FACTORS AFFECTING THE PERFORMANCE OF RAIL CARGO SCANNER AT THE NEW CONTAINER TERMINAL, MOMBASA PORT

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DECLARATION

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

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HDB335-C016-6647/2016 Signature Date

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

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Signature Date

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ACRONYMS AND ABBREVIATIONS

EAC	East African Community
IAPH	International Association of Ports and Harbors
ICDN	Inland Container Deport-Nairobi
iCMS	Integrated Customs Management System
ICT	Information and Communication Technology
IS	Information System
IT	Information Technology
KAM	Kenya Association of Manufacturers
KPA	Kenya Ports Authority
KRA	Kenya Revenue Authority
RBV	Resource Based View
TEUs	Twenty-Foot Equivalent Units
US	United States
WCO	World Customs Organization
WTO	World Trade Organization

DEFINITION OF TERMS

Scanner adaptability	Scanner adaptability refers to the ability of scanners to work properly based on specific needs of users and with different sources of power (Oppermann, 2005).
Scanner staff capacity	It refers to the ability of employees to perform functions effectively and efficiently given the work expected to be accomplished by them (Linnell, 2008).
Environmental factors	The environmental factors refer to the surrounding physical and climatic environments within which the rail cargo operates (World Customs Organization, 2019)
Performance of rail cargo scanner	It refers to the level of success attained by the cargo scanners in terms of the quality of work and impacts (Amin, 2010).

ABSTRACT

Electronic cargo scanning was meant to expedite clearance process and thus facilitate trade along the Northern Corridor. It has been reported by International Association of Ports and Harbors that there exist delays in processing logistics and paperwork at the new container terminal in Mombasa port. 22% of ports across the globe have reported delays of six to 24 hours in cross-border road transportation, with some reporting total discontinuation of movement. The general objective of the study was to determine the factors affecting the performance of rail cargo scanner at the new container terminal, Mombasa port. The effect of scanner adaptability, scanner staff capacity and environmental factors on the performance of rail cargo scanner at the new container terminal, Mombasa port were examined. Technological determinism theory, resource-based view theory and systems theory were the basis of this study. Descriptive cross-sectional survey research design was adopted by the researcher. The target population of the study was 824 clearing firms in Kenya as obtained from KIFWA registrations office. The accessible or study population was 316 clearing firms based in Mombasa. A census survey was conducted. Self-administered structured questionnaires were employed to collect data. The letter of introduction was first be obtained from Kenya School of Revenue Administration after which the pilot study was conducted. A pilot test involving 32 employees of clearing firms in Nairobi was conducted. The supervisor was consulted to ensure that that the research questionnaire had met the requirements for content validity and KMO and Bartlett test was also conducted to ensure content validity. Reliability of the research questionnaire was tested using Cronbach's alpha coefficient. This researcher utilized descriptive statistics for data analysis. The descriptive statistical tools include; frequencies, percentages, means and standard deviations. Product Moment correlation coefficient and multiple regression analysis were the inferential statistical tools that were used for analysis. The data was presented in tables. The findings indicate that enhancing scanner adaptability increases performance of rail cargo scanner at the new container terminal, Mombasa port. The study established that enhancing scanner staff capacity enhances performance of rail cargo scanner at the new container terminal, Mombasa port. It was revealed that that improving environmental factors increases performance of rail cargo scanner at the new container terminal, Mombasa port. This study concludes that scanner adaptability, scanner staff capacity and environmental factors positively and significantly affect performance of rail cargo scanner at the new container terminal, Mombasa port. This study recommends that scanner adaptability, scanner staff capacity and environmental factors should be enhanced in order to improve performance of rail cargo scanner at the new container terminal, Mombasa port.

CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

The utilization of technology in scanning cargo has been encouraged across the world. With almost 90 per cent of imported and exported goods making their way around the world in some 500 million shipping containers annually, the challenge of ensuring that only legitimate shipments are received at ports is enormous. Upon the U.S. 9/11 Commission's urging, the U.S. Congress has called for all seaborne containers to be scanned. It's a tall order. Only a small percentage of the 15 million sealed containers arriving at U.S. seaports yearly are now scanned for threats (Decision Sciences, 2020). In India, trade has been facilitated as depicted in fast customs clearance due to the use of electronic customs systems that are integrated. The India customs electronic data interchange gateway ensures that people file taxes and declarations electronically in the process of importing and exporting products (Kenya Association of Manufacturers [KAM], 2009).

Various countries have automated customs systems, involving cargo scanning, across the world. In India, trade has been facilitated as depicted in fast customs clearance due to the use of electronic cargo scanning customs systems that are integrated. At the port of Shanghai in China, the process of scanning cargo is automated. The electronic systems for customs are connected and integrated with the systems of other agencies involved in facilitating trade. Singapore customs clearance process is so fast and is highly ranked by customs service in terms of quality of service delivery as a result of incorporation of modern ICT, that is electronic scanning. It only takes 2 hours for good to be cleared and released by customs in Singapore (KAM, 2009). In Bangladesh, the system automation has simplified customs import and export processes. Bangladesh scanning of cargo is now done electronically (Hossain, Deb & Al Amin, 2009).

The adoption of technology such as electronic cargo scanning in African ports has led to increased efficiency in the ports. The Egyptian Alexandria and Damietta ports fully operate online hence the customs clearance process is fast (KAM, 2009). The Egyptian Alexandria and Damietta ports fully operate online hence the customs clearance process is fast. Egyptian customs authority has facilitated trade hence reduced time release to about 2.5 days. In Mauritius, it takes about 1 hour to be cleared by customs as a result of the automation of customs clearance systems (KAM, 2009).

KRA believes in implementation of modern technology in a bid to ensure effective and efficient service delivery and the success of administering taxes. Finances have been used to acquire

technological resources for all Kenya Revenue Authority operations in a bid to ensure effective service delivery in line with various international trade concessions such as World Customs Organization (WCO) and World Trade Organization (WTO) (Kenya Revenue Authority [KRA], 2019). The KRA integrated customs management system (iCMS) integrates all systems that are already in place and has the ability to work with other systems including iTax. This system facilitates the tracking of cargo in transit and thus prevents loss and diversion of cargo once it is being transported (KRA, 2018).

The KRA iCMS has various new capabilities such as automatic benchmarking of valuations, releasing cargo in the green channel automatically, ensuring importers are validated and declarations are made correctly and working hand-in-hand with the iTax system (KRA, 2019). KRA came up with this technological initiative in order to facilitate trade through process simplification in line with international standards and best recommended practices both in East Africa and across the globe. Kenya is a member of WTO and WCO and thus the implementation of the new system is a means to harmonize customs practices across the globe with the aim of trade facilitation. The iCMS ensures that all systems involved in customs clearance process are integrated and function effectively and efficiently to avoid delays in customs clearance (KRA, 2018). The iCMS endeavours to ensure all customs processes are fully automated and managed. It also reduces repetitive processes which take a lot of time and lead to delays in clearance process. The system interface is easy to use and thus it is easy for traders involved in import and export trade to make their own declaration regarding their goods (KRA, 2018).

The WCO has provided capacity building and technical support to KRA as it moves to implement modern technology to address non-tariff barriers to trade, curb illicit trade and easing movement of goods across borders. Kenya plays a critical part in the implementation of smart borders in the region and called for continued investments in technology for border surveillance not only in the region but the continent, which is moving towards the African Continental Free Trade Area (KPA, 2020b).

Investment in cargo scanning and tracking has helped curb diversion, mis-declaration and illicit trade boosting revenues by 18.8 per cent, according to Kenya Revenue Authority. This follows the successful implementation of the integrated scanner command centre and the regional electronic cargo tracking system, all with a central command center at Times Tower, Nairobi (KPA, 2020). The two systems, which have been lauded by the WCO, have reduced cargo verification at ports of entry from 60 per cent to below 10 per cent, increasing clearance processes and cargo dwell

time along the Northern Corridor. In terms of tax evasion, cargo scanning systems have addressed that, and we have seen especially ethanol which was being smuggled in large quantities being arrested at the scanners (KPA, 2020b).

Cargo inspection is a critical aspect in safeguarding the supply chain security and protection of society against organised transnational crimes. The KRA has employed modern cargo inspection tools through use of x-ray cargo scanning systems at the Mombasa seaport and airports (Kenya Ports Authority [KPA], 2017). The use of non-intrusive inspection equipment is consistent with the WCO's safe framework of standards. Apart from the interception of contraband goods, the scanners have also helped prevent perpetrators of the criminal activities from dumping cheap, substandard and harmful products in the local market to the detriment of the citizens (KPA, 2017).

In Kenya customs electronic cargo scanning systems enabled by use of ICT have facilitated the port of Mombasa to manage their day to day activities, improve efficiency and cope with rapidly changing world. Automated customs management system ensures allocation and release of entries on the system (Sakhasia, 2017). Automated systems improve transparency and traceability. They are also timely and reduce fraud, tackle illegal and counterfeit trade on trade based on money-laundry by increasing the visibility on exported goods and easily exposing trade that make no commercial sense (Rose & Lawton, 2009).

Oduor (2018) noted that at the port of Mombasa in Kenya, the number of trained scanner operators and image analysts should be increased at the station so as to maximize the efficiency of the scanner unit in detections and targeting. There should be proper maintenance of the scanners to avoid scanner downtimes and form a mixed partnership between government and other private industries. Further, the port requires substantial reforms and upgrading to reach international standards and to meet the demands of a growing and increasingly integrated East African community (Oduor, 2018). Wolfe, Brunnelli and Horowits (2013) states that cargo scanning or non-intrusive inspection refers to non-destructive methods of inspecting and identifying goods in transportation systems. It is more effective, cost efficient and saves time as compared to inspecting physically. The system creates deterrent effect, can detect special nuclear materials, and can reduce congestion at port (Wolfe et al., 2013).

The Port of Mombasa is the largest in East Africa and a vital gateway for imports and exports to Kenya and its neighboring countries. The imports and exports that pass through the Port of Mombasa are critical to Kenya's economic growth, and to the economic well-being of its neighbors

as well. Liquid bulk items, mostly petroleum, oil and lubricants, are the single greatest import item by weight without these imports, Kenya's economy (and most other countries of the EAC which depend on imports for all of its petroleum needs, would grind to a half. The next four largest items by weight, maize clinker, wheat, iron and steel are critical in meeting the country's food needs and in supporting its vibrant construction industry (KPA, 2010).

KRA introduced scanners at the Mombasa Port as part of a wider strategy to curb tax cheats who often made false declaration of goods handed for processing. The basic strategy for modernizing customs administration is to establish transparent and simple rules and procedures and foster voluntary compliance by building a system of self-assessment buttressed by well-designed audit policies (Oduor, 2018). KRA has at least 20 scanners in key entry and exit points in the country. They include three fixed scanners at the Port of Mombasa, one mobile scanner and rail scanner at the port and four drive-through scanners at the Inland Container Deport-Nairobi (ICDN) (KPA, 2020b). For every single scan that Customs does, they open a case, do the scan, verify and come up with a result, generate a marked-up image, and then manage the findings (in the case of a hit) in a very structured way through other inspection processes, such as stops, unpack, tailboard or impound (Robert, 2012).

Completion of phase one of the second container terminal helped increase Mombasa port's annual capacity by 550,000 twenty-foot equivalent units (TEUs). It was expected that upon completion of the second phase of the second container terminal, Mombasa Port would have an additional capacity of 450,000 TEUs giving it a total capacity of one Million TEUs (KPA, 2019). Currently, 80 percent of all cargo is leaving the inland container depot within four days and our average dwell time has gone down to below six days. This is because of the efforts by both government agencies and private sector in ensuring that we make business smooth and efficient. In terms of cargo evacuation from the port of Mombasa to the ICDN by the standard gauge railway (SGR), currently there's an average of 8 to 10 trains each carrying 108 containers daily. The port handled 1.425 million twenty-foot equivalent units (TEUs) in 2019 representing a 7.3 per cent growth over the previous year, 2018 (KPA, 2020).

1.2 Statement of the Problem

The new container terminal at the port of Mombasa has employed electronic cargo scanning technology to ensure efficient and effective customs clearance at the port of Mombasa. Electronic cargo scanning was meant to expedite clearance process and thus facilitate trade along the Northern Corridor. Scanning cargo electronically eliminates the need for slow verification of cargo in

containers hence reducing delays in clearance of goods. This is why KRA invested a lot of funds to modernize the clearance systems including integrating the system of various organizations involved in clearance process at the port of Mombasa (International Association of Ports and Harbors (IAPH), 2020).

Forty-three per cent of global ports face delays in clearance (IAPH, 2020). The survey by IAPH (2020) mirrors development at the Port of Mombasa and transport along the Northern Corridor, the main transit route to the hinterland, reports of cargo clearance delays have emerged. There has generally been an increase in cargo handled by rail at the port of Mombasa. Standard gauge railway cargo trains increased to 38 between April 2 2020 to April 8 2020, compared to 31 the previous week, moving a total of 6,347 TEUs compared to 6,121 TEUs the previous week (KPA, 2020a). Border checks, fewer truck drivers and disruptions in container terminal operations could lead to cargo pile-ups at ports and warehouses. This is an impediment to the growth of the economy (KPA, 2020a).

