FACTORS INFLUENCING CARGO CLEARANCE EFFICIENCY AT INLAND CONTAINER DEPOT- NAIROBI, KENYA

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, ACCOUNTS AND FINANCE IN THE SCHOOLOF BUSINESS IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF POST GRADUATE DIPLOMA IN CUSTOMS ADMINISTRATION OF JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY.

2019

DECLARATION

I hereby declare that this Research Project is my original work and has never been presented either in whole or partially to any other examining body for the award of certificates, diploma or degree.

Lilian Kwamboka Matunda

HDB335-C016-1463/2017.

Signature …….. Date ……

This proposal has been submitted with my authority as the university supervisor

Mr. Benard Matibe

Signature…….. Date……

DEDICATION

This research project is dedicated to my parents for the moral and financial support in making this project a success.

ACKNOWLEDGEMENT

I thank our Almighty God for the gift of life and the ability to write this work. I also thank my supervisor, Mr.Benard Matibe for his professional guidance throughout the research process and the motivation that enabled me compile this project. My sincere acknowledge goes to all my lecturers especially Mr.Timonah Namutila for the ideas and time he has spent and impacted in me and also to the management of the Kenya School of Revenue Administration for the opportunity to join them and be a part of this accredited institution.

ABSTRACT

Inland container depot is owned and operated by the Kenya Ports Authority and it is connected by the new rail network to Kilindini port. It provides shippers with dry port facilities in the commercial heart of the country and was established in 1984. The main objective of ICD in Embakasi is to ease congestion and reduce waiting time for transporters at the sea port. However, Kenya lags behind in terms of efficiency of cargo clearance. With the surge in shipping traffic and cargo volumes especially on container traffic it has placed inland container deport in Embakasi with a huge responsibility to provide effective, efficient and reliable services. Since the introduction of inland container depot there is still congestion up to date and my study will therefore look as to why congestion is still so high. The primary goal of this research was to find out the factors influencing cargo clearance efficiency at inland container depot Embakasi. Specifically, the study assessed how customs clearance procedures, Kenya Ports Authority procedures and infrastructure influence cargo clearance efficiency. Questionnaires were administered to clearing and forwarding agents. Data was analyzed using Statistical Package for Social Sciences (SPSS, version 25.0). The researcher found out that the customs procedures had a direct and positive influence on the cargo clearance efficiency. The customs clearance procedures have a strong influence on the attainment of the cargo clearance efficiency at the ICDN. On the other hand KPA procedures had a great influence on the efficiency of cargo clearance. KPA procedures were found to influence cargo clearance efficiency by 46.3%.The researcher concludes that infrastructure influences cargo clearance efficiency by 28.1%, which implied that infrastructure contributes to the efficiency of cargo clearance. From the findings of this study, the researcher recommends on the following; there should be continuous update of customs clearance procedures at the Inland Container Depot Nairobi to minimize time wasted in the bulky procedures so as to improve on the cargo clearance efficiency, proper coordination between the KPA and other stakeholders and partner governmental agencies to enable them align their procedures and work in harmony so as to improve the cargo clearance efficiency. Improvement of the infrastructure at the Inland Container Depot, which include the handling machines which include cranes ,forklifts and bulldozers, road networks linking the Inland Container Depot Nairobi at gates, improvement of gates and proper maintenance of the infrastructure

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LIST OF ACRONYMS AND ABBREVIATIONS

ICD	Inland Container Depot
KRA	Kenya Revenue Authority
KPA	Kenya Ports Authority
SPSS	Statistical Packages for Social Sciences
VGM	Verified Gross Mass
TEUs	Twenty Foot Equivalent Units
KWATOS	Kilindini Waterfront Automated Terminal Operations System

DEFINITION OF TERMS

Customs clearance-This is a process which involves preparing documents for imports and exports, submitting them to the relevant authorities and passing through verification ,payment of the required taxes and duties and eventually releasing the cargo.

Infrastructure- physical structure such as road, bridge, or storm sewers which facilitate economic or other activity or protect

VGM-(Verified Gross Mass) this is the weight of all contents contained in a container plus the weight of the container itself.

Efficiency- denotes an effective way of doing things. This is where high output in something is generated with very little wastage and low expense.

CHAPTER ONE
INTRODUCTION

1.1 Background of the study

Inland container depot is owned and operated by the KPA and is linked by rail with Mombasa port. It was established in 1984 with the primary goal of having a truck turn around within 30minutes and wagon turnaround of 2 hours. ICD concept emerged with the aim of decongesting port of Mombasa and is a means of making inland infrastructure better, which will, in turn, improve the efficiency of trade globally. In order for ports to be efficient in their operations, then they need a bigger storage yard, better road and infrastructure of the rail should be on point (Notebook, 2009).

International sea traffic is growing and technology changing, this has made seaports experience so much pressure to upgrade and come up with the up to date technology. Therefore, seaports are being forced to be more efficient in the operations of cargo clearance and to ensure seamless flow of cargo in dry ports then there should be adequate and best quality machines, there should also be sufficient space for storing goods and these are among the challenging factors container terminals do encounter on a day to day basis. (Castro, 1999).

There being numerous checkpoints, cargo clearance has, therefore, been impacted negatively, where you get before a container is cleared it has to undergo various points like for example weighbridges set aside everywhere along our corridor, we also have customs, and here procedures are tedious, and these have interfered with efficiency of trade. With the increase of population most especially in the urban areas and the poor road network constructed has made congestion to increase and become a hazard even for cargo clearance greatly. (East African Logistics Performance Survey, 2012)

To have consistent growth of containerization, then terminals need to have togetherness in the seaport system, to have proper management and developments of components surrounding seaport competitiveness. There should be the participation of both key players surrounding seaports in order to ensure consumers get the best services and this is widely discussed by Lee and Cullinane (2016)

Transport industry plays a key role in the trade performance of a country, especially in terms of infrastructure. A country which has better intermodal networks then it means more people will tend to import goods hence trade will increase, unlike a country which has poor infrastructure (Pedersen 2001), if we, therefore, have no rail networks, poor roads constructed then trade would decline and weak infrastructure accounts for trade loss (Limao and Venables 2001). Trade performance has generally been poor, and this is largely attributed by weak infrastructure in Africa countries. Therefore, it would be imperative to say that trade is directly affected by transport costs. We have to, therefore, look at the various sources of poor performance in our trade industry and come up with solutions to curb this menace. For our countries to grown economically then it implies much effort should be geared towards areas where we are lagging behind, for example, on our infrastructure.

There has been so much congestion at ICD port and this is largely attributed by the government order that most of the containers arriving at Kilindini port be directed there, this has made ICD be so much busy than it used to be and therefore, KPA had to look for better ways to reduce the workload at the port. (The East African June 11, 2018)

Private participation should be greatly be practiced, and this is because they are key players and normally they give advice and give solutions to the betterment of a company. The involvement of private participation in procedures of handling of cargo-only implies not only will we be enjoying the

best service delivery, but long term goals and objectives will be taken into consideration and profits will increase. (Mangan and Cunningham 2001)

ICDN has grown in terms of performance and also its cargo clearance efficiency as many importers and shipping lines have turned to clear the goods through the port due to improvements of the port in terms of purchase of new machines and improvement in terms of infrastructure. With an increase in trade, therefore, operations at the port have been paralyzed due to congestion been so high. (East African June 11, 2018). From the above, it is therefore imperative to say that; there is need to look into those factors that will play a significant role in improving the efficiency of cargo clearance in achieving their core goal hence the need for this study to investigate the factors influencing cargo clearance efficiency in Inland Container Depot-Nairobi.

1.1.1 The concept of cargo clearance

Cargo clearance is the process that involves document submission, document verification, and once the authenticity of the document is okay then; there is verification of goods against declaration and duties collected and goods released. Customs plays many roles in cargo clearance from document verification, verification of goods and cargo release. Customs through trade facilitation ensure seamless flow of cargo, they collect revenue and protection of the society by ensuring no restricted and prohibited goods enter or leave our country. Cargo clearance comprises of many procedures and for an importer to clear his or her goods then they should submit relevant documents to customs, he will also encounter Kenya Ports Authority for gate pass process and payment of ports charges. Cargo dwell time and its delivery can only be maintained if there is proper coordination of procedures outlined by customs and if there are stringent measures put in place for noncompliance to the policies

set aside. (Bichou, 2006). Therefore if cargo clearance is efficient, then there will be a seamless flow of goods and trade would increase.

Cargo clearance plays a very important role to the state of a country, and if there is faster cargo clearance then it implies more people will tend to import and exports hence a lot of revenue will be generated, this will have a positive impact to the economy of a given country. The government should be on toes to ensure faster cargo clearance on entry points, Inland container depot, and on exit points (Roso, 2008).

Clearing goods through the various interveners involved in the process is a very hectic process, and it involves so many government agencies. For example, we have, i.e. Kenya Bureau of Standards (KEBS), and they require one to have pre-export verification of conformity to ensure goods which are imported are not substandard, of good quality and are fit for human consumption. Kenya Plant Health Inspectorate Services (KEPHIS) who also ensure plant species imported or exported are not the ones under (CITES) Convention on International Trade in Endangered Species, forwarding them to their final destination is not only a very complex but also lengthy and cumbersome exercise Shah, (2012). The influence on operations of procedures set aside by customs at ports and in transportation is well vested (Clark, Dollar, and Micco, 2004) and one of the key merits of a dry port is the fact of placing all customs procedures outside the sea terminal (Roso, 2008).

1.1.2 Global perceptive of cargo clearance

According to Mangan and Cunningham, departmental rules and regulations set by companies on how an organization works, if they are objective oriented will result in improved performance. Whereas, countries which involve private participation in the management of dry port activities will show better performance as compared to those who don't. The Port of Rotterdam follows Singapore in port performance and efficiency ranking, and when we are talking about ship turnaround times and service delivery, Port of Rotterdam tops it all. Again the argument holds true that those ports where private participation is encouraged in areas of cargo handling and port administration, enjoy more excellent service enhancements and ultimately draw long-term sustainable business opportunities (Mangan and Cunningham, 2001).

Therefore projects which promote the facilitation of trade should substantially be funded and supported, and this will result in improved international logistics majorly in developing countries. One of the significant reasons why Africa lags behind when it comes to delays at the ports is attributed mainly to poor infrastructure and border agencies offering poor services. In this case, if projects geared to developments in infrastructure and border control are promoted by public participation, then this will encourage trade, which will, therefore, result to improve logistics. Harmonization of various parties involved in trade facilitation if encompassed in Africa, then there will be a seamless flow of cargo. For ports to reduce the time taken to clear container, then there should be a collaboration between private companies and the government authorities to realize that long term investments in transport network especially infrastructure is not the only solution to deduce cargo dwell time. (Raballand and Refas, 2012).

