of politics and the relations between international actors. They explain that interdependence is a state of mutual dependence whereby countries are believed to be highly sensitive and vulnerable to each other. The understanding of how mutual coexistence of countries affect trade reveals that interdependence among countries may be challenged when one country decides to impose costs on other members of an economic trading bloc. The aggrieved country may be forced to respond politically in an attempt to avoid having the burdens of adjustment forced on them. The greatest problem facing international trade is how the government can foster and maintain a mutually beneficial pattern of cooperation without either of the member countries being subjugated (Keohane & Nye, 1977).

The problem of interdependence among countries in trade is closely related to the problem facing the use of Non-Tariff Barriers in the EAC in circumstances where some member states bear the brunt of costs of trade liberalization imposed on them. Some of these countries have shifted to policy measures and non-policy alternatives to avoid these costs as they seek to enhance gains. Ultimately, these alternatives result into excess use of NTBs thus hindering trade and curtail cooperation in other economic, social and political spheres.

Many countries view trade cooperation as an event where both countries benefit. Therefore, achieving cooperation permits actions of individuals or organizations that are not in a preexistent harmony to come together and cooperate with one another (Keohane, 1984). The understanding of cooperation illustrates the importance of negotiation processes under complex interdependence. This theory is applicable to the study in that the members Kenya depends largely on EAC members for exports. However, literature has revealed that there are barriers that threaten the mutual coexistence of trading countries in the form of regulatory frameworks imposed by the member countries. This has complicated the interdependence.

2.3 Conceptual Framework

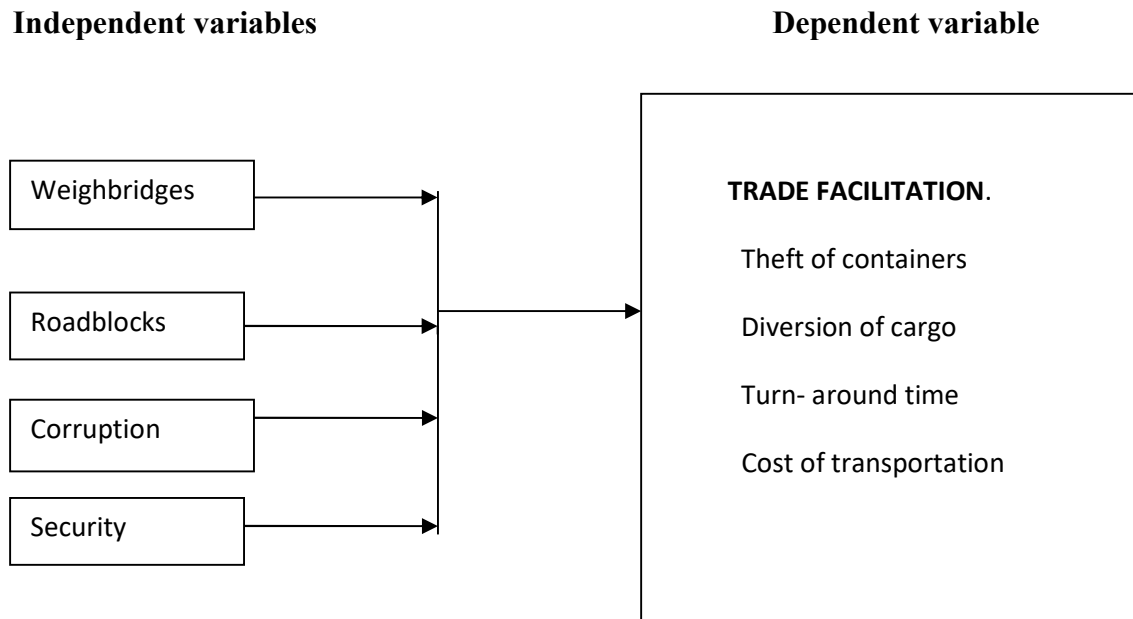


Diagram 2.3 Conceptual framework of the study

The diagram above shows the interrelationship between the independent variables and dependent variables. The independent variables in this case are the restrictive non-tariff barriers that alter the way trade operates. The non-tariff barriers include; weigh bridges, road blocks, insecurity, corruption, cash bonds and SPS. The dependent variable for the study is trade facilitation. Therefore it means that success of trade is a function of non-tariff barriers. The impact of non-tariff trade barriers is mediated by the government policy.

2.4 Empirical Review

2.4.1 Weigh Bridges on Trade Facilitation

A study by Okumu *et al.* (2010) examined the implications of non-tariff barriers in EAC customs union between Uganda and other EAC countries. The study found that there are several NTBs which have persisted despite efforts to eliminate them and continue to impede free trade among the EAC. Some of the NTBs that have persisted for more than three years include a long list of customs documentation requirements, cumbersome formalities, and limited testing and certification arrangements. The study by Okumu *et al.* (2010) further established those un-standardized weighbridges; several road blocks; lack of recognition of individual country's standards; and the existence of several un-harmonized standards hindered regional trade by causing prolonged delays.

Another study by Ihiga (2007) found that mandatory weighbridges placed along the transit routes impede trade by doubling the transit time and cost of transporter upkeep. This cases are more common along the Kenyan and Tanzanian transport corridors being that the Tanzania authorities requires every vehicle carrying goods, small or large, to be weighed, including passenger buses putting into consideration that along the Central Corridor, between Rusumo and Dar es Salam, there are five compulsory weighbridges: at Nyahahura, Mwenda Kulima, Mkundi, Mikese, and Kibaha.

Along the Northern corridor, there are 7 weighbridges mounted on the Kenyan route at Mombasa, Mariakani, Athi River, Gilgil, Webuye, Amagoro, and Malaba. Trucks heading to Kigali have to be weighed another four times in Uganda, at Busitema, Masaka, Mbarara, and Ntungamo. The several weigh bridges consumes time and money. The mandatory weighing of goods along the transit route adds time and cost of upkeep for transporters. These costs are particularly significant on the Kenyan and Tanzanian sides of the transportation corridors (Raman, 2006).

The challenges experienced at the weigh bridges located along the Northern Corridor are contributed by lack of harmonized and acceptable weights per axle and the number of axles per metric ton among the EAC member states. Numerous truck scales along the main road transportation routes along the Northern Corridor makes it difficult to move goods to destinations on time (Rizet and Hine, 2004). In addition, because the EAC members have not yet

harmonized gross vehicle mass, each country uses its own scales. Kenya allows only 54 metric, 45 metric tons are allowed in Uganda, 56 metric tons in Tanzania and 58 metric tons in both Rwanda and Burundi (Kimenyi, 2008).

A study by Mmasi and Ihiga (2007) the effect of existing NTBs on Tanzania's trade in the EAC between 2001 and 2005 revealed that Kenya was a major source of Tanzania's imports accounting for 27 percent while Uganda accounted for a mere 4 percent of total exports. Moreover, the EAC customs union protocol provides for zero percent tariff rates to be applied on intra-EAC trade (for Tanzania and Uganda), implementation of which has erupted into NTBs. Mmasi and Ihiga (2007) established that the major NTBs that impeded trade include; cumbersome inspection requirements such as repeated and long queues during inspection of Gross Vehicle Mass and axle loads, faulty weighing equipment and cumbersome quality inspection. Police roadblocks was found to be a disturbing type of NTB because traders reported that police officers stopped commercial vehicles at various inter-country road blocks and at border crossing even where there was no proof that goods on transit were of suspicious nature. Others included varying trade regulations among the EAC countries; varying, cumbersome and costly transiting procedures in the three EAC countries; and immigration procedures.

The study by Mmasi and Ihiga (2007) highlights the nature of NTBs that hamper Uganda's trade with COMESA and EAC Partner States in 2001 to 2005. The study revealed that Uganda's agricultural products performed dismally in the EAC and COMESA market as the total exports fell from 27 percent in 2001 to 15 percent in 2005, with an average of 21 percent during the period from 2001 to 2005. The study further established that Kenya was largest market for Uganda's exports within the EAC/COMESA regions with a (39.5 percent), DRC (15.4 percent), Rwanda (13 percent), and Sudan (12.8 percent). The study by Mmasi and Ihiga (2007) further identified cumbersome customs documentation and administrative procedures, transiting procedures, sanitary and phyto-sanitary measures, immigration procedures and police roadblocks as some of the NTBs that affected the ability of Ugandan businesses to export to the EAC region. Further, the study illustrates that there are problems in sharing customs information online between Kenya and Uganda due to incompatibility of systems used to clear exports and imports, limited customs hours, cumbersome, and expensive customs procedures regarding exports. Uganda being landlocked depends on her neighbours, Kenya and Tanzania for provision of access to the sea and trade facilitation services – rail, road, sea freight, clearing and forwarding

services. Numerous weighbridges along the main road transport routes like the Northern corridor made it difficult to transport goods to destination markets on time (Mmasi and Ihiga, 2007).

In the year 2008, the government of Kenya proposed a more convenient system that was aimed at cutting down the weigh bridges and that transit trucks were to be weighed only once and needed to carry the issued certificate, as preferred by transporters.

2.4.2 Road Blocks on Trade Facilitation

Road blocks along the northern corridor remain a major detriment to development of trade. A study by Ihiga (2007) indicates that along the Northern Corridor, almost all transit cargo must be scanned and verified by the revenues authorities, like the Kenya Revenue Authority and the Rwanda Revenue Authority regardless of whether the goods are to be consumed in the member country concerned. The goods destined for the member country in many cases are subject to 100 percent physical inspection, particularly where they involve refund or drawback claims, regardless of the compliance record of the exporter (Ihiga, 2007).

There has been an outcry among many traders concerning the many checkpoints and police roadblocks along the trade corridors because they result in rent seeking and transit delays. Kenyan part of the Northern Corridor is particularly noted for such practices, as many traders have come out to allege that police check points have become platforms where police officers solicit bribes with trucks with foreign registration numbers mostly targeted (EABC 2004).

A report by World Bank (2008) shows that about 12 percent of commercial vehicle takes one to two hours for inspection. In many occasions, these roadblocks cause delays even for returning vehicles not carrying any goods. Along the Central Corridor, 26 checkpoints were reported between Rusumo and Dar es Salam (distance 1,480kms), and 5 in Rwanda between Rusumo and Kigali (168 kms distance). The general worry among traders is poor coordination among the police in carrying out their duties, such that a truck is subject to similar checks at all traffic stops. This creates room for the police to openly demand for petty bribes (World Bank 2008).

Many roadblocks and police checkpoints along the major roads distort the smooth and efficient movement of goods. Along the corridor, road blocks are mounted along the roads in

every 100 kilometers. It is believed that traders encounter about two, five and seven roadblocks in Tanzania, Uganda and Kenya, respectively (Karugia *et al.* 2009). According to Pedersen, (2006), road blocks are costly in terms of time and money. What complicates the traders' problem is that police officers use these road stops to demand small bribes for non-existent traffic offences.

Karugia *et al.* (2009) in their study on maize and beef trade, collected data from traders and transporters of maize and beef cattle in East Africa and found that roadblock checks, bribes and custom rules and procedures were the main NTBs to trade in EAC. The study recommended reducing 50% of the cost of NTBs or their complete elimination as a way of enhancing the welfare of the EAC. Therefore, the authors proposed either complete removal of the NTBs; bolstering of efficiency during implementation of NTBs procedures or establishment of a monitoring system to track the effectiveness of the implemented initiatives to remove barriers to trade.

