



**ST. MARY'S UNIVERSITY COLLEGE  
SCHOOL OF GRADUATE STUDIES**

**ASSESSMENT OF CUSTOMER SERVICE QUALITY IN  
MOJO DRY PORT OF ETHIOPIAN SHIPPING AND  
LOGISTICS SERVICE ENTERPRISE**

**BY  
SEID MOHAMMED AHMED  
(ID NO: SGS1/0139/2004)**

**MARCH 2014  
ADDIS ABABA, ETHIOPIA**

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A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY COLLEGE,  
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ADDIS ABABA, ETHIOPIA

## **DECLARATION**

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of Getie Andualem (PhD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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Name

**St. Mary's University, Addis Ababa**

\_\_\_\_\_

Signature

**March, 2014**

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SCHOOL OF GRADUATE STUDIES  
FACULTY OF BUSINESS**

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## LIST OF ACRONYMS

DPSE.....	Dry Port Service Enterprise
ESLSE.....	Ethiopian Shipping and Logistics Service Enterprise
F.Y.....	Ethiopian Fiscal Year
GTP .....	Growth and Transformation Plan
MDP(Mojo D/P).....	Mojo Dry Port (Mojo Port Terminal Branch Office)
MoFED.....	Ministry of Finance and Economic Development
SERVQUAL.....	Service Quality
SPSS .....	Statistical Package for Social Science
TEU.....	Twenty Feet Equivalent Units
UNCTAD.....	United Nations Conference on Trade and Development
UNECA .....	United National Economic Commission for Africa

## ABSTRACT

*Today competition is not only rife, but growing more intense constantly. So that companies need to start paying keen attention to their competitors, they must understand their customers. Customer service quality in dry port service implies consistently anticipating and satisfying the needs and expectations of customers. In other words, service quality is typically defined in terms of customer satisfaction. The aim of this study was to assess quality of service delivery and its effects on customers' satisfaction. To this purpose the researcher has studied the service quality of the Mojo Dry Port using SERVQUAL model. Convenience sampling technique was used in the study to take a sample from the infinite population. Total samples of 120 customers of one week who have used Mojo Dry Port were taken as respondents. The data has been analysed via reliability method, descriptive statistics, and one-sample t-test. The finding shows that the overall service quality perceived by customers was not satisfactory meaning all the five dimensions showed higher expectations than perceptions of services. This implies that, in the overall, Mojo Dry Port is not providing the level of service quality demanded by customers. The findings suggest that Mojo Dry Port need to improve all the five dimensions of service quality. Finally, managers at Mojo Dry Port should assess service quality satisfaction continuously to keep the services corresponded with customers' point of view.*

**Keywords:** Service Quality, Customer Satisfaction, Mojo Dry Port

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Nowadays, business organizations in the world are engaged in intense competition in order to gain profit and to achieve their aim through attracting new customers and retain the exiting ones. So that, the key to sustainable competitive advantage lies in delivering high quality services that will in turn result in satisfied customers. When competition increases, the importance of service quality is increased (Asubonteng, McCleary and Swan, 1996).

Maritime transport is the backbone of international trade and a key engine driving globalization. Around 80 per cent of global trade by volume and over 70 per cent by value is carried by sea and is handled by ports worldwide; these shares are even higher in the case of most developing countries (UNCTAD, 2012).

Inland logistics centres, dry ports are playing an increasingly pivotal role in the multimodal transport network that sustains economic activity by delivering key inputs to local enterprises and facilitating their exports of raw materials, semi-manufactured products, and finished goods (Heaver, 2002; Notteboom and Rodrigue, 2005). As such, by relieving congestion at gateway sea ports (Slack, 1999; Rodrigue and Notteboom, 2010) and particularly for and locked countries like Ethiopia, its significance is high and acting as a focal point of supply chains connecting different locations within Ethiopia, dry ports promote regional development.

