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WORLD MARITIME UNIVERSITY

Shanghai, China



Research on development opportunities and challenges for East African ports under China's one belt one road Initiative.

By

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Ghana

A research paper submitted to the World Maritime University in partial fulfillments of the requirements for the award the degree of

MASTER OF SCIENCE

INTERNATIONAL TTRANSPORT AND LOGISTICS

2017

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Declaration

I certify that all the material in this research paper that is not my own work has been identified, and that no materials are included for which a degree has previously been conferred on me.

The contents of this research paper reflect my own personal views, and are not necessarily endorsed by the University.

(Signature):

(Date): 9th July 2017

Supervised by

Professor. Sha Mei

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ABSTRACTS

Title of Research paper: Research on development opportunities and challenges for East African ports under China's one belt one road Initiative

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M.Sc.

International Trade and economic development has been the focal point for most economic corporation between nations. As China embarks on one of the largest economic collaborations of the 21st century, the "one belt one road' known at large as the silk road economic belt and the 21st century maritime silk road. The primary focus of the strategy is cooperation and connectivity amongst countries within Eurasia. Since China became Africa's biggest trade partner in 2009 (Johnston, 2015) trade liberalization and facilitation agreements have been made. The dissertation is an economic analysis of Chinas one belt one road strategy as well as the development opportunities and challenges that will arise as a direct, and in some cases indirect consequent of the strategy. It will focus on the African continent specifically those countries covered under the one belt one road strategy. Such as Kenya, Djibouti, Tanzania and Mozambique. China has already invested huge sums of money towards port infrastructural development even to the extent of developing the rail system to connect some African counties. This study will also unravel the associated restrictions and difficulties associated with the strategy and Africa's involvement and how the East African port of kenya is affected.

KEYWORDS: 21st century maritime Silk Road, the Silk Road economic bel, Trade liberalization, one belt one road, facilitation agreements. International Trade.

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LIST OF ABBREVIATIONS

ICC	International Criminal Court
GDP	Gross Domestic Product
EAC	East African Cost
KEU	Kenya Economic Update
MDGs	Millennium Development Goals
OBOR	One Belt One Road
KNBS	Kenya National Bureau of Statistics
IMF	International Monetary Fund
ISPS	International Ship and Port Facility code
SOLAS	Safety of Life at Sea
FDI	Foreign Direct Investment
CBK	Central Bank of Kenya
UNCTAD	United Nations Council on Trade and Development

CHAPTER 1 INTRODUCTION

1.1 Background

A new economic paradigm emerges as china embarks on the one belt one road strategy. China has come a long way moving from a poor standing economic state into a major economic power rallying behind the United States. The one belt one road strategy is an economic strategy coined by the president of the people's republic of china, Xi Jinping. The strategy which is carved on the back bone of the ancient maritime Silk Road is designed to foster economic partnership between china and sixty (60) countries (Cheung, n.d.). To this regard the Silk Road Infrastructure Fund (SRIF) and the Asian Infra Investment Bank (AIIB) have been set aside to provide financial assistance if need be. Both institutions have a combined registered capital of us\$140 billion. Revitalization and development of weak economies will be at the forefront of the agenda of the AIIB, SRIF and the OBOR in general. The president of China first proposed and made mention of the strategy while addressing the Indonesian parliament in October 2013. (maritime silk road, 2017) It has been described as the beginning of a new geopolitical era, China's economy has grown extremely and rapidly up until the global turmoil in 2007. Its economy has grown at a rate of eleven (11%) percent with investments up to about forty one percent (41%) of GDP. China has gained its economic status by investing internally and producing for export to other countries especially developing countries. The growth of china's economy took a nose dive and despite the fact that it is still doing better than most countries. (A brilliant plan one belt one road, 2017). The country is investing significantly more while its economy grows at an even slower rate. This pattern of growth is evident in the area of Technology, the diminishing of the marginal product of capital and finally the fall in the real estate unused facilities and the excess capacity in major manufacturing sectors. As a result of the slowing economy at home the government seeks to find new way to enhance growth and sustainable development. (Dollar, 2015).

In an attempt to foster diplomatic relations, remove trade barriers and promote cooperation between countries and most importantly offset the problem of excess capacity, the Silk Road economic belt and the 21st century maritime Silk Road (one belt one road) strategy was adopted. The Silk Road economic belt which is land based, is an adaptation of the historic Silk Road which was named as

such by a German geographer Ferdinand Von Richthofen in 1877. During this period China traded mostly in silk and this trade route which included a series of routes linked china to the Roman Empire at the time. The ocean going maritime Silk Road will include the southerly maritime routes from China through Southeast Asia and on to South Asia, Africa, and Europe.

Chinas initiative is perceived by some scholars as a setback to the United States with the later dignifying this statement by discouraging allies from joining the Asian Infrastructure and Investment Bank (AIIB). The United States has a similar vision which is intended to reduce trade barriers and restrictions that is the Trans-Pacific Partnership (TPP). The TPP fails to provide the requisite investment and port development, it has however been very instrumental in promoting trade and the removal of barriers. The AIIB on the other hand takes a more physical approach that is, investment, port facility development rail and many others. Despite this it falls short when it comes to the bureaucracies of removing trade barriers.

East Africa is strategically located with respect to the OBOR policy of china. The position of countries such as Kenya, Ethiopia and Djibouti make them ideal in the OBOR policy. It is important to know that the OBOR policy and how it affects Africa will not be limited to maritime development or high speed rail improvement but then productive economic development as a whole.

1.2 Purpose of research

This research will try to establish the possible challenges that will be faced by the east African ports specifically Kenya being a part of the one belt one road initiative. The study will be focused on the maritime aspect of the OBOR initiative never the less as internal logistics have become a major part of shipping it will be discussed herein.

1.3 METHODOLOGY

A critical examination and analysis of economic theories in relation to prevailing economic situations to ascertain their validity

To investigate the potential changes in the port infrastructure of East African countries being part of the Chinese government strategy as a result of their alliance. That is analyzing the positive influence the OBOR will have on East African ports.

Analyzing from an economic stand point, the possible challenges that will be faced with respect to the OBOR strategy.

Demand and supply will come into play to determine the movement of cargo and the development of ports and infrastructure in order to offset excess capacity.

1.4 OUTLINE OF DESSERTATION

Chapter 1 Introduction; This chapter will serves a general introduction to the study, the issues that will be discussed herein are the abstract the background study, problem statement and research methodology.

Chapter 2 Literature review; This chapter mainly brings to light research carried out by scholars on the one belt one road policy and how it affects Africa and for that matter the East coast of the continent, their expect opinions and findings.

Chapter 3 Methodology; in this chapter the research method employed will be explained and the information collected will be analyzed for similar trends and how they unfold in the future

Chapter 4 Economic analysis; economic analysis based on theories will be employed in discussing the findings from the dissertation, in this chapter. Directly relating the challenges and the opportunities pertinent to East Africa and how their ports are involved.

Chapter 5 Conclusion; The summary of the dissertation, implication of findings, the recommendations and the issues that limited the study are presented in the final chapter.

1.4.1 Design research

A research design is a plan, structure and strategy of investigation so as to obtain answers to research questions. The researcher therefore used the survey method to collect primary data for the research; this was due to the huge sample size required. The basic instruments that will be used are structured interviews, and personal observations as well as statistical projection of port performance data. The suitability of the structured interviews lies in the fact that in coming out with more accurate and comprehensive data in reference to our objectives, face to face interviews was necessary to come a more credible assessment.

1.4.2 Sources of data

Data was collected mainly by primary sources. The primary sources dealt with getting and gathering information from the port officials of the Kenya Port Authority and key stakeholders administering online interviews. The information gotten was further analyzed for the benefit of the study.

CHAPTER 2 LITERATURE REVIEW

2.1 Previous research into strategic alliance

2.1.1 General overview

Many have weighed in, giving their expect opinion about china's one belt one road strategy its advantages disadvantages and why it would or would not work. There is a general optimism with regards to the one belt one road strategy and the development of African ports especially those on the East coast of the continent. A great deal of investment has been made by China in Africa which is not limited to maritime but extends to physical infrastructure in areas such as roads and rail as well. Such as the construction of a 2700km rail road from Mombasa to Nairobi at an estimated cost of about 250 million dollars.

The Asian Infrastructure and Investment Bank (AIIB) and the Silk Road Fund have been set aside to further the ambition of the Chinese government in making its strategy for economic partnership a reality. The AIIB and the Silk Road fund were proposed in October 2013 and in November 2014 respectively. (one belt one road , n.d.)

The pundits argue that the ability to manage the funds allotted for the strategy will be ill managed as China's track record in the area of allocating resources effectively at home could lead to problems for Chinese banks in the area of asset quality. Banks will be responsible for most of the funding needed to make the OBOR a reality. In addition the criteria for the allocation of founds has also come under scrutiny as economist believe the allocation of funds will not merit the proposed development plans of the Chinese strategy.

2.1.2 Over capacity

The world's second largest economy faces huge over capacity as the country's steel production is twice the volume of the next four leading steel producers combined. Aluminum production alone exceeded global production by nine (9) million tons. The most alarming indicator however is china's ability to produce between 2011 and 2013 more cement than the United States in the 20th century (Fulco, 2016). Chinas over capacity has been cited by many scholars as the reason for the OBOR

strategy, though this is not farfetched it comes at a time where the global economy is taking a nose dive. Chinas over capacity gives developing nations the opportunity to develop by collaborating in the OBOR strategy. Some of the developing countries in the OBOR have strong governance hence will be reluctant to take many chines workers or take large sums of debt in relation to their GDP for example India. On the other hand countries with a weak economy might accept surplus production from china but then unable to pay back in the long run, a risk the Chinese authorities might have to take.

KEY ISSUES UNDER OBOR INITIATIVE

Researchers and industry players have raised some opinions about the OBOR why it would or would not work and their explanations to support. Herein, the research will focus on some of these concerns that have been expressed.