In his study on the effect of trade barriers on imports, Bose (2013) used bilateral trade data where ordinary least squares Poisson Model, Negative Binomial Poisson Model, and Zero Inflated Negative Binomial Poisson Model were used. He compared these models and applied them on the gravity equation. As control variables, common border and common language are used. The study found that tariffs have a robust significant negative impact on imports over all the different econometric specifications, and increasing tariffs raise the probability of a zero trade flow. The study further established that NTBs have positive impact on imports and the probability to trade. The effect of NTMs on imports is an overall effect. Individual effects of several types of NTMs are unknown and can still be negative. The effect found possibly suffers from several problems, such as the underlying definition and reverse causality. Robustness checks show that it is likely that at least the probability to trade is negatively related to having NTMs in place (Bose, 2013).

2.4.3 Corruption on Trade Facilitation

A study by Karugia *et al.*, (2009) assessed the impact of NTBs on cross-border maize and beef trade in three EAC countries namely Kenya, Tanzania and Uganda established that many roadblocks along the northern corridor were conduits through which police used to demand

bribes from unsuspecting traders. Kafeero (2008) observes that roadblocks serve as an arena for extortion of bribes by policemen. GTZ (2010), World Bank (2010), Karugia *et al.*, (2009) worked on informal payments and discovered that when customs officials were bribed the clearance process of goods was shortened.

East African Business Council (EABC) (2008) conducted a survey whose main purpose was to capture practical information about the experiences of business community on the implementation the EAC customs union. Using a representative sample of 86 companies drawn from sectors accounting for 80 percent of intra-EAC exports, the snapshot survey identified SPS standards for most products that are not harmonized within the region and there was lack of mutual recognition. The study found that malpractices in permit requirement for Ugandans carrying out business within the region constraints their operation. Moreover, the procedure for obtaining business licenses was cumbersome and expensive particularly for non-residents. Finally, Ugandan traders complain of many road blocks in Kenya which are arenas of extortion impede efficient movement of goods across the region (Tumuhimbise and Ihiga, 2007).

Karugia *et al.*, (2009) in their study found that the NTBs affected the flow and structure of trade and proposed either a complete elimination of all the existing NTBs within the EAC; a 50 percent cut of all the available NTBs or a targeted capping of individual types of NTBs such as roadblocks, permits, and customs clearance. In conformity with findings from other studies on regional trading blocs in Africa, intra- EAC trade in maize and beef was disturbingly low. In addition, the study found the main NTBs existing in the EAC were; administrative requirements, taxes/duties, roadblocks, customs barriers, weighbridges, licensing, corruption and insecurity.

In their study, Karugia *et al.*, (2009) found that the average cost of maize as a result of NTBs in U.S. dollars per kilometer per tons was estimated at \$0.09, \$0.15, and \$0.11 in Kenya, Uganda, and Tanzania respectively. In addition, it was revealed that the cost of beef trade fluctuated due to the existence of NTBs. It is argued that a complete elimination or a reduction of NTBs in maize and beef made Kenya to import more maize from both Uganda and Tanzania while NTBs caused Uganda to increase more beef exports to Kenya and Tanzania. As a result, positive net welfare gains were attained for the maize and beef subsectors in the entire region. This means that NTBs has a potential of compensating the losers in trade thus fostering mutual trade relationships among countries. A study by EABC (2004) established that the main outcry

among traders operating along the northern corridors is not only because of the transit delays caused by several checkpoints and police roadblocks mounted along the main trade corridors but more importantly, the check-points have become arenas where police solicit bribes from traders (EABC, 2004). In addition, traders waste a lot of resources due to poor coordination among the police in carrying out their duties, such that a truck is subject to similar checks at all traffic stops. This creates room for the police to openly press for petty bribes (World Bank 2008).

2.4.4 Security on Trade Facilitation

The northern-eastern part of Kenya is marked as a porous border because of regular attacks from Somalia based outlawed group called the Alshabaab. Heightened security concerns along the trade routes and highway thefts add to concerns for traders and transporters. Along the Ugandan segment of the Northern Corridor, transporters who make night runs complain about acts of banditry (EABC, 2005). For the case of Kenya, in 2007, 32 containers were lost to thieves and a number of people lost their lives on the way to Kampala. The events that unfolded after the December 2007 election in Kenya led to one of the worst spurts of highway crimes witnessed in Kenya. In Burundian territory, night travel is banned because of the prevailing lack of security. Operation of the CFSs at various locations is affected by pilferage of cargo. Exporters end up losing their goods and are often unable to lodge claims because they do not know whose responsibility it is to pay for the claims (Ayoki, 2007).

Mehta (2005) examined the nature of NTBs facing India's exports in developed world markets. The study observed that countries use many mechanisms to restrict imports and large drop in the average tariff levels following the GATT – Uruguay Round of negotiation, countries have resorted into using non-tariff measures as a mode of protectionism. The study used two methodological approaches namely 'Index of Coverage Ratio' and 'Index of Frequency Ratio' which were supplemented by case studies. The study revealed that there were many NTBs that India's export faced as a developing country. In the US for instance 44 percent of the India's exports faced hard-core NTBs such as safety requirements and labelling. NTBs were urged to ensure that perishable products were safe and of a high quality at the point of consumption; failure to maintain product quality leads to customer dissatisfaction, lower demand, and public health problems.

2.5 Critique of the Literature Review.

Review of the literature reveals that whereas there is a consensus that NTBs impede trade, there is lack of in-depth analysis on nature of these NTBs. More importantly, scholars argue that NTB lacks a standard definition. The literature shows that there is upsurge of NTBs in the region in spite of commitments by the governments to abolish them following the establishment of the EAC customs union and creation of national monitoring committees.

2.6 Summary of the Literature Review.

This chapter thematically reviewed the literature on the impact of NTBs on trade facilitation. According to the literature, NTBs such as weigh bridges, road blocks, insecurity and corruption have a negative impact on regional and international trade. From the literature review, the study establishes that most of the available studies on NTBs are generalized and many are concentrated in developed countries thereby leaving a gap to fill in countries like Kenya where trade is hampered by legal and socio-political environment.

2.7 Research Gaps

The most recent and relevant studies on the impact of NTBs show a negative relationship between NTBs and trade facilitation. Okumu and Nyankori (2010) in their study found that NTBs have a negative effect on both regional and international trade. Ur (2014) in his study found that NTBs affects the quantity and prices of goods and services while a study by (Mellado, et al., 2010) shows the significance of economic integration. The gap left by these studies is that failure to illustrate how specific NTBs affect trade facilitation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter describes the methods that were used to gather, analyze and interpret the data. It describes the research design, the research population, the sample, the techniques that were used for sampling, the research instruments, the process of data collection and the way in which the results were analyzed.

3.2 Research Design

The study was conducted through descriptive survey design. Descriptive survey is a process of collecting data in order to answer questions concerning the current status of the subject in the study (Mugenda and Mugenda, 2003). In this study, descriptive survey was adopted for four reasons. First, it allowed the researcher to adopt a holistic approach in the study of the respondents to be sampled. Secondly, it eased the use of research tools like questionnaires and interview schedules. Thirdly, this design allowed the collection of data from a large number of respondents in a relatively short period. Fourthly, the design promoted collection of information from a sample rather than the entire population at one point in given time (Kothari, 2008).

3.3 Target Population

A population refers to the aggregate of all cases that conform to some designated set of specifications it is the entire set of relevant units of analysis or data (Kothari, 2008). The target population for the study included: transit goods transporters, transporters of export cargo, clearing agents, customs officers, police officers and Kenyan exporters.

Table 3.1 Target Population

Category of Export	Population	Percentage	Sample size
--------------------	------------	------------	-------------

1. Transporters	5,010	50.2%	50
2. Exporters	4, 892	49.0%	48
3. Customs officers	30	0.3%	9
4. Clearing agents	30	0.3%	9
5. Police officers	24	0.2%	6
Total	9,986	100	122

Source: Northern Corridor Transport Observatory (2016)

3.4 Sampling Frame.

Sampling as described by Orodho and Kombo (2002) entails the procedure a researcher uses to gather people, places or things to study. In other words, it refers to a process of selecting a number of individuals or objects from a population such that the selected group contains elements representative of the characteristics found in the entire group. According to Orodho and Kombo (2002), the term sampling design refers to that part of the research plan that indicates how cases are to be selected for observation. Sampling designs are divided into Probability and Non -probability designs. For the purpose of this study, stratified sampling and simple sampling techniques were employed. Orodho and Kombo (2002), asserts that simple random sampling refers to selection of a sample from a larger population by giving all individuals in the sample an equal chance of being selected. The advantages of simple random sampling are that the samples yield research data that can be generalized to a larger population. This method also permits the researcher to apply inferential statistics to the data and provides equal opportunity of selection for each element of the population.

3.5 Sample size and Sampling Techniques

A sample size may be described as elements from which data is collected (Schindler & Cooper, 2003). A good sample size should provide information that is detailed and comprehensive in order to make conclusions and recommendations about the entire population (Maylor & Blackmon, 2005). It is a common practice to survey a sample rather than the entire population because the use of a sample reduces costs and factors the dynamism of the population (Mugenda & Mugenda, 2003).

The Yamane's formula of 2001 was used to determine the sample size from population within each stratum. It provided a 95 percent level of confidence and a maximum variability (p) =0.09. A standard error of 9% was considered in the sampling calculation. On a population of 9586.

$$n = \frac{N}{1+N(e)^2}$$

Where n was the sample size, N was the population size and e was the level of precision:

$$n = \frac{9986}{1+9986(0.09 \times 0.09)}$$

= 122 Respondents

3.6 Data Collection Procedures

Primary data was collected through the use of self-administered questionnaires. A questionnaire consisted of a number of questions printed or typed in a definite order on a form or set of forms. This method of data collection has the advantage of being cost effective. It also eliminates bias on the part of the interviewer. At the same time, it gives the respondents adequate time to give well thought answers and since large samples could be made use of, the results were more dependable and reliable. Data collection exercise using questionnaires was undertaken by the researcher herself. The data collection exercise took a total of seven continuous working days during which the instruments were administered.

3.7 Data Analysis and Presentation.

Data collected from respondents was organized, summarized, presented and analyzed in an informative way using descriptive statistical techniques of frequencies, tabulation, pie charts and bar charts and numerical measures of percentage and mean. The SPSS statistical software was used to analyze the data

3.7.1 Regression model

The study employed ordinary least square (OLS) regression analysis model in data analysis. The key hypothesis tested was null hypothesis, that none of the suggested independent variables

statistically significant to trade facilitation along the Kenyan Section of the northern corridor. The regression analysis model is given as follows:

$$Y = (B_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \dots)$$

Y = Trade facilitation and independent variables are x_1, x_2, x_3, x_4

x_1 = Weigh bridges x_2 = Roadblocks x_3 = Corruption and x_4 = Security

b_1, b_2, b_3 are coefficients of x_1, x_2, x_3 , b_0 is an arbitrary constant/state of trade development if no interventions. The objectives are implemented using SPSS a composite score was computed from each objective to determine the regression model

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS.

4.1 Introduction

This chapter presents the findings and discussions of results based on the impact of Non-Tariff Barriers (NTBs) on trade facilitation along the Kenyan Section of the Northern Corridor. The data collected from the field was evaluated, discussed and inferences made in line with the study objectives. Descriptive and inferential statistics were used to analyze each variable. Results from the study are presented using frequency distribution tables as well as by the use of graphs such as pie charts and bar charts for the purpose of facilitating description and explanation of the study findings. The inferential statistical analysis was significant in ascertaining the relationship between independent and dependent variables.