SERVQUAL model has been rarely applied in maritime area because only few previous studies have been presented. The first application of SERVQUAL in shipping was conducted by Ugboma, Callistus and Ogwude (2004) who applied the SERVQUAL model to 40 registered licensed clearing agents who use the port services of Nigerian ports of Lagos and Harcourt Nigeria. They found that the SERVQUAL model could be applied in ports and greatly assisted them in their marketing strategies. According to his findings ports services quality level is lower than customer's expectation in two ports. On the other side, Ng (2006) made a research showing that, in choosing a port, the users of the Northern-European

container ports were mostly influenced by efficiency, geographic position and service quality, rather than by the service cost.

By 2013, four dry ports had been permanently established throughout Ethiopia in the city of Mojo, Semera, Mekele and Dire Dawa. There is also one temporary dry port in city of Kombolch and three freight stations centres around local area of Kality, Gelan and Adama. However the major dry port operations which consist of more than 70% are currently undertaken in Mojo Dry Port (ESLSE, 2005).

However, despite the obvious accelerating investments and increased service trade, the scientific research and literature in the field of the dry port service quality are still lacking.

Though the ultimate goal of every service giving industry is satisfying customers, more often, many of the service delivering organizations are incapable to satisfy customers as a result of not understanding customers' interest well. Hence, this dilemma creates job difficulty to most business organizations that focus on customer relations (Munusamy, Chelliah and Mun, 2010).

Many firms including port industries begin to track their customers' satisfaction through measuring their level of service quality perceived by their customers. The most widely used model to measure perceived service quality was developed by Parasuraman, Zeithaml and Berry (1988) known as SERVQUAL. According to this model, five dimensions of service quality are: Tangibles, Reliability, Responsiveness, Assurance and Empathy.

Container terminals (dry ports) now face some strong challenges, not at least those posted by new technology, customer demands for lower cost, quality services and most all customer satisfaction (Murphy, Daley and Dalenberg, 1992). So in the container terminal handling market, quality is important in attracting and retaining customers. In the Marine transport industry, container carriers do have choices between different container ports that can meet their demand (Murphy and Daley, 1994). For the terminal operator, this results in the increasing importance of quality and the need to know the needs of potential customers. Therefore, favourable network position and well-organized processes are no longer sufficient to attract container volumes. Meeting customer needs and delivering high quality service are critical factors.

In short, the focus of this paper is to assess the quality of service delivery and its effect on customer satisfaction in Mojo Dry Port.

## **1.2 Description of the Study Area**

Mojo Dry Port within DPSE has been established under the council of Ministers Regulation no. 136/2007 as Dry Port Administration Enterprise to be governed by the Public Enterprise Proclamation NO.25/1992 and under the supervising authority of the Ministry of Transport and Communications. This Council of Minister Regulation and the Public Enterprise Proclamation are defining the functions, legal status and mandates of DPSE and creating the general framework within DPSE is operating.

According to regulation no 136/2007, DPSE is mandated to manage the operation of dry ports and to give the following services:

- To load, unload, and store imported goods, and goods for export;
- To containerize import and export goods, and to unload goods from containers;
- To provide container handling service and storage space;
- To implement tasks commensurate with the objectives of the enterprise.

DPSE is reporting to Ministry of Transport and Communications and is to mandate to manage the operations of dry ports and to administer the Semera and Mojo Dry Ports and other dry ports that will be established in different parts of the country as well as to provide effective and efficient foreign trade cargo movement to and from the sea ports, to promote competitiveness of the Ethiopian international trade through reduced corridor costs and save foreign exchange for country.

MDP was the first dry port in Ethiopia which is established and starting operation at 2008/09 F.Y. During 2008/09-2009/10 F.Y MDP delivered port services such terminal handling, warehouse, loading and unloading for 13,392 TEU containers of import goods. During 2010/11 F.Y, the second port Semera started working and both ports provided port services for 10,786 TEU import containers. In 2011/12 F.Y because of full implementation of multimodal transport system and to dispatch cargos to a wide area destination, additional freight stations at Comet, Kombolcha, Mekelle and Dire Dawa have been established and started operations. During 2011/12 F.Y 19,630 TEU import containers had got services; and the operation performance had been rising to 2012/13 F.Y 60,799 TEU import containers

cargo had been given by all ports in which MDP record 69% portion of the total (DPSE, 2011).