2.2.1 Tensions surrounding South China Sea

Dispute between china and neighboring countries over jurisdiction in the South China Sea is seen as a treat to the one belt one road strategy. Tensions between china and some ASEAN countries have been estranged over the past years (www.chinausfocus.com, 2015). The OBOR can also be seen as a way by which the Chinese government intends to improve and forester a more diplomatic cooperation between these countries. Nevertheless the entirety of the OBOR's agenda will come under scrutiny and false comparisons with respect to the true objective of the Chinese government. It has however been reiterated by the Chinese foreign ministry that its purpose is to "strengthen economic collaborations, improve road connectivity, promote trade and investment, promote currency conversions and bolster people to people exchanges" (Eyler, 2015)

Cultural political and social difference

Some researches opined that the one belt one road (OBOR) strategy does not fully take into account the cultural political and social disparity between nations. Their skepticism comes from the fact that all of the countries included will not have the same political system as china as well as difference in the culture and social climate might influence the effectiveness of the OBOR that is if these do not alter or disrupt the strategy completely. They argue that, there is little to non under the OBOR to ensure that political and cultural disparities are addressed and do not pose a challenge to the overall objective

Africa and the OBOR strategy

The Chinese government has shown its unweaving interest in the development of Africa as a continent. Through the development of road transport infrastructure ultra-modern airports and high

speed trains to interconnect all 54 countries in the region. It is no doubt that China intends to contribute towards the infrastructural development of the continent. More so, the signing of a memorandum of understanding (MOU) between the African Union and China confirms the Chinese agenda in Africa. Africa's inclusion in the OBOR policy has been applauded and encouraged by African leaders. Nkosazana Dlamini Zuma opined that the MOU would facilitate the needed regional integration laying the ground work for OBOR. Chinese expects are of the opinion that the OBOR will take two forms that is infrastructural development to offset the overcapacity and secondly the transfer of manufacturing business especially those that are labour intensive to Africa (Sun, 2015).

Chinas intension to foster the transfer of production to Africa and also facilitate the revitalization and development of infrastructure has long been perused, even before the OBOR policy. Africa as a continent lags behind in infrastructure, despite the fact that a country's economy does not only revolve around its infrastructure, it is yet still a good economic potential indictor. This situation coupled with the unavailability of capital impedes the development of the continent.

The continent, specifically the East coast stands to benefit from the Chinese agenda in the areas of technology, investments and experience as China itself has grown from an Agricultural nation into an economic strong hold of the world. Policies such as the Sino African relations, new partnership for African development and Agenda 2063 are geared towards making the 21st century that which the emergence of Africa occurs. The African perspective of development and that of the OBOR are very much alike (Global Times , 2015).

2.3 Opportunities and Constraints for East African Ports

Plans are underway along the East African coast to expand existing maritime terminals and to develop new terminals, in particular along the Kenyan and Tanzanian coasts. Infrastructure developments including dredging operations and rail links, could make a significant difference to the economic outcomes. While development of a new terminal located to the northeast of Mombasa at Lamu is underway, the recently elected new Tanzanian Government has opted to curtail expenditures involved in developing a new port to the northeast of Dar es Salaam and has chosen to increase the size of the existing port. Dredging is underway at the Port of Maputo in Mozambique from 11 meter (36 foot) keel depth to 14.2 meter (46.6 foot) keel depth.

2.3.1 Port of Maputo -small berth size

The port of Maputo has a berth/quay size of about 300 meter (984 feet) in length at the container terminal. This limitation in size makes it cumbersome for ships of at least 337 meter (1,106 foot) to call at the port. Having allow draft and as such a small quay in the current state of shipping makes a

port uncompetitive therefore in the future it is imperative that the port authority allocates more berth space and also embarks on dredging activities in order to accommodate larger vessels. Railway lines connect Maputo to Pretoria and Johannesburg in South Africa as well as Lusaka in Zambia and Harare in Zimbabwe. The Maputo – Johannesburg railway distance is almost identical to the Durban – Johannesburg railway distance. The port of Durban is the largest and busiest general cargo port in Africa. (Writer, 2015) The port of Durban serves the populous Johannesburg metropolis and it at operating nearly at full capacity this creates an opportunity for Maputo port given that the railway distance between Maputo and Johannesburg is much shorter than the second closest port to Johannesburg, that is Ngqura, which is able to berth neo-Panamax ships of 12000to 14000 TEU. If the port is developed it will be able to take advantage of the situation. Nevertheless the port of Durban still has plans to expand to absorb anticipated future tonnage

2.3.2 Mega-Ships at Durban small draft

The ability of the port authority in Durban to transform the port into a deep water container port would be a major breakthrough as a huge amount of trade and commerce is dependent on the port being able to transform to having a depth of at least 17 to 18 meters that's about (59 foot). This is will allow the port to accommodate future container ships with lengths of about 430 meters, carrying about 26000TEU with a beam of 65 meters. The port would therefore become very important in international trade. Asian ships would could call at the port making it a transshipment ports for goods on route to South America. The cost and time required for this project might be overwhelming yet the trend of shipping today makes this capital investment prudent

2.3.3 Railway Connections

Railways connections in African have a long way to go with regards to connectivity speed and reliance The Tam-Zam Railway line connects the Port of Dar es Salaam to a number of inland countries including Zambia, southeastern Congo and Northwestern Zimbabwe. Combining railway and inland waterway links connects Dar es Salaam to Uganda, Rwanda and Burundi. In addition, the construction of the East African Railway line between Mombasa and Kampala/Entebbe aspires to attract huge volumes of Ugandan overseas container traffic. Container traffic has grown immensely within the past decade and promises to be even greater, ports are taking more indirect measures to improve vessel calls at port by improving internal transportation.

2.3.4 Kenya/Tanzania- capital constraints

The Government of Kenya is developing a new port to the northeast of the Port of Mombasa, to be known of Port of Lamu. To the south of Kenya, the Government of Tanzania had planned to build a mega-port to the north of the present port of Dar es Salaam however fiscal constraints have resulted

in the new government showing a preference to expand the Port of Dar es Salaam. Government of Kenya has encountered some fiscal restraint in developing Port of Lamu that includes railway lines that will extend inland to Nairobi and north into Ethiopia. At the Gulf of Aden, port expansion is underway at the Port of Djibouti. A railway line connects Port of Djibouti to Addis Ababa in Ethiopia with future railway links planned to extend into Southern Sudan. Ports Dubai (DP Ports) manages the Doraleh container terminal at Port of Djibouti as well as the Port of Berbera located to the southeast of Djibouti, in northern Somalia. DP Ports also manages the container terminal at Port of Maputo. Future railway links could offer Ethiopia a choice of ports through which to ship containers and bulk cargo.

2.3.5 Regional Transshipment Ports

Increased trade between East Africa and Asia enhances the economics of operating regional transshipment ports. The Seychelles are a group of islands conveniently located on the sea route between major Asian ports and the evolving ports of Tanzania and Kenya. While Seychelles is a promising location for a transshipment port, one of the Central East African ports can also serve as the other's transshipment port. Further to the east, the massive transshipment Port of Colombo is conveniently located to serve the trio of East African ports at Djibouti, Tanzania and Kenya. The Port of St Louis at Mauritius functions as a transshipment port for several small island states and is on the sea route between several major Asian transshipment ports and the ports of Durban and Maputo. Except that the sheer volume of container traffic that moves between Asian and Southeastern African ports often results in ships sailing at near full capacity between the major transshipment ports, with minimal space onboard to carry additional containers that could be offloaded at Mauritius or at a possible future port at the southern tip of Madagascar (Valentine, 2016)

CHAPTER 3 THE PORT OF MOMBASA

3.1 Introduction

This chapter discusses the process by which data associated with the research objectives were collected, documented and interpreted. The study involved interviews and general consultation from renowned maritime professors and also relevant accusation of data from accredited sources. This dissertation will be focused on some ports on the east African coast, with special concentration on Mombasa port in Kenya.

3.2 History of the Mombasa port

Kenya has earned a reputation as East Africa's largest economy and a major trading nation. The country was characterized by political crises in the years 2007 and 2008 despite this the economy remained resilient. The international criminal court inedited the head of state at the time His Excellency President Kenyatta however, in the year 2014 charges brought against him were dropped. The Kenya's economy currently accounts for almost 40% of Gross domestic product (GDP) of the entire east African Cost. American companies have taken interest in the region and as such, established branches of some companies making it a hub for the region. Kenya remains Americas biggest trade partner. In comparison to the other countries in the region it is the most diverse even though it fall short of mineral resources like most of the large nations in Africa. Kenya is one of the leading exporter of black tea as well as horticultural products and coffee these are but a few of the major cash crops the country exports. Two cities in Kenya have become noted as major trade centers they are Mombasa and the capital city Nairobi. Mombasa is home to the largest port in East Africa and Nairobi has become a regional center for companies such as google, IBM. The country has three national development strategies under its vision 2030 agenda that is 1. Maintaining annual GDP growth rate at 10% until 2030. 2. The political figure which aims to ensure political stability promote democracy and implement and enact political and judicial reforms. 3. The social pillar, which aims to provide investment in human resource and develop the social environment.

3.3 Milestones at the Mombasa port

The port of Mombasa is a very important port in the sub region it connects to many hinter lands particularly Uganda. Uganda is a landlocked country and it continually uses the Mombasa port, in recent years the volumes have increased significantly. The Mombasa port is a main transshipment port and it witnessed an increase of about 6.5 percent that translates to 7.67 million tons in 2015 a significant increase from 7.20 tons in 2014. Transit cargo volumes are on the rise with Uganda pulling a 6 million tons in 2015 and increase from 2014 when they registered 5.52 million tons.