4.2 Response Rate

An analysis of the return rate of questionnaires ensures the validity of the results. Hence, the analysis of the return rate of questionnaires administered to transporters, exporters, customs officers, clearing agents and police officers were carried out by determining the number of completed and returned questionnaires by the total questionnaires rolled out. A total of 137 questionnaires were administered but only 122 were returned comprising of 47 transporters, 45 exporters, 11 customs officers, 12 clearing agents and 7 police officers completely filled and returned the questionnaires. This translates to 89.1% response rate. Table 4.2 shows the summary of response rate of respondents.

Table 4.2 Response Rate

Respondents	Administered questionnaires	Returned questionnaires
Transporters	50	47
Exporters	48	45
Customs officers	14	11
Clearing agents	15	12
Police officers	10	7
Total	137	122

4.3 Reliability Analysis

The study conducted a pilot test to find out the reliability of the research questions and responses per question were evaluated with the aim of finding out whether there were any inconsistencies in the questions with a view of establishing the degree of internal consistency of data captured by questionnaires. The pre-test was conducted on 5 transporters, 4 exporters, 2 customs officers, 3 clearing agents and 2 police officers. The results are shown in table 4.3 below

Table 4.3 Reliability test

Variables	Cronbach Alpha
Weighbridges	.982
Roadblocks	.975
Insecurity	.984
Corruption	.991
Overall	.996

As shown in table 4.2, the study established that all variables examined recorded Cronbach alpha value of above 0.9. This means that the items in the study had high internal consistency because reliability coefficient of 0.70 or higher is considered acceptable (Kline, 1999).

4.4 Demographic Characteristics of Respondents

This section presents personal information of the respondents who participated in the study. The characteristics discussed include gender, marital status, age, education level, nature of business and time in business.

4.4.1 Gender of Respondents

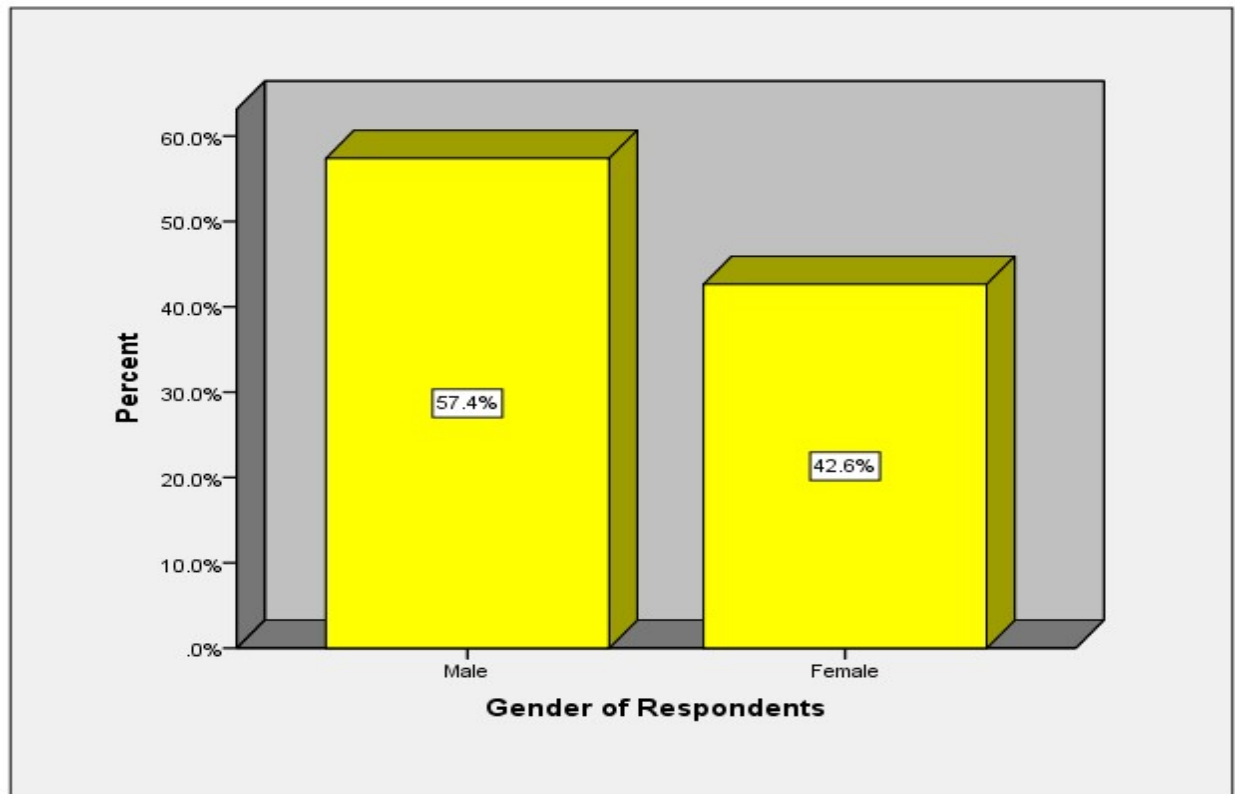


Figure 4.4.1 Gender of Respondents

The study found that there were more men engaged in trade along the northern corridor than women. Male respondents represented 57.4% of the respondents while female respondents represented 42.6% of the respondents. This means that male respondents were more than female respondents by 14.8%.

4.4.2 Marital Status of Respondents

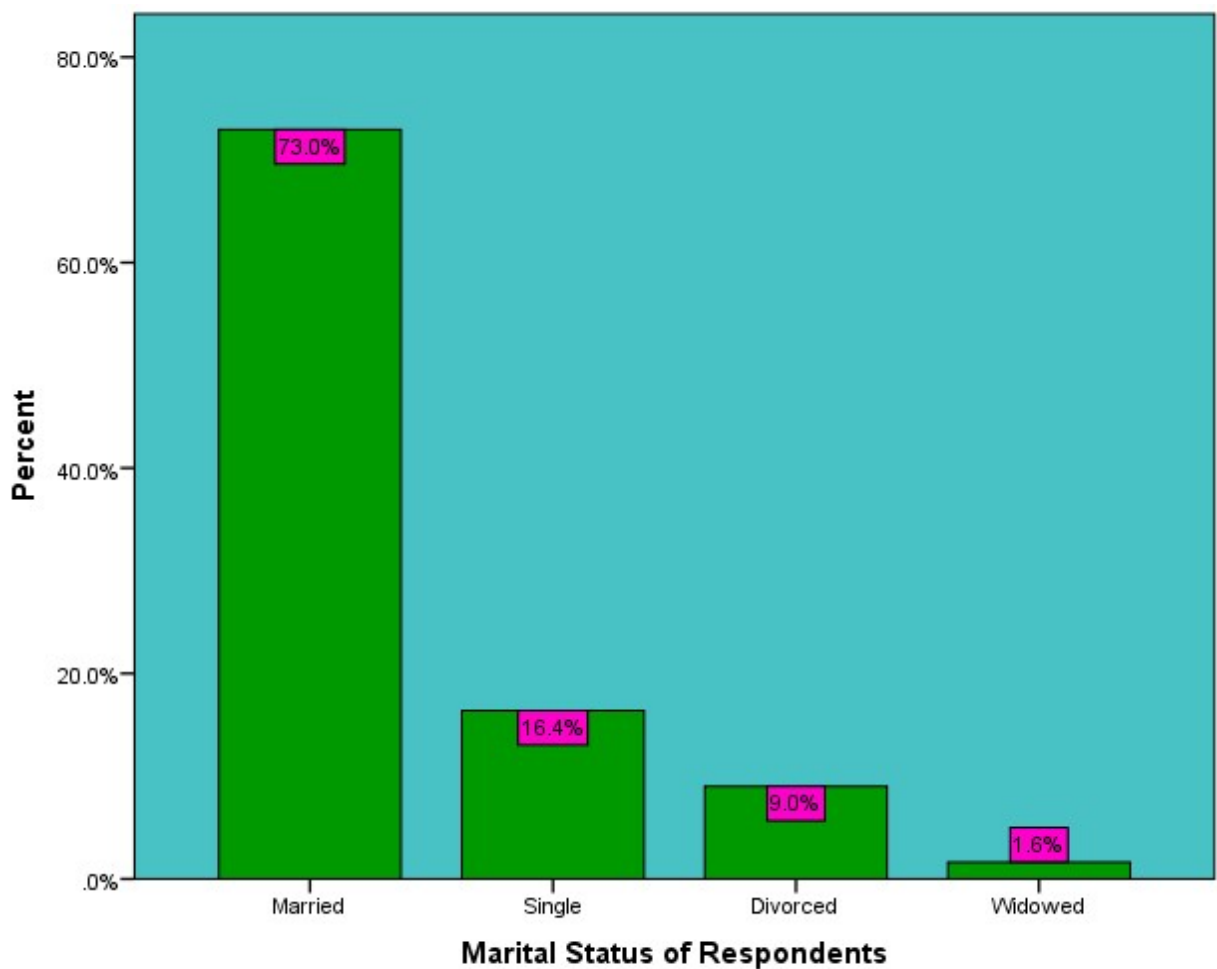


Figure 4.4.2 Marital status

The study established that majority (73.0%) of the respondents were married, 16.4% were single, and 9.0% were divorced while 1.6% of the respondents were widowed. Marital status was

significant in the study because family is essential in providing moral, labour and financial support to business.

4.4.3 Age Distribution of Respondents

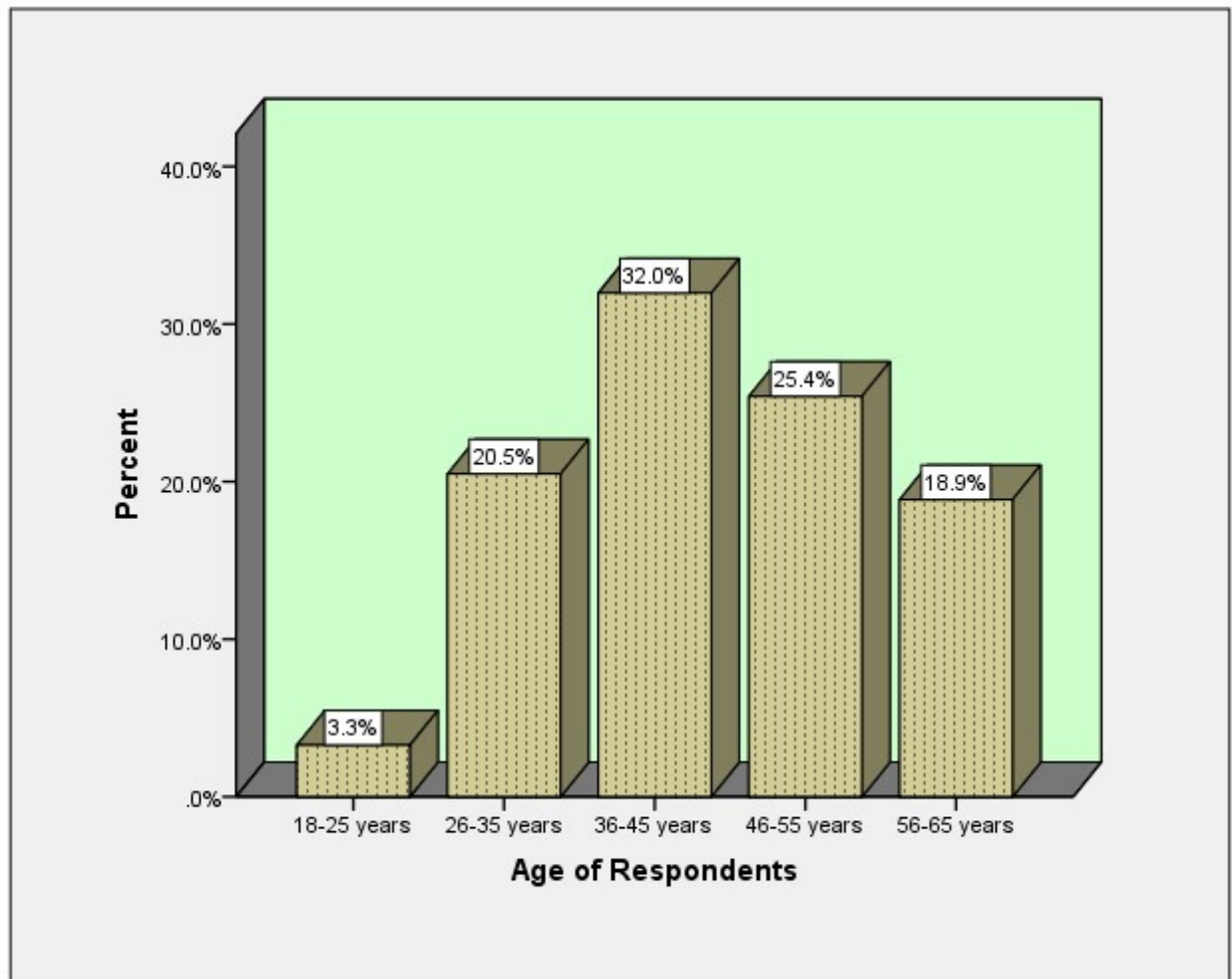


Figure 4.4.3 Age of Respondents

According to the findings, majority (32.0%) of the respondents were aged between 36-45 years followed by respondents aged between 46-55 years which is 25.4% while the respondents who were aged between 25-36 years, 56-65 years and 18-25 years represented 20.5%, 18.9% and 3.3% of the respondents respectively. This implies that majority of the respondents in the study

were middle aged adults while the youth accounted for the lowest number of respondents (23.8%) of the respondents.