Several studies have been conducted in literature concerning performance at the port of Mombasa. Emily (2018) examined the effect of cargo scanning on revenue collection at the port of Mombasa in Kenya. After conducting thorough literature review, it was noted that little has been done to examine the effect of scanner adaptability, scanner staff capacity and environmental factors on performance of rail cargo scanner at the new container terminal, Mombasa port. Therefore, this study determined the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port.

1.3 Objectives of the Study

The study was guided by the following objectives;

1.3.1 General Objective

The general objective of the study was to determine the factors affecting the performance of rail cargo scanner at the new container terminal, Mombasa port.

1.3.2 Specific Objectives

i. To examine the effect of scanner adaptability on the performance of rail cargo scanner at the new container terminal, Mombasa port.
ii. To assess the effect of scanner staff capacity on the performance of rail cargo scanner at the new container terminal, Mombasa port.

iii. To determine the effect of environmental factors on the performance of rail cargo scanner at the new container terminal, Mombasa port.

1.4 Research Questions

i. What is the effect of scanner adaptability on the performance of rail cargo scanner at the new container terminal, Mombasa port?
ii. What is the effect of scanner staff capacity on the performance of rail cargo scanner at the new container terminal, Mombasa port?
iii. What is the effect of environmental factors on the performance of rail cargo scanner at the new container terminal, Mombasa port?

1.5 Significance of the Study

Revenue Authorities such as KRA will gain a better understanding of the issues or factors to watch out for both at the internal and the external level vis-à-vis the assessment of the success of their iCMS. In some respect, the procedures used in this study and the insight it offer may help the management of Kenya Revenue Authority, overcome the purported lack of knowledge with regard to assessing its success or effectiveness of their acquired systems and related technologies.

Given the pervasiveness of customs electronic systems implementation worldwide, it is hoped that a study that aims to investigate the success of such systems at the port of Mombasa would be of benefit to practitioners using such systems or with interest in the technology. By understanding the factors affecting success of scanners, appropriate measures can be adopted to ensure that the adoption of technology leads to the success of customs administration.

This study contributes to existing literature on success of implementation of information technology in customs and port operations. The study will further add to the debate on information system success evaluation literature, looking at various factors affecting performance of cargo scanners. For the body of knowledge on cargo scanners to grow, researchers must not shy away from investigating other aspects of the system.

1.6 Scope of the Study

The study was conducted at the new container terminal, Mombasa port. The study respondents were all customs officers stationed at the new container terminal, Mombasa port. The study was carried out in three months.

1.7 Limitations of the Study

The study respondents were at times in a hurry and the researcher had to schedule with them the times that they would return the questionnaires as they returned to the port of Mombasa. This helped to ensure that there was no much delay in data collection.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter presents theoretical and empirical literature review, the conceptual framework, critique of existing literature relevant to the study, summary of reviewed literature and research gaps.

2.2 Theoretical Review

This chapter elaborates theories that guided the study which were; technological determinism theory, resource-based view theory and systems theory

2.2.1 Technological Determinism Theory

Technological determinism seeks to show technical developments, media, or technology as a whole, as the key mover in history and social change (Kunz & William, 2006). Technological determinism is a reductionist theory that assumes that a society's technology determines the development of its social structure and cultural values. The term is believed to have originated from Thorstein Veblen (1857–1929), an American sociologist and economist. The most radical technological determinist in the United States in the 20th century was most likely Clarence Ayres who was a follower of Thorstein Veblen and John Dewey. William Ogburn was also known for his radical technological determinism (Bimber, 1990).

The first major elaboration of a technological determinist view of socioeconomic development came from the German philosopher and economist Karl Marx, who argued that changes in technology, and specifically productive technology, are the primary influence on human social relations and organizational structure, and that social relations and cultural practices ultimately revolve around the technological and economic base of a given society. Marx's position has become embedded in contemporary society, where the idea that fast-changing technologies alter human lives is pervasive (Smith, Marx, Merrit, Roe & Leo, 1994). Although many authors attribute a technologically determined view of human history to Marx's insights, not all Marxists are technological determinists, and some authors question the extent to which Marx himself was a determinist. Furthermore, there are multiple forms of technological determinism (Bimber, 1990).

Technological determinism is a theory subscribed by "hyperglobalists" who claim that as a consequence of the wide availability of technology, accelerated globalization is inevitable.

Therefore, technological development and innovation become the principal motor of social, economic or political change (Kunz & William, 2006). Strict adherents to technological determinism do not believe the influence of technology differs based on how much a technology is or can be used. Instead of considering technology as part of a larger spectrum of human activity, technological determinism sees technology as the basis for all human activity.

Bimber and Thomas Misa effectively analyze varieties of technological determinism. Bimber distinguishes between normative, nomological, and unintended-consequences accounts (Bimber, 1994). Normative accounts, evident in the writings of such critics of technology as Lewis Mumford, Jacques Ellul, and Jurgen Habermas, claim that society is relinquishing control over technology, or replacing political and ethical norms with those of the technologist's goals of efficiency and productivity. Nomological accounts, such as that by Heilbroner (1967), evoke the two-part definition of technological determinism given above: technology develops autonomously according to an internal logic and forces a prescribed social change. In unintended consequences accounts (Winner, 1977) technology produces unpredictable social change, a view that challenges determinism, but reinforces the idea that technology is out of control. Bimber argues that the term 'technological determinism' should be reserved for nomological accounts, which are the only ones that satisfy his strict definition of the term.

In his survey of scholarship about the relationship between technology and social change, Misa (1988) found that sweeping, macro-level accounts were more likely to be technologically determinist (using the two-part definition of the term) than microlevel accounts, which focused on specific practices. Philosophers, business historians, urban historians, and historians of physical sciences were generally more deterministic than technological historians and labor historians. Another form of technological determinism is what Claude Fischer (1992) criticizes as the 'impact-imprint' model of technology. Rather than investigating how consumers use a technology, scholars assume that a technology's capability (e.g., the ability of the telephone to enable people to talk at a distance) leads to a predictable 'impact' (e.g., new, long-distance communication patterns). The technological determinism theory explains that technology can lead to change. In this case, it is implied that the ability of scanners to adapt affects performance of rail cargo scanner.

2.2.2 Resource Based View Theory

The origins of the RBV go back to Penrose (1959), who suggested that the resources possessed, deployed and used by the organization determine its competitive performance. In 1992, Mahoney and Pandian outlined how the resource-based view of the firm (RBV) might be useful to the field

of strategic management. The resource-based view argues that firms possess resources, a subset of which enables them to achieve competitive advantage, and a further subset which leads to superior long-term performance (Barney, 1991). Empirical studies of firm performance using the RBV have found differences not only between firms in the same industry (Hansen & Wernerfelt, 1989), but also within the narrower confines of groups within industries (Cool & Schendel, 1988). This suggests that the effects of individual, firm-specific resources on performance can be significant (Mahoney & Pandian, 1992).

One benefit of the theory, they noted, was that it encouraged a dialogue between scholars from a variety of perspectives, which they described as good conversation. Since then, the strengths and weaknesses of the RBV have been vigorously debated in strategic management and other management disciplines (Barney, 2001). Resources that are valuable and rare and whose benefits can be appropriated by the owning (or controlling) firm provide it with a temporary competitive advantage. That advantage can be sustained over longer time periods to the extent that the firm is able to protect against resource imitation, transfer, or substitution. In general, empirical studies using the theory have strongly supported the resource-based view (Miller & Shamsie, 1996). One of the key challenges RBV theorists have faced is to define what is meant by a resource. Researchers and practitioners interested in the RBV have used a variety of different terms to talk about a firm's resources, including competencies (Prahalad & Hamel, 1990), skills (Grant, 1991), strategic assets (Amit & Schoemaker, 1993), assets (Ross, Beath & Goodhue, 1996), and stocks (Capron & Hulland, 1999).

This proliferation of definitions and classifications has been problematic for research using the RBV, as it is often unclear what researchers mean by key terminology. In order to simplify the interpretation of the theory, it is useful to clarify the definitions of relevant terms. Resources as assets and capabilities that are available and useful in detecting and responding to market opportunities or threats (Christensen & Overdorf, 2000). Together, assets and capabilities define the set of resources available to the firm. Assets are defined as anything tangible or intangible the firm can use in its processes for creating, producing, and/or offering its products (goods or services) to a market, whereas capabilities are repeatable patterns of actions in the use of assets to create, produce, and/or offer products to a market (Sanchez et al. 1996).

The RBV is indeed useful to IS research. The theory provides a valuable way for IS researchers to think about how information systems relate to firm strategy and performance. In particular, the theory provides a cogent framework to evaluate the strategic value of information systems

resources (Santhanam & Hartono, 2003). It also provides guidance on how to differentiate among various types of information systems including the important distinction between information technology and information systems and how to study their separate influences on performance Further, the theory provides a basis for comparison between IS and non-IS resources, and thus can facilitate cross-functional research (Wade & Hulland, 2004). According to RBV theory, the staff working at the container terminal including their competences can be viewed as resources which determine performance. The researcher used this theory to explain conceptualized effect of scanner staff capacity on the performance of rail cargo scanner at the new container terminal, Mombasa port.

2.2.3 Systems Theory

Systems theory was developed by von Bertalanffy Ludwig in 1930s. According to systems theory, systems are made up of various parts which are dependent on each other and relate to each other, sometimes in very complex and at times in simple ways (Cristina, Jacqueline & Francesco, 2010). This theory assumes that entities able of processing information about own specific environment show more adaptation skills to shifts in contextual conditions. Two orders of adaptive levels are identified, both referring to the informative deviation: i) counteraction – first level (to process information from an organism's environment), related to the ability of steering through a personal purposive behavior (Ashby, 1958); ii) amplification – second level, related to constructivism theory (as opposed to realism) leading to work on self-organization (von Foerster, 1981). Katz and Kahn (1978) apply the concept of open system to the organization. The organization is seen as a system built by energetic input-output where the energy coming from the output reactivates the system (Cristina et al., 2010).

Von Bertalaffy (1956) defines a system as a complex of interacting elements. Von Bertalanffy fosters systems thinking in all disciplines in order to find general principles valid to all systems. It introduces "system" as a new scientific paradigm contrasting the analytical, mechanical paradigm, characterizing classical science (von Bertalanffy, 1962, 1968). A fundamental notion of general systems theory is its focus on interactions. The center in relationships lead to sustain that the behavior of a single autonomous element is different from its behavior when the element interacts with other elements (Cristina et al., 2010). Another core tenet is the distinction between open, closed and isolated systems. In open systems there are exchanges of energy, matter, people, and information with the external environment. In closed systems there are no exchanges of

information and matter, just exchanges of energy. In isolated system there is no exchange of elements (Cristina et al., 2010).

Building on general systems theory many approaches developed. Among others there are open system theory, viable system model and viable system approach. Open system theory looks at the relationships between the organizations and the environment in which they are involved. This focus reflects on organizations' ability to adapt to changes in environmental conditions (with or without the need for information processing) (Katz & Kahn, 1978). Emery and Trist (1960) address organizations as socio-technical systems, underlining the two main components of the firm seen as a system: a social component (people), and a technical component (technology and machines). Viable system model, on the other hand, outlines a system as an entity that is adaptable for the purpose of surviving in its changing environment (Beer, 1972).

When applied to organizations viable system model focuses on conceptual tools for understanding the organization of systems in order to redesign them through change management, understanding the organization as an integrated whole and evaluating the essential functions of implementation, coordination, control, intelligence and policy (Christopher, 2007). Finally, viable system approach suggests a new interpretation of consolidated strategic organizational and managerial models: sub-systems and supra-systems. Sub-systems focus on the analysis of relationships among enterprises' internal components while supra-systems focus on the connections between enterprises and other influencing systemic entities in their context (Cristina et al., 2010). In this study's context, the environment within which customs operations of clearance are undertaken involve interaction with both internal and external environment. This includes other organizations and environmental factors such as the physical environment. The theory explains the conceptualized effect of environmental factors on the performance of rail cargo scanner.

2.3 Conceptual Framework

The conceptual framework describes phenomena under study by graphically depicting the relationship between the predictor variables and the outcome variable (Mugenda & Mugenda, 2013). This conceptual framework is based on review of literature related to the study. The independent variables were; scanner adaptability, scanner staff capacity and environmental factors. The dependent variable was performance of rail cargo scanner at the new container terminal, Mombasa port. The conceptual framework is shown in Figure 2.1.

