

**ANALYSIS ON THE FACTORS CONTRIBUTING TO POOR SEAPORT
PERFORMANCE IN TANZANIA. (CASE STUDY OF DAR ES SALAAM PORT)**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT FOR THE
REQUIREMENTS OF DEGREE OF MASTER IN BUSINESS
ADMINISTRATION IN TRANSPORT AND LOGISTICS MANAGEMENT OF
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CERTIFICATION

The undersigned certifies that he has read and hereby recommends for acceptance by The Open University of Tanzania a dissertation titled. *Analysis on the Factors Contributing to Poor Seaport Performance in Tanzania. “Case Study of Dar es Salaam Port”* in partial fulfilment of the requirements for the Degree of Master of Business Administration in Transport and Logistics Management of The Open University of Tanzania.

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DECLARATION

I, **Msabaha Juma Mwendapole**, do hereby declare that this dissertation is my own original work and that it has not been submitted for a any degree or similar award in any other Universities or Institution.

(Signature)

Date

DEDICATION

This dissertation is dedicated to Mrs. Mwendapole, Rukia, and Saudat.

ACKNOWLEDGMENTS

First and foremost, I thank the almighty God without whose grace; this dissertation would not have been accomplished.

Also I would like to express my great appreciation to my Supervisor Dr. Raphael Gwahula, who accepted to supervise me and gave me the necessary guidance I needed, I feel so much indebted for his great contribution towards this study.

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ABSTRACT

The purpose of this study was to examine factors contributing to poor seaport performance in Tanzania particularly at Dar es Salaam port. The study used case study research design which incorporated both quantitative and qualitative approaches. Descriptive statistics of frequency tables were used to analyze and present the data from questionnaires. In particular, the researcher used SPSS software package version 16.0 to generate frequency tables as means of presenting data. The findings of the research effectively revealed that poor port performance is contributed by the following factors: - Poor hinterland connections, Social economic and political challenges, Deficiencies and inadequacies port facilities, Shortage of know-how, Deficiency in ICT management and Inefficiency of supervision and motivation. Researcher identified the appropriate means used for measuring seaport performance. Seaport performance is measured by using tools called Port Performance Indicators, these tools are categorized into operational indicators and financial indicators, also researcher had coming with various measures that need to be instituted so as to promote seaport performance including good custom clearance procedures, active connections of seaport with hinterlands and installation of modern maritime and port facilities. Researcher concluded that, port has got great chance on the contribution of the economic growth of a country. A port can contribute much as it can to economic growth of a country if it performs well.

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ABBREVIATIONS AND ACRONYMS

DSM	Dar es Salaam
EPZ	Export Processing Zone
GDP	Gross Domestic Product
ICDs	Inland Container Depots
ISPS	International Ship and Port Facility Security Code
LLDCs	Landlocked Developing Countries
MOT	Ministry of Transport
MSA	Mombasa
Mt	Million tones
NES	National Economic Survey
PMAESA	Port Management Association for Eastern and Southern Africa
SSATP	Sub – Saharan Africa Transport Policy Program
SUMATRA	Surface and Maritime Transport Regulatory Authority
TAFFA	Tanzania Freight Forwarders Association
TASAA	Tanzania Shipping Agents Association
TAZARA	Tanzania Zambia Railway Authority
TBC	Tanzania Business Council
TEUs	Twenty Equivalent Units
TICTS	Tanzania International Containers and Terminal Services
TPA	Tanzania Ports Authority
TRA	Tanzania Revenue Authority
TRL	Tanzania Railways Limited
UNCTAD	United Nations Conference on Trade and Development

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Research Problem

Sea transport is the most important means of transport in international trade. About three quarters of international trade move across the ocean. In Tanzania more than 90 percent of goods generated by international trade are transported by sea (Mwaya, 2009).

A seaport is defined as a terminal and an area within which ships are loaded and/or unloaded with cargo and includes the usual places where ships wait for their turn or are ordered or obliged to wait for their turn no matter the distance from that area. Seaports in relation to trade are major gateways to the economy of a country. They represent a complex structure in a country's transportation system providing ship harbour interface services such as pilotage, dredging, provision of berths, maintenance of navigational channels etc, ship-port interface in terms of loading and unloading cargoes and port-land interface in delivering cargo to and from the hinterland (Branch, 1986).

The port of Dar es Salaam located at latitude 06° 05' north and longitude 39° 17' east, Dar es Salaam port is the major port in Tanzania managed by the Tanzania Port Authority. Dar es Salaam port is the Tanzania major port serves the landlocked countries of Malawi, Zambia, Democratic Republic of Congo, Burundi, Rwanda and Uganda. The port is strategically placed to serve as a convenient freight linkage not only to and from East and central Africa but also middle and far East, Europe, Australia and America (TPA, 2013).

A port becomes a wheel of economy if it runs efficiently. Presently the function of a port is not only limited but has expanded to a logistical platform. The efficiency of a port is important in international trade since a seaport is the nerve of foreign trade of a country (Stopford, 2009).

The author is impressed by the high port performance of the European ports while reviewing them, particularly the port of Rotterdam (the Netherlands), Le Havre (France), port of Hamburg (Germany) as well as Singapore ports. These ports are commercial/ business oriented organisations. Their core objective is to satisfy customers as their staying alive are depending on the customers' satisfaction. In addition, they develop the business culture, which focuses on customer needs by developing the dimension quality that is full access, credibility, reliability, security, competence, communication, courtesy, and responsiveness. Moreover, they are continuously investing in equipment, facilities and other types of technology to cope with the market customers' demand. All these measures are inclined towards increased efficiency and quality of the ports. Most ports in developed countries believe that the satisfied customers will remain loyal without deviating to other competitors. Therefore, the author is motivated to analyse factors contributing to poor seaport performance in Tanzania particularly Dar es Salaam port based on experience from other ports in the world.

1.2 Statement of the research problem

Dar es Salaam port is the Tanzania major port with rated capacity of 4.1 million (dwt) dry cargoes and 6.0 million (dwt) bulk liquid cargoes. The port has a total quay length of about 2000 metres with eleven deep water berths (TPA, 2013).

Dar es Salaam port has not yet increased port capacity ahead of demand. Port inefficiency causes delays with associated cost to ship operators, importers or exporters and charter parties (TPA, 2010).

The share of transit cargo of Dar es salaam port since 2005 decrease to 22 percent from its peak of 32 percent in 1995, because of increased competition from other ports like Mombasa, Beira and Durban, declined productivity in handling cargo in the container terminal and the poor economic performance of the land locked developing countries (LLDCs) that are served by the port of Dares salaam (UNCTAD, 2006).

However, the average number of days for a ship to wait before offloading increased to 7.9 days since 2009 from 4.8 days in 2007 equivalent to an increase of 63.0 percent. Inefficiency of Dar es Salaam port in handling of cargo has been pointed out as the major obstacle to both local and foreign import (Citizen, 2010).

Time in port is a major criterion to choose to call at a port. Poor port efficiency is usually embedded in higher ship turn round time. According to the United Nations Economic and Social of trade on Transport situation in Africa, Dar es Salaam port is among African ports with higher dwell time. The port has an average dwell time of 15 days. As an important performance indicator of port operation this dwell time for vessels in port is a very big problem that needs to be investigated (SSATP, 2007).

Despite the great role played by seaports particularly Dar es Salaam port in facilitating country's economic growth and trade, poor performance of the port have been the daily songs to port users. Hence there is a need to find out various factors contributing to poor Dar es Salaam port performance.

1.3 Research objectives

1.3.1 General objective

The general objective of the study is to analyse factors contributing to poor seaport performance in Tanzania.

1.3.2 Specific objectives

The specific objectives of the study are:-

- i. To identify factors that contributing to poor seaport performance.
- ii. To identify appropriate means for measuring seaport performance
- iii. To develop appropriate measures for promoting seaport performance.

1.4 Research questions.

This study is guided by the following research questions:

- i. What factors contributing to poor seaport performance?
- ii. What are the appropriate means for measuring seaport performance?
- iii. What are appropriate measures that need to be instituted so as to promoting seaport performance?

1.5 Significance of the study

The study is expected to make contributions to the expanding literature on issues related to seaports performance. The study will fulfil my academic need of acquiring Master of Business Administration in Transport and Logistics Management. The study will also be used as an important reference material to other academicians who will use the research document for further reference. The future researchers will identify the gaps available for further studies. Furthermore, the finding and recommendation of the study will be usefully to decision makers for planning, developing and implementing accurate measures to enhance higher performance of Dar es Salaam port.

1.6 Organization of the research

This research comprised with five chapters, chapter one it's about introduction (background of the research problem, statement of the research problem, research objectives, research questions and significance of the study). Chapter two includes the literature review and conceptual frame work of my study. Chapter three explaining about research methods or methodology used in this study so as to attain the research objectives. Chapter four is about the analysis and discussion of research findings, these are arranged according to the sequential order of the research questions. Finally, Chapter five presents the conclusion, implications and recommendations emanating from the findings of the study and areas for further study are also suggested.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Overview

In the previous chapter the background of the research problem, objectives of the study, research questions, significance of the study as well as organization of the research were presented. The present chapter examined the extant literature review including conceptual definitions, statement of hypothesis, relevant information regarding performance of seaports as well as theories in a cogent and logical manner.

2.2 Conceptual definitions

2.2.1 Harbour

Harbour is a protected water area to provide safe and suitable accommodation for ship for transfer of cargo, refuelling and repairs. They are subdivided into natural and artificial (manmade) harbours. Dar es Salaam, Tanga and Mtwara Tanzania are three relatively favourable natural harbours. This is quite a good situation in comparison with other African coast lines (Khalifa, 1984).

2.2.2 Port

Port is a harbour where maritime terminal facilities are provided. This facilities include piers or wharf at which ships berth while loading or unloading cargo, transit shed and storage areas where ships may discharge incoming cargo and warehouse where goods may be stored for longer period while awaiting for distribution (Mwaya, 2009).

2.2.3 Port productivity

The productivity of a port is the measure of its ability to move its cargoes through it within a unit of time under actual condition (Memos, 2011).

2.2.4 Port hinterland

Literally, port hinterlands refer to the land behind a port. A hinterland is the area from which port customers are drawn (UNCTAD, 2006).

Slack (2007), indicates that changing port-hinterlands relations has a clear impact on port development patterns. The performance of seaports is strongly entwined with the development and performance of associated inland networks that give access to cargo bases in the hinterlands.

2.2.5 Logistics

Logistics is part of the supply chain processes that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information from the point of origin to the point of consumption in order to meet customers requirement (Vitasek, 2010).

2.2.6 Supply chain

Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and

customers. In essence, Supply Chain Management integrates supply and demand management within and across companies (Vitasek, 2010).

2.3 Critical review of supporting theories

There is no suitable theory underpinning factors contributing to poor seaport performance. However, some relevant theories are available and will be reviewed in this section.

2.3.1 Stakeholder theory

According to Freeman and Reed (1983), stakeholders refer to any identifiable group or individual who can affect or be affected by the achievement of an organisation's objectives. As different stakeholders have different and competing interests, perceptions and ideas (Castro and Nielson 2003), they see their own interest without appreciating what is important to others. Hence, the interests of stakeholder groups constitute diverse sets of expectations, needs and values (Harrison and John 1994). This diversity of interests causes a potential problem: failure to satisfy one particular stakeholder may be detrimental to the others (Freeman 1984) due to resource scarcity and managerial incapability (Mahoney and Pandian 1992). To balance the interest of different stakeholders, stakeholder theory says managers should make decisions by considering the interest of relevant stakeholders (Sternberg 2000). This theory is critically important as contemporary firms must satisfy a variety of stakeholders to survive in a volatile and uncertain environment (Foley, 2005).