4.4.4 Education Level of Respondents

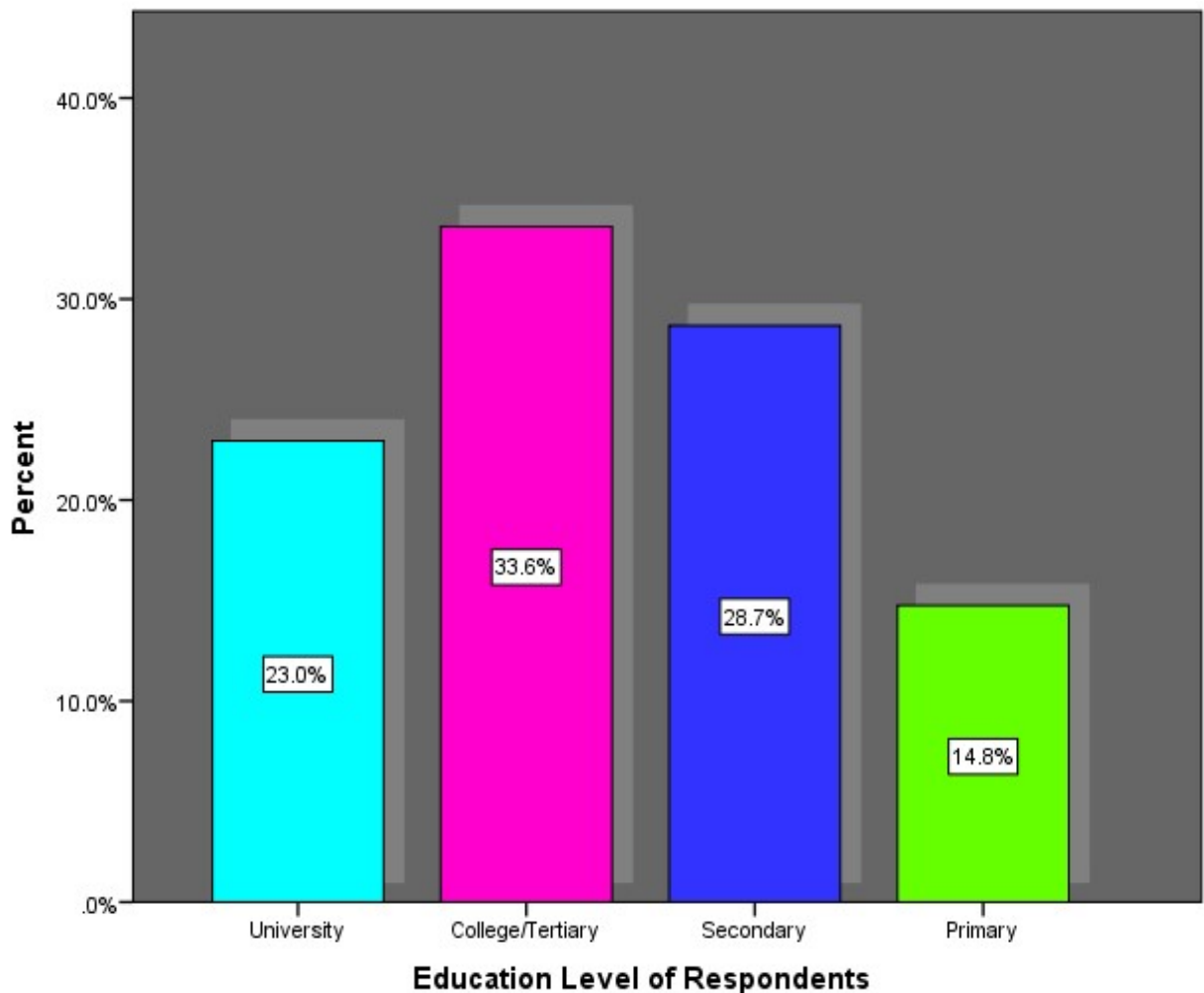


Figure 4.4.4 Education level of respondents

As shown in figure 4.3.4, majority (33.6%) of the respondents had college/tertiary education followed by respondents with secondary education (28.7%) while respondents with university and primary education represented 23.0% and 14.8% of the respondents' respectively. This finding implies that more than half of the respondents had either university or tertiary

education. Education is vital in trade because it facilitates day to day planning, implementation and evaluation of business activities.

4.4.5 Nature of Work

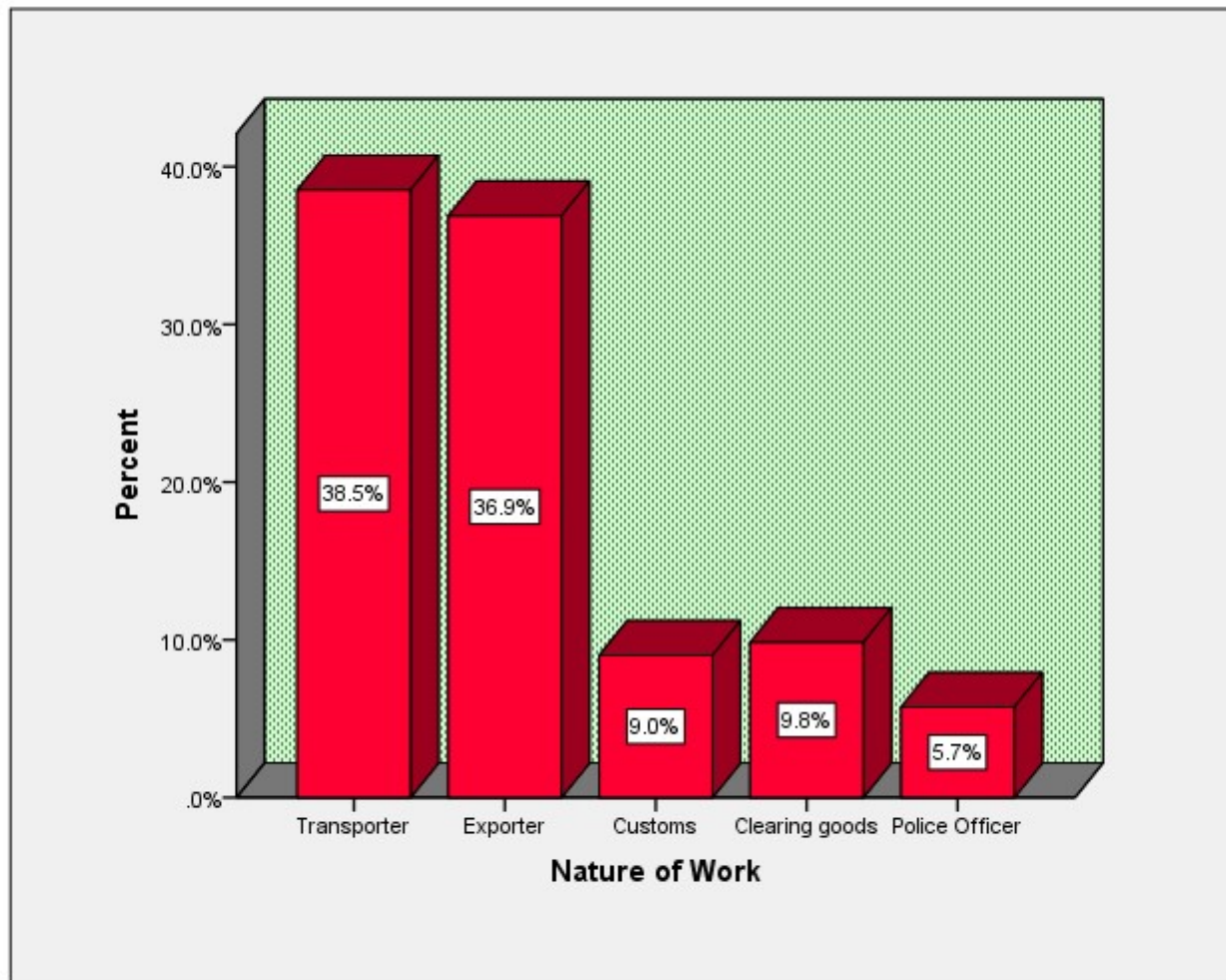


Figure 4.4.5 Nature of work

According to the study results, 38.5% of the respondents were marketers, 36.9% were exporters, 9.0% were custom officials, and 9.8% were clearing agents while 5.7% were police officers. This implies that the surveyed respondents were major actors of trade along the northern

corridor and therefore they were at vantage to share their views and opinions about the impact of non-trade barriers on trade facilitation.