Increased transport time dramatically reduces trade, Hummel (2004). Procedures involved in the trade should be improved, because if they are not, then the trade will decline much. Storing goods at the port is seemed like a perfect option by some importers, for example, country like Cameroon where they enjoy privileges like storing goods at the port for twenty-two days. Goods imported can be stored for a period of twenty-one days rent-free as they await clearance but from the twenty-second day they start accruing warehouse rent. Devarajan.S (1980). Clearing agents, therefore, opt to delay clearing goods from the port since they know they are not affected and the one who incurs the extra cost is exporters or importers. If for example, we get a country where there is no competition in someone who imports a certain product then it implies the importer will take advantage by causing delays of that specific product and this, in turn, affect normal citizens who consume as prices tend to increase dramatically. Such actions by importers make a given country experience inefficiencies, and this results to increase in costs. Devaajan and Musgmwe (1980).

Clearing goods in most ports in the developing countries is so slow, and it is attributed to private organizations that have common interests. For example, you get port authorities generating so much revenue from storing goods at the port, and this is at the expense of consumers. Another good example is when clearing agents tend not to fight dwell time with an excuse that such cost will be charged to importers who will fall to consumers and not them. Such interest's delays cargo at border stations and this is why we will still lag behind no matter what. According to a 2011 World Bank working paper if countries put so much pressure on private companies operating at the port to ensure seamless flow of cargo by reducing the time taken to clear goods, then it implies efficiency of cargo clearance will be upfront.

Sensitization of all procedures of cargo clearance should be made aware to all port users and be done on a regular basis. This will ensure the time taken to clear goods will greatly reduce, there will be harmonization of procedures and trade will be efficient. Cargo clearance is essential for every country in the world as it enables the government to increase its competitive power. Therefore, countries which have efficient procedures on cargo clearance will be able to use this to develop its economy through the amount of revenue collected. Cargo clearance in developing countries has not always been as adequate and in a country like Kenya which is still behind when it comes to faster movement of cargo as it should be, needs to come up with proposals and projects on how to curb the inefficiencies. This study, therefore, sought to examine the factors influencing cargo clearance efficiency at inland container depot Embakasi.

1.1.3 Inland Container Depot.

Inland Container Depot Nairobi (ICDN) is owned and operated by Kenya Ports Authority and linked by Rail with Kilindini port, and it provides shippers with dry port facilities in the commercial heart of the country and is established in 1984. It used by importers and exporters. Port services are therefore brought closer by ICDN to customers by use of SGR. Services offered include;- creating job opportunities, stuffing of containers, unloading of very small consignments into a big container, offering storage space for empty containers, proving the best equipment and lastly processing of loose cargo. Containers are also weighed, and all documentation required is also done here. ICDN also helps in the granting of space to shipping lines and other interested parties to store their containers, whether empty or not.

We have so many stakeholders available at ICDN, and they include agencies of the government, for example, Kenya Bureau of Standards, Shipping Agents, various banks are also open, Forwarders, and

transporters. There are so many benefits of ICDN which include: transport costs incurred by shipping lines is reduced, time taken to clear cargo is reduced by the availability of adequate machines and equipment, there is also the fact that cargo is transported by the SGR and hence the security of the goods is guaranteed. We also have services offered at the port are brought near to customers. Since containers are transported by rail, then it implies damages which were incurred at the roads had greatly been reduced and also instances of diversion of cargo have been scrapped off completely. Lastly reducing congestion at the port of Mombasa has immensely been reduced; most of the containers around 40% are directed to Nairobi. Several measures have been set aside by the government of Kenya to ensure cargo dwell time is reduced greatly and they include the seamless flow of cargo within 6 hours once an importer present relevant documents to customs authorities. This measure has led to an increase in port performance in terms of services offered, and this has made a trade to increase.

1.2 Statement of the problem

Inland ports are experiencing so many challenges as the need to provide the best and latest technology, and for them to increase their cargo flow, then they need to improve terminal efficiency and compete with the third generation. Some challenging factors inland ports experience include having to offer the best machinery, also provide adequate space for storing goods and ensuring less time in cargo clearance as well as having best road and rail (UNCTAD, 2006).

Container traffic, according to the annual performance report, indicates that there has been an increase in imports from 489,000 to 520,000 (KPA, 2015). Port inefficiency is attributed by poor management, which results to more time taken to clear cargo and having poor machines like cranes and loaders, being understaffed and having illiterate staffs. (KPA, 2010). Due to the increase of

volumes of containers and congestion been on the high note then as a strategy to reduce congestion and increase trade then Kenya has resorted to the construction of inland container depot as a sustainable project. However, even after establishing of the inland container terminal, to date there is still so much congestion at inland container depot, this is evident according to the many containers pending clearance at ICDN. If congestion of the containers then continues to increase at that rate, then it means measures have to be put in place to deal with the situation so as port performance to increase. (Business daily April 5, 2018).

ICDN is currently overstretched by more than 7000 twenty-foot- equivalent units (Tues). The faculty presently handles eight SGR cargo trains from Mombasa every day, and this is according to Business daily September 26, 2018. With congestion being a great menace at Inland container depot since its introduction, my study, therefore, has looked at why there is still so much congestion at the port, thus the main aim of this study was to look at factors influencing cargo clearance efficiency focusing on Inland container Depot (ICD) with a view of establishing how and what extent these factors influence cargo clearance.

1.3 General objective

The general objective of this study was to find out factors influencing cargo clearance efficiency and focus on Inland Container Depot -Nairobi.

1.3.1 Specific Objectives

The specific objectives of the study were: -

i. To find out the influence of customs clearance procedures on cargo clearance efficiency at Inland Container Depot.

ii. To establish the influence of Kenya Ports Authority procedures on cargo clearance efficiency at Inland Container Depot.

iii. To determine the influence of infrastructure on cargo clearance efficiency at Inland Container Depot.

1.4 Research Questions

This study aims to answer the following questions: -

i. What is the influence of customs clearance procedures on the cargo clearance efficiency at inland container depot?

ii. How do Kenya Ports Authority procedures influence cargo clearance efficiency at inland container depot?

iii. How does infrastructure influence cargo clearance efficiency at inland container depot?

1.5 Justification of the Study

Dry ports play a very significant role in any given country, being placed away from the seaport. It provides importers with a facility where they can clear their goods and not necessary to incurring extra transport costs. Kenya has three dry ports, Nairobi, Kisumu and Eldoret. Nairobi being the capital city it is in a strategic position where imports and exports are cleared. Economic activities generally surround dry ports, hence production and distribution of goods within the state are definitely boosted up, and that implies economic growth will upgrade the intermodal transportation system. All relevant stakeholders involved in container terminal and policymakers will greatly benefit as the findings from the research, as it will elaborate more on where inefficiencies in cargo clearance are.

1.6 Scope of the Study

The study focused on factors influencing cargo clearance efficiency case of inland container depot Nairobi. The research study identified all parties involved in cargo clearance activities at inland container depot, stakeholders who make use of the port in cargo clearance operations like Kenya Port Authority (KPA) and covered a time frame of five years from 2014-2018. The target population of my research included clearing and forwarding agents.

1.7 Limitations of the study

During the research period, many constraints came up, but the researcher was able to come up with solutions for the success of the study. A lot of time was required to conduct the study, but there was limited time. The researcher opted for drop and picked method for the questionnaires to fasten data collection, and as a result100% response rate was not achieved. Access and availability to some respondents were restricted due to security concerns, but the researcher sought permission and authorization from the heads of organization in order to access the respondents. The respondents were not open in disclosure of essential data about the operations and details of their organizations. However, the researcher assured the respondents that their opinion will be dealt with confidentiality and will be for the use of the project only. Financial constraints were also experienced in the undertaking of the study. However, the researcher did proper planning to counter them by conducting the research within ICDN and within a limited time period.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter presents what other authors have written in the past and scholarly work on cargo clearance efficiency. My study tends to look at those factors which influence cargo clearance efficiency by looking at the available work of literature whereby it establishes cargo clearance efficiency as dependent variable and factors as our independent. The research mainly focuses on; customs clearance procedures, Kenya Ports Authority procedures, and infrastructure.

2.2 Theoretical Review

A theory is a set of interrelated concepts, definitions, and propositions that present a systematic view of events or situations by specifying relations among variables, in order to explain and predict the events or situations (Van Ryn& Heaney, 1992). Theoretical literature does not focus on practical application but majorly on the theories as it involves evaluating the existing theories in the area of focus and how they explain the relationship between variables in the research problem. Theoretical literature starts with an idea which tries to elaborate the existing series in any theory put across (Heilbrun& Gray, 1993). The research is grounded Led Development Theory, Stakeholder theory, and Institutional theory.

2.2.1 Institutional Theory

This theory was advanced by Meyer and Rowan (1977) who assert that the environment of any organization most of the time affect the existing structures in a company, which means not even the market environment or pressures can influence it. In any environment or an organization if we have an early stage where we adopt innovations, then this will improve technical efficiency. Therefore an

organization needs to adapt to the innovations and in cases where they fail to adopt, then it becomes negligence. At such a time when negligence sets in then organizations will then adopt the structural form even if the form does not improve efficiency, this implies that environment of an organization will indeed influence the efficiency of a place.

Meyer and Rowan argue that those organizations which have established traditions have greater efficiency and in such organizations then traditions become like a myth where institutions tend to believe that process set in an early-adopting organization will lead to an improvement in their efficiency. Organizations then adopt to those norms, for examples those specific procedures laid down, job titles set aside, and organizational roles and objectives. The adoption and prominent display of these institutionally acceptable norms help to maintain equilibrium of any action of an organization, and you get institutions surviving on this.

However, the legitimacy of believing on the laid down procedures tend to reduce efficiency, and this, in turn, reduces the organizations' competitive position in the open market. If for example, market pressure supersedes, then such organization will not be able to deliver as it supposes to be since they only believe in norms set aside by their company. To reduce this negative effect of not able to withstand market pressures, then such organizations will distinguish their main objective from these laid down structures. In the context of this research, it will be imperative to say that institutions are the main pillar of performance and efficiencies ,as they are the ones who set rules and regulations to be followed and adhered to, for examples code of behaviors the same humans have devised such. Institutional must adopt a distinctly new perspective.

The institutional theory is, therefore, applicable to this research as it incorporates procedures which organizations adopt, we have Kenya Ports Authority procedures and similar to customs procedures in

an effort to achieving the set goal, these rules and procedures are laid down by humans which can indeed result to constraining an organization to attain optimum performance.

2.2.2 Stakeholder Theory

This theory was established by Dr.F. Edward Freeman in 1983. This theory states that a company is indeed held by stakeholders implying that the company must make profits for its stakeholders. This, in turn, means that a real company success lies in fulfilling or satisfying all its stakeholders. Dr. Freeman suggests that a company's stakeholders are the people who without them, then the company will cease to exist and include employees, customers, suppliers, government bodies' media, and financial institutions, among others. According to Freeman and Reed (1983), stakeholders are those people who get influenced by the performance of any set rules and regulations of a given company.