The port of Mombasa in the year 2015 handled a lot of ships most notable however was the berthing of the MV Maersk Clemence Schulte. The 6,000 TEU capacity Vessel is 250 meters long and 37.5 meters wide, with a laden draught of 13.9 meters. This vessel at the time was the largest vessel to call at the port of Mombasa, an event that was celebrated by those who knew what it meant for the port especially the port authority.

The port also received a number of cruise vessels in that year 2015 most notable are the MV Seven Seas with a passenger capacity of 1,109 and MV Nautica with 1,041 passengers on board. 2015 witnessed increased Cruise shipping activities, with a total of 5,072 passengers which compares to 1,126 passengers in 2014.

This performance is a clear indication of the progress and market interest in the port of Mombasa coupled with port improvement in policy and facility development. The port authority takes customer satisfaction as a primary interest.in addition to this a new container terminal which is anticipated to be operational and expected to have a handling capacity of about 550000 TEUs annually was being constructed as of 2015.

The port is the best equipped port in the region with its performance making that statement hard to dispute. The port in 2015 received eight Terminal Tractors, three Ship to Shore Gantry cranes and awaits arrival of eight Empty Container Handlers in early 2016.

The port leaves no stone unturned as it makes great strides in improving the technology by making it possible for customers to do business online without physically being at the port. This is mostly so in the area of E- procurement and invoice processing. We also continue to closely work with other government agencies and stakeholders to effectively interface with the National Single Window and the Single Customs Territory Systems.

The Single Customs Territory, which aims to quicken documentation, is supported by the East African Community and has been up and running for a year now and has so far been embraced by Kenya, Rwanda and Uganda. This initiative is geared improving clearance and revenue collection by transit importers and governments respectively. This will be done at the Port of Mombasa which is the first point of entry, in accordance with the international best practices.

Port security has also been improved as the port currently boast of being the most secure maritime facility on the African continent. The port authority closely works with security agencies to safeguard to port against malicious activities.

In addition the construction of a crude oil handling terminal is on the way, to further the ports ability to provide crude oil handling services to customers within the region. These are but a few of the most notable developments at the port of Mombasa as of 2015 and 2016 when 2015 when the Annual Review and Bulletin of Port Statistics was published.

3.4. Port performance.

The captive hinterland economies within the east African sub region have contributed immensely to the continuous rising in the port of Mombasa's cargo throughput over the past years.

This situation has rekindled the port authority's interest and drive to improve upon the efficiency of the port. Initiatives and strategic plans have been put in place with the to decrease the dwelling time of consignments as well an increase the rate with which discharging and loading of cargo is done by using the latest in technology, equipment's and gear and also upgrading existing ones, increasing the size of ships calling at the port by renovating the port by dredging and widening of the turning basin.

Berthing is strictly on first come, documents ready basis with priority granted to Oil tankers, Containers ships, bulk carriers and other conventional ships in that order. In times of on-going and known humanitarian crises, priority berthing, labor and equipment is availed on "need be basis". In such instances, it is important that the port management is adequately sensitized in order to facilitate.

Port bottlenecks exist by way of;

- Limited berths for specialized services (e.g., 1 bulk grain discharge terminal)
- Limited manual labor (mainly affecting labor intensive conventional loading/discharge operations).
- Slowed discharge/loading operations, reduced turnaround time of trucks etc. during rainy season.
- Correct documentation for on time clearance.
- Stretched local shunting trucking capacity in times of peak demands
- Average waiting time has been contained to an average of 2.5 days in the last 5 years. (Karla Koopmann, 2016)

3.4.1 Imports and Exports

The port of Mombasa like many ports in Africa imports way more than it exports and in the case of Kenya the port handles more than five (5) times the volume of cargo exported. This is because most

developing nations produce many Agricultural products which cannot be consumed by their population in some cases developing nations produce industrial raw materials like cocoa, iron ore and many have you, which the local industries do not have the capacity to utilize hence it is exported to obtain foreign currency to buy what they do not have. (www.wto.org, 1996)

The number of vessels calling at the port continues to increase from 2011 to 2014. In 2015 however, the number of vessels calling at the port reduced from 1832 to 1694. On the contrary throughput continued to increase even in 2015 despite the reduction in the number of ships calling at the port of Mombasa. This anomaly occurs because bigger ships were calling at the port carrying more cargo hence, the number of vessel calls reduced. The construction of lager ships has been a global trend and a measure to improve on the economies of size of shipping companies in order to maximize profit while reducing cost. There has been a decline in freight rate in recent years right from the big fall in 2008, coupled with high cost of bunker and operational cost in general, lager and more fuel efficient vessels were introduced. Infrastructural changes at the port of Mombasa also made it possible for these ships to call, hence the number of vessels reduced while the cargo carried and throughput continued to increase.

Cargo in any form that it is imported continues to increase be in containerized, conventional, dry bulk or liquid bulk. On the flip side for exports, only the containerized cargo continues to increase whereas other forms such as conventional, dry bulk and liquid bulk continue to decrease. This can either be attributed to the fact that more containers are designed to Cather for specialized cargo like refer containers making it more convenient to ship hence the decrease in the value for other forms of shipment.

Table 1: PORT PERFORMANCE: 2011 – 2015									
	2011	2012	2013	2014	2015				
IMPORTS ('000' DWT)									
Containerized Cargo	5,226	5,954	5,974	6,524	6,955				
Conventional Cargo	1,298	1,302	1,726	1,830	2,143				
Dry Bulk	3,807	4,811	4,913	5,231	6,350				
Liquid Bulk	6,607	6,665	6,537	7,192	7,232				
TOTAL									
TOTAL	16,938	18,732	19,150	20,777	22,680				
of which Transit In	5166	6201	6196	6691	7167				
EXPORTS ('000' DWT)									
Containerized Cargo	2,337	2,626	2,690	2,791	2,803				
Conventional Cargo	171	153	128	108	113				
Dry Bulk	122	106	65	422	578				
Liquid Bulk	158	160	100	45	40				

Table 1. Import, Export values and throughput from 2011-2015

TOTAL	2,788	3,045	2,983	3,366	3,534
of which Transit In	430	425	513	508	500
TOTAL IMPORTS & EXPORTS	19,726	21,777	22,133	24,143	26,214
Transhipment ('000' DWT)	227	143	174	732	518
TOTAL	19,953	21,920	22,307	26,732	26,732
Container Traffic (TEU)	770,804	903,463	894,000	1,012,002	1,076,118
Total Vessel Calls (No.)	1,684	1,763	1,768	1,832	1,694

Source: Kenya port Authority

3.4.2 Principal Export Commodities

Mombasa port handles quit a number of products mainly agricultural goods as export. The African continent is rich in a lot of natural resources and like most African countries Kenya finds itself endowed. Most of the products exported from Mombasa, some from the hinterlands are mainly Agricultural. The Agricultural products are used domestically and the surplus exported for foreign exchange. Most of the products Shipped from Mombasa are agricultural products in their raw or natural form. Most African Countries are not well vested in transforming these raw materials into finished goods. Most of it, is shipped about for foreign exchange to buy the products that cannot be produced at home.

Iron and steel is exported and imported at the same time for these plausible reasons. Depending on the location for which the iron or steel is needed it might be economical to import from other countries. There are instances where the cost of products locally can be more expensive than the importation of these products. The theory of comparative advantage comes into play when a country can produce a good or service at lower opportunity cost than another. This means the one country will be more efficient at producing a particular good hence, it will be prudent to import from countries that produce more efficiently probably at a lower cost without necessarily stopping the domestic production of that product. In addition when the internal logistics chain in a country is not developed it becomes difficult to transport goods within the country or from hinterlands, this actually makes it more expensive and complex to buy locally say from the coast to hinterlands in the west, but rather less cumbersome and cost effective to import to the east coast from abroad.

Table 2. Principal export commodities

Table 2: PRINCIPAL EXPORT COMMODITIES: 2011 - 2015									
COMMODITIES	2011	2012	2013	2014	2015				
Теа	433	450	541	554	528				
Soda Ash	444	372	423	336	223				
Coffee	230	210	264	256	262				
Maize	4	0	0	2	0				
Fish and Crustacean	17	23	16	20	18				
Tobacco and Cigarettes	37	33	28	27	24				
Beans, Peas, pulses	13	27	34	19	25				
Iron and steel	9	5	6	12	4				
Cloths	19	21	23	30	29				
Oil seeds	16	15	28	39	39				
Cotton	7	4	4	2	3				
Hides and skins	20	26	22	28	24				
Sisal	0	0	0	2	1				
Cement in bags	0	0	0	1	0				
Cashew nuts	1	1	1	0	0				
Rice	11	10	7	20	25				
Tinned fruits, vegetables and Juices	90	71	93	99	109				
Titanium in bags	0	0	0	7	15				
Others	624	604	578	543	504				
TOTAL GENERAL CARGO					1,833				
	1,975	1,872	2,068	1,998	,				
Titanium in bulk	0	0	0	363	544				
Soda Ash in Bulk	15	0	0	0	0				
Cement in Bulk	0	0	0	0	0				
Flourspar	107	106	65	59	34				
Other Dry Bulk	0	0	0	0	0				
TOTAL DRY BULK					578				
	122	106	65	422					
Bulk Oils	95	98	62	19	23				
Bunkers	63	62	38	26	17				
TOTAL LIQUID BULK	122	106	65	422	578				
GRAND TOTAL	2,255	2,138	2,233	2,465	2,451				

Source: Kenya port Authority

3.4.3 Major Export Trading

Agricultural productivity is central to Kenya's export industry. Seventy five (75% of the population is engaged in agriculture and similar activities, accounts for about 25% of the national production. The major exports for Kenya are Horticultural produce and tea. In 2006, the combined share of these two products was 10 times higher than the share of the other export items. The country has subsistence petroleum production, which is consumed internally and exported to neighboring countries. Kenya

has signed a MoU (Memorandum of Understanding) with China regarding oil exploration in the country. Till January 2010, no oil was found. (Kenya Trade, Exports and Imports, 2010)

Many Trade agreements have been entered into between China and many African countries including Kenya. These trade agreements reflect in the data provided herein. Kenya's biggest export destination is Asia more specifically China, India and Pakistan, it also exports to Europe, to countries such as Italy German and Great Britain. Great Britain is Mombasa's largest export destination in Europe. The port exports some products to north and South America but the United States is its biggest export destination in that region. On the African continent Mombasa exports to South Sudan Somalia Tanzania and South Africa in the south.