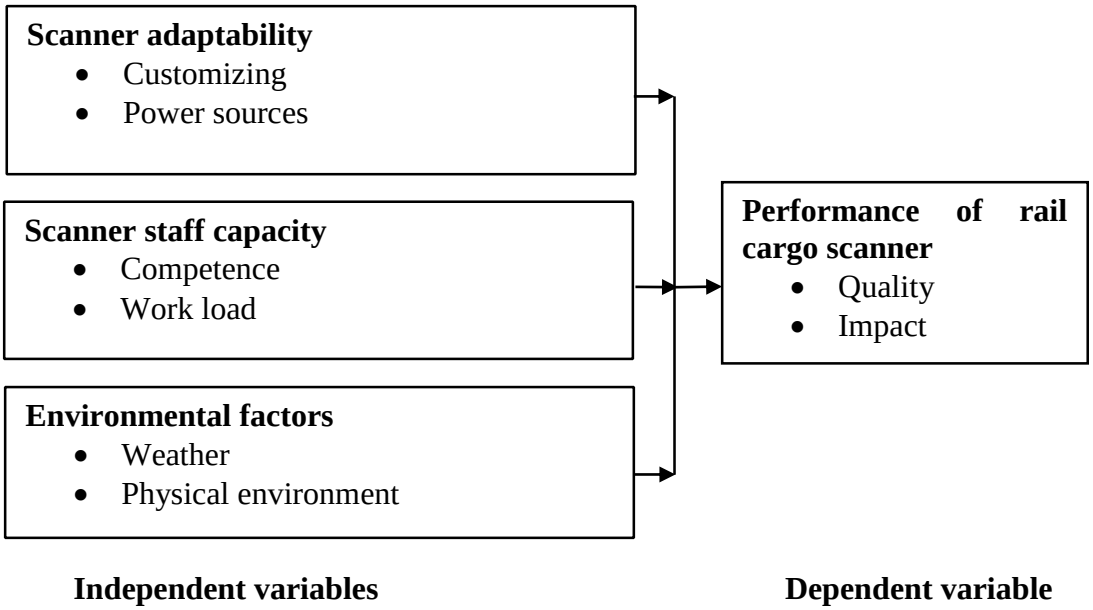

Figure 2.1: Conceptual Framework

2.4 Review of Variables

2.4.1 Scanner Adaptability

Adaptability refers to users that can substantially customise the system through tailoring activities by themselves (Oppermann, 2005). It is possible to observe a number of patterns that exist specific to adaptability requirements in information systems. The detected patterns are based on iterative analyses of business process requirements and technical features with regard to adaptability and its attributes such as efficiency and flexibility for instance. Identified patterns for information systems fall into two main categories. The first of these identifies technological artefacts. This category is termed system-based patterns of adaptability-scalability, modularity, independence/mobility, inter-operability, self-organization. System-based patterns relate to the enterprise system and its given architecture elements. Patterns of this dimension enable the system to adapt. The second dimension recognises patterns in the process of applying enterprise systems in real world scenarios. Business patterns-structural analogy, knowledge, redundancy, customizing-outline the business need for adaptability and permit to change scenarios (Andresen, Gronau & Schmid, 2005). While the first oft theses dimensions identifies the structures that exist in the information systems themselves the second recognises patterns in the process of intervention which bring about changes in the information system, as a consequence of business process changes (Gronau & Rohloff, 2007).

System patterns describe the immanent qualities of the information system itself. Independent from surrounding conditions, system patterns show the latent ability of the system to support adaptability. The system is considered a closed system to measure its capacities to manage change. System-based patterns comprise design-related patterns. The sub-category design pattern represents high-level abstractions that describe specific design decisions. The business dimension characterises the circumstances of usage for an information system (Gronau & Rohloff, 2007). It is outlined that the degree of adaptability, which can be reached by a specific information system, is influenced by decisions referring to the deployment of the system within a business organisation. The use patterns or the business dimension characterise the circumstances of the usage of an information system. They reflect that enabling factors for adaptability are also related to decisions referring to the deployment of the system. In this area patterns are for instance the capabilities of personnel knowledge or existing guidelines to proper deploy a software system. These patterns define the adaptability of the information system (Gronau & Rohloff, 2007).

2.4.2 Scanner Staff Capacity

Capacity is defined as the ability of individuals and organizations or organizational units to perform functions effectively, efficiently and sustainably. Capacity building is an evidence-driven process of strengthening the abilities of individuals, organizations, and systems to perform core functions sustainably, and to continue to improve and develop over time (Fy, 2012). According to Morgan (1998), capacity building is a risky, messy business, with unpredictable and unquantifiable outcomes, uncertain methodologies, contested objectives, many unintended consequences, little credit to its champions and long time lags. Capacity building activities involves strengthening organisations in the areas of administration, finance, human resources, and facilities. Capacity building is a complex notion-it involves individual and organizational learning, is inevitably long term, and should be demand driven. If successful it contributes to sustainable social and economic development (Linnell, 2008).

Capacity building is the process of developing and strengthening the skills, abilities, processes and resources, that organizations and communities need to survive, adapt and thrive in the fast changing world (Linnell, 2008). For the organization, capacity building may relate to almost any aspect of its works, improved corporate governance, leadership mission and strategy, administration (including human resources, financial management and legal matters), program development and implementation, evaluation, advocacy and policy change, marketing, positioning, planning, income generation etc. For the individual, capacity building may relate to

leadership development, skills acquisition, speaking abilities, technical skills, organizational skills and other areas of personal and professional development (Linnell, 2008).

The Department for International Development (2010) defines capacity building as enhancing the abilities of individuals, organisations and systems to undertake and disseminate high quality research efficiently and effectively. Capacity building efforts can be designed to serve individuals, organizations, geographical or interest communities, or the nonprofit sector as a whole. Furthermore, the intensity and duration of the effort can distinguish a capacity building engagement as either aimed at implementing new systems (short term) or achieving wider organizational change (long-term). These efforts can further be usefully classified based on the areas of organizational life they seek to affect: external relationships, internal structure, leadership, and/or internal management systems (Ojokuku & Adegbite, 2014).

2.4.3 Environmental Factors

A person's social environment is their society and all surroundings influenced in some way by humans. It includes all relationships, institutions, culture, and physical structures. The natural environment is the natural world around us: The ground, the trees, the air. The social environment is, collectively, all of the things that humans have overlaid on top of our world: Our personal and societal relationships, our institutions, our cultures, and our physical surroundings—all of the aspects and products of human activity and interaction. Sociologists, health researchers, and others study how the social environment shapes who we are and how we live, especially how individuals are affected by such factors (World Customs Organization [WCO], 2019).

The physical environment includes land, air, water, plants and animals, buildings and other infrastructure, and all of the natural resources that provide our basic needs and opportunities for social and economic development. A clean, healthy environment is important for people's physical and emotional wellbeing. At a fundamental level, factors such as clean air and good quality drinking water are vital for people's physical health. Other environmental factors such as noise pollution can cause both physical harm and psychological stress (WCO, 2019).

The cleanliness and beauty of the environment is also important for people's sense of wellbeing. For many people, access to an attractive physical environment contributes greatly to their contentedness with life. A healthy environment also provides recreational opportunities, allowing people to take part in activities they value. For New Zealanders, the 'clean, green' environment is also an integral part of national identity, and guardianship of the land and other aspects of the

physical environment is seen as an important part of social wellbeing. This image is also vital for the health of New Zealand's economy, as it is a key factor both in attracting tourists and underpinning the nation's success as an exporter of primary products (WCO, 2019). Harm to the environment can reduce quality of life not only for people living today but also for many years in the future. The concept of 'sustainability' is an important aspect of social wellbeing. It acknowledges that social and economic developments need to take place in ways that don't harm present and future wellbeing by damaging the natural environment, and don't harm future wellbeing by using natural resources in unsustainable ways (WCO, 2019).

2.4.4 Performance of Rail Cargo

In the business world, it is difficult to measure performance because it is determined by various nebulous factors. Similar to customs matters, performance measures not only involve a variety of procedures and regulations but also various dimensions such as increases in revenue collection, shorter processing and customs clearance time, preventing the loss of revenue, or the simplicity of procedures, forms and processes (Amin, 2010). Information system (IS) research has developed several theoretical models for ascertaining how people adopt new technology. There are two lines of research: an individual’s acceptance and success and impact at organisational level (Amin, 2010). Using the findings of Shannon and Weaver (1963) and Mason (1978) as a basis, DeLone and McLean (1992) reviewed 180 conceptual and empirical studies and from them extracted 100 measures used to evaluate IS-success. These were used to create the IS-success model which is most widely cited today (Heo & Han, 2003).

The IS-success model is the most popular model for researchers evaluating or measuring the success of IS (Sedera & Gable, 2004). It consists of six interrelated and interdependent dimensions of success: System quality, information quality, use, user satisfaction, individual impact and organisational impact. This model has contributed to the success of IS research by summarizing common factors in prior studies of IS-success (Gable, Sedera & Chan 2008). In relation to customs procedures and modernisation, systems quality can be measured by tariff and user-friendliness. Information quality can be measured by data that is always available and is important. Individual impact can be measured by learning a new system while organizational impact can be measured by risk management, clearance and licensing procedures and re-engineering business processes (Amin, 2010).

2.5 Empirical Review

Oduor (2018) examined the effect of cargo scanning on revenue collection at the port of Mombasa in Kenya. The findings pointed out that scanning procedures positively affected revenue collection by 0.232 or 23.2% while scanner downtime was found to affect revenue collection strongly on the negative way, by a 29.5% effect on the revenue collection. It was recommended that the number of scanners to be increased to cover more containers as well as reducing congestion at the scanning unit and delays. The number of trained scanner operators and image analysts should be increased at the station so as to maximize the efficiency of the scanner unit in detections and targeting. There should be proper maintenance of the scanners to avoid scanner downtimes and form a mixed partnership between government and other private industries. Further, the port requires substantial reforms and upgrading to reach international standards and to meet the demands of a growing and increasingly integrated East African community. However, this study did not examine the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port.

Masinde and Simba (2017) examined the effect of strategic management drivers on operational performance of container terminal at the Kenya Ports Authority. The researcher used descriptive research design on a target population of 195 employees and a sample size of 129 members of staff from KPA Container terminal. The research identified the role of container terminal from a strategic management perspective and drivers of container terminal operational performance in relation to efficient and effective strategic management. The results revealed that collaborative competition and strategic leadership had significant and positive effect on operational performance while strategic ICT and strategic leadership had insignificant effect on operational performance of container terminal of Kenya Ports Authority. The study recommended that: the existing strategic ICT and strategic training should be modified so as to improve operational performance of container terminal of Kenya Ports Authority; managers of container terminal should focus more on collaborative competition and strategic leadership so as to improve operational performance; and in modifying strategic training, education programs on training for employees and managers should be given key priority in container terminal. However, this study did not examine the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port.

Luther (2015) studied cargo scanners and revenue collection was undertaken at Durban container terminal. He had survey research design where he sampled operators and custom officers. The results of the study stated that the cargo scanners increased auditability despite the fact that there was inflation in transfer costs due to transferring of containers to the scanning area and back.

According to the researcher, there was need for installation of scanning machines and equipment. However, this study did not examine the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port.

2.6 Critique of the Existing Literature Relevant to the Study

Oduor (2018) examined the effect of cargo scanning on revenue collection at the port of Mombasa in Kenya. However, this study did not examine the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port. Masinde and Simba (2017) examined the effect of strategic management drivers on operational performance of container terminal at the Kenya Ports Authority. However, this study did not examine the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port. After conducting thorough literature review, it was noted that little has been done to examine the effect of scanner adaptability, scanner staff capacity and environmental factors on performance of rail cargo scanner at the new container terminal, Mombasa port. Therefore, this study determined the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port.

2.7 Research Gaps

Oduor (2018) examined the effect of cargo scanning on revenue collection at the port of Mombasa in Kenya. However, this study did not examine the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port. Luther (2015) studied cargo scanners and revenue collection was undertaken at Durban container terminal. However, this study did not examine the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port. After conducting thorough literature review, it was noted that little has been done to examine the effect of scanner adaptability, scanner staff capacity and environmental factors on performance of rail cargo scanner at the new container terminal, Mombasa port. Therefore, this study determined the factors affecting performance of rail cargo scanner at the new container terminal, Mombasa port.

2.8 Summary

Technological determinism seeks to show technical developments, media, or technology as a whole, as the key mover in changing the way things are done in the organization and hence determining performance. The resource-based view argues that firms possess resources, a subset of which enables them to achieve competitive advantage, and a further subset which leads to superior long-term performance. According to systems theory, systems are made up of various parts which are dependent on each other and relate to each other, sometimes in very complex and

at times in simple ways. It was noted that with adoption of cargo scanning revenue collection increases. It was determined that use of cargo scanning technology results in reduced delays in clearance of goods. It was found out that by improving the infrastructures at the port of Mombasa will minimize the congestion problems that sometime occur. It was revealed that lack of Integrated IT system poses substantial delays in custom clearance procedures.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents discussions on step by step procedures that were followed in addressing the research problem. The research design, population, sampling technique and sample size, data collection techniques, pre-testing of research instruments, data collection procedures and data analysis and processing are also presented.

3.2 Research Design

Research design refers to how data collection and analysis are structured in order to meet the research objectives through empirical evidence. Research design is defined as framework that shows how problems under investigation will be solved (Goertz & Mahoney, 2012). The study employed descriptive research design. Descriptive studies are important such as that undertaken using attitude and opinion questionnaires and questionnaires on organizational practices, enables one to identify and describe the variability in different phenomena. The aspect of survey was based on the fact that, the study was conducted at a specific point in time (Mugenda & Mugenda, 2013).

3.3 Target Population

Population is the collection of elements about which inferences are made and refers to all possible cases which are of interest for a study. It is the collection of all subjects from where a sample is drawn. A target population is an entire group of individuals, events or objects having common characteristics that conform to a given specification (Mugenda & Mugenda, 2013). The target population of the study was 824 clearing firms in Kenya as obtained from KIFWA registrations office as shown in Appendix V. The accessible or study population was 316 clearing firms based in Mombasa.

3.4 Census Survey

The study conducted a survey in all the 316 clearing firms in Mombasa. This was considered appropriate as the firms were easily accessible within Mombasa and their employees frequented the Mombasa port. Only a single employee from each clearing firm was required to respond to the questions in the research questionnaire (Kumar, 2014).