Each stakeholder has their own views, interests and perceives things differently (Castro and Nielson 2003), they see their own interest without appreciating what is important to others. This implies then there is need to fulfill all the needs fully and all the expectations all of the stakeholders involved in a particular project or organization (Harrison and John 1994). Therefore, if there is a cycle where particular interests of a given stakeholders are not met then it means, the needs of the rest of interested stakeholders will be in a great danger (Freeman 1984). Which implies managers should be very objective when it comes to achieving their set goals and objectives as they have to put all needs and wants of all concerned bodies in place. (Sternberg 2000). Stakeholder theory is indeed significant as companies have to fulfill the needs of concerned parties in order to compete positively and achieve total performance (Foley, 2005).

The importance of stakeholder orientation comes from several areas; for example, some believe that the idea of stakeholder is directly influenced by an organization performance (Freeman 1984;

Greenley and Foxall 1997; Clarkson 1995). Idea of stakeholders equilibrium is ideally similar in that the success of one stakeholder is directly dependent on another as the play equal roles.(Polonsky 1995). The latest development initiatives such as the Global Reporting Initiative (GRI) (Hedberg and Malmborg 2003), the Dow Jones Sustainability World Index (DJSI World), the United Nations Global Compact (Kell 2005) and the Ethical Trading Initiative (ETI) (Blowfield 1999) have shown emerging evidence that sustainability is stakeholder orientated. The stakeholder theory indeed implies that once any port is established, then all relevant stakeholders affected should be involved in that scheme in order to ensure port performance and its efficiency is reached or achieved.

The main advantage of stakeholder theory is that it is not a one sided theory in the sense that it is not the only determiner of an organizational objective. It also involves market views and pressures and put them into consideration. Furthermore, it is one theory that takes into account of all relevant stakeholders and this ensures there is equity, therefore, ideas put across by each person is taken into consideration for the sake of the company's goal. Which only means if organizations adopt this theory then each person is guaranteed of being accommodated in their opinions and ideas? Among the disadvantages include; a person who does not have a stake on the organization then he or she does not have an opinion if he sees a manager making poor decisions for example a director fails to deliver his duties or engages himself into corrupt dealings then the member who is not a shareholder has no say in this. Person who has no stake or share cannot vote and we have seen that he or she has no say at all and if the organization fails and delivers poorly he is one person who will be greatly affected by it.

This theory is relevant to my study as any port has so many stakeholders from government organization bodies, importers, clearing agents who need to be directly involved in the operations of

an organization. Clearly from the above discussion it will be imperative to say that an economy where they only consider the ideas and views of the stakeholders in mind will not maneuver in any through. Which implies the urge of keeping everyone linked to that activity in mind, dry ports should therefore, keep in mind and use the obtained any information as a leeway for their improved performance. As a result, if directors of parties involved in a port involve all stakeholders, then the entire port will improve in terms of performance and efficiency.

2.2.3 Led Development theory

This theory was established by Ageno in 2010. He states that the availability of infrastructure boosts any economy. In developing countries, lack infrastructure is actually the main impediment to development and growth. In developing countries in particular, a small percentage of the roads are constructed and less than seven African countries have access to power. The major constraint to trade expansion costs which are incurred in trade. Yoshino (2008) highlighted that cases where we have fluctuations in terms of power, and considering power is linked to infrastructure greatly impact negatively to the performance of trade exports. Countries especially the developing countries tend to experience higher costs in terms of transport , as so much delays is felt in areas where there are poor road network. To reduce the challenges experienced in our countries which are as a result of poor transport network then we needs to invest largely on projects geared towards growth and reduction of poverty. Rosenstein Rodan (1943).

Actually, most of Rosenstein Rodan's article is dedicated to what companies offer when there is no investment done by the public. He however, notes that costs incurred in manufacture, raw materials involved from the private entities and the output experience when costs incurred form the transport industries is low is relative to growth. The led infrastructure theory applies to my research, looking at

one of the specific objectives of the study, which mainly focuses on the effect of infrastructure on cargo clearance efficiency that is generally trading and that it is ideally true and Yoshino (2018) clearly pointed out that much of investments in a given country should focus on the development of infrastructure for it's grown in trade.

2.3 Conceptual Framework

A conceptual framework is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied (Camp, 2001). There are several factors which influence cargo clearance of goods at inland container depot Nairobi and those factors form my independent variables whereas dependent variable is concept of cargo clearance efficiency. These factors should clearly be investigated to establish how and to what measure they influence cargo clearance to ensure seamless flow of goods within the shortest time possible.

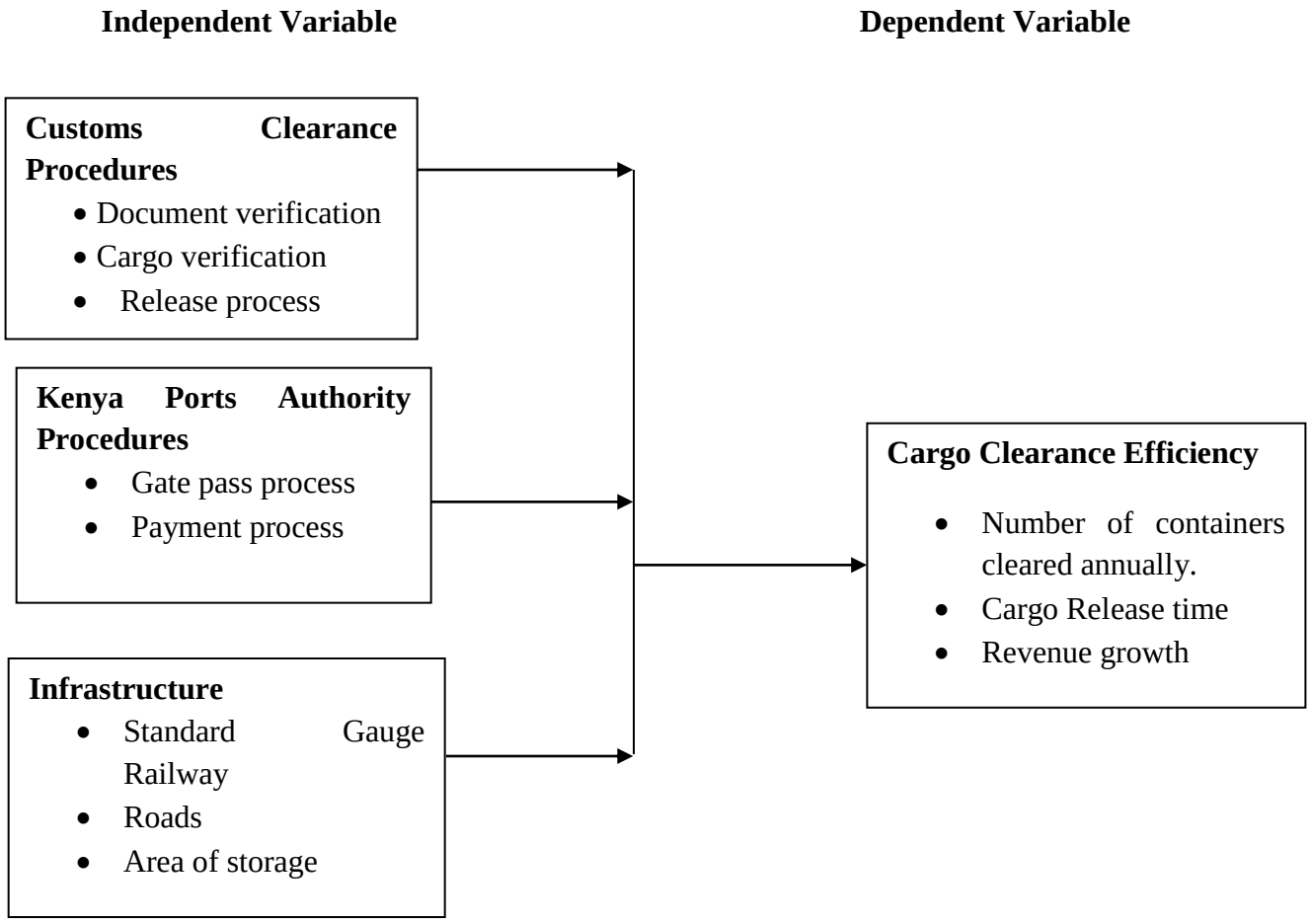

Figure 2:1 Conceptual framework

2.4 Empirical Literature Review

The word empirical describes any information gained by experience, observation, or experiment (Edison et al., 2012). An empirical review is based on observed and measured phenomena and derives knowledge from actual experience rather than from theory or belief (Venables, 2010). An empirical review is the collection and analysis of primary data based on direct observation or experiences in the field (Mugenda &Mugenda, 2003). Philosophically, empirical is collecting information by the comment which is gathered directly and through experience.

2.4.1 Customs Clearance Procedures

Customs clearance procedures at Inland Container Deport include; pre-arrival, verification, and release procedures. The operations of cargo clearance are pointed by, Clark and Dollar (2004) which involves processes of document submission, lodgment of documents and submission and the idea of putting all those procedures outside Mombasa port is one many reasons why dry ports were established. (Roso et al., 2008, 2009). Operations of proper clearance include clearing goods for imports that is for local consumption, and we also have exports, warehousing, transit, and transshipments. The pre-arrival process involves submitting documents online to the appropriate authority before arrival for imports or before departure for exports (Roso et al., 2009). Goods used to first come to a country and once they have arrived then clearing agents or importers lodge an entry describing goods. After that, Customs gives "Out of Charge" or release order, and the custodian releases the goods from inland container depot by issuing a Gate-Pass (Kenya Ports Authority Handbook, 2012-2013)

Pre-arrival clearance is a method through which importers or agents electronically submit documents online in relation to the declared goods even before the goods come into a given country. Whereby clearing agents lodge a manifest which can have a different bill of lading, Manifest entails goods description and gross weight of the container. Once a manifest is submitted, customs are therefore able to access and do a risk analysis. This process allows customs to carry out a risk analysis evaluation and analyze the declaration to come up with a decision on releasing the cargo before arrival at entry port or exit on exit port. (Clark & Dollar, 2004). According to Roso (2008), pre-arrival clearance has resulted in reduced costs associated with clearance and storage of cargo in both ports and container freight terminals. Risk analysis will, therefore, be carried out and, customs can,

therefore, release an entry prior on arrival.Consequently, the decision of release of goods is made once customs verify declarations and check if everything has been declared correctly then release decision is made. Earlier on customs use to allow shipping lines prepare manifest and submit to customs and attach a baplie showing the exact arrangement of the cargo and once the import declaration form has been prepared customs used to release goods, and risk assessment of the goods was very fast compared to now where verification of every container is done. Performance of revenue at Inland Container Depot is measured mostly from the efficiency of customs procedures in addition to trade facilitation. If cargo clearance procedures are improved and the importance of it is made known to parties involved, international trade will greatly increase. Import cargo clearance starts way before a container arrives, as shipping lines lodge manifest seven days before goods arrive and hence cargo dwell time is not attributed to delayed clearance of goods. Once goods arrive, agents encounter tedious procedures of cargo clearance which are not online limited to 100% verification and passing through various government bodies to check whether goods are of good quality, their origin among others (UNCTAD, 2003). Various government bodies at the port largely attribute to delays of cargo (UNCTAD, 2003). Once goods have arrived and all documents verified, verification process then follows which generally can take more time. Release of the products is then initiated.