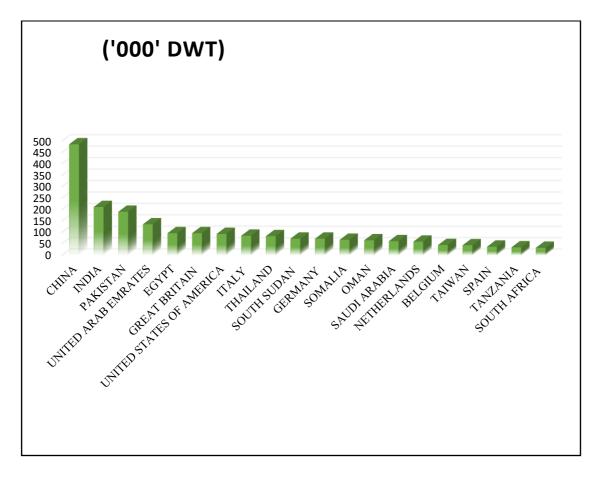


Figure 1. Major Export Trading Partners 2015

Source: Kenya port Authority

3.4.4 Major Import Trade

The imports to Kenya include Transport equipment, motor vehicles, machinery metals, plastics and electrical equipment. India, the United Arab Emirates and china are the largest import partners to Kenya. The United Arab Emirates and India alone accounted for about 11% of total import volume in the year 2009. In order for Kenya to enjoy a more favorable balance of trade it would have to diversify its export, for example furnished products. In addition Kenya would have to reduce its reliance on agricultural productivity because it impedes the economic growth of the country. Goods going in and out of the Mombasa port that is imports and exports originate from across the globe, ¹⁵

literally each continent. Exports on the other hand are also sent to countries in every continent evidently the volume of imports far out ways the volume of exports.

Asia is a major trading partner as long as Mombasa Port is Concerned A lot of cargo exported and imported to and from this region which countries like India, The united Arab Emirate and China topping the list as biggest trade partners. With the exception of South America, where very little of cargo originates from or discharged to the Mombasa port handles cargo to and from every continent.

Being at the eastern part of the African Continent make it less cumbersome for Kerry to trade with Europe, Asia, and Even Australia. It can also trade favorably with North and South America given its position.

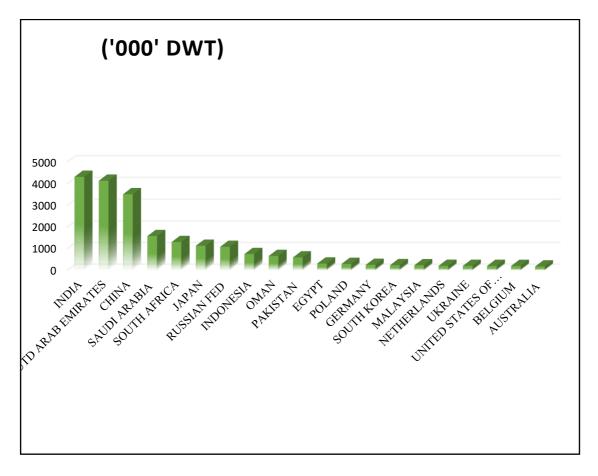


Figure 2. Major Import Trading Partners 2015

Source: Kenya port Authority

3.4.5 Mombasa's Transit Market

For a very long time the port of Dares Salam was the most efficient port in Sub Saharan Africa. Currently the second largest port in East Africa is located in Tanzania, unfortunately for the past twenty years the ports performance has taken a dramatic nose drive.

Goods Transiting at the Deres Salam Port do that a very slow pace and many ships are forced to wait to duck pre World Bank estimates the cost of trade between China and Tanzania was 60% higher than the cost of trade between China and Brazil even though geographically Tanzania is closer.

The draft at the Tanzania port makes it difficult for large ships to call, quite contrary to the trend of shipping today, when ships owners are investing in large vessels to reduce their operational cost. Shipping companies' would rather have three large ships call at a port rather than ten ships.

The Mombasa Port on the other hand has proved to be the most efficient port in the Sub region. The port is also the largest in the region.

And its location makes it the ideal port destination an analysis made by the World Bank projected that had Tanzania port been in the same standing and level as the Mombasa port with regard to efficiency, it would give the Tanzanian economy as much as \$1.8 billion dollars income. This has motivate the Tanzanian Government to revitalize the port to meet the perceived or expected target.

A memorandum of understanding was signed in a bid to expand to current port capacity and also improve on the efficiency of service offered. This was signed by Tanzania port Authority, Trade Mark East Africa, 21 Km department for international development and the international Bank for reconstructions and development, "IBRD" (World Bank). It is estimated that the current port capacity will be double should this development agenda come to for wishing. The plan is to also develop the rail and Inland system to facilitate the movement of cargo. It can also transport cargo via Inland logistics to other African countries if the transportation and artificial trade barriers are favorable. Cargo to and from South Africa is handled at the Mombasa port. Trade between South Africa and Kenya by Sea can be easily facilitated due to the countries geographical location as well as their ports being on the same East coast. The port has also made progress in expanding and increasing the number in expanding and increasing the numbers of berths, dredging etc. This has made it possible for the port to accommodate large ships. Shipping companies are very skeptical about the local market partly because they have no knowledge of how internal logistics work in the geographical area. The cost operating Smalling ships the crewing, residuals, vessel maintenance deter ships owners and operators from using small ship. Therefore they would much rather avoid these complexities by delivery cargo at a known port of call, capable of handling the cargo efficiently. The Mombasa port thought its port authority has put in place measure that have helped in making Mombasa port the biggest transit market.

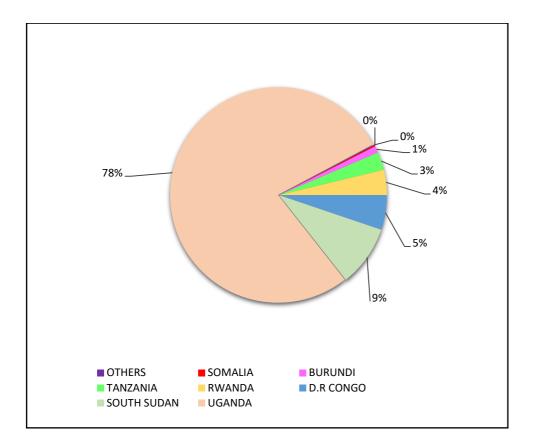


Figure 3. Transit market 2015

Source: Kenya port Authority

The Port of Mombasa is the key entry and exit point for cargoes belonging to a wider agricultural and natural resource hinterland consisting of Kenya, Uganda, Rwanda, Burundi, DRC, Northern Tanzania, South Sudan and Ethiopia. It is well connected in the region through the Northern Corridor Rail and Road infrastructure. The KPA Transit Market is one of the most valued clientele and in taking seaport services closer to her clients, KPA has established Liaison offices regionally in Kampala, Kigali and Bujumbura as part of her marketing strategy. Transit Customers are now able to get personalized, real-time and immediate support to services and queries within their home country without necessarily having to come all the way to Mombasa therefore substantially reducing the cost and time of doing business.

(DWT)								
		2011	2012	2013	2014	2015		
	Imports	4,028,361	4,499,302	4,508,118	5,132,276	5,592,914		
UGANDA	Exports	347,314	346,193	404,198	389,844	384,418		
	TOTAL	4,375,675	4,845,495	4,912,316	5,522,120	5,977,332		
	Imports	150,516	168,006	180,131	173,022	190,880		
TANZANIA	Exports	10,441	18,163	12,344	14,827	13,898		
	TOTAL	160,957	186,169	192,475	187,849	204,778		
	Imports	1,201	38,917	66,227	78,961	75,690		
BURUNDI	Exports	688	243	682	139	121		
	TOTAL	1,889	39,160	66,909	79,100	75,811		
	Imports	216,306	247,730	223,127	221,323	273,815		
RWANDA	Exports	9,787	12,508	16,972	14,589	18,109		
	TOTAL	226,093 260,238 2		240,099	235,912	291,924		
SOUTH	Imports	375,897	736,266 716,470		696,816	652,513		
SUDAN	Exports	41,135	30,390	58,679	64,520	50,018		
50 DAIL	TOTAL	417,032	766,656	775,149 761,336		702,531		
	Imports	339,287	464,989	491,367 383,461		362,976		
D.R.CONGO	Exports	16,004	17,369	20,346	24,267	33,156		
	TOTAL	355,291	482,358	511,713	407,728	396,132		
	Imports	29,329	16,359	6,969	4,592	11,697		
SOMALIA	Exports	0	53	29	19	0		
	TOTAL	29,329	16,412	6,998	4,611	11,697		
	Imports	24,901	29,115	3,531	387	6,973		
OTHERS	Exports	5,000	39	47	73	0		
	TOTAL	29,901	29,154	3,578	460	6,973		
	Imports	5,165,798	6,200,684	6,195,940	6,690,838	7,167,458		
TOTAL	Exports	430,369	424,958	513,297	508,278	499,720		
	TOTAL	5,596,167	6,625,642	6,709,237	7,199,116	7,667,178		

Source: Kenya port Authority

The Mombasa port handles many kinds of vessels, being able to do this has contributed immensely to its progressive port performance. Being able to handle these different types of vessels increases the number of customers patronizing or calling at the port.