The importance of stakeholder orientation comes from several areas: a number of studies suggest stakeholder orientation is positively associated with performance (Freeman 1984; Greenley and Foxall 1997; Clarkson 1995). A stakeholder orientation is a condition for excellence, as stakeholders are not isolated from each other; one stakeholder's success is dependent on others (Polonsky 1995). The latest development initiatives such as the Global Reporting Initiative (GRI) (Hedberg and Malmberg 2003), the Dow Jones Sustainability World Index (DJSI world), the United Nations Global Compact (Kell 2005) and the Ethical Trading Initiative (ETI) (Blowfield 1999) have shown emerging evidence that sustainability is stakeholder orientated. The stakeholder theory implies that all the relevant port stakeholders need to be considered when the port scheme is stipulated.

2.3.2 SCP paradigm theory

The structure-conduct-performance (SCP) paradigm was first raised by Bain (1956) and Scherer (1980). The tenet of the SCP paradigm is that the industry's structure influences the industry's conduct, which in turn influences the economic performance of an industry (Bain 1956). In terms of port sector, port economic performance is measured by profitability, value added, technology development and employment; conduct refers to the port activities; and structure is mainly defined by the degree of concentration and market share distribution (Ormanidhi and stringa, 2008).

Structure is the determination of conduct, such as the number and size of buyers and sellers, technology, the degree of product differentiation, the extent of vertical integration and the level of barriers to entry (Scherer, 1980).

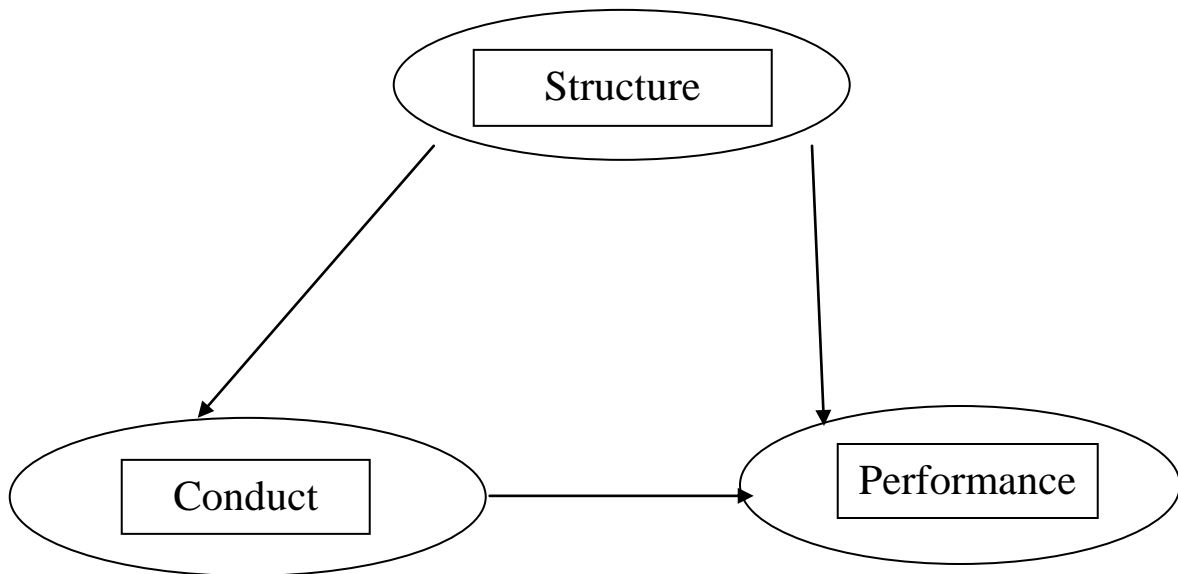


Figure 2.1 : Structure-conduct-performance, adapted from Bain (1956).

2.3.3 PESTEL analysis theory

The factors in the macro-environment may affect the performance of an industry, and the factors can be categorised by employing the PESTEL model, see Figure 2.2. PESTEL is an acronym for Political, Economic, Social, Technical, Environmental and Legislative (Armstrong 2006). This framework provides a strategic technique to analyse the external macro-environment of a business or industry and identifies the strategic factors that influence the business. It ensures that some basic factors are not overlooked or ignored. The PESTEL framework is a simple way to encourage the development of external and strategic thinking, but it may over-simplify the data for strategic decision. Nor does it investigate internal factors. As the macro environment often changes, PESTEL analysis needs undertaking on a regular basis.

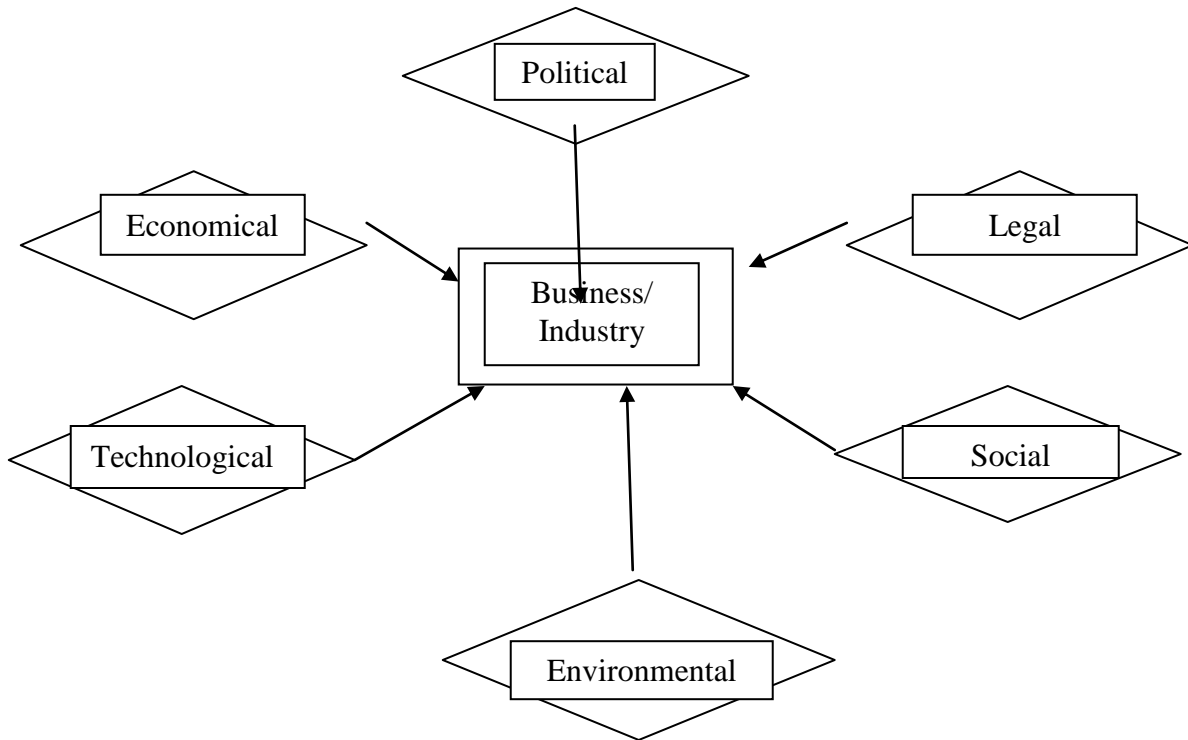


Figure 2.2 : PESTEL analysis model, adapted from Armstrong (2006).

These three theories are related to this research. Concerning stakeholder theory, this research involves relevant stakeholders as sources of empirical data to reflect different stakeholders' views on port performance hence the activeness of the port stakeholders will have a great impact on port performance.

Regarding the SCP paradigm, as structure influences performance, the structure of the ports is very vital to be investigated whether the port structure influences port performance or not.

PESTEL theory, external factors like Political, Economical, Social, Technological, Environment and Legal are mostly likely to influence port performance in one way or another, therefore a country with good and strong Political, Economical, Social,

Technological, Environment and Legal aspects implies that good port performance can be attained.

2.4 Empirical analysis of relevant studies

2.4.1 Related studies in developed countries

Mengying Feng 2010, A Comparative Study of Ports and Their Hinterlands: Factors Determining Port Performance and Choice, the research methodology used was that of mixed methods to collect both qualitative and quantitative data in two port regions (China and UK) and was carried out in two phases. The research was exploratory regarding the factors that determine port performance. It is also concerned with investigating these factors across port regions. Mixed methods are utilised in this research to achieve the listed research objectives by both qualitative and quantitative data. Mixed methods are regarded in this research as appropriate and consistent with the nature of interpretivist and positivist enquiry.

The findings of this research suggest that ports wishing to outperform competitors can do so by improving the factors that are of high importance but currently perform poorly. This could also be achieved by improving performances on shipping services, shipping prices, overall logistics cost, logistics services and government support in descending order which is based on factor evaluation in this research. The thesis further analyses this result within the context of urgent, salient and basic factors based on IPA, including explicit & implicit importance. Shipping services and cost have a critical effect on port performance. Differences in port charges are the most significant differences in factor

importance at the case ports of the Humber and Xiamen. Government support has the most significant differences in factor performance between the two case ports.

Tongzon (1995), the study on determinant of port performance and efficiency, methodology used was of mixed methods to collect both qualitative and quantitative data the study revealed that the size of the ports location and the level of economic activity are the determinant of port performance. Also port performance is also affected by external factors such as political interference, poor in infrastructure, and shortage of equipments.

Tongzon (2007), conducted an empirical study in Singapore ports with manufacturers and third party logistics providers (3PLs) and subsequently conducted another empirical study in the Association of South-East Asian Nations (ASEAN) region, attempting to identify the determinants of port competitiveness. He noted that the factors of cost of production, management quality, prices, quality of the service, exchange rates, government policies, political stability, investments in human and physical infrastructure, centrality or proximity to markets would decide the international competitiveness of ports.

Yeo et al. (2008; 2010) conducted an empirical study in China and South Korea with carriers and port operators and the study results revealed that port service, hinterland condition, availability, convenience, logistics cost, regional centre and connectivity are the determining factors in Northeast Asia. Cullinane et al. (2005) and Comtois and Dong (2007) analysed port competition between Shanghai and Ningbo, which share the same

hinterland. They identified that low price, quality of services, central government policies on regional development, natural endowments (particularly depth of water), good inland transport infrastructure and logistical systems, growing cargo resources and leading liners such as Maersk and K-Line contributed to ports' competitiveness.

Port capabilities and performance vary across the world. Singapore ports are proud of their port efficiency. For example, Singapore's vessel turnaround time is less than 10 hours; Singapore has high productivity per quay metre; and the number of annual transactions is 8 million (Tongzon, 2007). Hongkong is well known as a free trade port. Shanghai is known as the number one port in terms of total cargo volume and number three in terms of container traffic worldwide (AAPA 2009), benefiting from huge logistics demand from its large hinterlands. Rotterdam is known as the door to Europe resulting from its huge transshipment volume from/to the European continent.

2.4.2 Studies in Developing Countries

The Influence of Hinterland Transport Inefficiencies on the Performance of Ports (A Case Study of Kenya Ports Authority) by Charles Kipkoech Kotut, 2014. The researcher employed a descriptive research to describe the state of affairs as it exists and a stratified sampling method to reach at most representative respondents in the study universe of fifty-eight respondents covering port users and clearing and forwarding agents, port officials and leading transport and logistics organizations.