Verification of cargo then follows after document verification. Cargo can be verified using two ways, either intrusively or non-intrusively. Intrusive is where cargo is physically inspected by an officer to ascertain actual contents and description (UNCTAD, 2003). Intrusive cargo verification is quite expensive and time-consuming. Non-intrusive cargo scanning, on the other hand, is taunted as a modern method of inspection whereby inspection of cargo is done without necessarily opening the cargo itself. It involves usage of K9s and scanners to ascertain exact contents in cargo. Since the

method is more modern, it reduces the time incurred in the verification of cargo and the cost incurred by the importer (Bichou, 2006).

2.4.2 Kenya Ports Authority Procedure

Kenya Ports Authority Procedures involves three primary processes, which include; gate in process, payment process, and gate out process. Shipping lines are generally required to put cargo details into two main systems that are, into Simba Tradex system and KWATOS. Shipping agents then create a pre-advice which entails verified gross mass typically done seven days before arriving of containers and submit the details on KPA portal. Once KPA receives the pre-advice, they countercheck using the bill of lading for any misdeclaration. If the document is authentic, it is then approved, and shipping lines will then be required to make payments. The shipper or authorized agents should fill all the required fields giving the correct information. At KPA portal then agents put information and he is now able to view invoices, generate them and then make payments. KPA uses KWATOS system for automating cargo clearing procedures. Documents are hence forwarded to KRA for verification and to ensure duties are paid.

Once duties have been paid and verification is done, the information is proceeded on to KWATOS, and then an issue is then generated. An importer or clearing agent then get ready to go pick up container and head to the last process which is now the gate out process. Here clearing agents need to avail five crucial documents, first is the delivery order, second is passed customs entry, third is customs release order, fourth is the bill of lading and lastly customs duty and tax receipts. Clearing agent then gets a gate pass generated from customs documentation office and proceeds to load the container into a truck.

2.4.3 Infrastructure

In any economic development of a country, then infrastructure is a key factor in trade development, and if there is adequate infrastructure, then it means the trade will greatly increase, and fewer costs will be incurred from reduced congestion of containers. For one to say that a given port has reached its optimum performance, then it has to have support by efficient road and rail network (Suykens and van de Voorde 1998).

Since the introduction of Standard Kenya's rail corridor, containers were directed to be carried by rail to Nairobi, and this had made trade to increase greatly as compared to when containers were transported by road. It is common knowledge that Standard Gauge Railway that was launched recently by President Uhuru will handle over 22 Million tonnages of cargo against the current Single Gauge handling only 1.2 Million tons (Kamau. M, 2014). SGR connects Mombasa to Nairobi and continues to Uganda. This has increased cargo flow and trade has increased immensely, revenue, on the other hand, has improved.

The expected increase in container traffic is likely to force terminals to handle more and more volumes of cargo. Therefore in order to ensure seamless flow of cargo terminals need to reduce variability. Traders enjoy options of routes when it comes to the movement of their goods as they have an opinion of selecting what suits them. (Truel, 2010.) Generally, infrastructure is not only limited to the availability of yard storage but also on the availability of the rail network and adequate roads constructed (Tongzon and Heng, 2005). Due to the increase in trade, ships have been forced to increase their holding capacity to accommodate more containers, making ships to improve their technology and come up with the best and updated facilities. Area of storage or yard capacity is very important when it comes to infrastructure.

Verification yard is areas set aside for the inspection of both containerized and non-containerized cargo. They are necessary since it's a place designated to perform customs activities which enables the authority to establish the contents and check for concealments physically. Sufficient space for verification yards is necessary to improve the verification speed hence reducing the congestion of cargo to be inspected (Hesketh, 2010). Ample space for verification reduces the cost incurred by importers also. Operation and handling equipment in a port is also necessary. These equipment determine the rate at which cargo in a port can be handled. The choice of machines in a port is determined by their resourcefulness and the ability to handle them in comparison with the cost (Philpott, 2010). Modern and efficient machines in a port-led to reduction in cargo handling cost hence overall reduction in clearance costs.

2.5 Critique of the existing literature.

This chapter has explored various studies from different scholars who highlighted different variables. Throughout the review, various tops were not covered, thus exposing the literature gaps in the respective studies. Operation of ports is quite hectic as there are so many actives of clearance and storage going on. Firstly, Roll and Hayuth (1993) argue as ports are turning to provide the best services it has made the efficiency of port resources to become difficult to be able to measure how they are used to the maximum in achieving organizational goals and objective. The authors further argue that DEA is considered as one of the best methods of measuring port efficiency. A case study conducted by Valentine and Gray (2002) which focused on looking at the factors influencing cargo clearance efficiency of dry ports, basically identifies various ports and they used DEA method in analyzing the efficiency of ports. Roll and Hayuth (1993) also agrees that any efficiency of something can indeed be measured using DEA. Moreover, Samuel (2014), conducted his research on

those elements which influencing container terminal efficiency a case of Mombasa but did not touch on Nairobi. This study, therefore, seeks to bridge the gap in the literature, and investigate factors influencing cargo clearance efficiency at Inland Container Depot Nairobi.

2.6 Summary of Literature Review.

The chapter discussed in detail the various theories which are relative to both the independent variable and the dependent variable and showed the correlation that exists. In the empirical literature, the chapter explored many scholars who have previously explored cargo clearance efficiency. The researcher identified those theories and studies which made a great impact towards identifying factors influencing cargo clearance efficiency and she, therefore, identified factors like; customs clearance procedures, Kenya ports Authority procedures, and infrastructure. Also, we have so many theories, models on cargo clearance efficiency, which have been created for cargo clearance industry. Through the critique, the chapter highlighted the existing research gaps that this study intends to fill

2.7 Research Gaps

Results of the studies conducted provide an opening to more research which ought to be done. The existing studies reviewed in this research, therefore, provide a useful starting point for this analysis. Studies did have not clearly brought the concept of those factors which influence cargo clearance efficiency at Inland Container Depot. Kenya is a good example; most studies have been conducted; hence, there is scanty information on utilization of dry ports. The few studies conducted in the developing countries have so much criticism in the criteria, title, scope, and methodology used hence the research gaps in terms of literature. The literature review did also showed a number of studies conducted and demonstrated several theories compared to the variables and the conceptual framework of the variables by analyzing the relationships between them. Few studies have been

conducted on factors influencing cargo clearance efficiency. Huybrechts et al. (2002) looked at various studies conducted on the performance of port, and they identified various elements for example what the society demands, where do industries obtain there help from among others which tend to give them pressure to improve on their performance and this also was consistent to Antwerp in the Hamburg.

Tongzon (1995) investigates determinants of port performance and efficiency in Southeast Asia and outlined various factors influencing port performance, but in such a case he did not narrow done to the infrastructure of which my study has identified. Chen and Zhang (2007) conducted an empirical study to find that a combination of local monopoly and competitive cooperation influences port performance by employing the structure-conduct-performance (SCP) model.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology that the researcher has used while carrying out the study. The chapter includes the research design, population, sampling design, sample size and research instruments. The chapter concludes with the data collection procedures and data analysis techniques.

3.2 Research design

Research design refers to the way the study is designed, that is the method used to carry out the research Mugenda and Mugenda (2003). The research will adopt an exploratory approach using a descriptive survey design to establish the factors influencing cargo clearance efficiency a case of inland container depot Nairobi. A descriptive research design has no biases as it shows the behavior of something just how it (Mugenda and Mugenda, 2003). Quantitative survey was used in my survey as the main method of survey and questioners were administered this was toensure that data collected is definitely easy to understand and to compare.The study aimed at collecting information from respondents on their opinions in relation to factors influencing cargo clearance efficiency focusing on Inland Container Depot. Both primary and secondary sources of data were used by the researcher. The primary data was obtained through the use of questionnaires while secondary data obtained from the organizations archives.

3.3 Population

Sekaran (2010) refers to population as all groups of people which the researcher intends to study. Mugenda and Mugenda (2003) defined population as a group of people who have similar and

identifiable features. The target population that formed the units of analysis for this study comprised of all the 450 clearing and Forwarding agents.

The population distribution is as follows;

Table 3:1 Target population

Stratum	**Population**
Clearing & Forwarding agents	450
Total	450

3.4 Sample size and sampling technique

Mugenda (2010) defines sampling frame as a list of accessible population of people, events or documents that could be included in a survey from which the researcher will pick a sample to collect data.

Kothari's (2004) clearly points out that a sample of 10% of the target population is an accurate representation of the population.

With the use of Slovins's Formula to compute sample size

$$n=N/(1+N(e^2)$$

n-sample size, N Study population, e is error term while having 95% confidence level.

$$n=450/(1+450(0.05^2)$$

$$n=211$$

A sample size of appropriately 211 respondents was obtained from the population by the use simple random sampling technique from the highlighted sample as shown in Table 3.2

Table 3:2 Sampling Frame

Stratum	**Population**	Sample frame
Clearing & Forwarding agents	450	211
Total	450	211

3.5Instruments

According to Ngechu (2004), there are various methods of data collection. One has to look at the subjects, research topic, problem question, objectives, design, expected data and results in order to come up with the appropriate instruments. This is because each tool and instrument collects specific data. Donald (2006) noted that there are two major sources of data used by respondents, primary and secondary data. The study will employ questioners for collecting primary data from the selected respondents. According to Kothari (2004) questionnaire is the most effective survey instrument due to its many advantages including economy, case of use and standardization of responses, it is also easier to analyze data from questionnaires. The researcher designed and personally distributed the questionnaires to the respondents.

3.6 Data Collection Procedures

This refers to the series of events that were followed during the data collecting process.Data collection procedures refer to the systematic steps that the researcher follows in the correct way to obtain data from the field (Oso and Onen, 2005). Questionnaires were administered to respondents

and they were given one week to give their opinion on the variables in the study. Information obtained was then used for analysis.

3.7 Pilot Testing

It is important that all surveys are tested before the actual survey is conducted (Kothari, 2013). Pilot testing is therefore, very important as it ensures questionnaires are not in any way subjective and creates room where respondents are made comfortable to air their views (Creswell & Daly, 2015). Pilot testing is hence a process that ensure no bias occur and eliminate any corrections that need to be worked on before the questioners are administered to respondents (Mugenda&Mugenda, 2013). Questionnaires will be administered on two hundred and eleven clearing and forwarding agents who work at ICDN and have experience on all port procedures and this will ensure the validity and reliability test is done.

3.7.1 Reliability Test

Reliability refers to consistency in results obtained from a data collection tool when issued in many situations. This study utilized Cronbach's alpha to measure the reliability of the questionnaire issued. Reliability of the instruments used for research was hence used from data collected from the pilot study. According to Pallant (2011) when using the Cronbach's Alpha coefficient value to test reliability, a value above 0.7 is considered acceptable; however, a value above 0.8 is preferable. This method requires neither the splitting of items into halves nor the multiple administrations of instruments. The internal consistency method provides a unique estimate of reliability for the given test administration.