The ships that call the most are container vessels and in 2015, five hundred and fourteen (514) ships of 15,327,470 gross tonnage called at the port of Mombasa. The second most frequent type of vessel to call at the port are general cargo ships having a total of two hundred and seventy four (274) calls within the year 2015 with a total gross tonnage of 1,729,746.

Vessels calls by gross tonnage however, would car carriers in second place after container ships. Car carriers had a total of 9,697,143 gross tonnage as of 2015. Other vessels that call at the port in no specific order include Barges, fishing vessels, passenger ships, roro ships tankers and others.

The average time spent in the port of Mombasa has been categorized taking into consideration the types of vessels. Hence the vessel time in port varies depending on the type of vessel. Passenger ships spend the least time at the Mombasa pot time that is an average of a day (1) in port. A roro ship would stay in the port for an average of 2.1 days. The longest time stayed at the port of by a vessel in Mombasa port averaged at 5.3 days, and that was a bulk vessel. Container vessels average at 3.1 days as the time stayed in the port.

SHIP TYPE	NO. OF SHIPS	GRT	LOA (METERS)	PORT TIME (DAYS)	AVG. PORT (DAYS)
Barge	24	22,976	1,294	103	4.3
Bulk	264	7,495,771	48,805	1,411	5.3
Car Carrier	171	9,697,143	32,895	191	1.1
Container	514	15,327,470	118,184	1,609	3.1
Fishing	20	12,406	767	62	3.1
Gen cargo	274	1,729,746	24,527	1,057	3.9
Passenger	8	179,526	1,168	8	1
Roro	43	2,066,513	9,655	90	2.1
Tanker	198	5,887,908	36,507	838	4.2
Tug	63	21,072	1,847	168	2.7
Yacht	3	224	86	6	2
Naval	4	21,400	490	8	2

Table 4. VESSEL CALLS AND THE AVERAGE PORT DAYS PER SHIP: 2015

Others	108	334,423	6,568	348	3.2
TOTAL/AVERAGE	1,694	42,796,578	282,793	5,899	3.5

Source: Kenya port Authority

3.4.7 Waiting time at Mombasa port

As of September 2015 the port of Singapore a total 1382 ships being the most container ships received by a port that year. The Average Waiting Time was at about seven hours (7) was recoded that year. The port of Jebel Alisaw saw the least number of ships call, with a total number of 451 ships recording an average waiting time of 9.8 hours. (Average ship waiting times at global ports , 2015)

The waiting time at a port a port is very important to ship owners and vessel operators as they make decisions as to where ships will berth utilizing this information. The shorter the waiting time the more the port becomes attractive. Shipping companies lose many when vessels are idle at the port instead of moving goods from one point to another or undergoing loading and unloading activities. The port of Mombasa has a relatively undesirable waiting time. In 2014 the port faced a major congestion crisis and very stringent measures had to be put in place for instance, shipping lines and agents were asked to limit empty export containers to 500 units per vessel. In 2014 the ports total waiting time stood at1375 days being the accumulated total for 486 vessels and, an average of 2.8days for each vessel. This figure compared to the port of Singapore and shanghai puts the Mombasa port in a really low standing.

	2011		2012		2013		2014		2015	
	SHIPS	DAYS								
January	26	62	39	142	29	86	35	60	62	164
February	28	62	46	138	31	78	25	36	58	158
March	37	89	45	144	27	66	13	17	69	250
April	34	72	38	116	36	67	21	39	53	115
May	53	87	36	79	42	97	36	79	41	130
June	50	91	29	72	25	31	42	129	44	87
July	38	87	37	78	28	40	53	148	49	92
July	67	115	35	66	42	109	45	141	36	59

Table 5. ANALYSIS OF SHIPS WAITING TIME: 2011 – 2015

r October	57 78	159 144	36 38	103 136	23 37	42 71	48	172 74	23 15	34
November	76	152	28	75	21	43	52	204	24	52
December	67	174	29	63	35	76	78	276	16	20
TOTAL	611	1294	436	1212	376	806	486	1375	490	1195

Source: Kenya port Authority

3.4.8 Politics

Kenya has a population estimated at 46.1million and it is believed that the East African nation will continue to grow at a rate of one (1) million every year. The country has made a tremendous improvement in the area of structural economic reforms which has resulted in a sustainable economic growth. With assistance from, development partners, the World Bank Group and the International Monetary Fund (IMF) Kenya has made these achievements. Despite the great progress the country has made it has the following development challenges; inequality, climate change and vulnerability of the economy to internal and external shocks. These challenges are somewhat unforeseeable and sometimes difficult to predict.

3.4.8.1 Political Context

The second political election for Kenya under the new constitution is scheduled to take place on the 8th of August 2017. In 2010 the constitution came with devolution that is the decentralization of the government which has really been instrumental in the economic strides the country has made over the years. Improvement in public service delivery as well as accountability in government institutions. Other challenges such as youth unemployment, poverty, unequitable distribution of resource and security just to mention but a few are being tackled.

3.4.8.2 Economy

The World Bank's most recent Kenya Economic Update (KEU) October 2016 projected a 5.9% growth in 2016, rising to 6% in 2017. The key drivers for this growth include: a vibrant services sector, enhanced construction, currency stability, low inflation, low fuel prices, a growing middle-class and rising incomes, a surge in remittances, and increased public investment in energy and transportation.

According to the latest Kenya National Bureau of Statistics (KNBS) quarterly report, Kenya's economy expanded by 5.7% in the third quarter of 2016 compared to 5.8% in the same period in 2015. The quarterly report says that the economic growth was well spread although most of the sectors of the economy recorded slowed growth. The tourism and hotel industry, information and communications, and public administration are among the sectors that registered improved growth

during the quarter. Inflation was contained within the Central Bank's target to average at 6.3% compared to an average of 6.14% during the same quarter in 2015. The slight increase in inflation was primarily due to increases in the prices of food and beverages during the period under review. According to the Kenya National Bureau of Statistics (KNBS) report, the amendment of the Banking Act in August 2016 to cap the lending rates to a maximum of 4% above the Central Bank Rate (CBR) resulted in a substantial decline in the interest rates during the month of September to 13.84% from 16.75% in the same month of 2015.

3.4.8.3 Social Developments

Kenya has met a few of the Millennium Development Goals (MDGs) targets, including reduced child mortality, near universal primary school enrolment, and narrower gender gaps in education. Interventions and increased spending on health and education are paying dividends. While the healthcare system has faced challenges recently, devolved health care and free maternal health care at all public health facilities will improve health care outcomes and develop a more equitable health care system.

3.5 Equipment used at the port of Mombasa

The port of Mombasa makes use of the latest in technology, container handling equipment's, navigational aids and machinery in general aimed at making port operation more efficient. The overall performance of a port depends largely on the ability of the port to efficiently employ machinery and technology to enhance the handling of cargo. The global advance in technology has had a tremendous impact on port handling operations from the early days of Docker's who primarily carried cargo by physical labor to the use of containers, cranes and other aids to cargo handling. The container, often referred to as the box that revolutionized shipping, made it easy for cargo to be transported with easy and also saves time in loading and unloading. With these ground breaking initiatives much more advanced equipment was needed to keep up with the shipping trade and the market, hence it has become even a necessity to have efficient and effective equipment in order to remain competitive in the shipping market today. The table here in will show the specific types of equipment's used by the port to further its agenda of providing competitive port services. The total number of equipment operational including the number that has been withdraw within the year 2015. The total number of equipment's used at a time is dependent on the demand for services at the port and also the availabity of capital to purchase the equipment and also maintain. Equipment's and machines that are not in use idle at a cost to the port and also when there is downtime the port loses money and may lose customers in some instances. Port equipment must be reliable as it contributes to the overall output of the port and as such investors and stakeholders are interested in this information.

TYPE OF EQUIPMENT	NUMBER IN USE AS AT 31/12/2014	NUMBER WITHDRAWN IN 2015	NUMBER PUT IN SERVICE IN 2015	NUMBER IN USE AS AT 31/12/2015	
1. Travelling					
Cranes	2	0	0	2	
5 Tonne	2	0	0	2	
2. Electric					
Overhead					
Travelling					
Cranes	1	0	0	1	
3 Tonne	1	0	0	1	
10 Tonne					
3. Forklift					
Trucks					
3 Tonne	7	3	5	9	
5 Tonne	6	2	4	8	
10 Tonne	6	2	1	5	
16 Tonne	3	0	3	6	
20 Tonne	1	0	0	1	
25 Tonne	3	0	0	3	
30 Tonne	0	0	1	1	
Seacom Low	12	2	0	10	
Bed Trailers					
4. Tractors		2	-		
	4			2	
5. Mobile					
Cranes	1	0	0	1	
25 Tonne	1	0	0	1	
35 Tonne	2	0	0	1	
50 Tonne		0			
75 Tonne		0	1	2	
6. Grabs		-	-		
	10			10	