The findings of the research effectively revealed that the influence of hinterland transport inefficiencies on performance by KPA was glaring. Northern corridor

inefficiencies was found to contribute to slow uptake of cargo into the hinterland leading to high truck turn round time and therefore high cargo dwell time at the port, leading to a conclusion that indeed hinterland transport connectivity plays a significant role in the success of ports.

2.4.3 Studies in Tanzania

Assessment of port characterising factors influencing port performance (a case study of Tanga port) by Mapunda Denis, 2011. Descriptive research is the research design used in this study, cross sectional is used to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation. The quantitative rather than a qualitative research method of investigation have been applied. Most of data collected for the study were much of numbers which definitely needed quantitative treatments.

Findings of the study were confirm the positive impact of Geographical location of the port, Frequency of ship calls, Level of economic activities as measured by the Gross Domestic Product (GDP) of respective countries which use the port, while Government taxes and port charges, Cargo mix on port performance. Finally the researcher came out with various issues affecting the port performance like staff motivation and implementation of good corporate governance.

2.5 Research gap identified

Based on literature review, there are only a few empirical studies on factors influencing port performance. Huybrechts et al. (2002) identify a series of specific factors (demand conditions, factors conditions, supporting industries, etc.) influencing port performance

and determining a competitive advantage, which applied to Antwerp in the Hamburg-Le Havre range. Tongzon (1995) investigates determinants of port performance and efficiency in Southeast Asia. Chen and Zhang (2007) conducted an empirical study to find that a combination of local monopoly and competitive cooperation influences port performance, by employing the structure-conduct-performance (SCP) model.

In Tanzania several studies that have been carried out were concerned with port congestion by Nyang'oro (2009) and role of seaport in facilitating growth of trade in Tanzania by Habili (2012). Hence there is a need to conduct research on factors contributing to poor seaport performance in Tanzania.

2.6 Conceptual framework

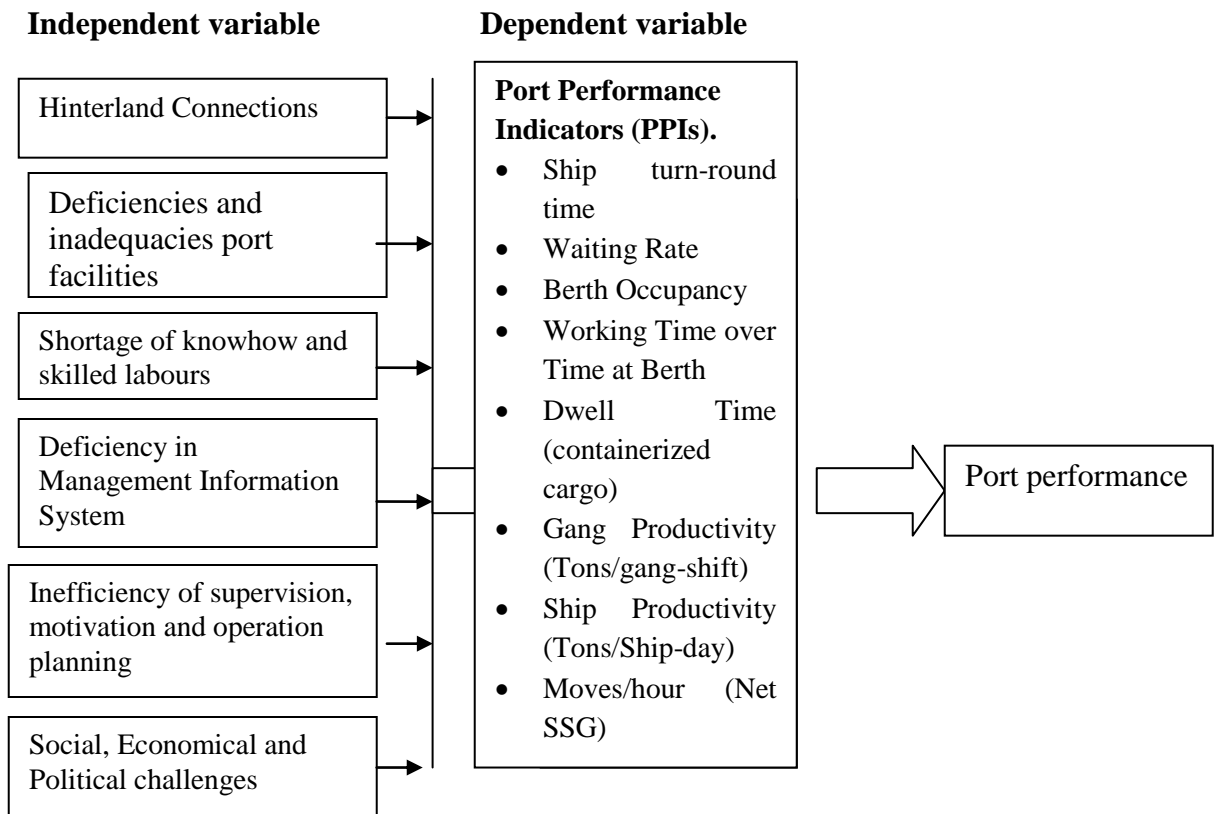


Figure 2.3 : Independent and Dependent Variables. Drawn by the Researcher.

From conceptual framework there are independent and dependent variables. Independent variable is manipulates variable in an experiment or study whose presence or degree determines the change in dependent variable.

2.7 Theoretical Framework

Conceptual framework indicates that the variables are interacting in the course of operations. The performance of seaport depends much on flexibility and efficiency of operators of the port.

Hinterland (roads, rail network links) has direct influence on ports performance given that over 90% of transit containers are evacuated through road and rail transport. Its inefficiencies therefore course delay of cargo en-route resulting to poor truck turn round time. This will see the port register high container dwell time a phenomena that pulls down port performance.

Social, economic and political situation that is evident in the countries that share the corridor has some degree of impediment to smooth flow of cargo along the corridor. This is because of poor social economic environment leads to poverty stricken and unemployed youth to venture in highway crimes thus interfering with supply chain security and the net effect will affect port performance.

SCP (Structure-Conduct-Performance) paradigm and PESTEL (Political, Economical, Social, Environmental and Legal) analysis theories supported the variables.

2.8 Summary

This chapter started with the conceptual definitions, relevant information regarding performance of seaports as well as theories in a cogent and logical manner.

The role of Ports today is clearly defined and analysed in the context of supply chain system they should be seen as part of integrated global supply chain logistics platform where management and coordination of cargo and related information flows is staged in order to achieve supply chain efficiency. Ports constitute a critical link in the overall logistics and supply chain. Thus, their level of efficiency and performance influences, to a large extent a country's Competitiveness. To achieve and maintain a competitive edge in international markets, nations need to both understand the factors underlying port competitiveness and to continually assess the performance of their own port sector in comparison with other ports in the world.

Table 2.1 : Independent Variables and Methodology used by Other Authers

Independent variables	Country	Methodology Used	Findings	Authors
Poor road links, Poor railway links, Corridor administration measures and Social, Economical and Political challenges	Kenya	Descriptive research	Influence of hinterland transport inefficiencies on performance by KPA was glaring. Northern corridor inefficiencies was found to contribute to slow uptake of cargo into the hinterland leading to high truck turn round time and therefore high cargo dwell time at the port, leading to a conclusion that indeed hinterland transport connectivity plays a significant role in the success of ports.	Charles Kipkoech Kotut, 2014.
Geographical location of the port, Tax and govt charges, Staff motivation, Good corporate governance.	Tanzania	Descriptive research	Geographical location of the port, Frequency of ship calls, Level of economic activities as measured by the Gross Domestic Product (GDP) of respective countries which use the port, while Government taxes and port charges, Cargo mix have great impact of on port performance. Also researcher came out	Mapunda Denis, 2011.

			with various issues affecting the port performance like staff motivation and implementation of good corporate governance.	
Geographical location, Government support, Logistics demand, Physical infrastructure to link ports with hinterland, Port infrastructure, Information communication system, Customs service and the Port services provided by logistics service providers, Logistics cost, Political stability, and Port ownership	China and UK	Mixed methods to collect both qualitative and quantitative data in two port regions (China and UK)	Geographical location, government support, logistics demand, physical infrastructure to link ports with hinterland, port infrastructure, information communication system, customs service and the port services provided by logistics service providers, logistics cost, political stability, port ownership were all identified as important factors that influence port performance. These findings are in line with literature addressed by Murphy et al. (1991, 1992), Song and Yeo (2004), Gordon et al. (2005), Notteboom and Rodrigue (2005), De Langen et al. (2007), Tongzon (2007; 2009) and Arvis et al. (2007; 2010). Both the Humber and Xiamen have a positive	Mengying Feng, 2010.

			reputation for some factors, and some negative factors, and for most factors they have different performance from the interviewees' perspectives.	
Ports location Political interference, Poor in infrastructure, Shortage of equipments Management quality,	Singapore	mixed method to collect both qualitative and quantitative data	Size of the ports location and the level of economic activity are the determinant of port performance. Also port performance affected by external factors such as political interference, poor in infrastructure, and shortage of equipments cost of production, management quality, prices, quality of the service, exchange rates, government policies, political stability, investments in human and physical infrastructure	Tongzon,(1995&2007).

CHAPTER THREE

3.0 RESEARCH DESIGN METHODS

3.1 Overview

This chapter gives details of the procedures that used in conducting the study. It includes the research philosophy, strategies, survey population, area of the research, sampling design and procedures, validity and reliability, variables and measurement procedures, methods of data collection and data processing and analysis.

3.2 Research philosophy

Research philosophy can be defined as the development of the research background, research knowledge and its nature (Saunders and Thornhill, 2007). Research philosophy is also defined with the help of research paradigm. In the words of Cohen, Manion and Morrison (2000), research paradigm can be defined as the broad framework, which comprises perception, beliefs and understanding of several theories and practices that are used to conduct a research. It can also be characterized as a precise procedure, which involves various steps through which a researcher creates a relationship between the research objectives and questions.

According to the definition given by Gliner and Morgan (2000) “paradigm is a way of thinking about and conducting a research. It is not strictly a methodology, but more of a philosophy that guides how the research is to be conducted.

Research paradigm comprises with three components which are Epistemology, Ontology and Methodology. Epistemology these are common parameters and assumptions those

are associated with the excellent way to investigate the nature of the real world. Ontology these are common assumptions that are created to understand the real nature of the society. Methodology is the Combination of different techniques that are used by the researcher to investigate different situations.

It is necessary for the researcher to understand the philosophical position of research issues to understand the different combination of research methods. There are mainly three type of paradigm to understand the reality, Positivism, Interpretivism and Realism.

3.2.1 Positivism

The concept of Positivism is directly associated with the idea of objectivism. In this kind of philosophical approach, scientists give their viewpoint to evaluate social world with the help of objectivity in place of subjectivity (Cooper and Schindler 2006).

3.2.2 Interpretivism

Interpretivism can be referred as the Social Constructionism in the field of management research. According to this philosophical approach research give importance to their beliefs and value to give adequate justification for a research problem (Easterby- Smith et al. 2006).

3.2.3 Realism

This research philosophy mainly concentrates in the reality and beliefs that are already exist in the environment. In this philosophical approach, two main approaches are direct and critical realism (McMurray, Pace and Scott 2004).