3.7.2 Validity Test

According to Mugenda and Mugenda (2003) validity is the most significant test on measuring quality of a given item, it is the measure in which the outcome obtained from analysis is a true and accurate representation of the variables of the study. The validity of the instruments used by the researcher was determined through content validity. Content validity is concerned with whether or not a test or measuring instrument is a representative of a full content under study (Shaw & Weir, *2007).* By using content validity then it is assumed that the knowledge of people familiar under study is indeed the measure of validity of the research. Clearing and forwarding agents at ICDN who were the principal population target had access to questionnaires and were required to provide accurate feedback. This was analysed and appropriate decisions was made on the effectiveness and accuracy of each question. Therefore, questionnaires employed included all variables involved in the study.

3.8 Data Analysis presentations

The questionnaires found fit for analysis was entered; coded and analyzed using Statistical Package for Social Sciences (SPSS) in order to quantify the responses. Results obtained were presented using tables, bar graphs and pie charts to give a distinct picture of the issues raised in the questionnaire so as to answer research questions. The analysis of the results is to provide the researcher with the ability to draw conclusion about the findings of the study and relate the conclusion to the objective of the study. Data analysis was done through descriptive and inferential statistics. The descriptive statistics are mean and standard deviations. The particular inferential statistics are correlation analysis and multiple regression analysis. This study uses a multiple regression model to establish the relationship between the dependent variable and the independent variables. The multiple regression analysis is used because there is more than one independent variable.

The regression model use is as follows:

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

Where,

Y – Cargo clearance efficiency

β_0 – Y-intercept, explaining the Cargo Clearance Efficiency when all variables are assumed to be zero

$\beta_1, \beta_2, \beta_3$= Regression coefficients

X_1 – Customs clearance procedures

X_2 – Kenya Ports Authority procedures

X_3 - Infrastructure

ε = Error term explains other variables not included in the study

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The chapter presents the study results which were obtained from the analysis of the collected data. The analysis of data included the use of both primary and secondary data. Both descriptive and inferential statistics were used in the study and the results were presented in charts, tables and figures where appropriate providing ease of interpretation.

4.2 Response rate

Out of the 211 questionnaires administered, the researcher managed to collect 156 dully filled questionnaires. The response rate for the study was 74% as shown in table 4.1 below. According to Mugenda & Mugenda, (2009), a response rate of 70% and above was a good rate for making conclusions about a particular study. Therefore, the results indicate the response rate of 74% was good to make a representation of the target population.

Table 4:1 Response rate

	Response rate	**Percentage %**
Respondents	156	74
Non-respondents	55	26
Total	211	100

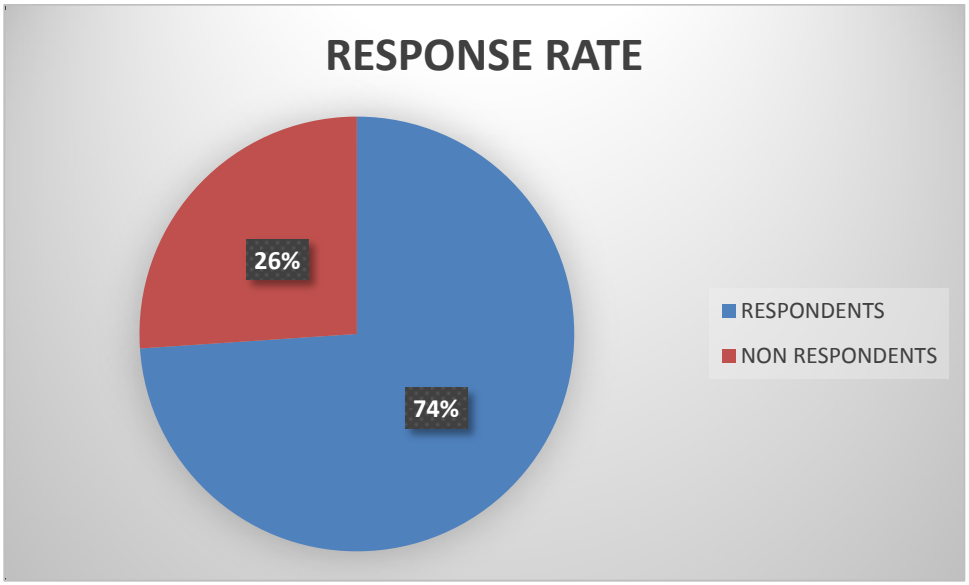

Fig. 4.1 Response rate

4.3 Pilot results

4.3.1 Reliability results

Reliability refers to consistency in results obtained from a data collection tool when issued in many situations. This study utilized Cronbach's alpha to measure the reliability of the questionnaire issued. From the table 4.4 below, the results indicate that customs clearance procedures had an index of 0.762, KPA procedures had a Cronbach's alpha of 0.812 and infrastructure had an index of 0.743 while Cargo clearance efficiency had 0.787. The findings were highly reliable since according to Neuman (2014), a Cronbach's alpha of 0.70 and above indicates high reliability.

Table 4:2 Reliability results

Scale	Cronbach's Alpha	Items Tested	Comments
Customs clearance procedures	0.762	5	Accepted
KPA procedures	0.812	5	Accepted
Infrastructure	0.743	5	Accepted
Cargo clearance efficiency	0.787	5	Accepted

4.4 Demographic findings

4.4.1 Level of education

The researcher sought to investigate the education levels of the respondents. This was necessary to establish the decisions ability of the respondents to make, handle and implement the decisions in course of their duty. The findings in table 4.3 below show that respondent educated to secondary level were 6.4%, college 40.4%, graduate level 37.8%, postgraduate diploma level 11.5% and Masters 3.9%. The results indicate that the respondents are knowledgeable and have ability to make analyze and make decisions.

Table 4:3 Level of education

Educational Level	Frequency	Percentage
Secondary	10	6.4%
College	63	40.4%
Graduate	59	37.8%
Post graduate diploma	18	11.5%
Masters	6	3.9%
Total	156	100.0%

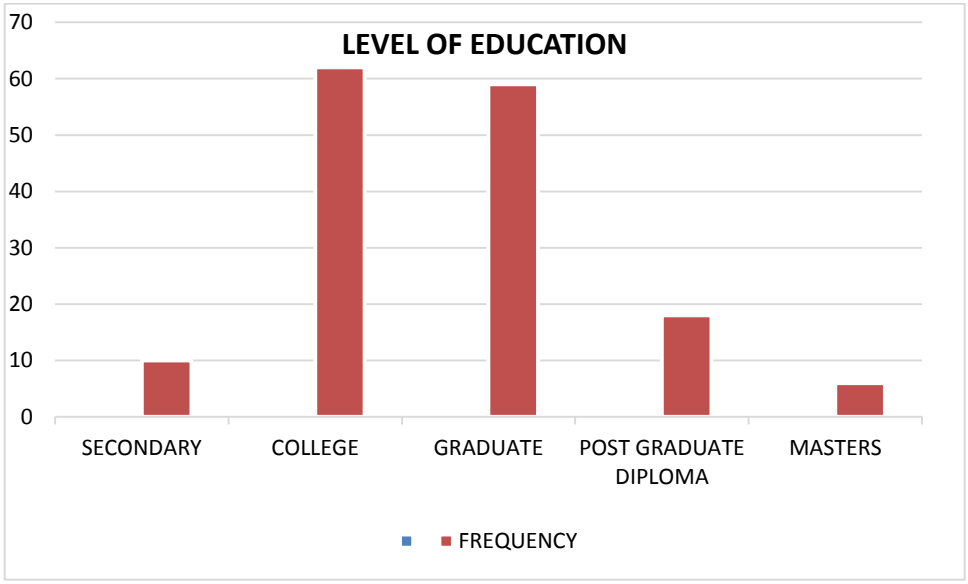

Fig. 4.2 Level of Education

4.4.2 Experience as a clearing agent

The researcher also wanted to establish the experience of the respondent while working as a clearing agents. This was indeed applicable in order to find out what value would be in their decisions on the job based on their experience. The finding in the table below indicate most respondents 49.4% had an experience of 5-10 years as clearing agents, followed by 10 to 15 years who had 26.3%, clearing agents with 1-5 years' experience were 14.1% while those with an experience of above 15 years were 10.2%. From the results, it can be concluded that the respondents had enough experience to make decisions which have great impact on their course of work.

Table 4:4 Experience as a clearing agent

Years	**Frequency**	**Percentage**
1-5 years	22	14.1%
5 to 10 years	77	49.4%
10 to 15 years	41	26.3%
Above 15 years	16	10.2%
Total	156	100.0%

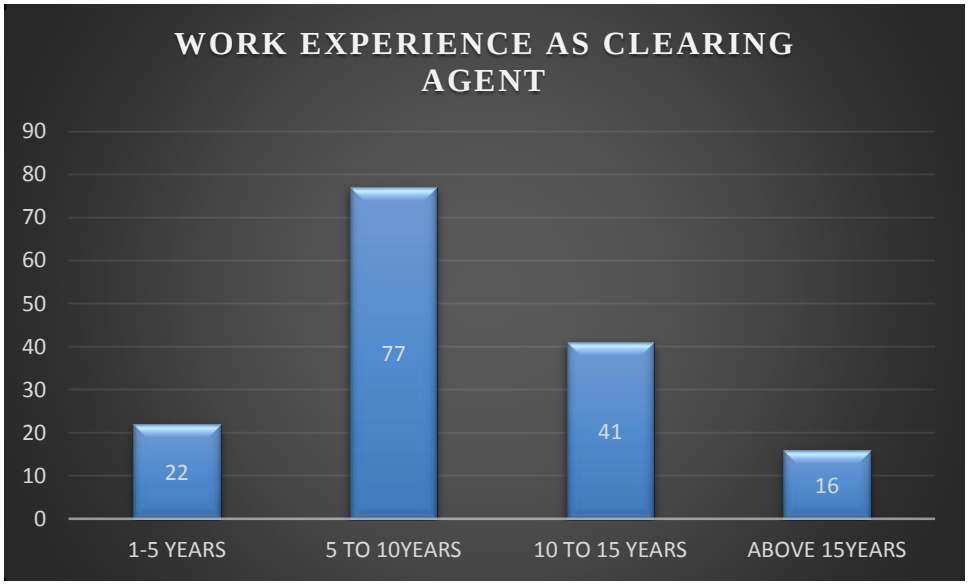

Fig. 4.3 Work experience as clearing agent

4.4.3 Clearing experience at ICDN

The researcher also needed to establish to what extend clearing agents were familiar with ICD operations. It was necessary to distinguish the familiarity of the respondents with operations at ICD. From the findings in table below indicate that 17.3% had an experience of 0 to 1 year at ICD, 20.5% of the respondents had an experience of 1 to 3 years clearing at ICD, 35.9% of the respondents had an experience of 3 to 5 years clearing at ICD while 26.3% of the respondents had an experience of above 5 years clearing at ICD. The results indicate that the respondents had sufficient experience working at the ICD.