3.5 Data Collection Instruments

Primary data was obtained using structured questionnaires, which consist of closed-ended questions. The structured questionnaire saves on time, cost in terms of human power and other resources and it results in high quality data although it may not produce 100% accuracy (Mugenda & Mugenda, 2013). Data collection using research questionnaire allows for dissemination of accurate information and hence better decision making. The structured questionnaires provide high accuracy and convenience of obtaining data from the respondents (Brace, 2013).

3.6 Data Collection Procedures

The letter of introduction was first obtained from Kenya School of Revenue Administration after which the pilot study was conducted. After conducting the pilot study, permission for data collection for the actual study from the department of customs studies in the Kenya school of revenue administration at KRA was sought. The purpose of the study was clarified to respondents before the questionnaires were handed to them. Those questionnaires which were answered immediately were collected and the ones not answered immediately were collected later based on agreement with respondents.

3.7 Pilot Study

A pilot study was conducted to test the reliability of the research questionnaire and also ensure its validity. A sample of 10% of the study population is enough for piloting the study instrument. This equaled 32 employees of clearing firms in Nairobi (Connelly, 2008; Cooper & Schindler, 2011). Piloting helps in revealing questions that are vague so that they are reviewed until they convey the same meaning to all the subjects. The tools were revised according to the findings of the pilot test. The revised research tool were then be used in the final study (Cooper & Schindler, 2011).

3.7.1 Validity

Validity refers to whether a questionnaire is measuring what it purports to measure. It is the degree of congruence between the explanations of the phenomena and the realities of the world. While absolute validity is difficult to establish, demonstrating the validity of a developing measure is very important in research (Khan, 2014). Content validity was achieved by seeking expert opinion from the supervisor while face validity was achieved by conducting a pilot study and adjusting any questions that are unclear or ambiguous based on consultations with the supervisor (Kumar, 2014). The researcher used KMO & Bartlet test to test for validity of the research questionnaire (Khan, 2014).

3.7.2 Reliability

Reliability refers to the repeatability, stability or internal consistency of a questionnaire. Reliability is a measure of the degree to which a research instrument yields consistent results on data after repeated trials (Mugenda & Mugenda, 2013). The reliability of the research questionnaire was evaluated using the Cronbach's alpha coefficient which shows the internal consistency of the research questionnaire. A coefficient equal to or greater than 0.7 is usually the minimum acceptable threshold to conclude that the research questionnaire is reliable while a coefficient of 0.8 or higher indicates good reliability (Khan, 2014).

3.8 Data Analysis

Data was collected, checked for various flows, closed-ended questions coded and responses tallied. Descriptive statistics included frequencies, percentages, means and standard deviations. Inferential statistical tools were multiple regression analysis and Pearson Product Moment Correlation. Tables were used for data presentation. The multiple regression model that was be adopted is depicted in Equation 3.3.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$ **.....Equation 3.3**

Where; **Y** represents performance of rail cargo scanner at the new container terminal, Mombasa port

$\boldsymbol{\beta_0}$ represents the y-intercept

$\boldsymbol{\beta_1}$, $\boldsymbol{\beta_2}$ **and** $\boldsymbol{\beta_3}$ represent coefficients of scanner adaptability, scanner staff capacity and environmental factors respectively

$\mathbf{X_1}$, $\mathbf{X_2}$ **and** $\mathbf{X_3}$ represent the independent variables

$\boldsymbol{\varepsilon}$ represent error term

CHAPTER FOUR
RESEARCH FINDINGS AND ANALYSIS

4.1 Introduction

This chapter presents the response rate, background information of respondents, results of descriptive statistics and inferential statistical results.

4.2 Response Rate

Out of all the 316 questionnaires that were given to respondents, 238 (75.3%) questionnaires were duly filled and returned. 78 (24.7%) of the questionnaires were not returned. Therefore, the response rate was 75.3% which is over the 50% threshold stipulated by Kothari and Garg (2014) as excellent response rate for analysis and reporting. The results are revealed in Table 4.1.

Table 4.1: Response Rate

	Frequency	Percent
Questionnaires duly filled and returned	238	75.3
Questionnaires not returned	78	24.7
Total	316	100.0

4.3 Pilot Study Results

During piloting, the researcher sought to measure, data collection instrument reliability with the use of Cronbach alpha, the researcher was able to determine the instruments internal consistency as shown in Table 4.2

Table 4.2: Reliability of the Research Questionnaire

Constructs	Cronbach's Alpha	Test Items
Performance of rail cargo scanner at the new container terminal, Mombasa port	0.873	4
Scanner adaptability	0.826	4
Scanner staff capacity	0.785	4
Environmental factors	0.750	4

The results indicate that performance of rail cargo scanner at the new container terminal, Mombasa port had the highest Cronbach's alpha coefficient (0.873). Scanner adaptability had the second highest Cronbach's alpha coefficient (0.826). Scanner staff capacity had the second lowest Cronbach's alpha coefficient (0.785) while environmental factors had the lowest Cronbach's alpha

coefficient (0.750). This implies that the research questionnaire was reliable as all the variables had Cronbach's alpha coefficients higher than 0.7.

The researcher conducted KMO and Bartlett test to examine sampling adequacy for each study variable in order to confirm content validity. In Bartlett test, the procedure is based on the statistic whose sampling distribution is approximately a Chi-Square distribution with (k-1) degrees of freedom, where k is the number of random samples, which may vary in size and are each drawn from independent normal distributions. The findings are presented in Table 4.3.

Table 4.3: KMO and Bartlett Test

Constructs			
Scanner adaptability	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.748
	Bartlett's Test of Sphericity	Approx. Chi-Square	48.268
		df	6
		Sig.	.000
Scanner staff capacity	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.636
	Bartlett's Test of Sphericity	Approx. Chi-Square	45.057
		df	6
		Sig.	.000
Environmental factors	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.623
	Bartlett's Test of Sphericity	Approx. Chi-Square	32.284
		df	6
		Sig.	.000
Performance of rail cargo scanner	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.677
	Bartlett's Test of Sphericity	Approx. Chi-Square	66.379
		df	6
		Sig.	.000

The findings indicate that for scanner adaptability, the Kaiser-Meyer-Olkin has a measure of 0.748, which is above the threshold of 0.5 recommended by Field (2015). The Bartlett's Test of Sphericity

is significant with Chi-Square = 48.268 (p-value < 0.05). Hence, this confirms that content validity was met as factor analysis was appropriate.

The findings indicate that for scanner staff capacity, the Kaiser-Meyer-Olkin has a measure of 0.636, which is above the threshold of 0.5 recommended by Field (2015). The Bartlett's Test of Sphericity is significant with Chi-Square = 45.057 (p-value < 0.05). Hence, this confirms that content validity was met as factor analysis was appropriate.

The findings indicate that for environmental factors, the Kaiser-Meyer-Olkin has a measure of 0.623, which is above the threshold of 0.5 recommended by Field (2015). The Bartlett's Test of Sphericity is significant with Chi-Square = 32.284 (p-value < 0.05). Hence, this confirms that content validity was met as factor analysis was appropriate.

The findings indicate that for performance of rail cargo scanner at the new container terminal, Mombasa port, the Kaiser-Meyer-Olkin has a measure of 0.677, which is above the threshold of 0.5 recommended by Field (2015). The Bartlett's Test of Sphericity is significant with Chi-Square = 66.379 (p-value < 0.05). Hence, this confirms that content validity was met as factor analysis was appropriate.

4.4 Demographic Analysis

The researcher sought demographic information from the respondents. These are the education levels and period of time worked in the organization.

4.4.1 Distribution of Respondents by Education Level

The study also examined distribution of respondents according to levels of education. The results are depicted in Table 4.4.

Table 4.4: Highest Academic Qualifications of Respondents

	Frequency	Percent
Secondary	19	8.0
Post secondary	112	47.1
Graduate	105	44.1
Post graduate	2	.8
Total	238	100.0

The study found out that 106 (73.1%) respondents were graduates. 37 (25.5%) respondents had attained post secondary education. It was established that 2 (1.4%) respondents had attained post graduate education.

4.4.2 Distribution of Respondents by Period of Time Worked

The researcher ascertained the period of time respondents had worked in their organizations. Table 4.5 depicts the results of analysis.

Table 4.5: Period of Time Worked in the Organization

	Frequency	Percent
Below 1 year	41	17.2
1 to 3 years	66	27.7
3 to 5 years	95	39.9
5 to 10 years	36	15.1
Total	238	100.0

The findings indicate that 83 (57.2%) respondents had worked in their organizations for 3 to 5 years. 34 (23.4%) respondents had worked in their organizations for 1 to 3 years. 28 (19.3%) respondents had worked in their organizations for over 5 years.

4.5 Descriptive Analysis

The study also analyzed the opinions of respondents was sought on scanner adaptability, scanner staff capacity, environmental factors and performance of rail cargo scanner at the new container terminal, Mombasa port.

4.5.1 Scanner Adaptability

The researcher analyzed the opinions of the respondents on scanner adaptability. Table 4.6 depicts the results.

Table 4.6: Descriptive Statistics for Scanner Adaptability

Statements	Mean	Standard deviation
The scanners can work without slowing down its speed when during very busy scenarios	3.37	1.193
The scanners are able to handle cargo in different types of containers	3.32	1.198
The scanners work effectively during very busy times	3.43	1.114
The scanners can use other sources of power like generators	3.55	1.251

The study found out that the respondents were undecided on whether the scanners can work without slowing down its speed when during very busy scenarios or not (mean = 3.37; std dev = 1.193). The respondents were undecided on whether the scanners are able to handle cargo in different types of containers or not (mean = 3.32; std dev = 1.198). The respondents were undecided on whether the scanners work effectively during very busy times or not (mean = 3.43; std dev = 1.114). It was generally consented that the scanners can use other sources of power like generators (mean = 3.52; std dev = 1.094). These findings concur with findings by Oduor (2018) which noted the need for proper scanner maintenance to avoid downtime.

4.5.2 Scanner Staff Capacity

This study also scrutinized the opinions of the respondents on scanner staff capacity. Table 4.7 shows the results.

Table 4.7: Descriptive Statistics for Scanner Staff Capacity

Statements	Mean	Standard deviation
The employees at the rail cargo scanning unit at the new container terminal have requisite knowledge and skills on technology	3.35	1.084
The employees at the rail cargo scanning unit at the new container terminal have been trained adequately	3.61	1.144
The employees at the rail cargo scanning unit at the new container terminal can handle clients during busy times efficiently	3.53	1.101

The employees at the rail cargo scanning unit at the new container terminal work are enough to handle the work required of them	3.66	1.124

It was noted that the respondents were undecided on whether the employees at the rail cargo scanning unit at the new container terminal have requisite knowledge and skills on technology or not (mean = 3.35; std dev = 1.084). There was general agreement that the employees at the rail cargo scanning unit at the new container terminal have been trained adequately (mean = 3.61; std dev = 1.144). It was agreed that the employees at the rail cargo scanning unit at the new container terminal can handle clients during busy times efficiently (mean = 3.53; std dev = 1.101). The respondents agreed that the employees at the rail cargo scanning unit at the new container terminal work are enough to handle the work required of them (mean = 3.66; std dev = 1.124). These findings seem to concur with findings of a study by Oduor (2018) which noted that skilled and trained personnel worked for the customs authorities in Mombasa

4.5.3 Environmental Factors

The opinions of respondents on environmental factors were sought. Table 4.8 shows the results.

Table 4.8: Descriptive Statistics for Environmental Factors

Statements	**Mean**	**Standard deviation**
The scanners work well during rainy seasons	3.74	1.103
The scanners work well during sunny seasons	3.71	1.113
The scanners work well when exposed to dust	3.84	1.002
The scanners work well when exposed to water	3.82	1.130

It was determined that there was general agreement that the scanners work well during rainy seasons (mean = 3.74; std dev = 1.103). It was agreed that the scanners work well during sunny seasons (mean = 3.71; std dev = 1.113). The study found out that the respondents agreed that the scanners work well when exposed to dust (mean = 3.84; std dev = 1.002). It was noted that there was general agreement that the scanners work well when exposed to water (mean = 3.82; std dev = 1.130). These findings tend to agree with findings of study by Masinde and Simba (2017) which noted that factors within environment should be considered in improving performance.

4.5.4 Performance of Rail Cargo Scanner at the New Container Terminal, Mombasa Port

The researcher examined the views of respondents on performance of rail cargo scanner at the new container terminal, Mombasa port. The results of analysis are shown in Table 4.9.

Table 4.9: Descriptive Statistics for Performance of Rail Cargo Scanner at the New Container Terminal, Mombasa Port

Statements	Mean	Standard deviation
The scanners are friendly to use while handling cargo	3.51	1.054
The scanners are accurate in capturing data such as container numbers	3.39	1.060
The scanners can easily detect the identity of cargo in containers	3.47	1.038
The scanners have made the clearance process fast	3.52	1.013

The researcher found out that the respondents agreed that the scanners are friendly to use while handling cargo (mean = 3.51; std dev = 1.054). It was noted that the respondents were undecided on whether the scanners are accurate in capturing data such as container numbers or not (mean = 3.39; std dev = 1.060). It was concurred that the respondents were undecided on whether the scanners can easily detect the identity of cargo in containers or not (mean = 3.47; std dev = 1.038). It was agreed that the scanners have made the clearance process fast (mean = 3.52; std dev = 1.013).