There are several reasons for selecting research approach based on number of reviewed literature. Selection of research approach can be based on your research problem, purpose, and questions. The research problem, purpose, and question needs to be guided by the literature and clearly contribute to the research in the field that has preceded your research (Creswell, 2007).

Other reasons including personal beliefs about knowledge construction. A quantitative approach is more suitable if you believe that there is an objective reality and research can confirm it; whereas, a qualitative approach is more suitable if you believe that there are multiple realities that can be constructed. Quantitative research is based on logical positivism. The assumption underlying logical positivism is that knowledge is derived from direct observation and logical inference based on that observation. Qualitative research is based on constructivism that holds that knowledge is a result of perspective (Creswell, 2007).

Time is also a reason for selecting research approach. Due to the nature of data collection, qualitative research can be more time consuming than quantitative. Also desire to Work with Peoples is also a reason. Due to the nature of data collection, qualitative research may require more time interacting with people. Quantitative research is likely to require more time interacting with numbers. Not only but also writing skills are also a reason while selecting research approach. Quantitative research requires that you write in a technical, scientific manner; whereas qualitative research requires more writing and narrative writing (Patton, 1990).

Some researchers may decide on a mixed methods approach that includes both a quantitative and qualitative approaches for the reasons that, Variation in data collection leads to greater validity, answers the question from a number of perspectives, ensures that there are no 'gaps' to the information / data collected also ensures that pre existing assumptions from the researcher are less likely (Gall, 2007).

3.3 Research design

According to Saunders et al. (2009), research strategies include experiment, survey, case study, action research, grounded theory, ethnography, archival research. The choice of the current research strategy is guided by the research objectives.

This research excluded experiment because it is typically applied to studies where variables can be controlled, action research was excluded due to time, finance and accessibility constraints, because it requires that the researcher be part of the organisation. Grounded theory and ethnography were excluded as they are purely qualitative and cannot achieve the research objectives by providing required quantitative data. Case study research is adopted.

Case research it is confined to a specific context, whereas this research aims to seek some factors contributing to poor seaport performance in Tanzania particularly Dare salaam port. Case study is a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence (Robson, 2002). The case study strategy is of particular interest to you if you wish to gain a rich understanding of the context of the research and

the processes being enacted (Morris and Wood 1991). For this reason the case study strategy is most often used in explanatory and exploratory research. The data collection techniques employed may be various and are likely to be used in combination. They may include, for example, interviews, observation, documentary analysis and (as if to emphasise the dangers of constructing neat boxes in which to categorise approaches, strategies and techniques) questionnaires. Consequently, if you are using a case study strategy you are likely to need to use and triangulate multiple sources of data.

Triangulation refers to the use of different data collection techniques within one study in order to ensure that the data are telling you what you think. For example, qualitative data collected using semi-structured group interviews may be a valuable way of triangulating quantitative data collected by other means such as a questionnaire.

3.4 Survey population

Population is a group of individuals, objects or items from which samples are taken for measurement (Kombo and Tromp 2006). It refers to an entire person or elements that have at least one thing in common and many include some of the overall demographics such as age, gender, class and education.

The total number of the entire population are 10,000 peoples, population of interest for this study was Tanzania Ports Authority, and its Stake holders these include trucks drivers under umbrella of Tanzania Truck owners Association (TATOA), freight forwarding agents under the umbrella of Tanzania Shipping Agents Association (TAFFA), shipping lines agents under the Tanzania Business Council, TICTS, Tanzania

Revenue Authority (TRA), Surface and Marine Transport Regulatory Authority (SUMATRA), Ministry of Transport (MOT) and port customers. The researcher keened to target senior employees of the population particularly management staff.

3.5 Area of the research

This study particularly carried out at Dar es Salaam port. The reason of selecting this area as the case study was due to several reasons. Financially the port generates over 90 percent of the authority revenue from charges raised on various services rendered such as navigation, mooring, port dues, wharfage and stevedoring as well (THA, 1996). According to the government report by the National Economic Survey, NES (2010) on National Economic Situation Dares salaam port served 88.5 percent of the total cargo saved by TPA. Furthermore, Dar es Salaam port is the only port in Tanzania that serves transit cargo (TPA, 2010) and it is the main interface of the country. Therefore, it is appropriate that Dar es Salaam port be representative of other ports in Tanzania for the study.

3.6 Sampling design and procedures

Sampling refers to the technique or procedures that the researcher would adopt in selecting items for the sample (Kothari, 2009). It is definite plan for obtaining a sample from a given population. Types of sampling methods include probability sampling method and non probability sampling method.

Probability sampling is one that gives every member of the population equal chances of being included in the study. If the purpose of the study is to draw conclusions or making

prediction affecting the population as a whole then probability sampling can be used (Kombo and Tromp, 2006). On the other hand non probability sampling is a sampling technique in which the researcher is interested in the representativeness of the concepts in their varying forms. In other words under non probability sampling the researcher purposively choose the particular units of the universe constituting a sample on the basis the small mass selected out of a huge one will be typical or representative of the whole.

In this study researcher used a non probability sampling technique known as purposive sampling technique. According to Kombo (2006), purposive sampling is a non probability sampling method in which the researcher purposively targeted a group of people believed to be liable for the study. The method was chosen because of samples involved in this study which have different characteristics in terms of knowledge, job position and type, as well as experience.

Out of given population 10,000, a sample of 100 respondents involved in the study. Arrived by the following mathematical expression; $S_n = P_n / re\% * 100$ where S_n = number of sample to be taken, P_n = total population, $re\%$ = estimated respondent rate of 100%. These respondents was selected purposively as follows; 15 respondents was road trucks drivers, 15 officers from freight forwarding agents, 10 officers from shipping lines agents, 12 officers from business entrepreneurs, 8 officers from association of oil importers, 7 officers from TICTS, 8 officers from SUMATRA, 5 officers from MOT, 5 officers from TRA and 15 officer from Tanzania Ports Authority.

3.7 Variable and measurement procedures

Data or information which are needed are both primary and secondary, primary data are collected from respondents and Secondary data are obtained from both published and unpublished materials. Published materials included; written literature, articles, documents and extracts from the internet as well as journals.

Primary data: Is the information which is collected afresh and for the first time, and thus happen to be original in character. The data of this study are obtained by distributing questionnaire. The questionnaires distributed to the respondents and asked them to fill the questionnaires according to their opinion (Kothari, 2004).

Secondary data: Is the information which has already been collected by someone else and which has already been passed through statistical process. Secondary source includes published and non published materials in from of textbooks dissertations, thesis, journals, articles, reports and from prominent writers' papers (Kothari, 2004).

3.8 Validity and reliability measurement

In order to ascertain and generalize the validity of the data, pilot study was conducted in advance. This enabled the researcher to be familiar with the targeted areas which made easier in data collection. Also to insure the validity questionnaires were pre tested before being used in field. Researcher asked questions in the same way as they appeared in the questionnaire this helped to determine whether questionnaire is understandable, also to determine whether questions will elicit the intended information, to find out the sensitive questions contained in the questionnaire, to determine the respondent's interest, attention

and cooperation toward the study. Pre testing and field test were carried out to improve both face validity and content validity of the questionnaire

Reliability of the data however achieved, each respondent was given a well designed and structured questionnaire to fill in liberally. Also the researcher used cronbach's α (alpha) to measure the reliability. The reliability test was done using SPSS and gave results as shown in a table below.

Table 3.1 : Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standadized Items	N of Items
.785	.767	6

Source: Researcher Analysis (2015).

From the table above shows that the reliability/alpha (α) value is 0.785. According to Miller *et al* (2002) confirmed that Cronbach's alpha (α) should be at least 0.70 or higher to retain variables in adequate scale. The reliability test done using SPSS gave an alpha (α) value of 0.785 which is the above 0.70. Therefore, internal data were found to be reliable.

3.9 Methods of Data Collection

In this study both primary and secondary data were collected. Primary data are obtained by using questionnaires, observations and personal interviews with stake holders of Dar

es Salaam port, I got their opinions on the factors contributing to poor Dare s salaam port performance.

Questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. They are often designed for statistical analysis of the responses (Kothari, 2004). Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data. Questionnaires are also sharply limited by the fact that respondents must be able to read the questions and respond to them.

Research questionnaires was sent manually and through electronic such as email. The questionnaires collected information on demographic variables include age, rank, gender, education and years of service. The purpose of using this method is because it is faster and can save time. It's also confidential and allows for individual opinion. Primary data was obtained through the use of structured questionnaires. These questionnaires were researcher-administered to the respondents. The questionnaires had both open ended and closed ended questions to answer.

Personal observations also carried out when collecting primary data. In this the researcher observed number of ship queuing at the outer anchorage and at the berth. Furthermore, a number of transit trucks (both containers and tankers) were observed while there in queues around the port areas.

Secondary data was collected by reviewing published material and information such as official reports, documents and statistics available on the factors affecting seaports performance.

3.10 Data processing and Analysis

Data analysis is the process of computation of certain indices or measures along with searching for patterns of relationship that exist among the data groups (Kothari, 2009).

Descriptive statistics of frequency tables were used to analyze and present the data from questionnaires. In particular, the researcher used SPSS software package version 16.0 to generate frequency tables as means of presenting data. The data was summarized, analyzed and interpreted as on each research objective. In contrast, qualitative data from Interview scripts, notes and statements was systematically coded and classified into broad descriptive categories while exploring themes, meanings and/or issues that emerged from the information gained from the interview. These data were further linked to the research objectives/questions to generate meaning and explanation on the study topic.

3.11 Summary

The chapter explained and justified the research methodology used during the data collection and data analysis in this study. The chapter also described how data analysis was conducted as well as how the requirements for reliability and validity of the research design were met. The next chapter deals with analysis and discussion of research results.

CHAPTER FOUR

4.0 RESEARCH FINDINGS, ANALYSIS AND DISCUSSION

4.1 Overview

This chapter describes the analysis of data followed by a discussion of the research findings. The findings directly answered the study objectives indicated in chapter one of this study after collecting Information from respondents using questionnaire. Data were analyzed to identify, describe and explore the relationship between port performance and those factors influencing it, using the summary of descriptive Statistics as computed by SPSS computer software program. The data presentation and findings were presented qualitatively and quantitatively.

4.2 Description of the Variables Used in the Analysis

4.2.1 Respondents Personal Information.

A total of 100 questionnaires were targeted in this study, however, only 70 questionnaires were usable for this study and met the required inclusion criteria as discussed in the previous chapter. This represented 70% of the expected sample size. Although neither the reasons for refusal to participate nor the characteristics of the non-respondents are known. Of the remaining 17 questionnaires deemed unusable, 13 respondents did not complete the questionnaire some of questions were omitted.

4.2.2 Sex /Gender of Respondents

The findings in Table 4.I below show that 55 respondents equivalent to 78.6% were male and 15 respondents equivalent to 21.4% were female. This implies that there was

somehow gender balance of the respondents, which make the study to have the opinions of both males and female.

Table 4.1 : Sex/Gender of the Respondents (N = 70)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	55	78.6	78.6	78.6
Female	15	21.4	21.4	100.0
Total	70	100.0	100.0	

Source: Researcher Analysis (2015).

4.2.3 Age of the Respondents

Furthermore, findings in Figure 4.1 below shows that 10 Respondents equivalent to 14.3% were aged below 25. Thirty nine, equivalent to 55.7% of the respondents, were aged between 25 and 35 years. Seventeen equivalents to 24.3% of the respondents were aged between 36 and 55. Four equivalents to 5.7% of the respondents were aged above 55. This implies that majority of the respondents were in the productive age and therefore were in a better position to do business/work efficiently and effectively as they were energetic.