Table 4:5clearing experience at ICDN

Years	Frequency	Percentage
0 to 1 year	27	17.3%
1 to 3 years	32	20.5%
3 to 5 years	56	35.9%
Above 5 years	41	26.3%
Total	156	100.0%

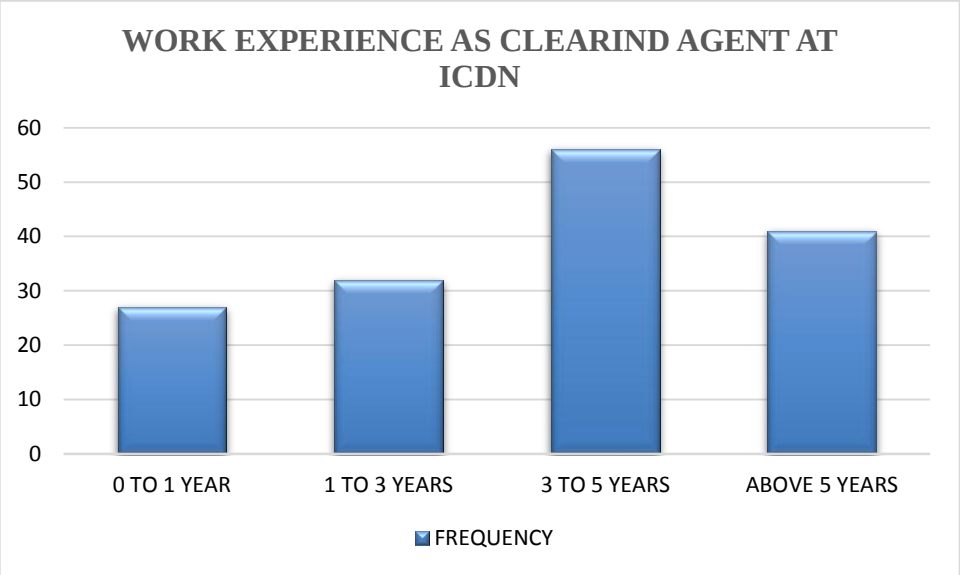

Fig. 4.4 Work experience as clearing agent at ICDN

4.4.4 Position held in the organization

The study also sought to establish the position the respondents held in their organization. This was to enable the researcher to determine whether the respondents' positions had impact on the decisions of the organization. From the findings in table below, Managers made 4.5%, Supervisors composed 19.8% of the respondents, and Officers were 50.7% while Clerks were 25.0%. From the findings, it can be concluded that the respondents' decisions had an impact to the organizations decisions.

Table 4:6 Position held in the organization

Position	Frequency	Percentage
Manager	7	4.5%
Supervisor	31	19.8%
Officer	79	50.7%
Clerk	39	25.0%
Total	156	100.0%

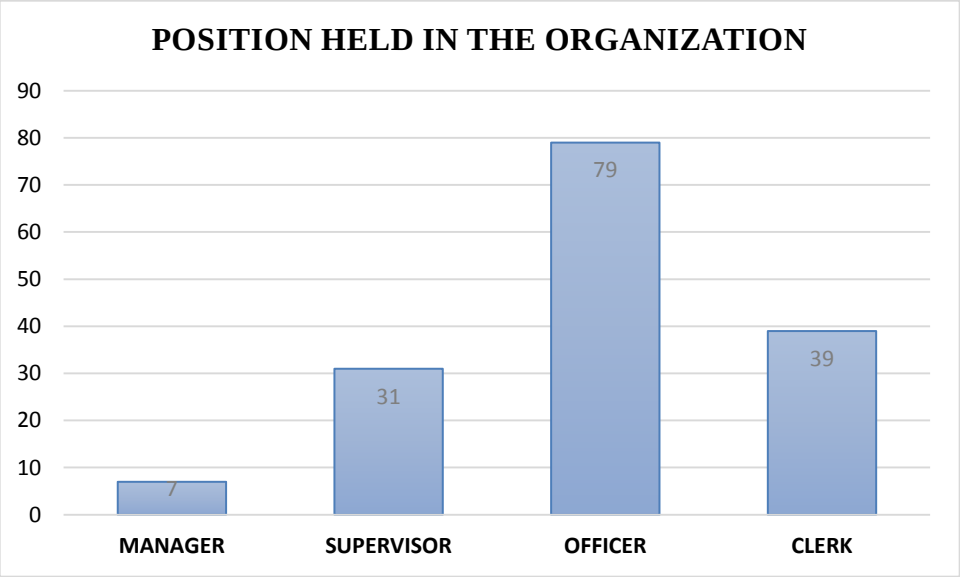

Fig 4.5 Position held in the organization

4.5 Variable analysis

4.5.1 Descriptive Analysis on Customs clearance procedures

Table 4:7Descriptive Analysis on Customs clearance procedures

Statements	N	Mean	Std. Deviation
Document verification by Customs causes delay in time taken to clear cargo at ICD-N	156	3.5918	1.03286
Physical cargo verification causes increases time taken to clear cargo at ICD-N.	156	4.0000	.59204
Non-intrusive cargo verification methods like scanning reduces time taken to customs clearance of cargo at ICD-N.	156	3.2245	1.12635
Many bureaucratic release procedures cause an increase in time and cost incurred in cargo clearance	156	3.9388	.99293
Pre-arrival clearance procedures undertaken by importers reduces time taken in cargo clearance at the Internal Container Depot	156	4.1837	.85959
Valid N (list wise)	156		

The researcher using a liker scaled questionnaire sought to find out the influence of customs clearance procedures on cargo clearance efficiency at inland container depot. The scaling of the questionnaire included 1-5 whereby 1 was coded to represent strongly disagree; 2 Disagree; 3 Neutral; 4 Agree and 5 strongly Disagree. The descriptive analysis focused on the measures of central tendency and measures of Dispersion. From the table above, the respondents were in

agreement with the statement that Document verification by Customs causes delay increases time taken to clear at ICD-N with a mean of 3.5918 and a standard deviation of 1.03286. Physical cargo verification causes increases time taken to clear cargo at ICD-N, the respondents' opinions indicated a strong agreement to the statement supported by a mean of 4.000 with a standard deviation of 0.59204. The low variance or measures of dispersion indicated that most of the respondents' opinions were close to the mean value obtained. The respondents were neutral on the statement that Non-intrusive cargo verification methods like scanning reduces time taken to customs clearance of cargo at Internal Container Deport Nairobi, with a mean of 3.2245and a standard deviation of 1.12635. The high value of standard deviation indicated that their responses ranged from agree to disagree therefore indicating a diverse opinion on the statement. On the statement that many bureaucratic release procedures cause an increase in time and cost incurred in cargo clearance the respondents were in agreement with the statement, the mean response was 3.9388 while having a standard deviation of 0.99293. finally, the respondents were in strong agreement with the statement that Pre-arrival clearance procedures undertaken by importers reduces time taken in cargo clearance at the Internal Container Depot by having a mean of 4.1837 with a standard deviation of 0.85959.

4.5.2 Descriptive Analysis on Kenya ports Authority procedures

Table 4:8Descriptive Analysis on Kenya ports Authority procedures

Statements	N	Mean	Std. Deviation
KPA document processing at the ICDN gates causes delays cargo release hence increasing time incurred in cargo clearance	156	4.1837	1.05856
Payment process for cargo stored at ICDN via KPA systems increases cargo release time	156	3.2245	1.12635
Kenya Ports Authority automation via KWATOS has improved cargo handling procedures hence reducing time taken cargo clearance	156	3.9388	.99293
KPA procedures at ICDN are many and causes increase in demurrage and time incurred by importers in clearing goods	156	3.8980	.89084
Increased automation of KPA procedures has reduced cost incurred by importers and exporter at ICDN	156	3.7245	1.09149
Valid N (list wise)	156		

The researcher using a liker scaled questionnaire sought to find out the influence of customs clearance procedures on cargo clearance efficiency at inland container depot. The scaling of the questionnaire included 1-5 whereby 1 was coded to represent strongly disagree; 2 Disagree; 3 Neutral; 4 Agree and 5 strongly Disagree. The descriptive analysis focused on the measures of central tendency and measures of Dispersion. The respondents were in strong agreement with the statement that Kenya Ports Authority document processing at the ICDN gates causes delays cargo

release hence increasing time incurred in cargo clearance with a mean of 4.1837 and a standard deviation of 1.05856. On the statement that Payment process for cargo stored at ICDN via KPA systems increases cargo release time the mean response was 3.2245 with a standard deviation of 1.12635, this implied that the respondents had a diverse opinion and that's why their responses were dispersed above or below 3by a value given by the variance. Kenya Ports Authority automation via KWATOS has improved cargo handling procedures hence reducing time taken cargo clearance, the mean response obtained was 3.9388, while a standard deviation of 0.99293. This indicated an agreement to the statement. The statement that KPA procedures at ICDN are many and causes increase in demurrage and time incurred by importers in clearing goods received a mean of 3.8980 with a standard deviation of 0.89084, this indicated an agreement from the respondents supported by low values of variance given by the low standard deviation. The respondents further agreed with the statement that increased automation of KPA procedures has reduced cost incurred by importers and exporter at ICDN by having a mean of 3.7245 with a standard deviation of 1.09149.

4.5.3 Descriptive Analysis on Infrastructure

Table 4:9Descriptive Analysis on Infrastructure

Statements	N	Mean	Std. Deviation
There is enough cargo handling infrastructure at the ICDN which reduces time taken to clear cargo.	156	3.9388	.99293
Insufficient storage infrastructure has resulted to congestion at Inland Container Depot hence reducing the efficiency in cargo clearance	156	3.8980	.89084
There are sufficient verification yards available at Inland Container Depot which speed up the clearance process	156	3.7245	1.09149
Modern cargo handling equipment at the ICDN have led reduced cost and time in moving and stacking of cargo hence reduced costs for imports	156	3.9082	1.07537
Inadequate storage yard has led to less container being cleared via ICDN	156	3.8061	1.02201
Valid N (list wise)	156		

The respondents were in agreement with the statement that there is enough cargo handling infrastructure at the ICDN which reduces time taken to clear cargo, by having a mean of 3.9388 with a standard deviation of 0.99293.On the statement that insufficient storage infrastructure has resulted to congestion at Inland Container Depot hence reducing the efficiency in cargo clearance, the respondents were in agreement with a mean of 3.8980 and a standard deviation of 0.89084. The

researcher further sought to determine their views on the statement that there are sufficient verification yards available at Inland Container Depot which speed up the clearance process, from the responses obtained, a mean of 3.7245 with a standard deviation of 1.09149 was obtained, therefore indicating a varied response characterized by a big variance from the responses. On the statement that Modern cargo handling equipment at the ICDN have led reduced cost and time in moving and stacking of cargo hence reduced costs for imports, the respondents were in agreement with the statement with a mean of 3.9082 and a standard deviation of 1.07537.The respondents further acknowledged that inadequate storage yard has led to less container being cleared via ICDN by having a mean of 3.8061 with a standard deviation of 1.02201.