Container Cranes4/345/50 Tonne4/3-7Ship to Shore-745 Tonne-3440 Tonne-2Rail Mounted2-28. 45 Tonne R/ stackers242-9. Terminal Tractors89910. Empty Container11. Fire Engines12. Towing Trucks13. Mobile-113. Mobile-214.1215.saloon6224215.saloon6216. Yard Sweepers2-11118.Pickups, Yan &3Van &43115111	7. Gantry				
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Ship to Shore - 7 45 Tonne - - Rubber Tyred 34 - - Ruil Mounted 2 - 2 8.45 Tonne R/ 2 2 2 8.45 Tonne R/ 24 2 2 9. Terminal 8 99 99 8 99 10. Empty -	Cranes				
Ship to Shore - 7 45 Tonne - - Rubber Tyred 34 - - Ruil Mounted 2 - 2 8.45 Tonne R/ 2 2 2 8.45 Tonne R/ 24 2 2 9. Terminal 8 99 99 8 99 10. Empty -					
45 Tonne - - - 34 Rubber Tyred 34 - 34 40 Tonne - - 2 Rail Mounted 2 - 2 8.40 Tonne R/ 2 2 - stackers 24 2 - 21 9. Terminal 8 99 99 8 99 10. Empty - - - - - Container 5 -	45/50 Tonne	4/3	_	-	
Rubber Tyred 34 34 40 Tonne - - Rail Mounted 2 2 Rail Mounted 2 2 8.45 Tonne R/ 24 21 stackers 24 21 9. Terminal 8 99 10. Empty - - Container 5 5 Handlers - - 11. Fire - - Engines 3 - 5 13. Mobile - - - Habour Crane 3 2 5 14. 1 1 - - Lorries/Minibus 10 2 11 15.saloon 6 - - Vehicles 38 - - 16. Yard - - - 17. Damper - - - 18.Pickups, 43 3 11 51	Ship to Shore				7
40 Tonne Rail Mounted2-2Rail Mounted2-28. 45 Tonne R/ stackers242-9. Terminal Tractors8999. Terminal Tractors89910. Empty Container5Handlers11. Fire Engines312. Towing Trucks13. Mobile Habour Crane-113. Mobile Vehicles-214. Lorries/Minibus1021115.saloon Sweepers623416. Yard Sweepers111118.Pickups, Van &43-1151	45 Tonne		-	-	
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8. 45 Tonne R/ stackers 24 2 - 21 9. Terminal Tractors 99 8 99 10. Empty Container - - - 10. Empty Container 5 - - - Handlers - - - - 11. Fire Engines - - - - Trucks 1 - - - 12. Towing Trucks - - - - 13. Mobile Habour Crane - 1 1 - 14. 10 2 5 - - 15.saloon wehicles 38 2 34 - - 16. Yard Sweepers 2 - - - - 1 - - - - - - 18.Pickups, Van & 43 3 11 51 -	40 Tonne		-	-	
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Source: Kenya port Authority

CHAPTER 4 ECONOMIC ANNALYSIS OF MOMBASA PORT UNDER OBOR 4.1 INTRODUCTION

This chapter, analysis will be made from data collected herein, based on economic theories and principles. The Data was collected from the Kenya port authority via internet sources and reports by industry stakeholders. The analysis seeks to through light on the apparent state of the port of Kenya. Giving an analectic perspective of the how, why and what questions, pertaining to the port of Mombasa. A SWOT analysis will be made to indicate the strengths, weakness, opportunities and threats that relate to the port both internally and externally. The specific opportunities and challenges that are imminent because of the OBOR initiative by China.

4.2 INTERNAL STRENGHT

This pertains to the strengths that the port of Mombasa has that put it in a better position compared with its competitors. The strengths refers to the internal capabilities of the port of Mombasa that sets it apart from others

4.2.1 LOCATION

Kenya is located in Africa more specially the cast coast of the continent. The total land area is 582.650 square kilometer. It has a coastline of 536 kilometer. The country borders the Indian Ocean to the East Uganda to the west, Ethiopia to the North and Tanzania to the south.

The location of Kenya on the Indian Ocean makes it almost at the center piece of the world economic trade. Kenya's port of Mombasa handles more from Asia especial India China and the United Arab Emirates, than any other continent or country.

Its Position makes it uniquely close to its trading partners that is Europe and Asia. One may call this the egg and Chicken problem. It is not clear if Kenia trades with these region by virtue of location or because they happen to be at the helm of world international trade.

China has enjoyed a boom in its economy for the last decade and thought it is growing at a much slower rate now it is still the world's second biggest economy after the United States. Industrialization

has grown in India and China as their high population has also made the cost of laborer relatively cheaper.

Development in technology has made China one of the biggest exporter of consumer goods, electronic etc. The development of Chinas shipping industry as well as India has made it even easier to trade. China has the number one busiest port which is the Shanghai port. It also occupies seven spots on the top. On busiest port including Hong Kong the shipping industry in Asia is really big given the rest of the three spots are taken by three other Asian ports, Singapore, United Arab Emirates and Malaysia.

Europe has been the center of industrialization for many years and still remains major contribution to world production.

Being in the tropical region Kenya is rich in natural resource and efficient in agriculture. Hence, most of the exports from Mombasa is mainly Agricultural in nature and most often than not raw materials. The agricultural raw materials to Kenya are export to Asia, Europe, USA and after African countries.

Serving a number of landlocked countries Mombasa port is regarded as the gateway to central and east African countries. The transit market at Mombasa port is huge. The total through of the Mombasa port is partly accounted for by the large volumes of cargo that transit to and from the port.

4.2.2 HUMAN RESOURCE

The Mombasa port is managed by the Kenya port authority the Kenya for authority has the mandate to maintain, operate, improve and regulate all schedule seaports on the coastline of the country not excluding the Kilindini Habour at Mombasa. The authority is a stale cooperation hence it is ran by the government. (kenya ports Authority, n.d.). The authority was formed in 1978 with its headquarters in Mombasa and it is under the ministry of transportation. It has been the body responsible for the running of the ports in Kenya and the Mombasa port. If the port has made if this far achieving these milestone I strongly believe the untiring work of the port authority care business includes.

*Aids Navigation

* Pilotage

*Tug gage

*Mooring

*Stevedoring

*Shore handling

The Port Authority mission statement "To facilitate and promote global maritime trade through the provision of competitive port services".

This goes without saying that the authority is focused on providing the very top or best of service so far as global maritime trade is concerned. Surging by Mombasa position as the busiest port in the sub region there is no doubt that the authority is completely hands on when it comes to service portal on their website which allows customers to lodge complaints about corruption is laudable.

In 1980 Bandari College was established to enable the training and development of human resource for the Kenya port authority. The institution currently offers maritime training. For the industry by training their own human resource it ensures quality and expertise in the training process coupled with a practical industry experience, creating a holistic tutoring process.

The most important thing in realizing set out goals for an industry or port of this nature is by having the relevant human resource to marshaled and stire the affairs of the organization towards the organization goals and that the shareholders.

The port authority has periodically reconstructed or upgraded facilities to meet current industry demands. For example dredging was done in order to accommodate larger vessels. More cranes purchase and more belts constructed including specialize ones for oil and grass all geared at making the port more efficient with regards to meeting global shipping demands.

The organizational structure of the authority makes it possible for checks and accountability at all levels of the organization right from the managing director to the office clerk.

4.2.3 EQUIPMENTS AND MACHINERY

The port can boast of a number of equipment of which most of them are owned by authority. Having the right equipment is paramount when it comes to cargo handling. At the unset of shipping, the business was really dependent on physical labor. For many years as trade began to increase between nation using physical labor for the process of loading, discharging and for auxiliary jobs are the port became less efficient. As a result of technological advancement as a result of science the shipping industry has been a major beneficiary till this day. The use of Equipment to ease the work of Dockers has been an integral part of the business. Machines are able to do what the duckers physically door and most importantly in less time requires very little human effort.

The port has continuously invested in machinery and equipment such as forklifts, tractors, towing, trucks and empty containers handlers cranes, just to mention a few. The port authority attributes its so success to its ability to acquire and also efficiently machinery and equipment for the handling of cargo.

The most transported method of cargo from the world as container. Container conveyed by ships required specialized equipment to make that possible. The data collected will indicate that container shipments are the most frequently handled of cargo type or ship therefore the port has the requisite 28

equipment to ensure efficiency. Depending on the number of containers more cranes maybe needed to ensure that there is no delay. Machinery and equipment must be maintained regularly and changed or replaced after they have out lined their usefulness or get damaged beyond repairs. For most shipping companies and ship owners the state of equipment. The type of equipment and the number is relevant to them. This is because Ship owners and operators needs this information to decide where to regards to equipment is usually preferred. Good equipment means less waiting time, low probably of damage to cargo no downtime due to equipment failure and overall cargo handling efficiency.

It is important to note that having for many equipment and machinery without the proportional cargo is not necessarily a good thing. Machines and equipment become idle with continues maintenance cost it becomes even more expensive not to use these equipment's. Having many cranes for little cargo for instance will make a port lose money. Service reliability and the reduction of cost should be done simultaneously and with prudence so that there is equilibrium. That is to say if the port concentrates on customer satisfaction it will come at a cost meanwhile if it concentrates on cost reduction the service level will be lessened, in view of there must be equilibrium.

4.3 INTERNAL WEAKNESS

This talks about the short comings of the port that occur internally yet hinder the economic productivity or performance of the Mombasa port. Internal weaknesses in some instances can be remedied if certain measures are taken. Where as in some cases they are totally unavoidable. The weakness identified upon careful study of the data are as follows

4.3.1 Balance of trade deficit

When a the value of a counties imports is greater than the value of exports it is referred to as a trade deficit, on the other hand when a countries export value is greater than its imports it is called trade surplus that is positive. In reality the Mombasa port has a balance of trade deficit this is partly because the country Kenya has been economically driven by Agriculture. The country depends on Agriculture for foreign exchange and though it is one of the leading exporter and producer of tea in the world yet its exports are mainly raw materials. The value of raw materials does not come close to the value of finished goods. Most of the produce are used domestically and the surplus shipped abroad to customers. The price offered for raw materials is relatively smaller than that of finished products. Industrialization in Africa is on the rise yet, there is so much more to be done to improve this considerably. The raw materials produced in Kenya most often than not ca not be utilized by industries domestically therefore it is exported for revenue to Asia, Europe and other destinations. Exports are a major source of revenue for countries, the shipping industry for every country is singularly one of the most important sectors that attracts large budget allocations. Kenya imports far out way the value of imports according to trade analyst Balance Of Trade in Kenya all-time average stands at -39060.58 Million KES and its projection for Apr 2017 is -83974.78. Terms of Trade

averaged 79.87 Index points and is projected to be 78.34 in 2014. (keny- trade, 2017). The value of cargo exported within the African continent from Mombasa that is to say the port does not fully cover the entire continent of Africa with its exports. Efforts and strategy are being put in place to improve the balance of trade but then it will take stringent measures to pull it off.