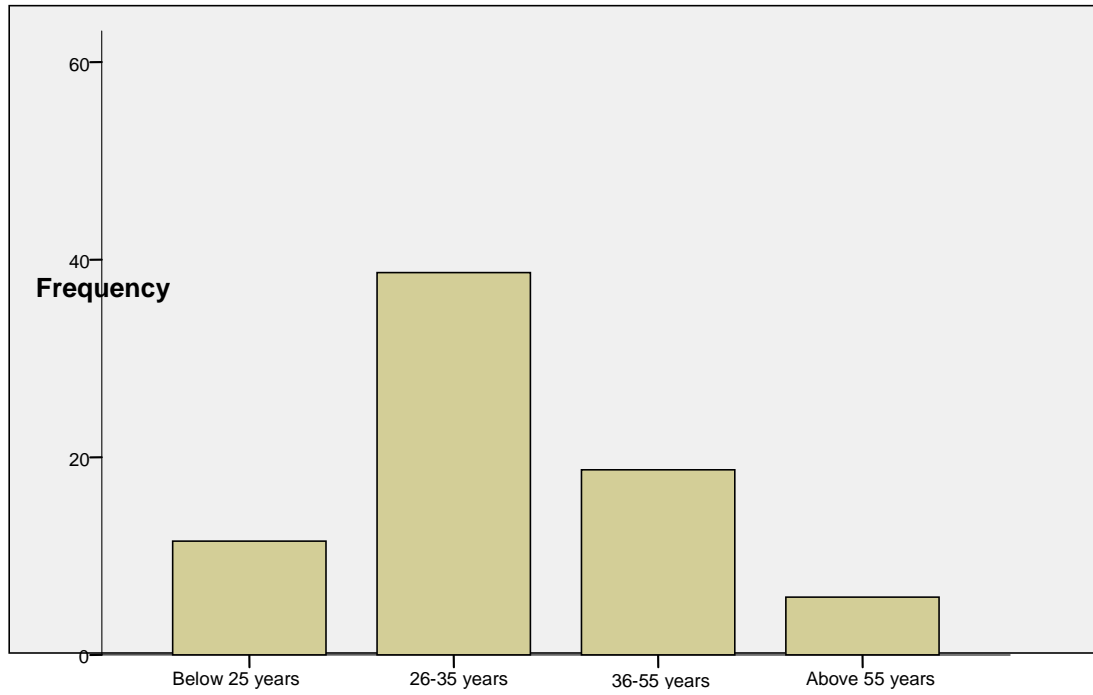


Figure 4.1 : Ages of the Respondents

Source: Researcher Analysis (2015).

4.3 Factors Contributing to Poor Seaport Performance

Many factors contribute to a poor port's performance. Broadly, they can be grouped into two: institutional and external factors. The institutional factors are those that originate from within the organisation itself. These problems are relatively easy to solve by better management of internal resources. As the name implies, the external problems are those that are caused by external actors in the port with the exception of the Port Authority. In these are included: customs office, trucking companies, freight forwarders, shipping agents, immigration authority, shippers and ship owners. Poor port performance arising from inefficiencies of these actors is difficult to be solved by the port unless they are ready to implement the recommendations forwarded by the port authority, or they take initiative by themselves.

This is one main reason for this paper to deal with the institutional causes of poor port performance. Even all the institutional factors are not analysed exhaustively because of insufficient time and other resources, particularly unavailability of relevant data. So, the analysis of the factors contributing to poor seaport performance at Dar es Salaam port in this chapter is limited to those.

Based on the literature review the following were revealed as the key factors that contributing to poor seaport performance in Tanzania: Poor hinterland connections, Social economic and political challenges, Deficiencies and inadequacies port facilities, Shortage of know-how, Deficiency in ICT management and Inefficiency of supervision and motivation.

4.3.1 Poor Hinterland Connections

4.3.1.1 Poor Road links

After analysis of collected data in relation to the influence of road links on port performance, respondents gave the following results.

Table 4.2 : Poor Road Links Contributing to Poor Seaport Performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	42	60	60	60
Agree	15	21.4	21.4	81.4
Moderate	6	8.6	8.6	90
Disagree	4	5.7	5.7	95.7
Strongly disagree	3	4.3	4.3	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

From the table 4.2 above it relieved that, general inefficiencies identified by the respondents, 60% were strongly agreed that road links and road transport performance in relation to complementing cargo off- take at the port is poor and it contributing to currently poor seaport performance. 21.4% agreed that road link is poor, the 8.6% rated moderate, 5.7% were disagreed and 4.3% were strongly disagreed that poor road link contributing to poor seaport performance. Particularly because it's not the first choice mode of transport to evacuate Cargo and the current port performance indicators stand as a result of the existing capacity handled by road transport which was at 90.5 % Teu's in 2013. However, further analysis indicated that most respondents are strongly agreed that road transport inefficiencies contributing to poor Dar es Salaam port performance.

Poor road links was found to contribute to slow uptake of cargo into the hinterland leading to high truck turn round time and therefore high cargo dwell time at the port. This is because the roads links are in poor state and does not fully complement the improved cargo traffic through the port. The roads links as it is today however is still the major evacuation mode as most of the cargo traffic goes through the roads.

4.3.1.2 Poor Railway Links

The data that was collected regarding railway links and transport, gave the following results.

Table 4.3 : Poor Rail Links Contributing to Poor Seaport Performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	48	68.6	68.6	68.6
Agree	15	21.4	21.4	90
Moderate	4	5.7	5.7	95.7
Disagree	3	4.3	4.3	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

From table 4.3 above 68.6% of respondents were strongly agreed that rail links is poor and it's contributing to poor seaport performance. 21.4% were agreed, 5.7% rated moderate, 4.3% were disagreed and no respondent were strongly disagreed. They all however, majority were strongly agreed that Rail links and transport performance has direct effect on port performance as it's ideally the primary mode of cargo evacuation from the port but currently it's seriously ineffective. Most of them described the Rail track as old one meter gauge, unreliable and dilapidated condition. Asked their opinion on cost of rail transport, 60% agreed that it's higher than it should be. They also gave problems contributing to inefficient Railway links as low wagon capacity, old locomotives and dilapidated rail track.

The results reflected the status of railway links at Dar es salaam port which for long has been in a dilapidated state and some of the extensions severed and are no longer in use.

The aspect of low capacity in terms of few wagons keeps containers detained at the port for long waiting for wagons and this contributes to the high container dwell time which is a key port performance measure which the port aspires to bring it down as much as possible.

4.3.2 Social Economic and Political Challenges

In this variable, respondents were asked to name Social economic and political challenges at Dar es Salaam port and whether they agree that they have impact on port performance and the result was as follows.

Table 4.4 : Social economic and Political Challenges Contributing to Poor Seaport Performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	36	51.4	51.4	51.4
Agree	10	14.3	14.3	65.7
Moderate	8	11.4	11.4	77.1
Disagree	7	10	10	87.1
Strongly disagree	9	12.9	12.9	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

From the table 4.4 above 51.4% of Respondents were strongly agreed, 14.3% were agreed, 11.4% rated moderate, 10% were disagreed and 12.9% were strongly disagreed. Most respondents were strongly agreed that Social economic challenges have impact on

port performance. They cited the challenges as insecurity, risk of diversion of transit goods into local markets and political instability. Social behaviour of drivers was also cited by Managers and TPA officers as a challenge. This is because truck drivers do stopovers for recreation and entertainments for long hours.

Social economic challenges are common in all corridor sectors managed by each East African country since each country has social challenges which prevent optimal performance of facilities in the corridor. The impact of social challenges to the port performance is great given that transport operators, apart from delays would invest on mitigating measures thus adding up the transport cost. This will increase overall cost of moving cargo through the port.

4.3.3 Deficiencies and Inadequacies Port Facilities

After analysis of collected data in relation to the influence of port facilities on port performance, respondents gave the following results.

Table 4.5 : Deficiencies and Inadequacies Port Facilities Contributing to Poor Seaport Performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	45	64.3	64.3	64.3
Agree	16	22.8	22.8	87.1
Moderate	3	4.3	4.3	91.4
Disagree	4	5.7	5.7	97.1
Strongly disagree	2	2.9	2.9	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

From the above analysis in table 4.5 above, majority of respondents 64.35% are strongly agreed that inadequacies facilities is also a cruel factor contributing to poor Dar es Salaam port performance. 22.8% were agreed, 4.3% rated moderate, 5.7% were disagreed and 2.9% were strongly disagreed. Majority of respondents mentioned that inadequacies port facilities contributes much to poor performance of the port for instance smaller berth facilities at Dar es Salaam port that can never handle biggest vessel of different size like panama with average of 65000 tons, this also resulting too long quees for ships at outer anchorage which implies the presence of high ships turn-around time which is the strong indicator for a poor port performance.

Investment in port facilities plays a key part in competitive process. A versatile port must be able to handle different cargoes. Bulks, containers, wheeled vehicles, general cargo and passengers as well, all require different facilities for both handling and storage. The facilities provided in a port depend on the type and volume of cargo that is in transit. As trade changes, so do the ports. Each port has a max of facilities that designed to meet the trade of the region it serves. Dar es Salaam port has got only 11 berths with other facilities as described below.

The general cargo terminal of Dar es Salaam port has a quay length of 1293 meters with 7 deep water berths. It is equipped with portal cranes, mobile harbor canes, front leaders, reach strikers, forklifts, tractors and trailers as well, all for handling. It also storage areas comprising 7 main quay transit sheds, 3 back of the port transit sheds and open storage area of 77,100 square meters.

Dar es Salaam port container terminal got only 4 berths with a total quay length of 735 meters and paved area with modified railway tracks of the Tanzania, Zambia Railway authority (TAZARA) and Tanzania railways Limited (LTRL). Facilities available include ship to shore gantry cranes, rubber tyred gantry cranes, and rail mounted gantry cranes serving TAZARA and TRL, mobile harbor cranes, front loaders, tractors and trailers as well. There is also an inland container depot at Kurasini area (2 kilometers near from the port) and lighterage and dhow wharves with a total length of only 588 meters.

Dar es Salaam port grain terminal has got only three bagging units, bagging at a rate of 90 tons per hour. The port has concrete silos of storage unity capacity of 30,000 tons.

Single point mooring this is TRA exclusive facility handling crude oil from Dar es Salaam port to Zambia through Tanzania Zambia (TAZAMA) Pipeline to Ndola refinery. It has a pumping rate of 5,000 cubic meters per hour and allows ship of maximum size of 120,000dwt.

The Kurasini oil jet (KOJ) this handles refined oil products. It comprises a jet for deep sea vessels (KOJI) and other for coastal vessels (KOJ1 and KOJ2 have pumping rates of 750 tones per hour respectively, and allow vessels of maximum size 45,000 and 5,000dwts respectively.

Other facilities at the port includes marine craft that serving vessels on entering and leaving the port, in which Dar es salaam port having the followings:- Six (6) Berthing

Tugs, Sixteen (16) Lighter Towing Tugs, Four (4) Lighters, Two (2) Labour Launches, Two (2) Pilot Boats, Two (2) Patrol Boats, Thirteen (13) Mooring Boats.

4.3.4 Shortage of Know-how and skilled labours

After analysis of collected data in relation to the influence of shortage of know-how and skilled labours on port performance, respondents gave the following results.