4.4.6 Work experience.

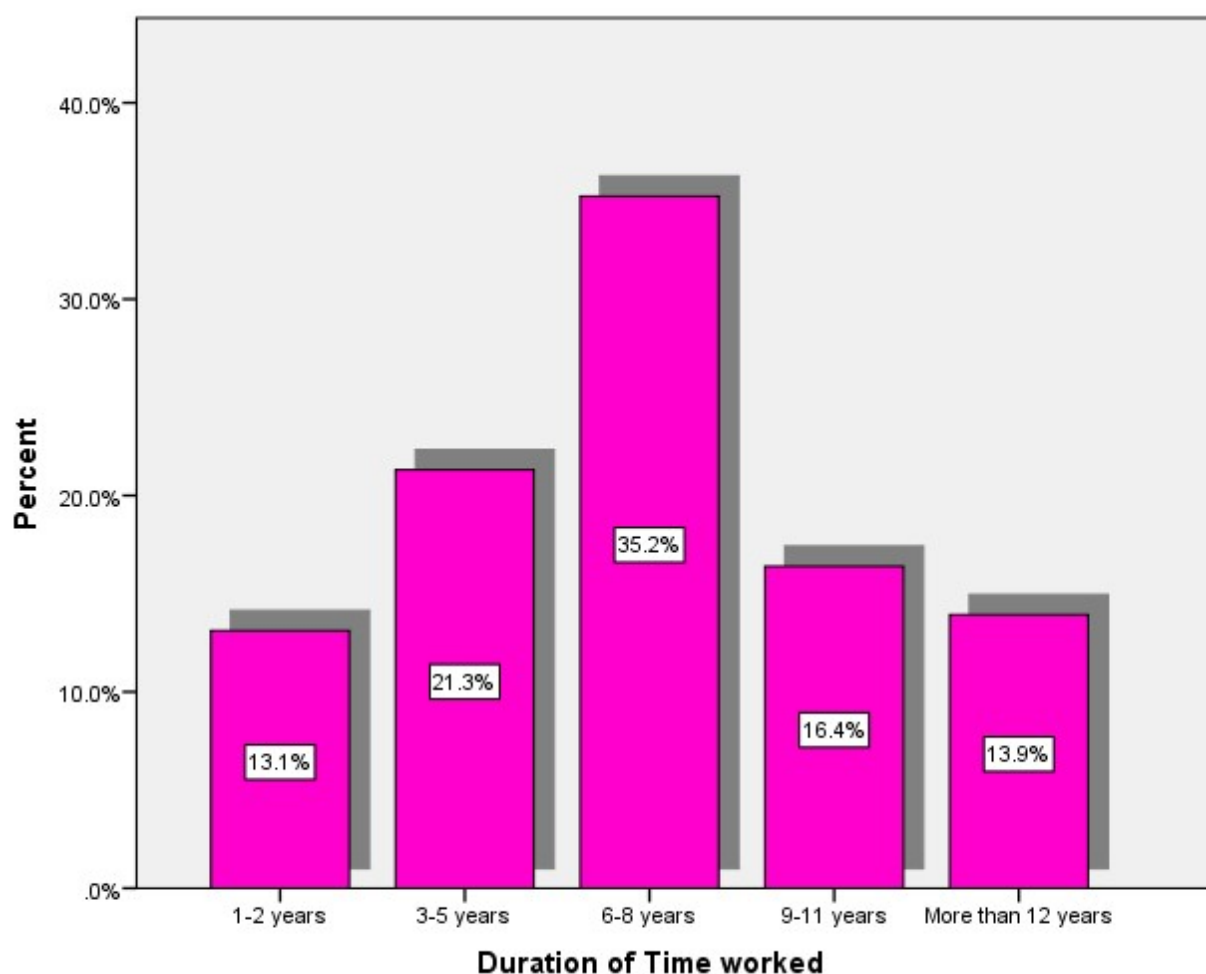


Figure 4.4.6 Work experience.

According to the findings, more than 65% of the respondents had a working experience of more than six years. In other words, majority (35.2%) of the respondents had worked for a period of between 6-8 years, 21.3% had worked for a period of between 3-5 years, 16.4% had

worked for a period of between 9-11 years, 13.1% had worked for a period of between 1-2 years while 13.9% of the respondents had worked for a period of more than 12 years. This means that all respondents had a considerable working experience in their respective careers and therefore presumed to have an in-depth understanding of the impact of NTB on trade facilitation.

4.5 Descriptive Statistics

The study examined the descriptive statistics (mean, standard deviation, minimum and maximum) and presented in the table 4.5.1 below.

Table 4.3: Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Overall impact of Weighbridges on trade	122	1	5	4.06	1.138
Overall impact of Roadblocks on trade	122	1	5	4.03	1.149
Overall impact of Insecurity on trade	122	1	5	4.37	.947
Overall impact of Corruption on trade	122	1	5	4.36	.919
Valid N (list wise)	122				

As shown in table 4.3 weighbridges had an average mean of 4.06 and a standard deviation of 1.138 while roadblocks had a mean of 4.03 and a standard deviation of 1.149. In addition, insecurity had a mean of 4.37 and a standard deviation of 0.947 while overall corruption had a mean of 4.36 and standard deviation of 0.919. This means that the variables are clustered closely around the mean thereby meaning that the data is more reliable.

4.6 Weighbridges and Trade Facilitation

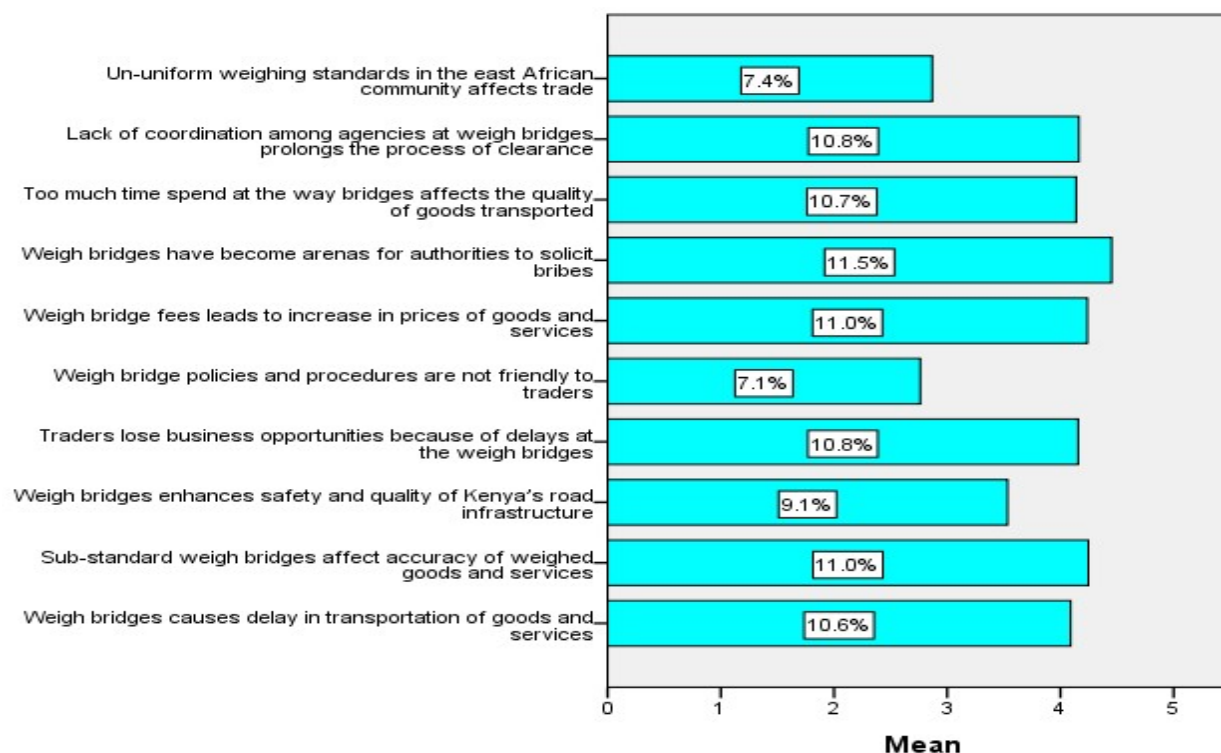


Figure 4.6: Weighbridges and trade facilitation

The results of the study showed that too many weigh bridges caused delay in transportation of goods and services along the northern corridor (10.6%) while sub-standard weighbridges affected the accuracy of weighed goods being transported (11.0%). It was established that lack of coordination among agencies handling the weigh bridges prolonged the time of clearance (10.8%) and that weigh bridges had become arenas for authorities to solicit bribes (11.5%). Further, the study established that traders often lost business opportunities because of delays at the weigh bridges (10.8%) as some traders were forced to increase the prices of goods due to high weighbridge fees. The study revealed that weighbridge policies were not friendly to traders (7.1%) as a lot time spend at the way bridges affects the quality of goods transported (10.7%). Non-uniform weighing standards in the east African community affects trade and were also found to affect trade facilitation on the northern corridor (7.4%). On the other

hand, study established that weighbridges were essential in promoting the safety and quality of Kenya's road infrastructure (9.1%).

4.7 Roadblocks and Trade Facilitation

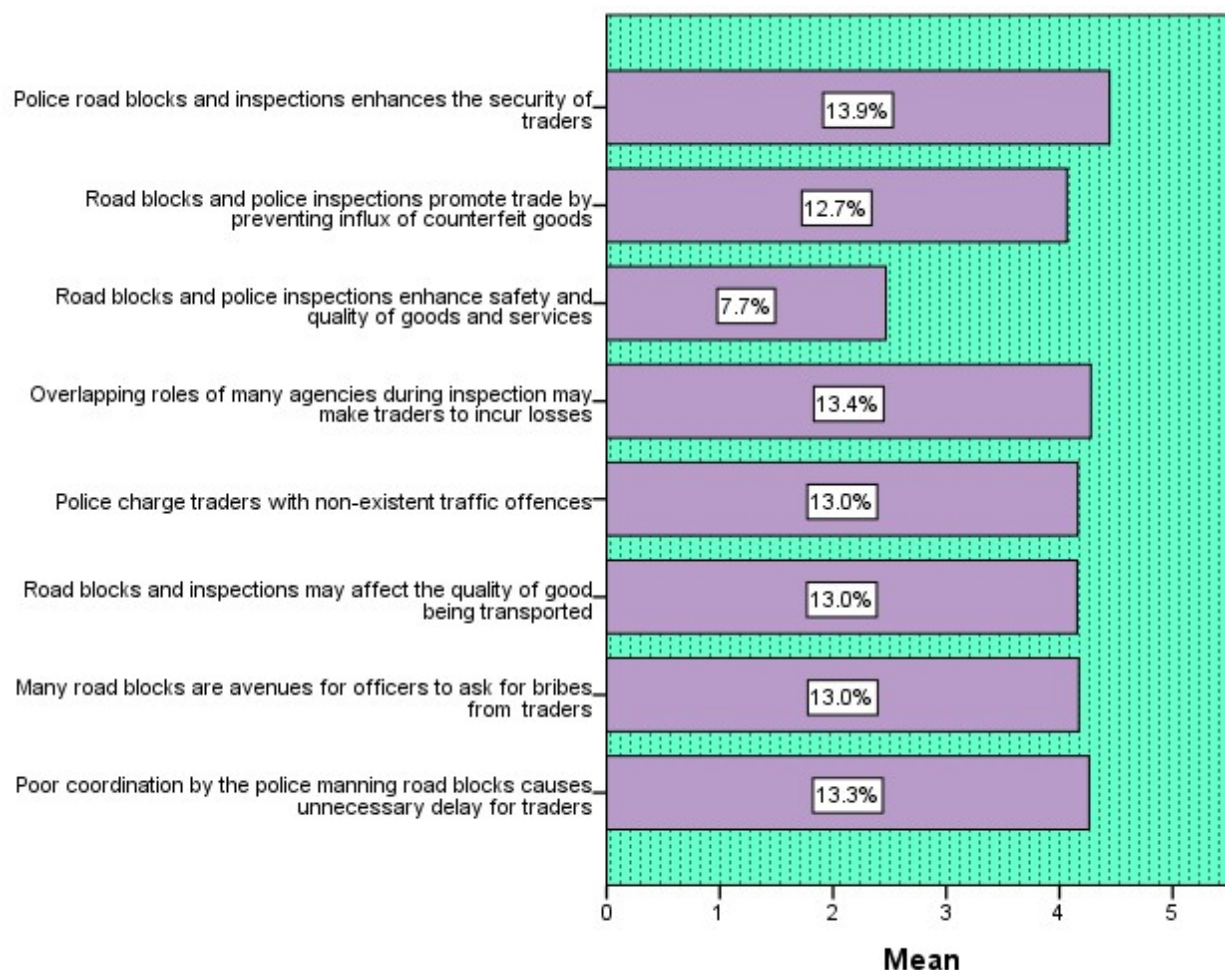


Figure 4.7 Road blocks and trade facilitation

The study established that poor coordination among the police manning road blocks caused unnecessary delay for traders (13.3%) thereby creating avenues for soliciting bribes from unsuspecting traders (13.0%). Road blocks and tedious inspections were found to affect the quality of good being transported (13.0%) and that some police officers were charging traders

with non-existent traffic offences (13.0%). Overlapping roles among agencies during clearance and inspection made traders to incur losses (13.4%). On the other hand, the roadblocks were reported to be significant in promoting safety and quality of transit goods (7.7%), prevention of influx of counterfeit goods (12.7%) as well as ensuring the security of traders along the northern trade corridor (13.9%).