4.5.4 Descriptive Analysis on Cargo clearance efficiency

Table 4:10Descriptive Analysis on Cargo clearance efficiency

Statements	N	Mean	Std. Deviation
Average time incurred in cargo clearance at the ICDN has reduced and can be attributed to improved infrastructure	156	4.2959	.81493
There is an increase in number of containers cleared annually at the ICDN and can be associated to improved infrastructure	156	4.2041	.79896
Average cost incurred in clearance of cargo at the ICDN have reduced due to the implementation of policies fast clearance policies by Customs.	156	4.3673	.75146
Verification time and costs have reduced due to the availability of non-intrusive verification methods	156	4.2245	.94739
Improved multi-agencies harmonization of activities at the ICDN has resulted to reduced time and decreased cost associated with clearance of goods	156	3.9857	0.97150
Valid N (list wise)	156		

The researcher set out to investigate the cargo clearance efficiency at the Internal Container Depot Nairobi, by examining the views and opinions of the respondents. With a likert scaled closed ended questionnaire with the following statements, the respondents presented their views and opinions whereby 1 indicated Strongly Disagree, 2 Disagree, 3 Neutral, 4 Agree and 5 Strongly Agree. From

the statement that Average time incurred in cargo clearance at the ICDN has reduced and can be attributed to improved infrastructure, the respondents were in strong agreement whereby a mean of 4.2959 with a standard deviation of 0.81493 was obtained. The researcher poised the statement that There is an increase in number of containers cleared annually at the ICDN and can be associated to improved infrastructure, whereby most of the respondents indicated a value of 4.2041 with a standard deviation of 0.79896, this also meant that they were in strong agreement with the statement. When asked their opinion on the statement that Average cost incurred in clearance of cargo at the ICDN have reduced due to the implementation of policies fast clearance policies by Customs, they indicated a very strong agreement with a mean of 4.3673 and a standard deviation of 0.75146. Verification time and costs have reduced due to the availability of non-intrusive verification method from their response with a mean of 4.2245 and a standard deviation of 0.94739 indicated a very strong agreement to the statement. They were also in agreement with the statement that improved multi-agencies harmonization of activities at the ICDN has resulted to reduced time and decreased cost associated with clearance of goods with a mean of 3.9857and a standard deviation of 0.97150

4.6 Correlation analysis

4.6.1 Inferential Statistics

Pearson correlation was used to examine if there was correlation or degree of association between the customs clearance procedures, KPA procedures, and infrastructure and cargo clearance efficiency.

The correlation summary in the tables below indicate the associations between each of the independent variables and the dependent variable were all at the 95% confidence interval.

Table 4.11

(a) Correlation between cargo clearance efficiency and customs clearance procedures.

		CUSTOMS CLEARANCE PROCEDURES	CARGO CLEARANCE EFFICIENCY
CUSTOMS CLEARANCE PROCEDURES	Pearson Correlation	1	.178
	Sig. (2-tailed)		.405
	N	24	24
CARGO CLEARANCE EFFICIENCY	Pearson Correlation	.178	1
	Sig. (2-tailed)	.405	
	N	24	24

The correlation analysis between customs clearance procedures and cargo clearance procedures is ($r=0.178$, $p<0.05$), implying that there is a strong positive correlation between customs clearance procedures and cargo clearance efficiency, indicating that an increase in customs clearance procedures would have a positive effect on cargo clearance efficiency. Improvements in customs clearance procedures would increase cargo clearance efficiency.

Table 4.12

(b) Correlation between Kenya Ports Authority procedures and cargo clearance efficiency

		CARGO CLEARANCE EFFICIENCY	KPA PROCEDURES
CARGO CLEARANCE EFFICIENCY	Pearson Correlation	1	-.762**
	Sig. (2-tailed)		.000
	N	24	24
KENYA PORTS AUTHORITY PROCEDURES	Pearson Correlation	-.762**	1
	Sig. (2-tailed)	.000	
	N	24	24

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

The correlation between Kenya Ports Authority and cargo clearance efficiency indicates a strong negative correlation of (-0.762, $p<0.01$) This implies that the procedures of KPA involved in clearing cargo at Inland Container Depot has an impact on efficiency on cargo clearance. This implies that if the KPA procedures are not improved then cargo clearance efficiency would decrease.

Table 4.13

(c) Correlation between infrastructure and cargo clearance efficiency

		CARGO CLEARANE EFFICIENCY	INFRASTRUCTURE
CARGO CLEARANCE EFFICIENCY	Pearson Correlation	1	.562**
	Sig. (2-tailed)		.004
	N	24	24
INFRASTRUCTURE	Pearson Correlation	.562**	1
	Sig. (2-tailed)	.004	
	N	24	24

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

The correlation analysis between cargo clearance efficiency and infrastructure is (0.562, $p<0.01$). This implies that if there is poor infrastructure then there will be decrease in the efficiency of cargo clearance. This implies that infrastructure need to improve for efficient cargo clearance to take place.

4.7 Regression analysis

4.7.1 Regression Model Summary

The researcher adopted regression analysis to further find the relationship and the degree of the studied variables to the dependent variable. Therefore the research will show to what degree does the independent variable affects the dependent variable.

Table 4:14 Regression Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.903[a]	.816	.751	134.7495

a. Predictors: (Constant), Infrastructure, KPA procedures, customs clearance procedures

The above table indicates that coefficient of determination that is the percentage variation determination in the dependent variable is supported by the independent variables. The R square is 0.903 meaning that the predictor variables in the study which are custom clearance procedures, Kenya Ports Authority procedures and infrastructure explain 90.3% change in the

Dependent variable cargo clearance efficiency. Adjusted R squared was 0.816 an indication that the variation of 81.6 changes in cargo clearance efficiency could be because of customs clearance procedures, Kenya Ports Authority procedures and infrastructure. R is the correlation coefficient which shows the relationship between study variables and 0.751 shows a strong positive correlation.

4.7.2 ANOVA

The researcher adopted the Analysis of Variance as a statistical model to understand the significance of the regression model obtained, while used to predict the relationship between the studied independent variables and the dependent variable. From the table 4.13 below, the significance levels are 0.00, this is below the flagged significance levels of P=<0.05 while the F value is 95.347. Therefore, the models obtained are statistically significant to explain the variation of the cargo clearance efficiency at the ICD Nairobi and the relationship between the studied dependent and independent variables. Confidence level being at 95%, the analysis indicates high reliability of the results obtained thus signifying that the study was statistically determined.

Table 4:15 ANOVA

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	519.030	3	173.010	95.347	.000[b]
	Residual	275.809	152	1.815		
	Total	794.840	155			

a. Dependent Variable: Cargo clearance efficiency

b. Predictors: (Constant), infrastructure, KPA procedures, customs clearance procedures

Table 4:16 Regression coefficients

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.745	.882		4.245	.000		
	Customs_clearance_ procedures	.281	.043	.370	6.484	.000	.719	1.391
	KPA_procedures	.435	.044	.304	5.389	.000	.776	1.288
	infrastructure	.263	.045	.334	5.901	.000	.693	1.444

a. Dependent Variable: cargo clearance efficiency

The regression model use is as follows = **β0 + β1X1 + β2X2 + β3X3 + Ɛ**

Y =3.745 + 0.281X1 + 0.435X2 + 0.263X3 + Ɛ

Y (Cargo clearance efficiency**) =3.745 + 0.281** Customs Clearance Procedures **+ 0.435** KPA Procedures **+ 0.263** Infrastructure+ **Ɛ** (other variables not included in the study)

The Y-intercept 3.745, explaining the cargo clearance efficiency when all variables are assumed to be zero. From the model obtained was 3.745 indicates that the cargo clearance efficiency at the ICD Nairobi even when the variables are assumed to be at zero. That is there is still cargo clearance efficiency at the ICD Nairobi despite the nonexistence` of the interaction of the independent variables. A unit improvement or change in the customs clearance procedures leads to a 0.281 direct increase in the cargo clearance efficiency. This means that customs clearance procedures affect the cargo clearance efficiency at the ICD Nairobi by 28.1%.

KPA procedures were found to affect directly the cargo clearance efficiency at the ICD Nairobi by 43.5%. KPA procedures. Changes in the KPA Procedures at the ICD Nairobi, i.e improvement in the KPA procedures will result to a 43.5% in the cargo clearance efficiency at the ICD Nairobi. The researcher found out that the changes or improvement in the Infrastructure at the ICD Nairobi leads to an improvement in the cargo clearance efficiency by 26.3%. This means that a unit increase in the infrastructure, leads to a 0.263 increase in the cargo clearance efficiency. Ɛ Error term explains other variables not included in the study (other variables not included in the study).

Collinearity; this is a condition in which some of the independent variables are highly correlated. Multicollinearity is a phenomenon in which one predictor variable in a multiple regression model can be linearly predicted from the others with a substantial degree of accuracy. Multicollinearity

depends on Variance Inflation Factor (VIF) tests, whereby if the value of tolerance is less than 0.2 or 0.1 and, simultaneously, the value of VIF 10 and above, then the multicollinearity is problematic. For values of Tolerance of above 0.2 and the VIF values of below 10, then the variables are considered to be free from collinear issues, hence the study is significant. For this model all the tolerance values are 0.719, 0.776 and 0.693 therefore all are acceptable to conclude absence of collinearity. The VIF values from the model are 1.391, 1.288 and 1.444 which are also below 3 for minimum threshold for collinearity presence, therefore the model is statistically significant to predict the relationship between independent and dependent variable.

4.5 Interpretation of findings

From the findings of the model summary, 90.3 % of the cargo clearance efficiency was explained by the independent variables investigated in the study while other factors not studied contributed to 9.7%. From the model, taking all factors i.e. customs clearance procedures, Kenya Ports Authority procedures and infrastructure constant, value of cargo clearance would have an autonomous value of 3.7335. The effect of customs clearance procedures as a major factor that influence clearance of cargo on imports is very high as it has been a major influence on congestion at Inland Container Depot in the previous months. It is however experienced on all importation of cargo in Nairobi and therefore its burden is felt by the individual importers who would benefit from its efficiency. This is in line with Datche (2015) who in his study on logistical factors influencing port performance a case of Kenya Ports Authority observes that cargo verification have a major impact on cargo clearance.

The indicators of transport infrastructure have a huge impact on the efficiency of cargo clearance. A unit increase in transport costs would lead to a decrease in the cargo clearance by 0.44. This means improving transport infrastructure would go a long way in improving cargo

clearance at Inland Container Depot. UNCTAD (2016) notes that intra-regional trade crucially depends on the movement of cross- border transit trade. Distance, logistics performance, connectivity and border management are major determinants of trade costs, more so than tariffs. The results are agreeable with (Munyao, 2016) who contends that trade-related infrastructure within the EAC is highly inefficient and inadequate. Inability to transport goods and people efficiently, coupled with inadequate power supply to operate machinery and facilities smoothly, leads to micro as well as macroeconomic imbalances.