Table 4 6 : Shortage of know-how and Skilled Labours Contributing to Poor Seaport Performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	21	30	30	30
Agree	18	25.7	25.7	55.7
Moderate	10	14.3	14.3	70.0
Disagree	16	22.8	22.8	92.8
Strongly disagree	5	7.2	7.2	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

Since skilled labour is increasingly and becoming important for the survival and growth of today's ports, it might be necessary to look at the level of skill and know-how in the port of Dar es Salaam, 30% of the respondents were strongly agreed that poor port performance at Dar es Salaam port is also contributed by the shortage of knowhow and skilled labours. 25.7% were agreed, 14.3% rated moderate, 22.8% were disagreed and

7.2% were strongly disagreed. This is approached in two ways, first, by analysing the statistical data available and second by applying the author's observation.

When assessing the skill and know-how, it is not just the level of education and training that matters but also profession, and the relevance of education and training. There is a critical and acute shortage in marine engineering and nautical fields in the Maritime Administration in general and in the port administration in particular.

There are very few seafarers in the country, but they prefer to go to sea because they can earn much more money from sailing than from working in the ports which is also a reason for lacking those expertises to work in port areas. Another reason that caused the shortage of skill and which specifically refers to the lack training Institutions, we have only one institute in Tanzania which provide Maritime education known as Dar es salaam Maritime Institute, hence this implies that number of scholars in maritime field is too low to contribute in the rapid growth of the port performance in Tanzania especially Dar es salaam port.

Nowadays, most port equipments require special skills and know-how that can only be acquired by giving training and/or recruiting competent people. Many of the worst features of port can be ascribed not to lack of equipment or of financial resources but to poor performance of labour force and management.

4.3.5 Deficiency in Management Information System

In this variable, respondents were asked to name Deficiency in management information system at Dar es Salaam port and whether they agree that they have impact on port performance and the result was as follows.

Table 4.7 : Deficiency in Management Information System Contributing to Poor Seaport Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	27	38.6	38.6	38.6
Agree	13	18.6	18.6	57.2
Moderate	15	21.4	21.4	78.6
Disagree	11	15.7	15.7	94.3
Strongly disagree	4	5.7	5.7	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

Table 4.7 above revealed that 38.6% were strongly agreed that deficiency in management information system contributing to poor Dar es Salaam port performance. 18.6% were agreed, 21.4% rated moderate, 15.7% of respondents were disagreed and 5.7% of respondents were strongly disagreed.

It is a general consensus that information is power. So, one without information is powerless. Information is necessary for doing planning. It is also essential for the

success of an organisation in today's highly competitive ports. The significance of information for all types of planning in general, and for equipment planning in particular, is well understood. The effectiveness and efficiency of planning greatly depends on the availability and use of relevant, accurate and comprehensive information. The MIS in the Port of Dar es Salaam is still a traditional one that consists of an array of specially designed forms, on papers and card, bound and loose-leaf registers, and card indexes of varying degrees of elaboration. There are hundreds of printed forms, each designed for one specific activity within the sequence of documentation procedures. The resulting assemblage of dissimilar forms does nothing to encourage accurate and consistent recording and analysis of equipment data.

The main problems with such a conventional (paper) MIS are that it is bulky and paper accumulates enormously and that it is time-consuming to operate effectively, particularly its analytical component.

The major problem concerning the traditional paper bound MIS concerns duplication of data entries as mentioned by majority of respondents. It is inevitable that the same data such as ship particulars are entered by all parties involved in port activities, in a lot of 'Forms' and 'Cards' for specific purposes. One department could do this only once and distributed to others, had there been an electronic system of inter-link like of computer network system, or specifically electronic data interchange system, hence deficiency in MIS at Dar es Salaam contributing to poor port performance.

4.3.6 Inefficiency of Supervision and Motivation

After analysis of collected data in relation to the influence of inefficiency of supervision and motivation on port performance, respondents gave the following results.

Table 4.8 : Inefficiency of Supervision and Motivation Contributing to Poor Seaport Performance

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	29	41.4	41.4	41.4
Agree	13	18.6	18.6	60.0
Moderate	10	14.3	14.3	74.3
Disagree	14	20	20	94.3
Strongly disagree	4	5.7	5.7	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

From table 4.8 above 41.4% of the respondents were strongly agreed that inefficient supervision and motivations to workers at Dar es Salaam port is also a factor contributing to its poor performance. 18.6% were agreed, 14.3% rated moderate, 20% of respondents were disagreed and 5.7% of respondents were strongly disagreed.

Next to equipment breakdown, labour is also the second biggest cause of idle time in the ship to shore operations. In general, labour associated causes of idle time include, late start, strikes and so on. It is observed that most of the labour idle time in the Dar es Salaam port is attributed by late start. At least two things could be the reasons here. The

first reason could be lack of supervision. That is either the supervisors are not doing their job well or they could not influence the dockworkers to start and quit their jobs on time. The second reason is obviously the low morale of some of the dockworkers. Usually, low self-motivation is the result of a bad culture of people, bad working conditions, or low remuneration.

Shortcomings in supervision are also observed in certain areas. The performance of tallying is officially evaluated as just average. It was believed that the main reasons for low performance of tally clerks were insufficient supervision and poor motivation.

4.4 Appropriate means for measuring seaport performance.

In this objective, researcher identified the appropriate means used for measuring seaport performance based on respondent's perceptions through questionnaire, interview and publications.

The objective of any port is to provide high quality services to all port users and therefore must always aim to higher efficiency to minimize time spent by vessels in ports and hence minimize costs. Ports have to create tools that will help in undertaking the right decisions at the right time for measuring performances and improving quality of services as well as deciding on investments needed. These tools are therefore the Port Performance Indicators. Seaport performance indicators categorized into operational indicators and financial indicators.

4.4.1 The operational performance indicators

These indicators are directly related to port activities and facilities. These are categorized into: Service, Output (Production), Utilization and Productivity.

4.4.1.1 Services indicators

Service indicators measure the quality of service provided to customers, ship owners, ship operators, importers and transport operators. The most common indicators used by Dar es Salaam port are: Ship turnaround time, Truck turnaround time and Container dwell time.

4.4.1.1.1 Ship turnaround time

Ship turnaround time is the total time spent by a ship in port, Components of ship turnaround time: Waiting time, Berthing/unberthing time, Berth time (Service time). Waiting time is normally a small proportion of turnaround time. However, berth time is the component which when reduced can substantially reduce ship turnaround time. The berth time depends on the quantity of cargo a vessel has to load or discharge, the type and characteristics of a vessel, the type of equipment and other resources used at berth. The shorter of ship turnaround time implies that there is higher performance. Benchmarked Indicators for Ship turnaround time are as follows; Containerized vessels 3 days, General, Cargo Vessels 3 days and Tankers 5 days. But currently at Dar es Salaam port ship turnaround time is 6.5days which is much higher than the agreed benchmark.

4.4.1.1.2 Truck turnaround time (Hours)

Truck Turnaround time is the time between the vehicle's arrival at the terminal entrance gate and its departure from the terminal exit gate. It measures the terminal's service

quality to road transport operators. Dar es Salaam port container terminal has used this indicator since July 2010 for the purpose of speeding up time of service at service points and reducing waiting hours and congestion at entry/exit gates. Truck Turnround time is still high compared to target of 1 hour because of the delays during scanning operations, gates layout, availability of equipment during delivery operations as most equipment are deployed during quay operations (discharging and loading).

4.4.1.1.3 Container Dwell time

Dwell time is the period (in days) containers stay at the terminal. Dwell time for DSM port is calculated on imports, exports and empties. Dwell time greatly influence terminal capacity of any container terminal. Decrease in dwell time from 2010 to date is due to transfer of containers to ICDs and increase in importers' awareness to clear their cargo in time even though it's not yet reached on agreed benchmark of Dwell Time (containerized vessels) for imports 7 days and exports 4 days

4.4.1.2 Output (Production) indicators

This measures the level of activity of the business in a period of time, but do not indicate efficiency of the business. Output indicators collected by seaport include Berth output, Ship output and Gang output.

4.4.1.2.1 Berth output

Is the total tonnage of cargo handled at berth (cargo traffic, cargo throughput) as shown in a table 4.9 below is the number of container traffic at Mombasa port and Dar es Salaam port. The numerical figures in a table 4.9 below relieved that total cargo handled

at berth in Mombasa port is twice of what is handled in Dar es Salaam port, but Dar es Salaam port berth output is now slowly increasing.

Table 4.9 : Container traffic (in '000 TEUs) DSM & MSA ports; 2004-2013

Port/Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
DSM	142	154	186	227	258	279	334	354	410	469
MSA	291	305	380	439	479	585	616	619	696	771

Source: UNCTAD (2014).

4.4.1.2.2 Ship output

Is the rate at which cargo is handled to and from a vessel at a berth (tons/ship-day worked, tons/ship hour at berth). In table 4.10 below shows the numerical figures for the number of cargo (in tons) handled to and from a vessel at berth since 2006 up to 2013. According to the agreed benchmark for Dar es Salaam port which is ship output should reach 3600 tons/ship-day, figures from the table below shows that Dar es Salaam port is still performing poor.

Table 4.10 : Tons per ship-day Worked at Dar es Salaam Port; 2006-2013

Year	2006	2007	2008	2009	2010	2011	2012	2013
Tons/ship-day	1,472	1,949	1,997	1,680	1,750	2,175	2,366	2,486

Source: UNCTAD (2014).

4.4.1.2.3 Gang output

Is the average tons of cargo handled by one gang (tons/gang-shift, tons/gang-hour.). Gang output is useful in monitoring labour performance. In table 4.11 below shows the figure in tons, the average cargo handled since 2006 up to 2013 at Dar es Salaam port but it's not yet reached on agreed benchmark for the gang output which is 500 tons/gang-shift but it increasing accordingly.

Table 4.11 : Tons per gang - shift, at Dar es Salaam port; 2006-2013

Year	2006	2007	2008	2009	2010	2011	2012	2013
Tons/gang-shift	262	324	295	290	338	392	424	416

Source: UNCTAD (2014).

4.4.1.3 Utilization indicators

Utilization indicators measure how intensively port facilities are used i.e. percentage of actual use of resources and maximum possible use of those resources over a period of time. The most common utilization indicators collected are Berth occupancy and Storage utilization.

4.4.1.3.1 Berth Occupancy

Berth occupancy is the ratio of time the berth is occupied by a vessel to the total time available in that period. High berth occupancy is a sign of congestion (>70%) and hence decline of services, while low berth occupancy signifies underutilization of resources (<50%).

4.4.1.3.2 Storage (Yard) utilization

Yard utilization is the ratio of number of storage slots (number of containers on hand) to the number of available slots (Terminal capacity). The maximum storage capacity for DSM port is set to 65% to avoid yard congestion. If yard capacity is over 65%, containers are transferred to ICDs.

4.4.1.4 Productivity indicators

Productivity indicators are measures of the efficiency and cost effectiveness of the terminal operations, i.e. the ratio of output achieved to effort put in, and is expressed in terms of quantity of production achieved per unit of resource in unit time. These measures indicate how effectively labour, equipment and land are being used. If productivity is improved, in most cases cargo handling costs will decrease and profits will go up. Productivity indicators collected by the port includes: Ship productivity and Crane productivity.

4.4.1.4.1 Ship productivity

Measures container handling rates for a ship's call (container moves/ship-hour in port or at berth or per working hour). The indicator does not consider resources put into operation.