4.6 Correlation Analysis

The relationship between scanner adaptability, scanner staff capacity, environmental factors and performance of rail cargo scanner at the new container terminal, Mombasa port was analyzed. Table 4.10 depicts the results.

Table 4.10: Correlation Analysis Results

Independent variables		Performance of rail cargo scanner at the new container terminal, Mombasa port	Hypothesis testing
Scanner adaptability	Pearson Correlation	.423	Null hypothesis rejected (sig. < 0.05)
	Sig. (2-tailed)	.000	
Scanner staff capacity	Pearson Correlation	.511	Null hypothesis rejected (sig. < 0.05)
	Sig. (2-tailed)	.000	
Environmental factors	Pearson Correlation	.547	Null hypothesis rejected (sig. < 0.05)
	Sig. (2-tailed)	.000	

The findings indicate that there is a positive and significant relationship between scanner adaptability and performance of rail cargo scanner at the new container terminal, Mombasa port ($r = 0.423$; $p < 0.05$). It means that that increased scanner adaptability is associated with significant increase in performance of rail cargo scanner at the new container terminal, Mombasa port and vice-versa. The findings agree with findings by Oduor (2018) which noted that cargo scanning is associated with improved performance.

The study findings indicate that there is a positive and significant relationship between scanner staff capacity and performance of rail cargo scanner at the new container terminal, Mombasa port ($r = 0.511$; $p < 0.05$). It means that improving scanner staff capacity is associated with improved performance of rail cargo scanner at the new container terminal, Mombasa port and vice-versa. These findings agree with findings by Masinde and Simba (2017) which noted that training employees on ICT has positive relationship with performance.

It was noted that there is a positive and significant relationship between environmental factors and performance of rail cargo scanner at the new container terminal, Mombasa port ($r = 0.547$; $p < 0.05$). It means that enhancing environmental factors is associated with increased performance of rail cargo scanner at the new container terminal, Mombasa port and vice-versa. These findings

tend to agree with findings of study by Masinde and Simba (2017) which noted that factors within environment should be considered in improving performance.

4.7 Regression Analysis

The researcher conducted multiple regression analysis to examine the effect of the independent variables on the dependent variable.

4.7.1 Multiple Regression Model Summary

The researcher also examined the combined effect of scanner adaptability, scanner staff capacity and environmental factors on performance of rail cargo scanner at the new container terminal, Mombasa port. The results of analysis are shown in Table 4.11.

Table 4.11: Multiple Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.753	.567	.562	.53626

a. Predictors: (Constant), scanner adaptability, scanner staff capacity, environmental factors

b. Dependent Variable: Performance of rail cargo scanner at the new container terminal, Mombasa port

The study found out that there is a positive and strong relationship between scanner adaptability, scanner staff capacity and environmental factors and performance of rail cargo scanner at the new container terminal, Mombasa port (R = 0.753). It was determined that 43.1% of the variation in performance of rail cargo scanner at the new container terminal, Mombasa port can be explained by scanner adaptability, scanner staff capacity and environmental factors (R^2_{adj} = 0.562). These findings denote that scanner adaptability, scanner staff capacity and environmental factors determine performance of rail cargo scanner at the new container terminal, Mombasa port.

4.7.2 Analysis of Variance

The regression analysis of variance (ANOVA) was conducted to assess the fit of the model for the data. The results of analysis are shown in Table 4.12.

Table 4.12: Results of ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	88.280	3	29.427	102.327	.000
Residual	67.293	234	.288		
Total	155.572	237			

a. Predictors: (Constant), scanner adaptability, scanner staff capacity, environmental factors
b. Dependent Variable: Performance of rail cargo scanner at the new container terminal, Mombasa port

The findings indicate that there is a statistically significant relationship between scanner adaptability, scanner staff capacity and environmental factors and performance of rail cargo scanner at the new container terminal, Mombasa port ($F = 102.327$; $p < 0.05$). It is implied that the model was fit for the data.

4.7.3 Test of Statistical Significance of Regression Coefficients

The study also conducted the t-tests to examine the statistical significance of each independent variable's coefficient of regression. The pertinent results of analysis are shown in Table 4.13.

Table 4.13: Evaluating Individual Regression Coefficients

	Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	-.164	.211		-.778	.437
Scanner adaptability	.303	.035	.369	8.540	.000
Scanner staff capacity	.312	.041	.345	7.615	.000
Environmental factors	.397	.042	.430	9.554	.000

a. Dependent Variable: Performance of rail cargo scanner at the new container terminal, Mombasa port

The study found out that scanner adaptability significantly predicts performance of rail cargo scanner at the new container terminal, Mombasa port ($t = 8.540$; $p > 0.05$). It was revealed that scanner staff capacity significantly predicts performance of rail cargo scanner at the new container terminal, Mombasa port ($t = 7.615$; $p < 0.05$). The study found out that environmental factors significantly predicts performance of rail cargo scanner at the new container terminal, Mombasa port ($t = 9.554$; $p < 0.05$). It was revealed that the predictor variables- scanner adaptability, scanner staff capacity and environmental factors -would be included in the multiple regression equation as they were statistically significant ($p < 0.05$).

It was noted that the constant in the regression model was negative implying that without scanner adaptability, scanner staff capacity and environmental factors being taken into account, performance of rail cargo scanner at the new container terminal in Mombasa port would be

insignificantly negative. This implies that when scanner adaptability, scanner staff capacity and environmental factors are not taken into account or improved, performance of the rail cargo scanner would decline, but this decline would be insignificant ($p > 0.05$) (Lind, Marchal & Wathen, 2012). The multiple regression function in Equation 4.1 was used to explain the results of analysis.

$Y = 0.303X_1 + 0.312X_2 + 0.397X_3$ ..... Equation 4.1

The findings indicate that increasing scanner adaptability by 1 unit increases performance of rail cargo scanner at the new container terminal, Mombasa port by 0.303 unit ($\beta_1 = 0.303$). The study established that enhancing scanner staff capacity by 1 unit enhances performance of rail cargo scanner at the new container terminal, Mombasa port by 0.312 unit ($\beta_2 = 0.312$). It was revealed that that improving environmental factors by 1 unit increases performance of rail cargo scanner at the new container terminal, Mombasa port by 0.397 unit ($\beta_3 = 0.397$).

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of key research findings, the conclusions drawn from the findings, recommendations and areas for further research.

5.2 Summary

This section outlines the major findings of the research study.

5.2.1 Effect of Scanner Adaptability on Performance of Rail Cargo Scanner

The study found out that the respondents were undecided on whether the scanners can work without slowing down its speed when during very busy scenarios or not. The respondents were undecided on whether the scanners are able to handle cargo in different types of containers or not. The respondents were undecided on whether the scanners work effectively during very busy times or not. It was generally consented that the scanners can use other sources of power like generators. The findings indicate that there is a positive and significant relationship between scanner adaptability and performance of rail cargo scanner at the new container terminal, Mombasa port. The study found out that scanner adaptability significantly predicts performance of rail cargo scanner at the new container terminal, Mombasa port. The findings indicate that increasing scanner adaptability by 1 unit increases performance of rail cargo scanner at the new container terminal, Mombasa port by 0.303 unit.

5.2.2 Effect of Scanner Staff Capacity on Performance of Rail Cargo Scanner

The study determined that the respondents consented that the port equipment and facilities are adequate to sustain processes and activities at the port. There was general agreement that the hardware required for running the iCMS is up to date. It was agreed that the working environment is generally conducive for employees. The respondents agreed that the requisite technical requirements for running the iCMS have been put in place by every stakeholder involved. The study findings indicate that there is a positive and significant relationship between scanner staff capacity and performance of rail cargo scanner at the new container terminal, Mombasa port. It was revealed that scanner staff capacity significantly predicts performance of rail cargo scanner at the new container terminal, Mombasa port. The study established that enhancing scanner staff capacity by 1 unit enhances performance of rail cargo scanner at the new container terminal, Mombasa port by 0.312 unit.

5.2.3 Effect of Environmental Factors on Performance of Rail Cargo Scanner

It was determined that there was general agreement that the scanners work well during rainy seasons. It was agreed that the scanners work well during sunny seasons. The study found out that the respondents agreed that the scanners work well when exposed to dust. It was noted that there was general agreement that the scanners work well when exposed to water. It was noted that there is a positive and significant relationship between environmental factors and performance of rail cargo scanner at the new container terminal, Mombasa port. The study found out that environmental factors significantly predicts performance of rail cargo scanner at the new container terminal, Mombasa port. It was revealed that that improving environmental factors by 1 unit increases performance of rail cargo scanner at the new container terminal, Mombasa port by 0.397 unit.

5.2.4 Performance of Rail Cargo Scanner

The researcher found out that the respondents agreed that the scanners are friendly to use while handling cargo. It was noted that the respondents were undecided on whether the scanners are accurate in capturing data such as container numbers or not. It was concurred that the respondents were undecided on whether the scanners can easily detect the identity of cargo in containers or not. It was agreed that the scanners have made the clearance process fast.

5.3 Conclusions

This study makes a number of conclusions. Firstly, the study concludes that scanner adaptability has positive significant effect on performance of rail cargo scanner at the new container terminal, Mombasa port. Secondly, the study concludes that scanner staff capacity positively and significantly affects performance of rail cargo scanner at the new container terminal, Mombasa port. Thirdly, it was concluded that environmental factors positively and significantly affect performance of rail cargo scanner at the new container terminal, Mombasa port.

5.4 Recommendations

This study makes a number of recommendations:

1. The study recommends that scanner adaptability should be enhanced in order to improve performance of rail cargo scanner at the new container terminal, Mombasa port.
2. It is recommended that scanner staff capacity should be enhanced in order to improve performance of rail cargo scanner at the new container terminal, Mombasa port.
3. It is also recommended that environmental factors should be enhanced in order to improve performance of rail cargo scanner at the new container terminal, Mombasa port.

5.5 Areas for Further Research

This study recommends that scholars and researchers should focus on other factors affecting performance of rail cargo scanner (R squared = 0.567). The R squared of 56.7% implies that other factors account for 43.3% of the variation in performance of iCMS. Therefore, the effect of other factors, such as the adoption of iCMS, on performance of rail cargo scanner should be the subject of research investigation.

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APPENDICES

Appendix I: Introduction Letter

Kenya School of Revenue Administration

KENYA REVENUE AUTHORITY

ISO 9001:2015 CERTIFIED

KRA/KESRA/MSA/106 **5th October 2020**

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: REQUEST TO COLLECT RESEARCH DATA

This is to certify that the following is bona fide student of the Kenya School of Revenue Administration Mombasa Campus undertaking Post Graduate Diploma in Customs Administration.

Name	Admission Number
ELDINAH ATIENO NYARANGA	HD336-C016-6647/2017

The above mentioned student is in his final year of study at the school and currently conducting research on the **Factors affecting the performance of rail cargo scanners at the New container Terminal Mombasa Port..** The student is in the process of gathering data and thereafter, compile a report that will strictly be used for academic purposes only. The School would therefore like to seek your permission to allow him/her collect information that relates to his research from your organization. Thank you in advance for your support and cooperation.

Yours sincerely,

Mumia B.J.
Associate Head of Research KESRA, Mombasa Campus

ISO 9001 BUREAU VERITAS Certification UKAS

Tulipe Ushuru Tujitegemee !

KENYA VISION 2030

Appendix II: Research Questionnaire

I am a student at Kenya School of Revenue Administration. This research questionnaire is for collecting data for academic research. The topic for the research is *''factors affecting the performance of rail cargo scanner at the new container terminal, Mombasa port''*. Kindly provide answers to the questions by ticking correctly.

.

Questionnaire number ☐

Section A: General information

Kindly put a tick (√) against the correct choice in the spaces provided

1. What is your highest academic qualification?

   Primary [ ] Secondary [ ] Post secondary [ ] Graduate [ ]
   Post graduate [ ]

2. For how long have you been working in this organization?

   Below 1 year [ ] 1 to 3 years [ ] 3 to 5 years [ ]
   5 to 10 years [ ] Over 10 years [ ]

INSTRUCTIONS FOR SECTIONS B, C, D AND E

You are required to indicate your level of agreement/disagreement with the statements in the tables using the following 5-point Likert scale: 1 = Strongly disagree; 2 = Disagree; 3= Neutral; 4 = Agree and 5 = Strongly Agree. Kindly put a tick (√) against the correct choice.