4.8 Security and Trade Facilitation

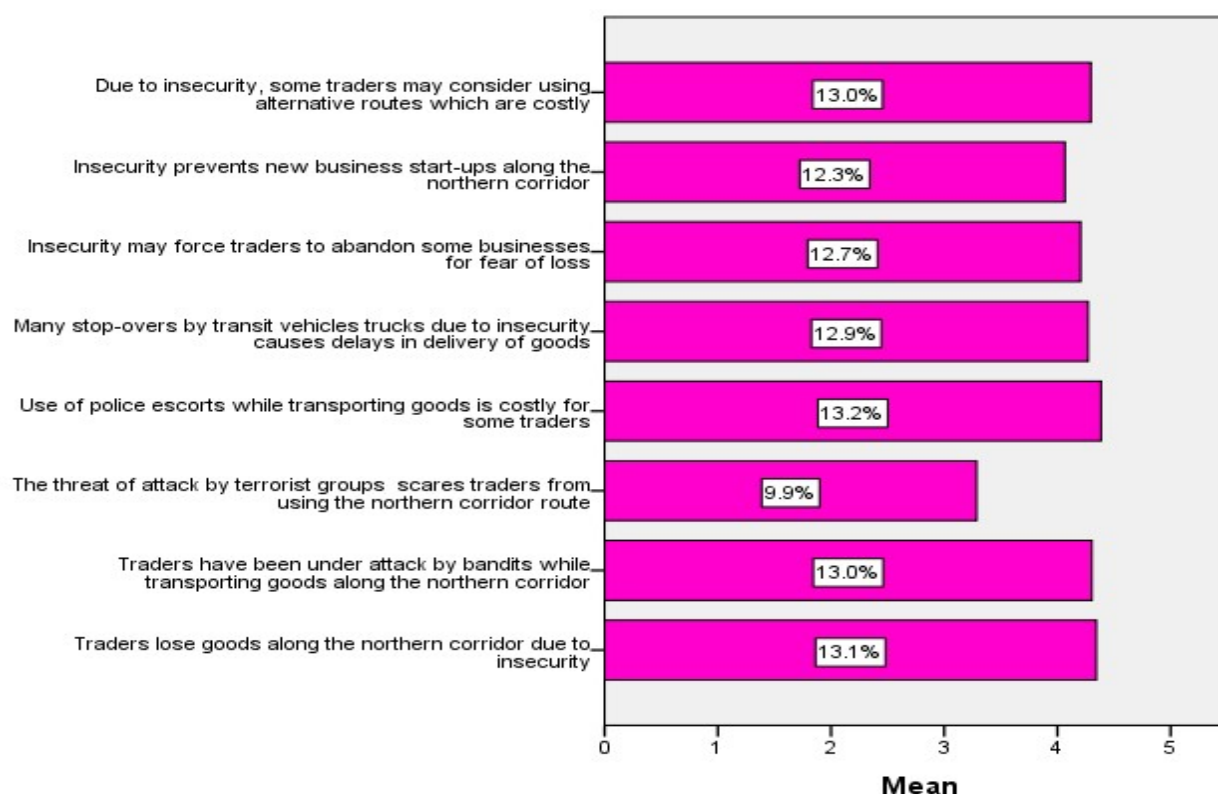


Figure 4.8: Security and trade facilitation

According to the findings, it was reported insecurity along the northern corridor made some traders to lose goods (13.1%) including banditry attack of traders while transporting goods along the northern corridor (13.0%). The study found that threat of attack by terrorist groups caused some traders to avoid using the northern corridor route regularly (9.9%). The use of police escorts while transporting goods was costly to some traders (13.2%) while several stop-overs by transit vehicles trucks due to insecurity causes delays in delivery of goods (12.9%). In addition, the study revealed that insecurity forced traders to abandon some businesses because of

the fear of making losses (12.7%). Insecurity impediment along the northern corridor was reported to prevent development of new business start-ups (12.3%) and that some traders considered using costly alternative routes due to insecurity (13.0%).

4.9 Corruption and Trade Facilitation

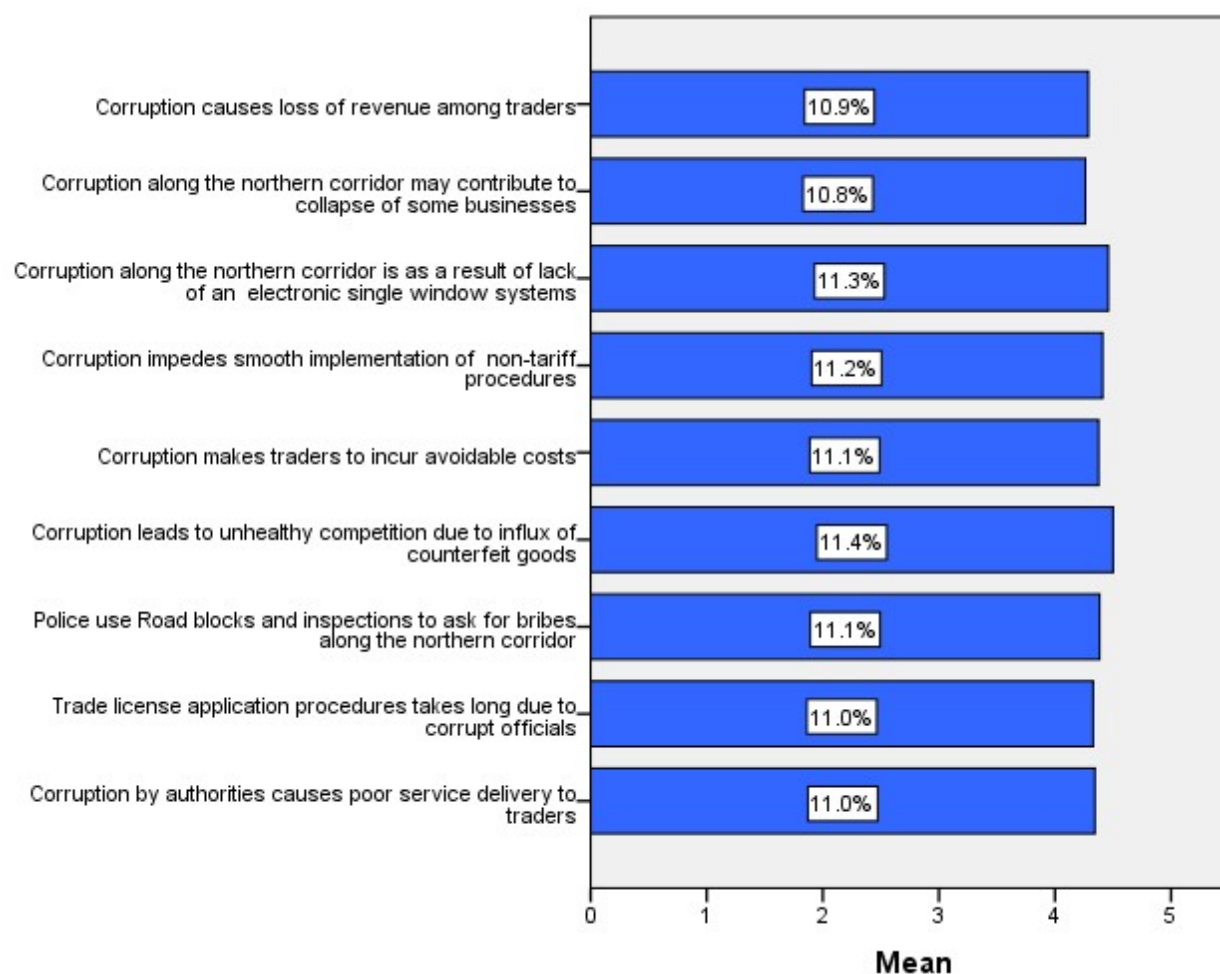


Figure 4.9: Corruption and trade facilitation

The study established that corruption resulted to poor service delivery at the border points (11.0%) and prolonged procedures of license application (11.0%). It was revealed that official such as the police used roadblocks and inspections to ask for bribes from traders (11.1%) and this resulted in the influx of counterfeit goods (11.4%). Traders were forced to bear extra expenses due to corruption which makes traders to incur avoidable costs (11.1%) thereby impeding the smooth implementation of non-tariff procedures (11.2%). Corruption along the northern corridor is as a result of lack of electronic single window systems (11.3%). In addition, corruption along the northern corridor was reported to contribute to collapse of some businesses (10.8%) and loss of revenue among traders (10.9%).

4.10 Inferential Statistics

4.10. 1 Correlation Analysis

The study measured the correlation between the independent (non-tariff barriers) and dependent (trade facilitation) variables in order establish the strength of linear association between the variables in question. Campbell & Swinscow (2011) considers correlation analysis as dimensionless quantity measurement that explains variables in the range -1 to $+1$. While interpreting the correlation coefficients, if a coefficient is zero, that indicates that there is no linear relationship between the two continuous variables and when the correlation coefficient is -1 or $+1$, it means that there is a perfect linear relationship (Kornbrot, 2005).

The strength of relationship can be anywhere between -1 and $+1$. The stronger the correlation, the closer the correlation coefficient comes to ± 1 . If the coefficient is a positive number, the variables are directly related (i.e., as the value of one variable goes up, the value of the other also tends to do so). If, on the other hand, the coefficient is a negative number, the variables are inversely related (i.e., as the value of one variable goes up, the value of the other tends to go down). Any other form of relationship between two continuous variables that is not linear is not correlation in statistical terms (Campbell and Swinscow, 2011). Table 4.10.01 shows the correlation coefficient values between dependent and independent variables

Table 4.5: Bivariate Correlation Coefficients between CSR Initiatives and Overall Competitive Advantage

Variables		Weighbridges	Roadblocks	Insecurity	Corruption	Level of trade facilitation
Weighbridges	Pearson Correlation	1	.966**	.871**	.866**	.930**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	122	122	122	122	122
Roadblocks	Pearson Correlation	.966**	1	.862**	.857**	.927**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	122	122	122	122	122
Insecurity	Pearson Correlation	.871**	.862**	1	.910**	.924**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	122	122	122	122	122
Corruption	Pearson Correlation	.866**	.857**	.910**	1	.895**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	122	122	122	122	122
Level of trade facilitation	Pearson Correlation	.930**	.927**	.924**	.895**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	122	122	122	122	122

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

Table 4.5 shows the bivariate correlation between non-tariff barriers and trade facilitation along the northern corridor. All the non-tariff barriers were established to have a significant positive correlation with trade facilitation along the northern corridor. According to the findings, weighbridges had a correlation of coefficient of (0.930), roadblocks (0.927), insecurity (0.924) and corruption (0.895).