4.3.2 Inability to Accommodate Large Vessels

The Mombasa port has a draft of 55 meters (180 ft.) which is quit acceptable, giving that the port is the largest in eastern Africa. Looking at the big picture, this figure is low for instance the port of shanghai can accommodate ships over 500 feet in length. (SeaRates, 2017)

Ports need deep drafts to attract large ships to call at the port. Studies have proved that it is more economical to transport cargo with large vessels. Megaships have come to dominate container shipping with astonishing rapidity over the past decade. The industry was bowled over in 2003 by the arrival of the then-massive OOCL Shenzhen—but its 8,063 TEU capacity is unremarkable by today's standards.

The shift to larger ships was pushed along by the global financial crisis and rising fuel costs. After rates for container shipping hit record highs in the 1990s and early 2000s, prices collapsed along with global trade in 2008 and 2009. Orders to shipbuilders around the world were cancelled in droves. When orders picked up again, they were almost all for megaships. Hyundai Heavy Industries, for instance, reports that since 2010 it has built 82 ships of more than 10,000 TEU but has received orders for only five ships in the 5,000 TEU range.

These capital-intensive larger ships have, predictably, concentrated in the hands of the largest carriers. "To play with the big boys now, you have to be putting a huge amount of money out," says Sam Chambers, editorial director of the trade journal *SinoShip*. According to a Drewry Maritime Research report from July 2014, MSC operates 696 ships above 10,000 TEU, Maersk operates 433, and CMA CGM Group has 363. The efficiencies of the larger ships are a boon for individual shippers, and for the global environment. They consume as little as 50% of the fuel per container moved as older ships, while also more than halving insurance and staffing costs. A megaship requires the same 20-odd crew as a smaller ship but can carry three times the cargo.

The effect on the industry as a whole is less sanguine. "In terms of supply and demand, the industry is blighted by what we describe as structural overcapacity," says Simon Heaney, Drewry's senior manager of supply chain research. Large carriers have mitigated that oversupply to a degree through a practice known as "slow-steaming"—intentionally operating ships at as little as half their normal speed, which both reins in capacity and offers further fuel savings.

With less access to efficiencies of scale or speed, smaller carriers are losing ground fast. Carriers outside of the global top 10 operate only dozens or, in some cases, zero megaships. Some have been forced into mergers, such as the acquisition of CSAV by Hapag-Lloyd in April. Further consolidation has taken the form of cargo-sharing agreements. By early 2015, the Asia-Europe container trade will be entirely controlled by just four major alliances.

Infrastructure limitations have kept the largest of the megaships confined to those Asia-Europe routes. Ships the size of the CSCL Globe are too large to fit through the Panama Canal, and neither East nor West Coast U.S. ports are equipped to handle them anyway. The expansion of the Panama Canal to accommodate megaships is underway, and the Hong Kong-based investment group HKND is currently exploring the construction of a large canal across Nicaragua. But the megaships are having ripple effects around the world by pushing older, smaller ships out of service on Asia-Europe routes, inflating capacity and pushing down prices everywhere. (Virendra Pandit, 2011)

4.4 EXTERNAL OPPORTUNITIES

This refers to an external possibility that give the port an advantage at being more profitable or efficient at what it does. Opportunities could be in the form of policy or physical developments that will propel port business operation.

4.4.1 Trade Liberalization

Trade liberalization is the removal of or reduction in the practices that thwart trade and the free flow of goods and services from one nation to another. It includes dismantling of tariff and artificial road blocks (such as duties, surcharges, and export subsidies) as well as nontariff barriers (such as licensing regulations, quotas, and arbitrary standards). There is ample evidence that people have been trading with one another since the earliest times. As economists James Gwartney of Florida State University and Richard Stroup of Montana State University put it, the motivation for trade can be summed up in the phrase, "If you do something good for me, I will do something good for you."1 There are three important reasons why voluntary exchange is good not only for the contracting parties but for the world as a whole. First, trade improves global efficiency in resource allocation. A glass of water may be of little value to someone living near the river, but it is priceless to a person crossing the Sahara. Trade is a way of delivering goods and services to those who value them most. Second, trade allows traders to gain from specializing in the production of those goods and services they do best. Economists call that the law of comparative advantage. When producers create goods that they are comparatively skilled at, such as Germans producing beer and the French producing wine, those goods increase in abundance and quality. Third, trade allows consumers to benefit from more efficient methods of production. For example, without large markets for goods and services, large production runs would not be economical. Large production runs, in turn, are instrumental to reducing the cost of a product. The reduction of the cost of production leads to cheaper goods and services, which increases the real standard of living. Evidence supports the notion that nations more open to trade tend to be richer than nations that are less open to trade. As Columbia University economist Arvind Panagariya puts it: "On the poverty front, there is overwhelming evidence that trade openness is a more trustworthy friend of the poor than protectionism. Few countries have grown rapidly without a simultaneous rapid expansion of trade. In turn, rapid growth has almost always led to reduction in

poverty. Trade liberalization will go long way to increase the market share that Mombasa port already has, as it will open doors to many ports in Africa especially and the rest of the world. (Tupy, 2005)

4.5 Threats

This talks about the elements in the business environment that are likely to hinder the port from achieving its set out objectives

4.5.1 Competition

The port of Mombasa is fully committed to developing into a hub port that provides service for the sub region. Unsurprisingly all the ports along the east coast share similar goals of developing into larger and more efficient ports. The countries along the east coast include Tazania, Ethiopia, Somalia, Egypt, Mozambique, Djibouti and to some extent south Africa. Attempts by states to achieve and retain a position of dominance over others are a recurrent feature in international relations. This is now seen in East Africa as Kenya fights hard to retain its dominance as a largest economy in East Africa. This development is largely the result of the conflicting national ambitions of Tanzania and Kenya; each of which wishes to exercise paramount influence in the East Africa region. This competition, although hidden, has deep roots and is likely to intensify.

The Kenyan port of Mombasa and Tanzania's Dar es Salaam port are the traditional competitors but the Kenyan government is now planning a huge new port at Lamu, while Tanzania is developing Bagamoyo. Both ports will be larger than any other port in sub-Saharan Africa if completed as planned. They will also be at the center of much bigger developments, with industrial zones being laid out and intensive farming being proposed. The Tanzanian authorities hope Bagamoyo will handle 20 million containers a year that is 25 times larger than the port at Dar es Salaam. Kenya's planned Lamu port is expected to be just as big. However, these are the proposed, long term figures, which will be achieved over decades rather than years. Construction will take place in phases as and when required. The scale of the initial phases has not been determined but will be much more modest

4.5.2 Terrorist attacks

In the year 2015 Kenya came into the lime light but not for many of its good attribute instead it had just experience a major terrorist attack at a mall which led to the loss of lives. This year a bomb attack in by al-Shabab left three officers dead (Aljazeera, 2017). Insurgents greatly threatens port operations, the ports existence and shipping lines patronage of ports with high risk of these activities. Similar terrorist activities made it necessary for the adaption of the ISPS code under the SOLAS that is; the international ship and port facility security code. It was adopted after the gruesome September 11th Attach on America. In recent years however Kenya has been a target in some insurgents' activities and this threatens the overall performance and patronage of the port of Mombasa as well as investment in Kenya. (Anish, 2016)

4.6 Challenges for the Mombasa port under OBOR

Chinas one belt one road initiative which includes three countries on the African continent, it has a development agenda aimed at empowering and facilitating trade between countries. The initiative proposes the building of industries infrastructural development just to mention a few. As good as it sounds the port of Mombasa will be faced with problems, and they are elaborated below

4.6.1 Port Reconstruction

One belt one road will attract a lot of project cargo, in order that the port of Mombasa is prepared and fully capable of the handling these vessels it will require some port reconstruction to accommodate the vessels and the cargo that will be transported. China has a high fleet of very large vessels and Kenya as its trading partner does not have a well dredged port to attract these ship.

The cost of renovating the Mombasa will very expensive but then it will take number of years for it to be completed a major drawback for the trade partners

The figures herein portray Mombasa as one of the top ports in the sub region which is not farfetched. Comparing the performance of the Mombasa port to the top ports of the world such as the Shanghai and Singapore ports will give a clear representation of the ports performance. The shanghai ports performance in a week but is almost the port of Mombasa's performance in a week. This gives an insight as to how much more the port has to improve to be able compete internationally

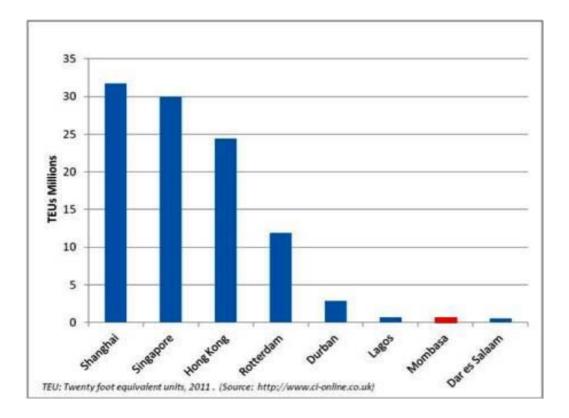


Figure 4. Shanghai cargo handling capacity of selected ports

Source (Fengler, 2012)

4.7 Opportunities for Mombasa port under OBOR

4.7.1 Education

The Chinese government has set up a scholarship for countries in the one belt one road. The scholarship will enable students from these countries to study aviation, railway operation, law, finance, electronic information engineering and traditional Chinese medicine. The director of international cooperation and exchange under the ministry of education, Mr. Xu Tao said the aim of the scholarship is to attract more students from OBOR countries to study in china. China has the top ports in international shipping hence education in this sector will be very beneficial to OBOR counties as they will have educated the human resource in a relevant field to propel the port to greater heights. It is important to always educate the human resource as it is the factor of production that manages the other factors of production.