Section B: Scanner adaptability

		1	2	3	4	5
1	The scanners can work without slowing down its speed when during very busy scenarios					
2	The scanners are able to handle cargo in different types of containers					
3	The scanners work effectively during very busy times					
4	The scanners can use other sources of power like generators					

Section C: Scanner staff capacity

		1	**2**	**3**	**4**	**5**
1.	The employees at the rail cargo scanning unit at the new container terminal have requisite knowledge and skills on technology					
2.	The employees at the rail cargo scanning unit at the new container terminal have been trained adequately					
3.	The employees at the rail cargo scanning unit at the new container terminal can handle clients during busy times efficiently					
4.	The employees at the rail cargo scanning unit at the new container terminal work are enough to handle the work required of them					

Section D: Environmental factors

		1	2	3	4	5
1.	The scanners work well during rainy seasons					
2.	The scanners work well during sunny seasons					
3.	The scanners work well when exposed to dust					
4.	The scanners work well when exposed to water					

Section E: Performance of rail cargo scanner at the new container terminal, Mombasa port

		1	2	3	4	5
1.	The scanners are friendly to use while handling cargo					
2.	The scanners are accurate in capturing data such as container numbers					
3.	The scanners can easily detect the identity of cargo in containers					
4.	The scanners have made the clearance process fast					

Appendix III: Clearing Firms in Kenya

1 ABBAS TRADERS LTD"	61 ARSENAL CARGO LOGISTICS	121 BRIDGE WAYS MERCHANTS	181 CORPORATE AVIATION LTD
2 ABOVE AND BEYOND KENYA LTD	62 ASHLEYS ENTERPRISES LTD	122 BRIDGECO INTERNATIONAL LTD	182 CORPORATE BUSINESS FORMS LTD
3 ACME CONTAINERS LTD	63 ASHTON APPAREL (EPZ) LTD	123 BRIGHT MORNING STAR & GENERAL MERCHANTS	183 CORRUGATED SHEETS LTD
4 ACTIVE CARGO SERVICES LTD	64 ASK CARGO LTD	124 BRIGHTFIELD CARGO LTD	184 CROSS OCEAN LTD
5 ACTIVE LINE LIMITED	65 ASKEY KENYA LTD	125 BRINGEL ENTERPRISES LTD	185 CROWN INDUSTRIES LTD
6 ADAIR FREIGHT SERVICES LTD	66 ASP COMPANY LIMITED	126 BRITISH AMERICAN TOBACCO	186 CRUCIAL CARGO MOVERS
7 AELA COMPANY LTD	67 ASSOCIATED CARGO CONVEYORS LTD	127 BRITS FREIGHTERS LTD	187 DAAS LTD
8 AERO CARGO EXPRESS LTD	68 ASSOCIATED EXPRESS CARGO FREIGHTERS LTD	128 BRYSON EXPRESS LTD	188 DANJO MARINE SERVICES
9 AEROMARINE CARGO SERVICES LTD	69 ASSOCIATED LINES LIMITED	129 BUHAYRAH FREIGHTS LIMITED	189 DATA TECHNICAL SERVICES KENYA LTD
10 AEROPATH K. LTD	70 ATACO FREIGHT SERVICES LTD	130 BURHANI EXPRESS LOGISTICS	190 DAVE AIR CARRIERS
11 AFFAIRES AFRIQUE LTD	71 AVIATION SOLUTIONS KENYA LTD	131 BURHANI FORWARDERS	191 DAVIS AND SHIRTLIFF LTD
12 AFRICA MARINE & GENERAL ENGINEERING CO.	72 AZUSA LIMITED	132 BUSTAN FREIGHT LTD	192 DEAN LOGISTICS LTD
13 AFRICA MERCHANT EXPRESS	73 BAHARI FORWARDERS LTD	133 CALBENS CONVEYORS	193 DEAR CARGO FORWARDERS
14 AFRICAIR MANAGEMENT & LOGISTICS	74 BAHARI TRANSPORT COMPANY LTD	134 CALLFAST SERVICES LTD	194 DECOSHIP SERVICES LTD
15 AFRICAN COTTON INDUSTRIES LTD	75 BAKRIZ HOLDINGS LTD	135 CAMDEL EXPORT & IMPORTS	195 DEDICATED CARGO FORWARDERS
16 AFRICARGO LIMITED	76 BALEX (K) LIMITED	136 CANDID FREIGHTRS	196 DEEPMARK CARGO LTD
17 AFRIFRESH CONVEYORS LTD	77 BALOZI & BROSS LTD	137 CAPRICORN FREIGHT FORWARDERS LTD	197 DEJAS ENTERPRISES LTD
18 AFRIQ FREIGHT SERVICES LTD	78 BAMBURI CEMENT LTD	138 CAR AND GENERAL KENYA LTD	198 DELMONTE (KE) LTD
19 AFRO RENAISSANCE LTD	79 BARIO EXIM SERVICES	139 CARGILL KENYA LTD	199 DEL-RAY CARGO SERVICE
20 AFROFREIGHT FORWARDERS	80 BASHEIKH FREIGHTERS LTD	140 CARGO CARE INTERNATIONAL LTD	200 DELTA EXPRESS LTD
21 AGRIQUIP AGENCIES (E.A.) LTD	81 BATA SHOE CO. LTD	141 CARGO FRONT INTERNATIONAL LTD	201 DESERT COMMERCIAL SHIPPING LTD
22 AGRO TRADERS COMPANY LTD	82 BAX LOGISTICS LTD	142 CARGO LINE EXPRESS LTD	202 DHL WORLDWIDE EXPRESS
23 AGS WORLDWIDE MOVERS LTD	83 BAYLAND FREIGHT AGENCIES LTD	143 CARGO LINK SERVICES LTD	203 DIGITAL CARGO FORWARDERS
24 AHERO FREIGHT FORWARDERS COMPANY	84 BAYONNE FREIGHT LTD	144 CARGO LOGISTICS SERVICES LTD	204 DIVERSE CARGO MARINE & AIR C&F SERVICES
25 AIR CARE CHARTERERS & BROKERS LTD	85 BAYPORT FREIGHTERS	145 CARGO NEST KENYA LTD	205 DLA SCIENTIFIC LIMITED
26 AIR CONNECTION LIMITED	86 BAZAM LIMITED	146 CARGO POINT INTERNATIONAL LTD	206 DODHIA BROTHERS
27 AIR MARITIME KENYA LTD	87 BEACH LINES LTD	147 CARGO ROLLERS LTD	207 DODHIA PACKAGING LIMITED
28 AIR WORLD HANDLERS LTD	88 BECOZI INVESTMENTS	148 CARGO STARS KENYA LTD	208 DON SIMON LTD
29 AIRBAND CARGO FORWARDERS LTD	89 BEDI INVESTMENTS LTD	149 CARGO WORLD CONVEYORS LTD	209 DORIC ENTERPRISES LTD
30 AIRFLO LTD	90 BEELINE ENTERPRISES LTD	150 CARGODECK EAST AFRICA LTD	210 DOSHI & COMPANY (HARDWARE) LTD
31 AIR-GO CONSULTANTS LTD	91 BELL TRADING COMPANY LTD	151 CARJET (K) LTD	211 DOT. COM CONSULTANTS
32 AKARIM AGENCIES C. LTD	92 BELT CARGO SERVICES LTD	152 CARRAMORE INTERNATIONAL LTD	212 DUALSTAR EXPRESS SERVICES
33 AL ASSEF IMPEX LTD	93 BELTERS GREEN AGENCY	153 CATESAM ENTERPRISES	213 DUME GENERAL AGENCIES
34 AL-AQMAR FORWARDERS LTD	94 BEMM IMPORTERS & EXPORTERS LTD	154 CEBIT CARGO LTD	214 DUNIYA FORWARDERS
35 AL-ASHRAF TRADING CO. LTD	95 BENAFRICA KENYA LIMITED	155 CERTIS COMPANY LTD	215 EAST AFRICA CARGO LOGISTICS LTD
36 ALBAYAN LOGISTICS C & F LTD	96 BENELI FREIGHTERS LTD	156 CHAI WAREHOUSING LTD	216 EAST AFRICA CHAINS LTD
37 AL-EMIR LTD	97 BENMACY FREIGHTERS LTD	157 CHAIRMAN HOLDINGS LTD	217 EAST AFRICAN COURIER
38 ALEXANDRIA FREIGHT FORWARDERS LTD	98 BENPA FREIGHT AGENCIES LTD	158 CHAISO AGENCY LTD	218 EAST AFRICAN EXPRESS LTD
39 ALFOST ENTERPRISE	99 BEST EDGE HOLDINGS CO. LTD	159 CHARITIES LOGISTICS LTD	219 ECHKEN AGENCIES LTD
40 ALIBHAI RAMJI (MSA) LTD	100 BEST FAST CARGO KENYA LTD	160 CHIRO HEIGHTS INVESTMENTS	220 ECONOMIC CARRIERS LTD
41 AL-IMAN TRADING COMPANY LTD	101 BEST WING CARGO LIMITED	161 CHIVALO INVESTMENTS	221 ECU-LINE KENYA LTD
42 ALIS FREIGHT LIMITED	102 BESTFREIGHT CONVEYORS LTD	162 CHROMEL FREIGHTERS LTD	222 EDGA SERVICES LTD
43 AL-ITIGAN INVESTEMENT CO. LTD	103 BETOYO LIMITED	163 CIRCLELINES AGENCY	223 ELKA CARGO KENYA LTD
44 ALL MARINE SERVICES LTD	104 BEYOND AFRICA FREIGHTERS LTD	164 CLASSIC TECHNI CORE SERVICES	224 EMKE GARMENTS KENYA LTD
45 ALL PORTS LOGISTICS KENYA LTD	105 BIGTIMER AGENCIES LTD	165 CLEARING SERVICES LTD	225 EMPIRE LOGISTIC SERVICES LTD
46 AL-MUSTAOUS TRADING CO. LTD	106 BIKHA AGENCIES LTD	166 COAST PROFESSIONAL FREIGHTERS LTD	226 ENCO GLOBAL
47 ALOYS & ROY FREIGHT SYSTEMS	107 BLUE BIRD GARMENTS K. LTD	167 COLLECT TEAM ENTERPRISES (E.A.) LTD	227 EREMO STORES LTD
48 ALPHA IMPEX LOGISTICS INTL LTD	108 BLUE HILL INVESTMENTS LTD	168 COLOSSUS FREIGHT LTD	228 ERI KENYA LTD
49 ALPHA LOGISTICS KENYA LTD	109 BLUE SEAL FREIGHTER	169 COMPLAST INDUSTRIES LTD	229 ESRO FREIGHTERS LTD
50 ALTOPLEX ENTERPRISES LTD	110 BLUE WAVES LOGISTICS LTD	170 CONKEN CARGO FORWARDERS LTD	230 ESTON CARGO LINKS LTD
51 ALUJO ENTERPRISES	111 BLUESTAR FREIGHTERS LTD	171 CONSOLIDATED (MSA) LTD	231 EURASIAN FREIGHT FORWARDERS
52 AMAZON FREIGHT LTD	112 BLUESTAR INTERNATIONAL LTD	172 CONTAINER FREIGHT COMPANY LTD	232 EURONIPS LTD
53 AMEGA GARMENT INDUSTRIES (K) EPZ LTD	113 BLUEWAVE LOGISTICS	173 CONTEMPORARY FINANCIAL	233 EVERLAST ENTERPRISES LTD
54 AMERITRANS FREIGHT INTERNATIONAL LTD	114 BOKHARI FREIGHT LIMITED	174 CONTINENTAL CARGO SERVICES (K) LTD	234 EXCEL KENYA LTD
55 ANDY FORWARDERS SERVICE LTD	115 BONFIDE CLEARING & FORWARDING CO. LTD	175 CONTINENTAL FREIGHTERS LTD	235 EXPOLANAKA FREIGHT LTD
56 APEX STEEL LTD	116 BORDERLESS LOGISTICS COMPANY LTD	176 CONTINENTAL LOGISTICS NETWORKS LTD	236 EXPORT CONSOLIDATION SERVICES (K) Lltd
57 APPAREL AFRICA LTD	117 BOSMAR C & FOWARDING ENTERPRISES	177 CONTO-LOGIC FORWARDERS LTD	237 EXPORT TRADING COMPANY LTD
58 AQUAERO CARGO LTD	118 BRANDED FINE FOODS LTD	178 CONVENTIONAL CARGO CONVEYORS LTD	238 EXPRESS KENYA LTD
59 ARCPRO LOGISTICS LTD	119 BRAVILLE AGENCY LTD	179 CORNERSTONE LIMITED	239 EYALAMA COMPANY
60 ARPI LIMITED	120 BRIDGE FREIGHTERS & FORWARDERS	180 CORONET CARGO LIMITED	240 F. Y. SIMBA SHIPPING AGENTS
241 FAIDA CARGO SERVICES	301 HACO INDUSTRIES KENYA LTD	361 KAISER AGENCIES LTD	421 LEIGHNICKS CO. LTD
242 FAIMA VENTURES LTD	302 HAMBU FREIGHT SERVICES LTD	362 KAKSINGRI FREIGHT DEVELOPMENT	422 LEMCO FREIGHT FORWARDERS LTD
243 FAST CARGO MASTERS KENYA LTD	303 HAPPY WORLD FREIGHTERS LTD	363 KAMAR C & F HOUSE	423 LIDAN ENTERPRISES LTD
244 FAST FREIGHT SERVICES LIMITED	304 HASHI EMPEX LTD	364 KAMYN INDUSTRIES LTD	424 LINKAGE CONVEYORS LTD