4.4.1.4.2 Crane productivity

Measures handling rates of a crane (container moves/crane - hour). High productivity is also a determinant of better ship turnround time. Low productivity especially in labour and equipment may result into increase in ship turnround time. This may result in

increase in port costs and route costs. Table 4.12 below show that the rate for crane productivity is increasing since 2005 up to 2013, this means that crane productivity is approaching the agreed benchmark which is 27 Moves per ship working hour.

Table 4.12 : Crane productivity DSM port-container terminal; 2005-2013

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013
Moves/hour	20	23	24	21.6	18.5	16.9	20.1	23	25.1

Source: UNCTAD (2014).

4.4.2 Financial performance indicators

The financial performance indicators collected by Dar es Salaam port include the Operating Revenues, Operating expenditures, Surplus from operations, Non operating revenues and Net profit ratio, Cost per ton, labour cost per ton. Using these measures, can easily know whether is profit generator or costs centred port and thereafter takes appropriate action.

During the year ended 30th June, 2013 operating revenue earned by the TPA amounted to TZS.417,316.0 million. This was higher by TZS. 39,361.2 million or 10.4%, compared to TZS. 377,954.8 million earned in 2011/12. The Authority's operating expenditure during the period was TZS. 291,437.2 million as compared to TZS. 283,145.8 million in the year 2011/12. The expenditure was higher by TZS. 8,291.4

million or 2.9%, as compared to 2011/12. The Authority's operating surplus before tax was TZS. 128,281.9 million as compared to TZS. 96,567.3 million realized in 2011/12. The increase in surplus was TZS. 31,714.6 million or 32.8%. Table 4.13 below depicts the financial performance of the Authority during the year in comparison with previous year. The comparison reflect that there is a bit increase in financial performance at Dar es Salaam port, means Dar es Salaam port is a profit generator but it needs some mechanisms to be adopted so as to assure the increase in financial performance.

Table 4.13 : Overall Financial Performance at Dar es Salaam Port (TZS. Mil)

	2012/2013	2011/2012	Net Increase/decrease	%
Total Revenue from Operation	417,316.0	377,954.8	39,361.2	10.4
Total Operating Expenditure	291,437.2	283,145.8	8,291.4	2.9
Surplus from Operations	125,878.8	94,808.9	31,069.9	
Non-Operating Revenue	11,336.3	11,141.2	195.1	1.7
Non-Operating Expenditure	9,933.2	9,382.9	449.7	4.8
Surplus Before Taxation	128,281.9	96,567.3	31,714.6	
Provision for Taxation	17,097.0	23,988.6	6,891.6	28.7
Net Surplus for the Year	111,184.9	72,578.7	38,606.2	53.2

Source: TPA annual report (2014).

Port performance indicators that should be collected on a global scale are those which are useful, comparable and easy to gather data/compute. These indicators include berth output, ship output, ship productivity, quay crane productivity, ship turnaround time, storage utilization, equipment utilization, berth occupancy and cost per ton/teu.

TPA is using these indicators to measure the performance of her seaports in order to promote and develop the seaport performance, thereafter to achieve its maximum utilization and to meet all appropriate international standards.

4.5.0 Appropriate measures for promoting seaport performance.

This is the last objective of this study, researcher had coming with various measures that need to be instituted so as to promote seaport performance particularly Dar es Salaam port.

4.5.1 Good custom clearance procedures

In the analysis respondents were asked on the measures that need to be instituted so as to promote sea port performance, respondents were asked whether they agree that good custom clearance procedures will promote seaport performance, and the result was as follows.

Table 4.14 : Good Customs Clearance Procedures will Promote Seaport Performance.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	48	68.5	68.5	68.5
	Agree	20	28.6	28.6	97.1
	Moderate	2	2.9	2.9	100.0
	Total	70	100.0	100.0	

Source: Data collected from the field (2015).

The results shown in a table 4.14 above indicate that, good customs clearance procedures will promote seaport performance as referenced by 68.5% of answers from study respondents were strongly agreed with the argument, 28.6% of respondents were agree, 2.9% of respondent rated moderate and there is no respondent who neither disagreed nor strongly disagreed with the argument that good custom clearance procedures will promotes seaport performance. Therefore a researcher concludes that good custom clearance procedures will promote sea port performance.

4.5.2 Installation of modern maritime and port facilities.

After analysis of collected data in relation to installation of morden maritime and port facilities influence's on promoting seaport performance, respondents gave the following results.

Table 4.15 : Installation of Modern Maritime and Port Facilities will Promote Seaport Performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	44	62.9	62.9	62.9
Agree	26	37.1	37.1	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

The results shown in a table 4.15 above indicate that installation of modern maritime and port facilities will promote seaport performance as referenced by 62.9% of study respondents were strongly agreed, 37.1% of respondents were agree, no respondent rated moderate, also there is no respondent who either disagreed or strongly disagreed. Therefore researcher concludes that installations of modern maritime and port facilities will promote sea port performance, in the sense that modern facilities will ensure quickly and easily transfer of cargoes in and to the ships hence promoting seaport performance.

4.5.3 Active connections of seaport with hinterlands

In this measure, respondents were asked to name whether they agree that active connections of seaport with hinterlands at Dar es Salaam port, will promote seaport performance, after analysis the result was as follows.

Table 4.16 : Active Connections of Seaport with hinterlands will Promote Seaport Performance.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	41	58.6	58.6	58.6
Agree	16	22.8	22.8	81.4
Moderate	11	15.7	15.7	97.1
Disagree	2	2.9	2.9	100.0
Total	70	100.0	100.0	

Source: Data collected from the field (2015).

The results shown in a table 4.16 above indicate that active connections of seaport with hinterlands will promote seaport performance as referenced by 58.6% of study respondents were strongly agreed, 22.8% of respondents were agree, 15.7% of respondent rated moderate, 2.9% of respondents were disagreed and no respondent who were strongly disagreed. Therefore researcher concluded that active connections of seaport with hinterlands will promote sea port performance, in the sense that port hinterlands such as rail and road links are the will ensure quickly and easily move of cargoes from the port to hinterland areas hence promoting seaport performance.

Rail links it's ideally the primary mode of cargo evacuation from the port, active rail links with seaport will replace the high container dwell time which is a key port performance measure due to presence of several wagons which will carry away

containers. Active road links with seaport will promote seaport performance through high uptake of cargoes into the hinterland leading to short truck turn round time and therefore short cargo dwell time at the port.

4.6 Discussion of findings

This study was aimed to examine factors contributing to poor seaport performance in Tanzania particularly Dar es Salaam port. The findings of this study revealed that poor port performance is contributed by several factors such as Poor hinterland connections, Social economic and political challenges, Deficiencies and inadequacies port facilities, Shortage of know-how, Deficiency in ICT management and Inefficiency of supervision and motivation as shown in analysis above. Also study explained well the appropriate means used for measuring seaport performance. Tools used to measure port performance are the Port Performance Indicators. Seaport performance indicators categorized into two mainly branches namely operational indicators and financial indicators, these indicators used to measure the performance of the seaports, also in achieve its maximum utilization and to meet all appropriate international standards. Also this study had coming with various measures that need to be instituted so as to promote seaport performance including good custom clearance procedures, installation of modern maritime and port facilities and active connections of seaport with hinterlands.

This study is differ from the previous studies due to the following facts that, authors like Mengying Feng 2010, conducted a research study which was A Comparative Study of Ports and Their Hinterlands: Factors Determining Port Performance and Choice, the study was in two port regions (China and UK) and was carried out in two phases. The

findings of that research suggest that ports wishing to outperform competitors can do so by improving the factors that are of high importance such as performances on shipping services, shipping prices, overall logistics cost, logistics services and government support in descending order which is based on factor evaluation in this research. The study actually differ from my study, first of all the study was a comparative study while my study is a case study, secondly findings from his study are also differ compared with my findings.

Furthermore the study is differ from another previous study conducted by Mapunda Denis, 2011 on Assessment of port characterising factors influencing port performance (a case study of Tanga port) The quantitative rather than a qualitative research method of investigation have been applied while my study adopted mixed research methods. Also his findings from the study were confirmed that the positive impact of geographical location of the port, frequency of ship calls, level of economic activities as measured by the gross domestic product (GDP) of respective countries which use the port, while Government taxes and port charges, Cargo mix on port performance are various issues affecting the port performance while, the findings from my study revealed that poor port performance is contributed by factors like Poor hinterland connections, Social economic and political challenges, Deficiencies and inadequacies port facilities, Shortage of know-how, Deficiency in ICT management and Inefficiency of supervision and motivation. Also my study explained well the appropriate means used for measuring seaport performance. Tools used to measure port performance are the Port Performance Indicators. Seaport performance indicators categorized into two mainly branches namely operational indicators and financial indicators, Also my study had coming with various

measures that need to be instituted so as to promote seaport performance including good custom clearance procedures, installation of modern maritime and port facilities and active connections of seaport with hinterlands.

Also this study is somehow similar with the study conducted by Tongzon (1995), the study on determinant of port performance and efficiency, first of all the research approach used was similar as the one adopted in this study (mixed methods), secondly his study revealed that performance is affected by external factors such as political interference, poor in infrastructure, and shortage of equipments which is somehow same as the findings from this study which revealed that poor port performance is contributed various factors such as Poor hinterland connections, Social economic and political challenges, Deficiencies and inadequacies port facilities, Shortage of know-how, Deficiency in ICT management and Inefficiency of supervision and motivation. Where by the minor different is that in his study named only three factors while this study named six factors that can contribute to poor port performance as analysed and explained clearly in this chapter.

CHAPTER FIVE

5.0 CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

5.1 Overview

This chapter represents conclusion and recommendations of the research study. It Draws conclusion of the major findings of the study in relation to the objectives provided in chapter one, research implication, knowledge implication, policy implication, also discusses recommendations and suggestions for further study.

5.2 Conclusion

Based on the objectives and findings of the research, the results of the research effectively revealed that the institutional factors inefficiencies on performance by TPA was glaring leading to the conclusion that institutional factors inefficiencies do affect port performance.

However, Dar es Salaam port is generally having poor performance, but without seaports, Tanzania economy will be very much poor as happen to some of the LLDCs. The under capacities in operations and inadequate equipments of Dar es Salaam port hinders its performance acceleration. The port is faced by Deficiencies and inadequacies Port facilities, Inefficiency of supervision and motivation, Social economic and political challenges, Shortage of know-how and skilled labour, Deficiency in management information system, and poor hinterland access resulted from poor road and railway system. If they are let to exist, higher port performance will never be achieved. To improve port performance, TPA undertaken several procedures including

implementation of the port master plan study. The findings of the research confirmed that higher port performance can be achieved if suggested measures will be adopted.

5.3 Research implication

The results have different implications for different parties. Practitioners, researchers, and stakeholders should use this study for reviewing or assessing the performance of Dar es Salaam port, to modify the existing situation, and to design new ways for promoting seaport performance. The knowledge gained also stimulate the effectiveness of the TPA management team on the need of effectively utilization of the Dar es Salaam port, because study relieved that Dar es Salaam port can generate more income once it become competitive, and the competitiveness can be obtained once all factors that contributing to port performance as explained in this study will be effective. Also this research has direct implications on the need for education and training, TPA management through this research should be influenced to provide more educational training to their staff so that to effective their skills and performance which will also resulting to higher port performance.