In order to provide efficient services to the growing national import and export cargo in view of achieving transit cost savings, transit time reductions and foreign currency savings, the former three organizations namely Ethiopian Shipping Agency, Maritime Transport Service Enterprise and Dry Port Service Enterprise are merged as one organization by the name Ethiopian Shipping and Logistics Enterprise and established under council of ministers regulation no. 255/2011.

The objectives of establishment are:

- To render coastal and international marine and internal water transport services;
- To render freight forwarding agency, multimodal transport, shipping agency and air agency services;
- To provide the services of stevedoring, shore-handling, dry port, warehousing and other logistics services for import and export goods;
- To provide container terminal services;
- To engage in the development, management and operation of ports;
- To establish and run human resources development and training center in the field of maritime profession;
- To study the country's import and export trade demand and thereby develop technological capacity in order to render efficient maritime and transit transport services;
- To engage in other related activities conducive to the achievement of its objective.

Accordingly ESLSE's capacity improved year to year, now the organization has 15 ships with capacity of 13 ships has DWT 307,528 ton and two fuel ship has a capacity of 84,300 ton. All dry ports of ESLSE has capacities of handling 19,484 TEU containers at a time and it has port machineries such as 13 reach stackers and 11 fork lifts and the like. Based on this capacity, during 2011/12 F.Y, performed a total of 3,264,884 tons of goods have been transported through ships by ESLSE; the Enterprise has provided clearing and forwarding services for nearly six million tons of goods out of which 5,552,088 tons are import goods and 423,623 tons are export items. It also furnished stevedoring and shore handling services for over one million tons of goods and trucking service for 106,000 tons of goods, in addition

to these ESLSE has provided 60,799 TEU import containers cargo port services (MoFED, 2013).

As stated in merged new structure, ESLSE has three sectors namely Shipping, Freight Forwarding and Port Terminal and support sector so that the total employee of the organization currently is 1892 manpower. Among this total manpower, Shipping Operation Staff 175, Logistics Operation Staff 230, sea going staffs (staffs working in ship) 600, Administrative and Support Staffs 150, Dry ports branches Staff 281, Djibouti branches Staff 200 (ESLSE, 2005).

### **Vision, Mission and Values of ESLSE**

#### **Vision**

“To be a leading, modern and preferred logistics enterprise in Africa that is capable of making extraordinary contribution to the country’s economic development.”

#### **Mission**

“Deliver competitive shipping and logistics services and reduce transit time and cost of services in line with international standards in order to satisfy customers and stakeholders and contribute to the country’s economic development endeavors through full implementation of the multimodal transport system and development of leadership, manpower, business process and technological capability ”

#### **Values**

- Valuing people
- Customer focused
- Deliver on our promises
- Continuous improvement

### **1.3 Statement of the Research Problem**

In Ethiopia for the first time Mojo Dry Port was established in 2007 E.C and additional three dry ports that have been established after five years in different parts of the country that aims to provide effective and efficient foreign trade cargo movement to and from the sea ports, to promote competitiveness of the Ethiopian international trade through reduced corridor costs and save foreign exchange for country.

Unless dry port service managed properly and providing quality services, the impact of increasing cost on goods as result of delays the services the cost has implication on prices of imported goods in public which have inflation and economic imbalance of the country. On the other hand, on export goods it would inflate the price of goods which would be exported and sell in the foreign trade that would not be competitive price in global market.

According to Peter Ducker (2005), physical distribution and transportation are said to be the last commercial frontier for cost reduction and winning the competitive edge particularly in foreign trade. This led to the rapid development of containerization, multimodal transport system and dry port network that reduce cost (Yusuf, 2009).

What so ever the service provider is, be it governmental or private sector, the key for its existence and success lie in its ability to provide effective service and satisfying the customer. It is the quality of service that creates customers who buy more and who influence others to buy.