245 FASTLANE FREIGHT FOR WARDERS
246 FEDERAL FREIGHT & TRANSPORT
247 FEEDERLING LOGISTICS LTD
248 FILIKEN TRANSIT FORWARDERS
249 FILM LINE LTD
250 FIRST AFRICA FREIGHT CONVEYORS
251 FIRST OPTIC SOLUTIONS
252 FLEET FREIGHTERS LTD
253 FLIWAY KENYA LTD
254 FLOWERING EXPRESS (K) LTD
255 FOAM MATTRESS LTD
256 FORESTER FORWARDERS
257 FRA ALEX TOP FREIGHTERS
258 FRAMIC CARGO AGENCIES
259 FRANK & GEOFFREY CARGO LTD
260 FRANKLINE CARGO SERVICES
261 FREDTECH FOWARDERS K LTD
262 FREIGHT AFFAIR CO. LTD
263 FREIGHT COMMANDOS LTD
264 FREIGHT CONSULTANTS LTD
265 FREIGHT FORWARDERS KENYA LTD
266 FREIGHT IN TIME LTD
267 FREIGHT POINT LTD
268 FREIGHT SHORE AGENCIES LTD
269 FREIGHTCARE LOGISTICS LTD
270 FREIGHTCARE LTD
271 FREIGHTWELL EXPRESS LTD
272 FREIGHTWIDE CARGO
273 FREIGHTWINGS LTD
274 FREIGHTWORX LOGISTIX LTD
275 FRONTLINE CARGO LTD
276 G4S SECURITY SERVICES KENYA LTD
277 GAEVA SERVICES
278 GALLIN HOLDING LIMITED
279 GAMARA INVESTMENTS LTD
280 GAMMA VILLA LTD
281 GENERAL CARGOS SERVICES LTD
282 GENERAL FREIGHTERS LTD
283 GENERAL MOTORS EAST AFRICA LTD
284 GEOMWA CARGO SERVICES
285 GEORINE AGENCIES LTD
286 GEORMAN CARGO SERVICES LTD
287 GIMBO FREIGHT LTD
288 GLOBAL BUSINESS COMMANDERS LTD
289 GLOBAL FREIGHT LOGISTICS LTD
290 GLOBE FORWARDERS LTD
291 GLOBUS FREIGHTERS LTD
292 GODMAN INTERNATIONAL LTD
293 GOLDFIELDS CLEARING & FORWARDING
294 GOLDWELL FORWARDERS LTD
295 GRACE REMOVERS LIMITED
296 GREAT ANCHOR CARGO LTD
297 GREEN ISLAND SHIPCHANDLERS
298 GREENLAND AGROPRODUCERS LTD
299 GREENSEAS LTD
300 HABO AGENCIES LTD
305 HASS PETROLEUM KENYA LTD
306 HEBATULLAH BROTHERS LTD
307 HEME FREIGHTERS
308 HERMATON CARGO FORWARDERS LTD
309 HI SPEED FREIGHT SERVICES LTD
310 HIGH TECH FREIGHT MOVERS
311 HIGHLAND FORWARDERS LTD
312 HOLLYWOOD FREIGHT AGENCIES
313 HOMELAND FREIGHT LTD
314 HORIZON FREIGHT FORWARDERS LTD
315 HURON FREIGHTERS LTD
316 ICEBERG MOVERS ENTERPRISES
317 IMENTI FREIGHT LTD
318 IMPEX FREIGHT LIMITED
319 INCHCAPE SHIPPING SERVICES K LTD
320 INCOTERMS LOGISTICS SOLUTIONS KENYA LTD
321 ING'ONI ENTERPRISES
322 INLAND AFRICA LOGISTICS
323 INSTA PRODUCTS (EPZ) LTD
324 INTERCITIES FREIGHT & SHIPPING LTD
325 INTERFREIGHT EAST AFRICA LTD
326 INTERGRATED LOGISTISCS COMPANY LTD
327 INTERKEN ENTERPRISES
328 INTERMODEL COMMODITIES LTD
329 INTERNATIONAL COMMITTEE OF RED CROSS
330 INTERNATIONAL BIBLE STUDENTS ASSOCIATION
331 INTERNATIONAL COMM. & FREIGHT CENTRE LTD
332 INTERNATIONAL COMMERCIAL CO. (K) LTD
333 INTERNATIONAL FOREIGN TRADE CO. LTD
334 INTERNET TRADE CONVEYORS
335 INTERPORT CARGO LOGISTICS
336 INTERPORT CLEARING SERVICES
337 INTIME FREIGHT & CARGO SERVICES
338 INTRASPAX FFEIGHERS
339 INTRASPEED LTD
340 ISADEL KENYA LTD
341 ISALILY LOGISTICS SERVICE
342 ISLAND FREIGHTERS LTD
343 J. A. R. KENYA EPZ LTD
344 J.B. MAINA & CO. LTD
345 J.M.K. ENTERPRISES LTD
346 JAKAL SERVICES LTD
347 JAMBO CARGO SERVICES
348 JAMES FINLAY KENYA LTD
349 JEDIMA TRADE AGENCIES LTD
350 JET FLOWERS LIMITED
351 JIHAN FREIGHTERS
352 JOEGRAKA ENTERPRISES
353 JOE'S FREIGHTER LTD
354 JOGRA FREIGHT FORWARDERS LTD
355 JOLSE LTD
356 JOLY DUD INVESTMENT LTD
357 JOSIM AGENCIES LTD
358 JOWAKA SUPER LINKS LTD
359 JUATECH AGENCIES
360 K. B. FREIGHTER S LTD
365 KANA FREIGHT LOGISTICS
366 KANDITO FREIGHT AGENCIES
367 KANJE FREIGHTERS
368 KANSEI CLEARING & FORWARDING CO. LLTD
369 KAPRIC APPARELS EPZ LTD
370 KAPWELL ENTERPRISES LTD
371 KATE FREIGHT & TRAVEL LTD
372 KAWAISON INTERNATIONAL LTD
373 KEARSLEY FREIGHT SERVICES LTD
374 KEBIMEX FREIGHTERS LTD
375 KEENA AGENCIES
376 KEIHIN MARITIME SERVICES LTD
377 KELIMA FORWARDERS LTD
378 KELVIN AND HANNINGTON INT. LTD
379 KEMS FREIGHTERS (K) LTD
380 KEN FREIGHT (E.A.) LTD
381 KEN -KNIT (K) LTD
382 KENAM CARGO LTD
383 KENED INTERNATIONAL COMPANY LTD
384 KENFRIC INDUSTRIES
385 KENMARK CONSULTANTS
386 KENREVY CARGO CONVEYORS
387 KENTAN SERVICES LTD
388 KENTON FREIGHTERS
389 KENWAYS EXPRESS LTD
390 KENYA AIRWAYS LTD
391 KENYA BONDED WAREHOUSE
392 KENYA DUTY FREE COMPLEX
393 KENYA ENTERPRISE
394 KENYA FIRE APPLIANCE COMPANY LTD
395 KENYA GARAGE VEHICLE IND. LTD
396 KENYA GENERAL INDUSTRIES LTD
397 KENYA HAULAGE AGENCY LTD
398 KENYA VEHICLE MANUFACTURERS
399 KENYA WINE AGENCIES LTD
400 KEY NOTE LOGISTICS LTD
401 KIAMBA CLEARING & FORWARDING LTD
402 KIAN CARGO LTD
403 KIDIMA ENTERPRISES LTD
404 KILINDINI INVESTMENT LIMITED
405 KIMCLEAR ENTERPRISES
406 KINGS CARGO AGENCIES LTD
407 KINGS FREIGHT LOGISTICS
408 KIPKEBE LIMITED
409 KISA FREIGHTERS LTD
410 KISAINGU TRANSPORTERS LTD
411 KOSO TRADING AGENCIES LTD
412 KRYSTALLINE SALT LTD
413 KUEHNE & NAGEL LTD
414 KURTZ FREIGHTERS TOURS AND SAFARIS
415 KWANJETEKA ENTERPRISES
416 LABORATORY AND ALLIED LTD
417 LANSEAIR LIMITED
418 LAS AIRFREIGHT LTD
419 LAYTONE LOGISTICS LTD
420 LEENA APPARELS LTD
425 LINO STATIONERS KENYA LTD
426 LIVERCOT IMPEX LTD
427 LOGISTIC FREIGHT LTD
428 LOGISTIC SOLUTIONS LTD
429 LOGISTICS CENTRE SERVICES
430 LOGISTICS SERVICES LTD
431 LOW SEA INTERNATIONAL AGENCIES
432 M.J . CLARKE LTD
433 M/S ATLANTIS SHIPPING LTD
434 M/S DIAMOND SHIPPING SERVICES
435 M/S GULIMEX INTERNATIONAL LTD
436 M/S IBRAHIM A. BARKADLE
437 M/S KENSHADE TRADING AGENCIES
438 M/S LIMUTTI HOLDINGS LT
439 M/S LUXWAYS LTD
440 M/S M.C GLOBAL LTD
441 M/S PALYNE INVESTMENTS AGENCIES
442 M/S SKYWAYS LOGISTICS
443 M/S THRO BILL FREIGHT LOGISTICS
444 M/S TOHEL AGENCIES LTD
445 M/S VICTORY FREIGHTERS LTD
446 MABATI ROLLING MILLS LTD
447 MABITA COMPANY LTD
448 MACSIM CARGO SERVICES
449 MAERKRIECH (AFRICA) LTD
450 MAERSK KENYA LTD
451 MAGOT FREIGHT SERVICES
452 MAINKAM LTD
453 MAPLE FREIGHT SERVICES
454 MAPS INVESTMENT SERVICES
455 MARACA ENTERPRISES LTD
456 MARENO COMPANY LTD
457 MARFLO FREIGHT FORWARDERS LTD
458 MARICHOR MARKETING SERVICES LTD
459 MARINO CLEARING & FORWARDING LTD
460 MARITIME FREIGHT COMPANY LTD
461 MARKS ENTERPRISES LIMITED
462 MARYMAC FREIGHT COMPANY
463 MASINDET INVESTMENTS LTD
464 MAST INVESTMENTS CO. LTD
465 MASTULI FREIGHTERS LTD
466 MATSINGBERG C & FORWARDING CO. LTD
467 MAYA DUTY FREE LTD
468 MAYA FREIGHT LTD
469 MAYOOJN ENTERPRISES LTD
470 MBARAKI PORT WAREHOUSE KENYA LTD
471 MEADOW AGENCIES LTD
472 MECHANISED CARGO SYSTEMS LTD
473 MECKAN HOLDINGS LTD
474 MECLIF CLEARING & FORWARDING LTD
475 MEDIRERRANEO EXPRESS LTD
476 MEN & CARGO LTD
477 MENHIR LIMITED
478 MEPRO TRADE LTD
479 META COMMUNICATIONS LTD
480 METEOR FREIGHT FORWARDERS CO. LTD
481 MFANCO AGENCIES LTD
482 MIDWAVE FREIGHERS LTD
483 MILESTONE IMPORT & IMPORT LTD
484 MILLEAGE ENTERPRISES
485 MILLENIUM AVIATION SERVICES
486 MILLENIUM FREIGHT LOGISTICS
487 MIRAGE FASHIONWEAR (EPZ) LTD
488 MIRITINI KENYA LTD
489 MIRO AGENCIES EA LTD
541 OCEANLINES FREIGHT FORWARDERS
542 OCEANWAVE TRADELINKS LTD
543 OKAMOTO FREIGHT SERVICES LTD
544 OKILANDERS FREIGHT
545 OKULOGISTICS CO. LTD
546 ONE TOUCH CARGO SERVICES
547 ONE WORLD COURIER LTD
548 ONWARD CARGO SYSTEM
549 OPTIMAX AGENCIES LTD
601 RED ANCHOR FREIGHT FORWARDERS
602 REFCO FORWARDERS LIMITED
603 REGENT FREIGHT SYSTEMS LTD
604 REGIONAL ENTERPRENEURS KENYA LTD
605 REGIONAL RAIL LINK SERVICES LTD
606 REJEIBY CLEARING & FORWARDING
607 RELIABLE FREIGHT SERVICES LTD
608 REMNYARO COMPANY
609 REMOVALS FREIGHT INTERNATIONAL LTD
661 SIGNET FORWARDERS CO. LTD
662 SIGNON FREIGHT LTD
663 SILMAK AGENCIES
664 SIMMONDS CARGO SERVICES
665 SINOLING KENYA GARMENT MANUF. LT
666 SISCO SUPERIOR CARGO HANDLING LTD
667 SITE FORWARDERS LTD
668 SIX CONTINENTS FREIGHT LOGISTICS
669 SKY AND SEA CARGO TRACK