4.10.2 Regression Analysis

The study adopted multiple regression approach in testing the relationship between independent and dependent variables in order to meet the objectives of the study. The dependent variable was measured by the overall level of trade facilitation while on the other hand, non-tariff barriers was measured using the following; weighbridges, roadblocks, security and corruption. The multiple linear regression model structure can be summed up as:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + e$$

Where; Y = Level of trade facilitation

B_0 = Regression constant to be estimated

B_1 to B_8 = Regression coefficients to be estimated

X_1 = Overall impact of weighbridges

X_2 = Overall impact of roadblocks

X_3 = Overall impact of security

X_4 = Overall impact of corruption

e = Error /Disturbance Term

Table 4.6: Summary of Multiple Regression Analysis**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig.	F
1	.962 ^a	.926	.923	.294	.926	365.942	4	117	.000	

a. Predictors: (Constant), Overall impact of Corruption on trade, Overall impact of Roadblocks on trade, Overall impact of Security on trade, Overall impact of Weighbridges on trade

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	126.420	4	31.605	365.942	.000 ^b
	Residual	10.105	117	.086		
	Total	136.525	121			

a. Dependent Variable: Level of trade facilitation

b. Predictors: (Constant), Overall impact of Corruption on trade, Overall impact of Roadblocks on trade, Overall impact of Security on trade, Overall impact of Weighbridges on trade

As shown in table 4.6, correlation and multiple regression analyses were conducted to examine the relationship between non-tariff barriers and trade facilitation. The regression model summary shows that non-tariff barriers were positively and significantly correlated with trade facilitation. The multiple regression model with all four predictors produced $R^2 = 0.926$, $F(0.000)$, $p < .001$. The regression model shows a coefficient determination of 0.926. This implies that 92.6% of the trade facilitation was explained by; weighbridges, roadblocks, insecurity and corruption. Further, the ANOVA shows that there is a general positive relationship between non-tariff barriers and trade facilitation along the northern corridor because the p-value is 0.000 which is less than the standard probability ratio of 0.001. As shown in the regression model, R

square and adjusted R are high and therefore this implies that there is high variation that can be explained by the model.

Table 4.7 Weighbridges as a Dependent Variable

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics						
1					R Square Change	F Change	df	df2	Sig.	F	
1	.971 ^a	.942	.940	.278	.942	475.978	4	117	.000		

a. Predictors: (Constant), Level of trade facilitation, Overall impact of Corruption on trade, Overall impact of Roadblocks on trade, Overall impact of Security on trade

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147.532	4	36.883	475.978	.000 ^b
	Residual	9.066	117	.077		
	Total	156.598	121			

a. Dependent Variable: Overall impact of Weighbridges on trade

b. Predictors: (Constant), Level of trade facilitation, Overall impact of Corruption on trade, Overall impact of Roadblocks on trade, Overall impact of Security on trade

As shown in table 4.7, the regression model shows a coefficient determination of 0.942. This implies that 94.2% change in weighbridges was explained by; roadblocks, insecurity, corruption and trade facilitation. Further, the ANOVA shows that there is a general positive relationship between weighbridges and trade facilitation along the northern corridor because the p-value is 0.000 which is less than the standard probability ratio of 0.001. As shown in the regression model, R square and adjusted R are high and therefore this implies that there is high variation that can be explained by the model.

Table 4.8 Roadblocks as a dependent variable**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Change	F Change	df1	df2	Sig.	F Change

1	.969 ^a	.938	.936	.290	.938	444.712	4	117	.000	
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a. Predictors: (Constant), Overall impact of Weighbridges on trade, Overall impact of Corruption on trade, Overall impact of Security on trade, Level of trade facilitation

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	150.003	4	37.501	444.712	.000 ^b
	Residual	9.866	117	.084		
	Total	159.869	121			

a. Dependent Variable: Overall impact of Roadblocks on trade

b. Predictors: (Constant), Overall impact of Weighbridges on trade, Overall impact of Corruption on trade, Overall impact of Security on trade, Level of trade facilitation

The regression model shows the R-square coefficient determination is 0.938. This implies that 93.8% change in roadblocks was explained by; weighbridges, security, corruption and trade facilitation. Further, the ANOVA shows that there is a general positive relationship between roadblocks and trade facilitation along the Kenyan section of the northern corridor because the p-value is 0.000 which is less than the standard probability ratio of 0.001. As shown in the regression model, R square and adjusted R are high and therefore this implies that there is high variation that can be explained by the model.

Table 4.9 Security as a dependent variable**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	F	df1	df2	Sig.
1	.943 ^a	.889	.885	.321	.889	234.465	4	117	.000

a. Predictors: (Constant), Overall impact of Roadblocks on trade, Overall impact of Corruption on trade, Level of trade facilitation, Overall impact of Weighbridges on trade

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	96.378	4	24.095	234.465	.000 ^b
	Residual	12.023	117	.103		
	Total	108.402	121			

a. Dependent Variable: Overall impact of Security on trade

b. Predictors: (Constant), Overall impact of Roadblocks on trade, Overall impact of Corruption on trade, Level of trade facilitation, Overall impact of Weighbridges on trade

As shown in table 4.9, the coefficient determination is 0.943. This implies that 94.3% change in security was explained by; weighbridges, roadblock, corruption and trade facilitation. Further, the ANOVA shows that there is a general positive relationship between security and trade facilitation along the northern corridor because the p-value is 0.000 which is less than the standard probability ratio of 0.001. As shown in the regression model, R square and adjusted R are high and therefore this implies that there is high variation that can be explained by the model.

Table 4.10 Corruption as a dependent variable**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig.	F
1	.924 ^a	.854	.849	.357	.854	171.209	4	117	.000	

a. Predictors: (Constant), Overall impact of Security on trade, Overall impact of Roadblocks on trade, Level of trade facilitation, Overall impact of Weighbridges on trade

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.229	4	21.807	171.209	.000 ^b
	Residual	14.902	117	.127		
	Total	102.131	121			

a. Dependent Variable: Overall impact of Corruption on trade

b. Predictors: (Constant), Overall impact of Security on trade, Overall impact of Roadblocks on trade, Level of trade facilitation, Overall impact of Weighbridges on trade

As shown in the regression model, the R-Square determination coefficient is 0.854. This implies that 85.4% change in corruption was explained by; weighbridges, security, roadblocks and trade facilitation. Further, the ANOVA shows that there is a general positive relationship between corruption and trade facilitation along the northern corridor because the p-value is 0.000 which is less than the standard probability ratio of 0.001. As shown in the regression model, R square and adjusted R are high and therefore this implies that there is high variation that can be explained by the model.

4.11 Discussions of Research Findings

4.11.1 Weighbridges and Trade Facilitation.

The regression results showed that there exists a strong positive relationship between weighbridges and trade facilitation along the Kenyan section of the northern corridor (p-value, 000). The finding is consistent with a study by Okumu *et al.* (2010) who explored the implications of non-tariff barriers in EAC customs union between Uganda and other EAC countries and established that un-standardized weighbridges; several road blocks; lack of recognition of individual country's standards; and the existence of several un-harmonized standards hindered regional trade by causing prolonged delays. Okumu et al (2010) further found that there are several NTBs which have further, Some of the NTBs that have persisted for more than three years include a long list of customs documentation requirements, cumbersome formalities, and limited testing and certification arrangements. According to them, the mandatory weighbridges placed along the transit routes impede trade by doubling the transit time and cost of transporter upkeep. This cases are more common along the Kenyan and Tanzanian transport corridors being that the Tanzania authorities requires every vehicle carrying goods, small or large, to be weighed, including passenger buses putting into consideration that along the Central Corridor, between Rusumo and Dar es Salam, there are five compulsory weighbridges: at Nyahahura, Mwenda Kulima, Mkundi, Mikese, and Kibaha.

4.11.2 Roadblocks and Trade Facilitation

Regression analysis established a positive relationship between roadblocks and trade facilitation along the northern corridor (p-value, 0.00). The findings are consistent with a report by World Bank (2008) that indicates about 12 percent of commercial vehicle takes one to two hours for inspection along the central trade corridor. In many occasions, these roadblocks cause delays even for returning vehicles not carrying any goods. Along the Central Corridor, 26 checkpoints were reported between Rusumo and Dar es Salam (distance 1,480kms), and 5 in Rwanda between Rusumo and Kigali (168 kms distance). The general worry among traders is poor coordination among the police in carrying out their duties, such that a truck is subject to similar checks at all traffic stops. This creates room for the police to openly demand for petty

bribes (World Bank 2008). In addition, EABC (2004) reports that there is a huge outcry among many traders concerning the many checkpoints and police roadblocks along the trade corridors because they result in rent seeking and transit delays. Kenyan part of the Northern Corridor is particularly noted for such practices, as many traders have come out to allege that police checkpoints have become platforms where police officers solicit bribes with trucks with foreign registration numbers mostly targeted (EABC, 2004).

4.11.3 Security and Trade Facilitation

Results from the regression analysis showed a strong positive relationship between security and trade facilitation along the northern corridor (p-value, 0.000). The findings are consistent with the assertion of EABC (2005) and Ayoki (2007) who indicate that the northern-eastern part of Kenya is marked as a porous border because of regular attacks from Somalia based outlawed group called the Alshabaab. Heightened security concerns along the trade routes and highway thefts add to concerns for traders and transporters. Along the Ugandan segment of the Northern Corridor, transporters who make night runs complain about acts of banditry (EABC, 2005). For the case of Kenya, in 2007, 32 containers were lost to thieves and a number of people lost their lives on the way to Kampala. The events that unfolded after the December 2007 election in Kenya led to one of the worst spurts of highway crimes witnessed in Kenya. In Burundian territory, night travel is banned because of the prevailing lack of security. Operation of the CFSs at various locations is affected by pilferage of cargo. Exporters end up losing their goods and are often unable to lodge claims because they do not know whose responsibility it is to pay for the claims (Ayoki, 2007).

4.11.4 Corruption and Trade Facilitation

Results from the regression analysis showed a strong positive relationship between corruption and trade facilitation along the northern corridor (p-value, 0.000). The findings are consistent with a study by Karugia *et al.*, (2009) that assessed the impact of NTBs on cross-border maize and beef trade in three EAC countries namely Kenya, Tanzania and Uganda

established that many roadblocks along the northern corridor were conduits through which police used to demand bribes from unsuspecting traders. Kafeero (2008) observes that roadblocks serve as an arena for extortion of bribes by policemen. GTZ (2010), World Bank (2010), Karugia *et al.*, (2009) worked on informal payments and discovered that when customs officials were bribed the clearance process of goods was shortened.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study evaluated the extent of the influence of transport based non-tariff barriers on trade facilitation along the Kenyan Section of the northern corridor. This chapter discusses the summary of findings, conclusions, recommendations and areas for further research.

5.2 Summary of Findings

5.2.1 Impact of Weighbridges on Trade Facilitation

The study found that too many weighbridges caused delay in transportation of goods and services along the northern corridor while sub-standard weighbridges affected the accuracy of goods and services being transported. It was established that lack of coordination among agencies handling the weigh bridges prolonged the time of clearance and that weigh bridges had become arenas for authorities to solicit bribes. Further, the study established that traders often lost business opportunities because of delays at the weigh bridges as some traders were forced to increase the prices of goods due to high weighbridge fees. The study revealed that weighbridge policies were not friendly to traders as a lot of time is spent at the way bridges affects the quality of goods transported. Non-uniform weighing standards in the east African community affects trade were also found to affect trade facilitation on the northern corridor. On the other hand, study established that weighbridges were essential in promoting the safety and quality of Kenya's road infrastructure.

The regression results showed that there exists a strong positive relationship between weighbridges and trade facilitation along the northern corridor (p-value, 000). The finding is consistent with a study by Okumu *et al.* (2010) who explored the implications of non-tariff barriers in EAC customs union between Uganda and other EAC countries and established that un-standardized weighbridges; several road blocks; lack of recognition of individual country's

standards; and the existence of several un-harmonized standards hindered regional trade by causing prolonged delays.