The findings also agree with Limão & Venables (2011) who studied the relationship between infrastructure and intra-regional trade. They primarily state that poor infrastructure accounts for 40% of the transport costs of coastal countries and 60% of the transport costs of landlocked countries. Thus improving their own and the transit country's infrastructure would overcome more than half of the disadvantage of being landlocked. Using a gravity model they find that poor infrastructure is damaging to trade. Dicken (2012) in his study on the impact of transport an infrastructure on international trade avers that transport infrastructure policies are more important to trade costs than direct policy instruments such as tariffs and quotas. Moreover, he states that infrastructure is likely to have a considerable effect on the time costs of trade, and that therefore a better infrastructure would consequentially improve trade.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the research finding, the conclusions of the study, while presenting the research recommendations, the limitations that the researcher encountered during the study and recommendations for areas of further studies.

5.2 Summary of the findings

5.2.1 Customs clearance procedures

The researcher found out that the customs clearance procedures has a strong positive influence to the cargo clearance efficiency at the inland container depot in Nairobi. The correlation coefficient r for customs clearance procedures to the cargo clearance efficiency at the ICD Nairobi was found to be 0.667. This indicated a strong positive correlation between the customs procedures and the cargo clearance efficiency. Therefore, efficiency of cargo clearance at the ICD Nairobi is directly and strongly related to the cargo clearance procedures. Any positive change in the cargo clearance procedures at the ICD Nairobi results to positive impact on cargo clearance efficiency.

From the Linear Regression Model obtained, further findings indicated that the Customs Clearance Procedures had a positive impact on Cargo Clearance Efficiency at the Inland Container Depot by 28.1%. This implies that increase on the Customs Clearance Procedures would result to the positive impact in the Clearance Efficiency at the Inland Container Depot by 28.1%. This means that Customs Clearance Procedures affects the Cargo Clearance Efficiency at the ICD Nairobi by 28.1%.

5.2.2 Kenya Ports Authority Procedures.

The researcher found out that the Kenya ports procedures strongly and positively influence the cargo clearance efficiency at the Inland Container Depot Nairobi. The results of the correlation coefficient for KPA Procedures with the cargo clearance efficiency at the ICD Nairobi was 0.626, this also indicated a positive and strong correlation. Therefore, the KPA procedures involved in handling the cargo clearance at the ICD Nairobi has a strong positive correlation to the cargo clearance efficiency at the ICD Nairobi. This also infers that the KPA procedures has a strong and direct influence on the cargo clearance efficiency, improvement of the procedures in terms of speed, would lead to a direct improvement on the cargo clearance efficiency.

These findings are supported by the linear regression analysis results from the model generated, the KPA procedures were found to affect directly the cargo clearance efficiency at the ICD Nairobi by 43.5%. KPA procedures. Changes in the KPA procedures at the ICD Nairobi, ie improvement in the KPA procedures will result to a 43.5% in the cargo clearance efficiency at the ICD Nairobi.

5.2.3 Infrastructure

The researcher also found out that the infrastructure at the Inland Container Depot has a positive and strong influence on the cargo clearance efficiency at the ICD Nairobi. The correlation coefficient r, obtained was 0.645 between the infrastructure and the cargo clearance efficiency. This indicated a direct strong correlation between the variables in that, the infrastructure at the ICD Nairobi strongly influences the Cargo Clearance Efficiency.

Further analysis through the Linear Regression Model revealed the extent to which the Infrastructure at the ICD Nairobi influences the cargo clearance efficiency at the ICD Nairobi. The researcher found out that the changes or improvement in the Infrastructure at the ICD Nairobi leads to an improvement in the cargo clearance efficiency at the ICD Nairobi by 26.3%. Which implies a small increase in the infrastructure, will result to a 0.263 increase in the cargo clearance efficiency.

5.3 Conclusions

The study was guided by a general objective of finding out factors influencing cargo clearance efficiency and focus on Inland Container Depot -Nairobi. The researcher revealed that customs clearance procedures, Kenya Ports Authority procedures and infrastructure were among the factors that greatly determines the cargo clearance efficiency at the Inland Container Depot Nairobi.

The first specific objective to guide the researcher was finding out the influence of customs clearance procedures on cargo clearance efficiency at inland container depot. The researcher found out that the customs procedures had a direct and great impact on the cargo clearance efficiency. The customs clearance procedures had a much impact on the attainment of the cargo clearance efficiency at the Inland Container Depot.

With the second specific objective seeking to establish the influence of Kenya Ports Authority procedures on cargo clearance efficiency at inland container depot. Results obtained indicated that KPA procedures has large impact on the cargo clearance efficiency at the Inland Container Depot Nairobi. The KPA procedures were found to influence the cargo clearance efficiency by 23.5%.

The researcher was guided by the third specific objective to determining the influence of infrastructure on cargo clearance efficiency at inland container depot. In conclusion the researcher highlights that infrastructure at the Inland Container Depot impacted positively on the cargo clearance efficiency. It would therefore, be imperative to conclude that indeed infrastructure affects the cargo clearance efficiency at the Inland Container Depot by 26.3%.

5.4 Recommendations

From the findings of this study, the researcher recommends that customs clearance procedures should be harmonized at the Inland Container Depot Nairobi to minimize time wasted in the bulky procedures so as to improve on the cargo clearance efficiency. There should also be proper coordination between the KPA and other stakeholders and partner governmental agencies to enable them align their procedures and work in harmony so as to improve the cargo clearance efficiency. Improvement of the infrastructure at the Inland Container Depot, the handling machines, the road networks linking the ICD Nairobi at gates, improvement of gates and proper maintenance of the infrastructure should indeed result to greater improvement in cargo clearance efficiency.

5.5 Areas for further study.

The study sought to investigate on the factors that influence the cargo clearance efficiency at the Inland Container Depot, the researcher studied three variables; the customs clearance procedures, The Kenya Ports Authority' procedures and infrastructure. From the models obtained, the coefficient of determination indicated that the interaction of the studied Independent variables explains the variation of the cargo clearance efficiency at the ICD Nairobi up to 65.3%; the customs clearance procedures, KPA procedures and infrastructure. The remaining 34.7% of the variation of the cargo clearance efficiency is explained by other variables which have not been

included in this study. The researcher therefore recommends further studies to find out the rest of 34.7% of factors which influence the cargo clearance efficiency and in the related field. The researcher also recommends further studies to investigate on the impact of SGR to the economy of our country as there exist a larger loophole in that field.

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APPENDIX I: INTRODUCTION LETTER

LILIAN KWAMBOKA MATUNDA,

KESRA,

P.O BOX 14684,

NAKURU.

Dear Sir/Madam,

RE: DATA COLLECTION

I am a student at Kenya school of Revenue Administration pursuing Post Graduate Diploma in Customs Administration. I am currently carrying out research on **Factors Influencing Cargo Clearance Efficiency at Inland Container Depot**. I kindly ask for your sincere participation in filling this questionnaire. The information you give in response to this survey will be purely used for academic purpose.

Thank you for accepting to be part of this academic process

APPENDIX II: QUESTIONNAIRE

SECTION A (*Background information*)

1. What is your highest level of education?

   Secondary [ ] College [ ] Graduate [ ]

   Post graduate diploma [ ] Masters [ ]

2. How many years have you worked as a clearing and forwarding agent?

   1-5 years [ ] 5-10 years [ ]

   10-15 years [ ] 15 years & above [ ]

3. Period you have cleared via Inland Container Depot.

   0-1 years [ ] 1-3 years [ ]

   3-5 years [ ] Over 5 years [ ]

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

   Manager [ ] Supervisor [ ]

   Officer [ ] Clerk [ ]

SECTION B: CUSTOMS CLEARANCE PROCEDURES

Please indicate your degree of agreement or disagreement with the following statements using the following 5-point Liker scale: Strongly agree=1, Disagree=2, Neutral=3, Agree=4 and strongly agree=5. Kindly tick against your choice

	Statement	1	2	3	4	5
1	Document verification by Customs causes delay increases time taken to clear at ICD-N					
2	Physical cargo verification causes increases time taken to clear cargo at ICD-N.					
3	Non-intrusive cargo verification methods like scanning reduce time taken to customs clearance of cargo at ICD-N.					
4	Many bureaucratic release procedures cause an increase in time and cost incurred in cargo clearance					
5	Pre-arrival clearance procedures undertaken by importers reduces time taken in cargo clearance at the Internal Container Depot					

SECTION C: KENYA PORTS AUTHORITY PROCEDUES

Please indicate your degree of agreement or disagreement with the following statements using the following 5-point Liker scale: Strongly agree=1, Disagree=2, Neutral=3, Agree=4 and strongly agree=5. Kindly tick against your choice.

No	Statement	1	2	3	4	5
1	KPA document processing at the ICDN gates causes delays cargo release hence increasing time incurred in cargo clearance					
2	Payment process for cargo stored at ICDN via KPA systems increases cargo release time					
3	Kenya Ports Authority automation via KWATOS has improved cargo handling procedures hence reducing time taken cargo clearance					
4	KPA procedures at ICDN are many and causes increase in demurrage and time incurred by importers in clearing goods					
5	Increased automation of KPA procedures has reduced cost incurred by importers and exporter at ICDN					

SECTION D: INFASTRUCTURE

Please indicate your degree of agreement or disagreement with the following statements using the following 5-point Liker scale: Strongly agree=1, Disagree=2, Neutral=3, Agree=4 and strongly agree=5. Kindly tick against your choice.

No	Statement	1	2	3	4	5
1	There is enough cargo handling infrastructure at the ICDN which reduces time taken to clear cargo.					
2	Insufficient storage infrastructure has resulted to congestion at Inland Container Depot hence reducing the efficiency in cargo clearance					
3	There are sufficient verification yards available at Inland Container Depot which speed up the clearance process					
4	Modern cargo handling equipment at the ICDN have led reduced cost and time in moving and stacking of cargo hence reduced costs for imports					
5	Inadequate storage yard has led to less container being cleared via ICDN					

SECTION A: CARGO CLEARANCE EFFICIENCY

To what extent do you agree or disagree that cargo clearance efficiency can be measured by the level of increase on containers cleared, revenue growth and release time.

No	Statement	1	2	3	4	5
1	Average time incurred in cargo clearance at the ICDN has reduced and can be attributed to improved infrastructure					
2	There is an increase in number of containers cleared annually at the ICDN and can be associated to improved infrastructure					
3	Average cost incurred in clearance of cargo at the ICDN have reduced due to the implementation of policies fast clearance policies by Customs.					
4	Verification time and costs have reduced due to the availability of non-intrusive verification methods					
5	Improved multi-agencies harmonization of activities at the ICDN has resulted to reduced time and decreased cost associated with clearance of goods					