490 MISHALE FREIGHTERS LTD
491 MITCHELL COTTS FREIGHT KENYA
492 MODA FREIGHT FORWARDERS LTD
493 MODERN LOGISTICS LTD
494 MOHABAB ENTERPRISES
495 MOMBASA COFFE LTD
496 MOMBASA COMMERCIAL & IND ENT LTD
497 MOMBASA SEA PORT DUTY FREE
498 MONIKS AGENCIES LTD
499 MONSOON MOVERS ENTERPRISES LTD
500 MORE FORWARDERS LTD
501 MOREVO AGENCY
502 MORGAN AIR CARGO LTD
503 MRIS AGENCIES LTD
504 MTAPANGA AGENCIES LTD
505 MUCHEBA SERVICES
506 MUGENGA HOLDINGS LTD
507 MUHITO INVESTMENTS
508 MULTI PACKAGING LTD
509 MUMILO FREIGHTERS LTD
510 MUNSHIRAM INTL. BUSINESS MACHINES LTD
511 MURANGA FORWARDERS LTD
512 MUSTHAFA ENTERPRISES LTD
513 MUWA FORWARDERS LTD
514 MUZDALIFA C&F LTD
515 MWANDO LOGISTICS
516 MYRAID TRADELINE LTD
517 NAFENET INTERNATIONAL LTD
518 NAIROBI CARGO SERVICES LTD
519 NAJMI CLEARING & FORWARDING
520 NARCOL ALUMINIUM ROLLING MILLS LTD
521 NAS AIRPORT SERVICES LTD
522 NATALYA HOLDINGS LTD
523 NATION MEDIA GROUP
524 NATIONAL CEREALS & PRODUCE BOARD
525 NEDOWES CARGO FREIGHT LTD
526 NEO SEALAND REGIONAL FREIGHTERS
527 NEOSERVE LOGISTICS
528 NEPTUNE FORWARDERS LTD
529 NEW PLANET EXPRESS
530 NGOZI LIMITED
531 NIBAL FREIGHTERS LTD
532 NICAH LOGISTICS LTD
533 NNITO TRADING LTD
534 NOAHS ARK ENTERPRISES
535 NORTHWEST KENYA LTD
536 NYAGAKA FORWARDERS
537 NZOIA FREIGHTERS LTD
538 OCEAN PACIFIC LINE INTERNATIONAL LTD
539 OCEAN STAR GENERAL AGENCIES
540 OCEANIC CARGO AGENCY LTD
721 TABAKI FREIGHT SERVICES INTL LTD
722 TAIYO ENTERPRISES LTD
723 TAMANI JUA AGENCY
724 TASARA FORWARDERS LTD
725 TASTIC ENTERPRISES LTD
726 TAZAMA DEVELOPMENT COMPANY LTD
727 TECHNO RELIEF SERVICES LTD
728 TEDICE EXPESS AGENCIES
729 THAKA LIMITED
730 THAM EXPRESS LTD
731 THE HEART LAND TRADING CO.
732 THE NAIROBI CLEARING HOUSE
733 THO SERVICES LTD
734 THOMSAM INVESTMENT

550 ORIENT BENKO FREIGHTERS
551 ORION CARGO HANDLERS
552 OSERIAN DEVELOPMENT COMPANY LTD
553 OSHO CHEMICAL INDUSTRIES LIMITED
554 OTASONS F.P.G.M. LTD
555 P.N. MASHRU LTD
556 PACKLOG ENTERPRISES
557 PAGO AGENCIES
558 PAK PACIFIC
559 PALM FREIGHTERS LTD
560 PAMOL CONNECTIONS SERVICES
561 PAN AFRICA SYNDICATE LTD
562 PAN AFRICAN PAPER MILLS (E.A.) LTD
563 PANAL FREIGHTERS
564 PANTEL CHEMICALS LTD
565 PANWORLD HOLDINGS LTD
566 PASTEUR INVESTMENTS LTD
567 PAWEED EXPRESS CARGO LTD
568 PEAL LOGISTICS LTD
569 PEERLESS TEA SERVICES LTD
570 PEJON FREIGHT MOVERS
571 PENTAGON FREIGHT FORWARDERS LTD
572 PERLES SOLUTIONS
573 PESOSI FREIGHTERS LTD
574 PETROSA GENERAL CONTRACTORS LTD
575 PETRUT FREIGHT FORWARDERS LTD
576 PHILSAM AGENCIES LTD
577 PLAN FREIGHT LTD
578 PLASTIC COMPOUNDERS EPZ LTD
579 PORTS CONVEYORS LTD
580 POSTAL CORPORATION OF KENYA
581 POWER FORWARDERS LTD
582 PRAFULLA ENTERPRISES LTD
583 PRECISE LOGISTICS LTD
584 PREMIER FLOUR MILLS LTD
585 PRIMCARGO AGENCIES LTD
586 PRINCIPAL FORWARDERS LTD
587 PRIORITY LOGISTICS LTD
588 PROTEX KENYA (EPZ) LTD
589 PROVINCIAL CLEARING & FORWARDING
590 PWANI OIL PRODUCTS LTD
591 QUALITY TASTE LIMITED
592 QUEST MARITIME LTD
593 QUICK CARGO SERVICES LTD
594 RAI PLYWOODS KENYA LTD
595 RAJOSCA FREIGHT FORWARDERS LTD
596 RAMO FORWARDERS LTD
597 RAPAT FREIGHT KENYA LTD
598 RAPID KATE SERVICES LTD
599 RAVI CLEARING AND FORWARDING COMPANY
600 RAY CARGO SERVICES LTD
741 TORULI FORWARDERS LTD
742 TOTAL TOUCH EXPRESS
743 TRADELINE EXPRESS (K) LTD
744 TRADEWINDS LOGISTICS
745 TRADEWISE AGENCIES LTD
746 TRANS AFRICA MERCHANTS LTD
747 TRANSCARE SERVICES
748 TRANSEFFECTIVE COMPANY LTD
749 TRANSFREIGHT LOGISTICS LTD
750 TRANSONIC LOGISTICS
751 TRANSOUTH CONVEYORS LTD
752 TRANS-VAAL LOGISTICS LTD
753 TREASURE CARGO SERVICES LTD
754 TREO'S COMPANY LTD

610 RENAISSANCE LIMITED
611 RESCUE TECHNICAL ENTERPRISES
612 RIGE LIMITED
613 RIPE FREIGHT SERVICES LTD
614 RISING FREIGHT LTD
615 ROMARK FREIGHTERS LTD
616 RORENE LIMITED
617 ROSMIK TRADING COPANY LTD
618 ROTO MOULDERS LTD
619 RUATECH TRADING CO. (E.A.) LTD
620 RUFAIDA ENTERPRISE
621 RUKEN FREIGHT LTD
622 RUMAN COMPANY LTD
623 RUSINGA INTENATIONAL FREIGHT
624 RUWENZORI AGENCIES INTERNATIONAL LTD
625 RYCE MOTORS LIMITED
626 S. A.A. INTERSTATE TRADERS KENYA LTD
627 S. K. AMIN
628 SAFARI FOOD PROCESSORS & CANNERS LTD
629 SAFREIGHT LIMITED
630 SAGOMA AGENCIES
631 SAHEL FREIGHTERS LTD
632 SAKAMI GENERAL AGENCIES LTD
633 SALIMOND FREIGHT SERVICES
634 SALMIR CLEARING FORWEARDING LTD
635 SAMACHI CARGO FORWARDERS
636 SAMBUTI FREIGHTERS
637 SAMEDAY CARGO FORWARDERS
638 SAMSY INTERNATIONAL AGENCY
639 SAMSY INTERNATIONAL AGENCY LTD
640 SANYO ARMCO (K) LIMITED
641 SATISFY CLEARING & FORWARDING
642 SCHENKER LIMITED
643 SDV-TRANSAMI KENYA LTD
644 SEA AIR FORWARDERS INT. LTD
645 SEA BRIDGE FORWARDERS LTD
646 SEA LORD AGENCIES
647 SEABASE SOLUTIONS LTD
648 SEACON (K) LTD
649 SEAGATE LOGISTICS LTD
650 SEALAIR FREIGHT CO. LTD
651 SEALAND LOISTICS LTD
652 SEALINE FREIGHT SERVICES
653 SEA-SKY EXPRESS LTD
654 SEASTAR FOWARDERS LIMITED
655 SEAWAYS KENYA LTD
656 SEMBESEMBE FREIGHT SERVICES LTD
657 SHARIS LOGISTICS LTD
658 SHELTER CONVEYORS LTD
659 SHERDI EXPRESS LIMITED
660 SHIPSIDE & GENERAL SERVICES LTD
760 TROPICAL SKY CARGO LTD
761 TROPICS SUN TRAVELS
762 TURNER FREIGHTERS LTD
763 TURNING POINT FREIGHT LTD
764 TUSAMS AGENCIES LTD
765 TWIN KITH LIMITED
766 UBAA BARGE K. LIMITED
767 UFANISI FREIGHERS KENYA LTD
768 UKWALA FREIGHT FORWARDERS
769 UMOJA RUBBER PRODUCTS LTD
770 UNCLE RIVERSIDE INVESTMENT LTD
771 UNDERSEAS MERCHANTS
772 UNICON LOGISTICS
773 UNIFREIGHT TRUCKING SERVICES LTD

670 SKYLAND LOGISTICS LTD
671 SKYLARK CONVEYORS KENYA LTD
672 SKYLIFT CARGO LIMITED
673 SKYLINE GLOBAL SERVICES LTD
674 SKYMAN FREIGHTERS LTD
675 SKYTRAIN LTD
676 SKYWARDS AGENCIES LTD
677 SLOPES AGENCIES LTD
678 SMART CARGO LTD
679 SMOOTHLINE FREIGHTERS
680 SOKOTA INVESTMENTS LIMITED
681 SOLLATEK ELECTRONICS (K) LTD
682 SOLSON CLEARING COMPANY
683 SOMERSET IMPEX
684 SONDEKA FREIGHT FORWARDERS LTD
685 SONEVA ENTERPRISES
686 SOSMIRA INVESTMENT CO. LTD
687 SOUTHERN SHIPPING SERVICES LTD
688 SOUTHERN STAR FREIGHTERS
689 SPANFREIGHT SHIPPING LIMITED
690 SPARTAN TRADING COMPANY
691 SPECTRE INTERNATIONAL LTD
692 SPEDAG SPEDITION KENYA LTD
693 SPEED FREIGHT LTD
694 SPEED TRACK FORWARDERS LTD
695 SPEEDEX LOGISTICS LTD
696 STAR RHOSE CO. LTD
697 STARFREIGHT LIMITED
698 STARWAY INTERNATIONAL FREIGHT
699 STEEL MAKERS LTD
700 STEEL STRUCTURES LIMITED
701 STEFRAH CONSULTANCY AGENCIES
702 STERAC CONSULTANTS LTD
703 STRAIGHT LINE CARGO FORWARDERS
704 SUJEMI INVESTMENTS LTD
705 SUMMIT COVE LINES COMPANY
706 SUNA FREIGHTERS LIMITED
707 SUPER PACIFIC FREIGHT SERVICES
708 SUPER FIRST FORWARDERS LTD
709 SUPERFREIGHT LTD
710 SUPERIOR CARGO CONVEYORS LTD
711 SUPERSONIC CLEARING & FORW. SERVICES
712 SUPERSONIC FREIGHTERS
713 SWIFE LTD
714 SWIFT CARGO LTD
715 SWIFT FREIGHT INTERNATIONAL KENYA LTD
716 SWIFT LINK FREIGHT SERVICES
717 SWIFT ROYAL CONVEYORS LTD
718 SYKA LOGISTICS LTD
719 SYNERGY FREIGHT & LOGISTICS LTD
720 SYSTEM INTERGRATION LTD SYMPHONY T/A
779 UNITED CLEARING COMPANY LTD
780 UNITED EAST AFRICA WAREHOUSES LTD
781 UPANA WASANA (EPZ)LTD
782 UPLIFT EXPRESS AGENCIES
783 URGENT CARGO HANDLING LIMITED
784 UZURI EXPORTERS LTD
785 VANTAGE POINT CLEARING & FOWARDING LTD
786 VENBUSH ENTERPRISES LTD
787 VERITY CARGO SERVICES LIMITED
788 VIBGYOR ENTERPRISES LTD
789 VIBRRASI ENTERPRISES LTD
790 VICTORIA INTERNATIONAL LOGISTICS
791 VICTORIA NILE FREIGHT LTD
792 VICTORY FREIGHT SERVICES

735 THREE WAY SHIPPING SERVICES KENYA LTD	755 TREVART EXPRESS LTD	774 UNIGLOBE LOGISTICS	794 VILEX AGENCIES
736 TIBA FREIGHT FORWARDERS	756 TRIBETOO KENYA LTD	775 UNION EXPRESS	795 VINEP FORWARDERS LIMITED
737 TIME FAST FREIGHT FORWARDERS LTD	757 TRICEPTS SOLUTIONS LTD	776 UNION CLEARING & FORWARDING LTD	796 VISION ENTERPRISES LTD
738 TIMSALES LIMITED	758 TRIOSTAR AGENCIES K. LTD	777 UNION LOGISTICS LTD	797 WAKI CLEARING & FORWARDING AGENCIES
739 TOP SPEED FREIGHT FORWARDERS	759 TRIPPLE TWIN LOGISTICS LTD	778 UNITED ARYAN EPZ LTD	798 WAMBUKA FREIGHTERS LTD
740 TOPEN INDUSTRIES LTD			
799 WANANCHI MARINE PRODUCTS (K) LTD	806 WESTERN LOGISTICS SERVICES LTD	813 WILLING FREIGHT SERVICES	820 WORLDRICH SERVICES
800 WANSAR KENYA LTD	807 WESTON LOGISTICS LTD	814 WILSAKI FREIGHT FORWARDERS	821 WRAP AND PACK CARGO KENYA
801 WARTON AGENCIES	808 WETAA INVESTMENT LTD	815 WORLD CARGO LOGISTICS LTD	822 YEAR 2000 FREIGHTERS
802 WASIKWA GENERAL AGENCY	809 WETSON EXPRESS LTD	816 WORLD CLASS FREIGHT LOGISTICS LTD	823 YOUNGLINE CARGO SERVICES
803 WATER WAVES AGENCIES LTD	810 WIGGLESWORTH EXPORTERS LTD	817 WORLD LEATHER FREIGHTERS	824 ZETH FREIGHERS
804 WAY TO ASSOCIATES LTD	811 WILKESY & MAC GEORGE LTD	818 WORLD NET FREIGHT LTD	
805 WEKALAMBA AGENCIES	812 WILLIAM FREIGHT AGENCIES	819 WORLD WIDE CARGO SERVICES LTD	