4.7.2 Competitive advantage

The Mombasa port faces fierce competition from other east African ports especially Tanzania as it has similar developmental agenda for its port. There is a big race to secure the number one port position in East Africa and perhaps Africa as a whole. Though Kenya's Mombasa port is currently number one in East Africa it is being contested and the port stands to lose its market share as well as transit market which has helped propel the port to the state in which it is at the moment. By joining Chinas one belt one road initiative and reaping the benefits and market that come with it, the port of Mombasa may finally be set apart from its competitors. The OBOR includes port development and reconstruction which is in line with the Kenya port authority's agenda for port development.

4.8 Profit and loss statement of Mombasa port

The figure herein shows that the port of Mombasa has experience a study incline in the revenue levels since 2010 up to 2015. Simultaneously as revenue increases the total expenditure for the port also increases proportionately. Profit on the other is not completely proportionate with revenue it rises at certain points and falls at certain points even when revenue is higher. For example in 2012/2013 profit is higher than 2013/2014 even though the total revenue in the later is more. It is important to note however that with the current state of the Mombasa port it remains profitable despite the constraints identified. Capital injection therefore, towards the rehabilitation of the port will put the port a better position and make it even more profitable. This is a an area that might need more research t find out in which sectors of the port investment can be made to enhance profitability.



Figure 5. Profit and loss statement 2010/11 - 2014/15

Source: Kenya port Authority

CHAPTER 5 CONCLUSIONS

5.1 Main Findings

The port of Mombasa Kenya has many challenges ranging from economic to physical contractual constraints, but none of these challenges was brought upon by the one belt one road initiative. On the contrary, the initiative rather gives the port of Mombasa the ability to overcome these challenges through capital injection by the Chinese government renewed and upgraded port infrastructure and equipment, railway construction to connect the port with hinterland. However, it is my view that the Chinese government puts is put in a vulnerable position by embarking on the initiative. This is because it will bear the cost of these projects while the repayment methods and channel are not guaranteed. For instance a change in governance may put the initiative in jeopardy and at the same time Kenya has had political issues in the past that had a negative effect on the economy.

The positive side of this initiative is that the problem of overcapacity can be reverted. Kenya has the requisite transit market, and its location with regards to the OBOR initiative couldn't be better.it was also realized that the port of Kenya Mombasa has remained relevant, profitable and efficient in that African sub region even prior to the OBOR initiative. Opportunities to invest in Kenya and specifically its ports have long been existent before the Chinese government initiative. The will help to establish the Mombasa port as a hub in the region serving the greater part of the East and Central coast of Africa including further remote parts of the continent. The port of Mombasa competes with the Tanzanian port and the OBOR will give the port authority the ability to compete favorable to that effect. It will also be in line with the agenda and goals set out the governing body of the port, that is; the Kenya port authority.

5.2 Limitation of study

The biggest challenge writing the dissertation is the time constraint to find all the information need for proper analysis. In addition there is very little knowledge about the topic area despite its popularity. It was realized that the OBOR was only known to some industry players by name and as to how it relates to Africa was a grey area. Due to lack of information and time the dissertation was limited to

the port of Mombasa, Kenya and most of the conclusions drawn here may just be based on perspective but not completely factual. Due to the time constraints the research had to be limited to the port of Kenya Mombasa whereas the topic suggests a thorough insight into east African ports. Despite the fact that conclusions can be drawn from the information provided in this research it is but a fragment of the total information that could have been analyzed for the totality of East African ports. Limited access to information and websites and also the World maritime library made it difficult to obtain information from some relevant sources to buttress the points raised in the research work. The research topic left very little room for mathematical or empirical analysis making it almost impossible to find a relevant model to further explain the data collected for this research paper.

5.3 Recommendation

1. In order that the OBOR and all the opportunities that it comes with come into for wishing, the Kenya Port authority and the government will need to tailor make legislation to promote the initiative. By putting in place legislation to support the initiative the risk borne by the investors such as loan repayment political instability will be minimized.

2. The port authority must ensure that development of the port that is dredging, port expansion, addition of berths, acquisition of new equipment etc. is expedited. Many ports in the east coast have similar visions of becoming number one ports or hub ports hence, ports follows that follow through with development agenda will have the greatest market share.

5.4 Conclusion

Kenya has the potential to be one of Africa's great success stories from its growing youthful population, a dynamic private sector, a new constitution, and its pivotal role in East Africa. Addressing challenges of poverty, inequality, governance, climate change, low investment and low firm productivity to achieve rapid, sustained growth rates that will transform lives of ordinary citizens, will be a major goal for Kenya. (The world bank in kenya, 2017)

Kenya has a generally positive investment climate that has made it attractive to international firms seeking a location for their regional or African operations. The investment climate is characterized by stable monetary and fiscal conditions and a legal environment that makes few distinctions between foreign and domestic investment. Kenya has a strong telecommunications infrastructure, a robust financial sector, and solid aviation connections both within Africa and to Europe and Asia. Its port at Mombasa is the major trade gateway for much of East Africa. Kenya has a well-educated population and a growing urban middle class. Increasing integration among the members of the East African Community as well as Kenya's membership in other regional trade blocks provide growing access to a large regional market outside of Kenya. Key challenges for investors are Kenya's consistently low rankings on international measures of the ease of doing business and corruption. Kenya also faces a rising threat of insecurity from terrorism and crime. Key macroeconomic fundamentals are strong.

Inflation is stable in the range of 5-7 percent. The exchange rate is also stable at 86 Kenyan shillings to the U.S. dollar. The Central Bank of Kenya (CBK) has held interest rates steady at 8.5 percent, although many banks do not pass lower rates promoted by CBK monetary policy on to consumers, which creates a drag on investment. Kenya has also maintained relatively stable fiscal policies with manageable debt levels and deficits. Kenya's debt to GDP ratio is rising; it recently crossed the 50 percent threshold. The ratio may lower as Kenya's GDP is statistically "rebased," which should revise estimates upwards by about 20 percent. However, Kenya's interest payments on debt are starting to cut into its budget, which the revision will not help. Kenya's spending on public debt repayment was 70 percent higher than its spending on development in 2013. An ongoing concern is the large public sector wage bill, which the government is attempting to control. The ease of doing business in Kenya remains weak, with the World Bank's Ease of Doing Business report ranking Kenya 129 of 189 countries. Despite this, the United Nations Council on Trade and Development (UNCTAD) in a 2013 report lauded Kenya's progress towards improving investment conditions. Perhaps the single greatest barrier to foreigners doing business in Kenya is Kenya's restrictive and erratic application of its work permit policies; the report notes that over 50 percent of investor facilitation revolves around foreign work permits. Corruption remains a major impediment to doing business in Kenya. Kenya ranked 136 of 177 countries on Transparency International's corruption perceptions index. Allegations of irregularities in public tenders are frequent. A recent Price Waterhouse Coopers report lists accounting fraud, procurement fraud, and bribery and corruption as areas of major concern, all of which affect over a quarter of businesses and some of which affect up to a third. Insecurity is another notable problem. Most notable was an attack in September of 2013 on the prominent Westgate Shopping Mall that left 71 people dead and over 175 wounded. The attack, linked to Somali terrorist group al-Shabaab, clearly demonstrated the effect on Kenya of Department of State: 2014 Investment Climate Statement June 2014 2 instability in neighboring Somalia. Though tragic, this event did not have a major impact on the Kenyan economy. The exception is tourism, which is suffering heavily as security fears slow international tourist arrivals. Despite these obstacles, American firms are operating successfully in many sectors in Kenya. Opportunities exist in retail, restaurants, technology, mobile banking, and finance. Interest in extractive resources has risen sharply following oil and gas finds in Kenya. Unfortunately the mining sector is expected to suffer if a restrictive mining bill currently under debate is passed by Parliament. 1. Openness To, and Restrictions Upon, Foreign Investment Attitude toward FDI Kenya is an increasingly strong partner for foreign direct investment (FDI) but some hurdles still remain. Foreign investors seeking to establish a presence in Kenya generally receive the same treatment as local investors, and multinational companies make up a large percentage of Kenya's industrial sector. There is little discrimination against foreigners in investment, ownership, or access to government-financed research, and the government's export promotion programs do not distinguish between local and foreign-owned goods. Barriers to FDI in Kenya are shrinking as reforms are put in place, but they still exist. Inconsistent administration of work permit applications makes it somewhat difficult to employ expatriates in Kenya. See section 16, Labor, for 20

details. The minimum foreign investment to qualify for Government of Kenya (GOK) investment incentives and an investment certificate is \$100,000, which is likely to deter foreign small and medium enterprise investment, especially in the services sector, which is normally not as capitalintensive as other sectors. Investors should be aware that foreigners cannot own land in Kenya, though they can lease it in 99-year increments. Investors in mining should be aware of the 2014 Mining Bill currently under consideration in Parliament, which contains a number of practices, policies, and conditions that create strong disincentives to foreign investment in the sector. Other Investment Policy Reviews One component of Kenya's reform effort was a comprehensive policy review by UNCTAD that resulted in the 2005 and 2012 UNCTAD Investment Guide[s] to Kenya, published in conjunction with the International Chamber of Commerce (ICC). According to these guides, Kenya faces several key challenges, most notably the absence of a reliable and affordable power supply, dilapidated transportation infrastructure, and burdensome tax administration. UNCTAD observes that over 50 percent of investor facilitation revolves around foreign work permits. A 2013 follow-up report tracking progress in implementing recommendations from these reviews notes that since 2005, Kenya's performance in legislative and regulatory reform has been impressive and solid progress has been experienced on nearly all areas which touch on the investment framework. Highlights touch on the new competition framework, modernization of tax administration (i.e. online filing), simplification of business licenses and introduction of performance contracts. The report states that the adoption of a new Constitution and the consolidation of both political and

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