5.2.2 Impact of Roadblocks on Trade facilitation

The study established that poor coordination among the police manning road blocks caused unnecessary delay for traders thereby creating avenues for soliciting bribes from unsuspecting traders. Road blocks and tedious inspections were found to affect the quality of good being transported and that some police officers were charging traders with non-existent traffic offences. Overlapping roles among agencies during clearance and inspection made traders to incur losses. On the other hand, the roadblocks were reported to be significant in promoting safety and quality of transit goods, prevention of influx of counterfeit goods as well as ensuring the security of traders along the northern trade corridor.

Regression analysis established a positive relationship between roadblocks and trade facilitation along the northern corridor (p-value, 0.00). The findings are consistent with a report by World Bank (2008) that indicates about 12 percent of commercial vehicle takes one to two hours for inspection along the central trade corridor. In many occasions, these roadblocks cause delays even for returning vehicles not carrying any goods. Along the Central Corridor, 26 checkpoints were reported between Rusumo and Dar es Salam (distance 1,480kms), and 5 in Rwanda between Rusumo and Kigali (168 kms distance). The general worry among traders is poor coordination among the police in carrying out their duties, such that a truck is subject to similar checks at all traffic stops. This creates room for the police to openly demand for petty bribes (World Bank 2008). In addition, EABC (2004) reports that there is a huge outcry among many traders concerning the many checkpoints and police roadblocks along the trade corridors because they result in rent seeking and transit delays. Kenyan part of the Northern Corridor is particularly noted for such practices, as many traders have come out to allege that police check points have become platforms where police officers solicit bribes with trucks with foreign registration numbers mostly targeted (EABC, 2004).

5.2.3 Impact of Security on Trade Facilitation

The study established that insecurity along the northern corridor made some traders to lose goods including banditry attack of traders while transporting goods along the northern corridor. The study found that threat of attack by terrorist groups caused some traders to avoid using the northern corridor route regularly. The use of police escorts while transporting goods was costly to some traders while several stop-overs by transit vehicles trucks due to insecurity causes delays in delivery of goods. In addition, the study revealed that insecurity forced traders to abandon some businesses because of the fear of making losses. Insecurity impediment along the northern corridor was reported to prevent development of new business start-ups and that some traders considered using costly alternative routes due to insecurity.

Results from the regression analysis showed a strong positive relationship between security and trade facilitation along the northern corridor (p-value, 0.000). The findings are consistent with the assertion of EABC (2005) and Ayoki (2007) who described that the northern-eastern part of Kenya is marked as a porous border because of regular attacks from Somalia based outlawed group called the Alshabaab. Heightened security concerns along the trade routes and highway thefts add to concerns for traders and transporters. Along the Ugandan segment of the Northern Corridor, transporters who make night runs complain about acts of banditry (EABC, 2005). For the case of Kenya, in 2007, 32 containers were lost to thieves and a number of people lost their lives on the way to Kampala. The events that unfolded after the December 2007 election in Kenya led to one of the worst spurts of highway crimes witnessed in Kenya. In Burundian territory, night travel is banned because of the prevailing lack of security. Operation of the CFSs at various locations is affected by pilferage of cargo. Exporters end up losing their goods and are often unable to lodge claims because they do not know whose responsibility it is to pay for the claims (Ayoki, 2007).

5.2.4 Impact of Corruption on Trade Facilitation

The study established that corruption resulted to poor service delivery at the border points and prolonged procedures of license application. It was revealed that official such as the police used roadblocks and inspections to ask for bribes from traders and this resulted in the influx of

counterfeit goods. Traders were forced to bear extra expenses due to corruption makes traders to incur avoidable costs thereby impeding the smooth implementation of non-tariff procedures. Corruption along the northern corridor is as a result of lack of electronic single window systems. In addition, corruption along the northern corridor was reported to contribute to collapse of some businesses and loss of revenue among traders.

Results from the regression analysis showed a strong positive relationship between corruption and trade facilitation along the northern corridor (p-value, 0.000). The findings are consistent with a study by Karugia *et al.*, (2009) that assessed the impact of NTBs on cross-border maize and beef trade in three EAC countries namely Kenya, Tanzania and Uganda established that many roadblocks along the northern corridor were conduits through which police used to demand bribes from unsuspecting traders. Kafeero (2008) observes that roadblocks serve as an arena for extortion of bribes by policemen. GTZ (2010), World Bank (2010), Karugia *et al.*, (2009) worked on informal payments and discovered that when customs officials were bribed the clearance process of goods was shortened.

5.3 Conclusion

The study found that transport based non-tariff barriers had a big impact on trade facilitation along the Kenyan section of the northern corridor. The study revealed that non-tariff barriers including weighbridges, roadblocks, insecurity and corruption had a strong positive relationship with trade facilitation along the northern corridor. Therefore, the study concludes in order to enhance trade along the corridor, non-tariff trade barriers should be effectively addressed. This calls for the relevant stakeholders to pull forces towards developing long lasting solution to address the issue of delays at weighbridges and roadblocks, insecurity and ballooning cases of corruption at Kenya's border points.

5.4 Recommendations

Based on the findings of this study, the researcher recommends the following policy actions towards addressing the gaps identified by the study.

The study revealed that majority of weighbridges and roadblocks caused prolonged delay resulting in unnecessary costs and malpractices. Therefore, it is imperative for the government to consider modernizing weighbridges and reducing roadblocks in the road. This will also contribute in reduction of corruption. Through the Electronic Cargo Tracking System, the government can also monitor any delays and identify which roadblocks are causing delays.

The study findings showed that security is a major impediment affecting trade along the corridor. Therefore, there is need for the government to provide security along the corridor in order to mitigate against cases of banditry, theft and terrorist attacks.

5.5 Areas for Further Research

Due to limited time and resources, the study didn't exhaust the subject on the impact of transport based non-tariff barriers on trade facilitation along the Kenyan Section of the northern corridor. The study was not able to factor all NTB variables nor did it take into account other trade impediments such as political interference that might have prevailed during the period of the study. Therefore, a further research should be conducted to examine the influence of other transport based non -tariff barriers in promoting trade along the northern corridor.

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APPENDIX

QUESTIONNAIRE

I am Christine Moraa, a student at Jomo Kenyatta University of Agriculture and Technology (JKUAT). As part of course work, I am required to carry out a research which is a requirement for the award of post graduate Diploma in Customs Administration .This questionnaire is meant to gather information on the *“impact of transport based Non-Tariff barriers on trade facilitation along the Kenya Northern Corridor.”* Please note that this is an academic study and the information you will provide will be treated with highest level of confidentiality and strict ethical principles will be observed to ensure that the study outcomes and reports will not include reference to any individuals. In order to get reliable data that will make this study successful, I am kindly requesting you to fill this questionnaire honestly by ticking in the boxes provided or completing the blank spaces. Thank you.

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender

Male () Female ()

2. Marital status

Married () Single () Divorced () Widowed () Separated ()

3. Age group

18-25 years () 26-35 years () 36-45 years () 46-55 years () 56-65 years ()

4. What is your highest education level attained?

University () College/Tertiary () Secondary () Primary () others.....

5. What is the nature of your work?

Transporting transit goods () Transporting export cargo () Exporter () Clearing goods () customs officer () Police officer ()

6. For how long have you been used/worked along the northern corridor?

1-2 years () 3-5 years () 6-8 Years () 9-11 years () 12 years and above ()

SECTION B: WEIGH BRIDGES AND TRADE FACILITATION

7. In your own opinion, to what extent do weigh bridges impact on trade facilitation along the Kenya's section of the Northern Corridor? Use a scale of 1-5 where 1= very large extent and 5= very small extent.

Statements	Very Large extent	Very extent	Neutral	Small extent	Very small extent
a) Weigh bridges causes delay in transportation of goods along the northern corridor					
b) weigh bridges affect accuracy of goods and services being transported					
c) Weigh bridges enhances safety and quality of Kenya's road infrastructure					
d) Traders lose business opportunities because of time taken at the weigh bridges along the northern corridor					
e) Weigh bridge policies and procedures are friendly to traders					
f) Weigh bridge fees leads to increase in prices of goods and service					
g) Weigh bridges have become arenas for authorities to solicit bribes					
h) Coordination among agencies handling the weigh bridges prolongs the process of clearance					
i) Too much time spend at the way bridges affects the quality of goods transported					

j) Un-uniform weighing standards in the east African community affects trade					
k) Others specify.....					

8. What do you think can be done to enhance the effectiveness and efficiency of weigh bridges along the northern corridor?

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SECTION C: ROAD BLOCK AND TRADE FACILITATION

9. How many road blocks do transporters encounter before getting goods outside the country?

1-2 () 3-4 () 5-6 () 7-8 () More than 8 () None

What area do police focus during inspections?

.....

10. In your own opinion, to what extent do police road blocks impact on trade facilitation along the Kenya's section of the Northern Corridor? Use a scale of 1-5 where 1= very large extent and 5= very small extent.

Statement	Very large extent	Large extent	Neutral	Small extent	Very small extent
a) Poor coordination among the police manning road blocks along the northern corridor causes unnecessary delay for traders					
b) Many road blocks along the northern corridor have become avenues for police to ask for bribes from					

unsuspecting traders					
c) Road blocks and inspections may affect the quality of good being transported					
d) Police charge traders with non-existent traffic offences					
e) Overlapping roles of many agencies during inspection make traders to incur losses					
f) Road blocks and police inspections promote the safety and quality of transported goods and services					
g) Road blocks and police inspections promote trade by preventing influx of counterfeit goods					
h) Police road blocks and inspections enhances the security of traders					
i) Others specify.....					

11. What do you think are the ways of improving the police road blocks and inspections along the northern corridor?

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SECTION D: SECURITY AND TRADE FACILITATION

12. In your own opinion, to what extent do insecurity impacts trade facilitation along the Kenya's section of the Northern Corridor? Use a scale of 1-5 where 1= very large extent and 5= very small extent.

Statement	Very large extent	Large extent	Neutral	Small extent	Very small extent

a) Traders lose goods along the northern corridor due to theft					
b) Traders have been under attack by bandits while transporting goods along the northern corridor					
c) The threat of attack by terrorist groups scares traders from using the northern corridor route					
d) Use of police escorts while transporting goods is costly for traders					
e) Many stop-overs by transit vehicles trucks for security reasons cause delay in delivery of goods					
f) Security may force traders to abandon some businesses for fear of loss					
g) Security issues prevents new business start-ups along the northern corridor					
h) Due to security concerns, some traders may consider using alternative routes which are costly					
i) Others specify.....					

13. What are your recommendations towards promoting the security of traders using the northern corridor?

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14. In your own opinion, to what extent do corruption affect trade facilitation along the Kenya's section of the Northern Corridor? Use a scale of 1-5 where 1= very large extent and 5= very small extent.

Statement	Very large extent	Large extent	Neutral	Small extent	Very small extent

a) Due to corruption, authorities handling check stations along the northern corridor offer substandard services to traders					
b) Trade license application procedures takes long due to corrupt officials					
c) Police use Road blocks and inspections to ask for bribes along the northern corridor					
d) Corruption leads to unhealthy competition due to influx of counterfeit goods					
e) Corruption makes traders to incur avoidable costs					
f) Corruption impedes smooth implementation of non-tariff procedures which will					
g) Corruption along the northern corridor is as a result of lack of an electronic single window systems					
h) Corruption along the northern corridor may contribute to collapse of some businesses					
i) Corruption causes loss of revenue among traders					
j) Others specify.....					

15. Please suggest ways of mitigating corruption along the northern corridor?

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END: THANK YOU