5.4 Knowledge implication

In the section of knowledge implication, the knowledge gained from the findings and methodology used in the study should be used by other researchers to design studies that further will narrow gaps in the literature. This knowledge should also be used to design future quantitative studies that are more valid and generalizable, or future qualitative studies that are more transparent, coherent, and credible. Specifically, the knowledge generated by the research used to suggest future research topics, also to help other

researchers to select variables and measures that may be appropriate for a particular topic area of research study.

5.5 Policy Implication

This section of policy implications, the knowledge gained from the study shows that policy makers needs to identify promising topics for creating request for proposals (RFPs) for the new policies to be adopted or to be amended such as employment policies on port areas so as to promote seaport performance.

5.6 Recommendations

The researcher recommends the following measures that can be adopted to mitigate Institutional factors contributing to poor Dar es Salaam port performance.

5.6.1 Recommendations on hinterland connections

Traffic police, SUMATRA, Road safety Unity under the Ministry of Transport and TANROADS should provide education to public especially Trucks haulage drivers on the proper way of road utilization in terms of capacity occupied by road in order to improve its efficiency in transporting cargoes to hinterland from Dar es Salaam port.

SUMATRA and Ministry of Transport should invest in proper utilization of rail including TAZARA and TRL this will lead to improve the performance at Dar es Salaam port because more cargo will be cleared at port to hinterland.

Ministry of Transport and Ministry of Infrastructure should plan and keep a special budget for reconstruction of rail (TRL) that joining Dar es Salaam, Moshi and Tanga for the purpose of improving Dar es Salaam port in the clearing process.

TPA should lobby to have a participatory role in policy formulation and implementation on design, maintenance and prioritization on roads infrastructure development particularly in Dar es Salaam so that investment in roads will help to enhance port performance. TPA should lobby for investment in modern dual railway transport system with dynamic wagon loads to accommodate different cargo weights. This will increase the capacity and efficiency of the railway transport system which will complement port performance through increased cargo off- take.

5.6.2 Recommendations on social, economical and political challenges

Both TPA and MOT should implement the existing, or make new port policies better to improve performance of the port.

Apart from complying with ISPS code, International Maritime Organization (IMO) protocols and the maritime pollution prevention control (MARPOL) convention, TPA should always also make port safety and security vulnerability assessment.

Transport companies should invest in communication and car track devices so as to be able to monitor and supervise their drivers and introduce incentives for safe and time conscious drivers. This will motivate drivers to appreciate the importance of safe and faster delivery of cargo.

All cargo interveners throughout the transport corridor should be put under one coordination authority or agency so as to be able to monitor bottlenecks in smooth flow of traffic and take corrective measures.

The government through MOT and security organs should support the international anti piracy campaign in the Indian Ocean, as the effect of piracy hampers seaborne trade.

5.6.3 Recommendations on deficiencies and inadequacies port facilities

TPA and TICS should purchase additional and modern cargo loading and discharging equipments.

TPA and TICTS should improve and effectively use the ICDs for handling containers outside the port.

TPA should structure multi-storey car parks and dedicate the current space for container handling.

Both port operators such as TPA, TICTS and shippers (exporters and importers) should make use of Mtwara and Tanga ports for transshipments.

TPA should immediately construct new container terminal with adjacent berths number 13 and 14 so as to reduce congestion at the container terminal.

TPA and MOT should fasten the construction of the larger container terminal at Bagamoyo.

TPA and MOT should expand Kigoma port for the cargo to Congo DRC through TRL and Lake Tanganyika. TPA should ensure maintenance and capital dredging of the port.

TPA should revive the practice of port regionalization concept by investing in inland dry ports in major market areas so that shippers would not cover long distance on poor infrastructure to the port.

5.6.4 Recommendations on shortage of knowhow and skilled labours

Efficient policies for recruitment, promotion, salaries, and carrier patterns should be review or formulated so as to increase efficient of workers.

TPA should have a direct link with the human resource; promoting human resource development should develop an effective manpower development plan, which will result to improve port performance.

The Government should develop existing and other new training centres so as to provide proper training based on the manpower planning. Providing thorough training to upgrade the skill and know-how of existing workers so as to update their knowledge this will increase port performance. TPA and TICS should regularly endeavour to attain more professional skills by training their labour and provide them with experience.

Furthermore, as most of the problems are linked with the management staff, the priority of the training should be given first to the top management and step down to the bottom.

5.6.5 Recommendations on deficiency in management information system

TPA and government agencies should invest in integrated ICT to facilitate smooth flow and management of information thereby removing unnecessary corridor administrative stations, Also TPA and TRA should ensure faster clearance of cargoes from the port or ICDs by all means including synchronized and computerized clearance process.

5.6.6 Recommendations on inefficiency of supervision and motivation

Government through MOT should finance port planned projects in a very high priority.

TPA should facilitate motivation through provision of high incentive to experts in order to retain them to work in port areas rather than onboard ship so as to improve port performance.

Also MOT and TPA should fasten implementation of the port master plan under high and careful supervision.

5.6.7 Recommendations on areas for further studies.

Future research the government through MOT and TPA should make a detailed study on the effectiveness and contribution of EPZ or free port zone in enhancing seaports performance in Tanzania.

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4.0 Work plan/schedule of activity

The research work will be associated with several activities such as Literature review, proposal development, data collection, data analysis and discussion and final dissertation writing. Schedule will be as shown in Gantt chart below.

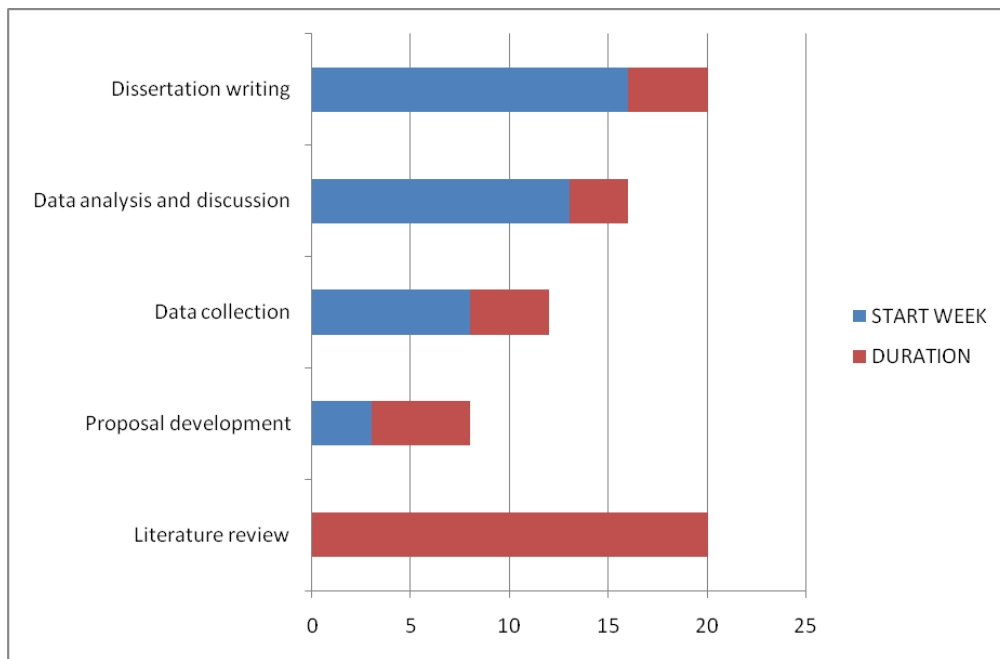


Figure 4.2 : Gantt Chart showing the Schedule of activity against time (weekly) as Developed by Researcher.

5.0 Financial provision (Research budget)

The study proposed budget is amounting to Tanzania shillings 1,500,000/=. This budget will be distributed as shown in the table below:

Table 5.1 : Research Budget as proposed by Researcher

No.	Item and/or description	Amount in Tsh.	Multiplied by	Subtotal
1.	Transport allowance to and from field area	10,000/=	30 days	300,000/=
2.	Meals	20,000/=	30days	600,000/=
3.	Stationary: <ul style="list-style-type: none"> • notebooks and pens • internet • printing and binding 	20,000/= 50,000/= 200,000/=	N/A	270,000/=
4.	Camera	200,000/=	N/A	200,000/=
5.	Discussion meeting facilitation: <ul style="list-style-type: none"> • Drinking water and Soft drink 	100,000/=	N/A	100,000/=
6.	Mobile phone top up or credit	30,000/=	N/A	30,000/=
7.	Grand Total	N/A	N/A	1,500,000

APPENDICES

APPENDIX 1: QUESTIONNAIRE FORMS

“Analysis on the Factors Contributing to Poor Seaport Performance in Tanzania”.

(Case Study of Dare Es Salaam Port).

This questionnaire is part of my research work on the “analysis on the factors contributing to poor seaports performance in Tanzania.” The objective is to find out various factors contributing to poor seaport performance in Tanzania. I would be grateful for your valuable contribution to this study if you could take time to complete the questionnaire. The information you provide will be kept strictly confidential and will be used only for academic purposes. Your names and personal information will remain strictly confidential and shall not be identified in any way. The researcher, Msabaha Juma Mwendapole is a student of Masters of Business Administration in Transport and Logistics Management at Open University of Tanzania (OUT) and can be reached through telephone number +255 713 525 079 and email address mwendapole.msabaha@yahoo.com

Please indicate which of the following most accurately describes your organization or the part of your organization that you present

Association road truck’s driver () Freight forwarding agents ()

Shipping lines agents () Business entrepreneurs ()

Association of oil importers () TICTS () TRA () SUMATRA ()
) MOT () TPA ()

1. Name.....

2. Sex.....

3. Age.....
4. What is the name of your organization.....
5. Your Designation in that organization.....
6. For how long have you been in that position.....

Put the letter of the most appropriate answer in the given brackets

(a) Strongly Agree (b) Agree (c) Moderate (d) Disagree (e) Strongly Disagree

1. Delays in clearance process are the one of the factors contributing to poor port performance (). What are other factors?.....
2. If customs clearance process is improved, port performance will also be improved (). What others efforts need to be done to improve port performance?.....
3. Demand for cargo passing through the port is growing every day ()
4. Port berths have got much and modern facilities enough to discharge and load ships without any delay ()
5. Inadequate facilities are one among the factors contributing to poor port performance? (). What are other factors?
6. If berths are equipped with adequate and modern facilities port performance can be improved? (). What other measures need to be done so as to improve of the port performance?
7. Port performance indicators and benchmarks are real means of measuring port performance? ()
8. What other means could be used to measure the performance of seaport?()

9. There is high and active connection of port with inland transport modes like roads and railways ()
10. Poor connection of the port with inland transport modes like roads and railways is one of the factors contributing to poor port performance (). What are other factors?
11. If the railway is modified higher port performance can be achieved? () What other measures should be done?
12. All cargo clearance process is highly computerized and synchronized ()
13. Inadequate basic maritime infrastructure is one of the factors contributing to port performance (). What do you think else is the factor contributing to poor seaport performance?
14. Lack of skilled manpower in the port authority is also the one among factors contributing to poor port performance? ()
15. The ministry has planned a very good port hinterland connection to facilitate higher port performance ()
16. Port planned projects for the region are financed in a very high priority ()
17. The port master plan when accomplished will totally suppress all kinds of inefficiency to the port, hence increase port performance?. What else should be done so as to improve port performance? ()
18. What should be done by SUMATRA so as to improve port performance?
19. What would you wish to be done by the Tanzania Port Authority to enhance its port performance?.....
20. What would you wish to be done by the government to enhance port performance?.....