A business can achieve success only by understanding and fulfilling the needs of customers. From a total quality perspective, all strategic decisions a company makes are ‘customer-driven’. In other words, the firm should constantly assess and controls sensitivity to emerging customer and market requirements. According to the study by Collart (2000), one of the determinants of success of a firm is how the customers perceive the resulting service quality, as this is the key driver of perceived value. It is the perceived value which determines customer satisfaction. Many firms including port industries begin to track their customers’ satisfaction through measuring their level of service quality perceived by their customers.

Several studies have been done on service quality and customer satisfaction in service organization in Ethiopia. However, most of these studies were conducted on service

organizations such as bank, airlines, hotel etc. There is no any literature concerning customer service quality of dry port organizations in Ethiopia. In various performance report and discussion forum concerning dry port services, there are a number of complaints on the service delivery system of Mojo dry port services. This means that quality of service supplied by Mojo dry port is not fulfilling customers' wants consistently. As Annual Progress Report for F.Y. 2011/12 GTP pointed out that due to limited institutional capacity to manage logistics, delay in implementation of management information system of Mojo dry port including custom clearance procedure causing slow customer services which inturn creates suffocation and lack of space for incoming cargos were a major challenges in the fiscal year under review (MoFED, 2013).

A number of reasons are behind these customer discontents. Whatever the reasons may be, once the customer is dissatisfied, it would have negative consequence on selling price of general public. In this regard, a research should be carried out to urge a major reform, to assesses the root causes of the problem and get the problem rectified. This study aims to examine the gap between customers' expectations and perceptions of Mojo dry port service in Ethiopia using the SERVQUAL model (Gap Model).

## **1.4 Research Questions**

The basic question of the research was to assess the level of customer satisfaction in Mojo Dry Port? In order to analyze this basic question the researcher formulates the following sub questions.

1. What is the level of quality of service being offered by MDP to their customers?
2. What is the relationship between service quality dimensions and customer satisfaction in MDP?
3. What is the dominant service quality dimension that has strong relation with customer satisfaction in MDP?
4. How is the importance of five service quality dimensions ranked by MDP customers?
5. What MDP should do in the future to improve the service delivery that might satisfy its customers?

## **1.5 Objectives of the Study**

### **15.1 General Objective of the Study**

The main objective of this study is to assess service quality at Mojo dry port using the five dimensions of SERVQUAL model and its subsequent effect on customer satisfaction. In so doing, it aims to identify gaps in delivering service quality in order to ensure customer satisfaction.

### **15.2 Specific Objectives of the Study**

The specific objectives of the study are:

- To measure the satisfaction level of clients within Mojo dry port.
- To identify the effect of service quality dimensions on the satisfaction level of customers.
- To identify the dominant service quality dimension that has strong relation with customer satisfaction by MDP's customers.
- To assess the level of importance ranked to each of the five dimensions of service quality by MDP's customers.
- To identify actions that must be taken by managers in order to satisfy customers through meeting their needs and wants.

## **4.1 Definition of Terms**

**Dry Port:-** A common user facility with public authority status, equipped with fixed installations and offering services for handling and temporary storage of any kind of goods carried under custom transit by any applicable mode of transport, placed under customs control and with customs and other agencies competent to clear goods for home use, warehousing, temporary admission, re-export, temporary storage for onward transit and outright export (UNCTAD, 1991).

**Quality:-** is a perceptual, conditional, and somewhat subjective attribute and may be understood differently by different people (Wikipedia, 2014).

**Satisfaction:-** is personal feeling of pleasure or disappointment resulting from comparing a product's performance (outcome) in relation to his/her expectation" (Kotler and Kevin, 2006).

**Customer:-** is commonly used to refer to end-user of a product or a service. "*Customer is a generic term referring to any body who receives a service or a product from some other person or group of people*" (Hayes, 1997). In the case of MDP, customers or users of service are importers of goods, freight forwarders and custom clearing agents (ELSE, 2014).

## **4.2 Significance of the Study**

The study would help managers of Mojo dry port to consider the level of service quality as per point view of customers so that based upon customer feedbacks the managers might be design the operation and their procedure in such way that would be help to improve the service quality of the port. In addition to these further researches would be undertaken considering this study as initial effort of literature.

## **4.3 Scope and Limitation of the Study**

### **4.3.1 Scope of the Study**

The study would focus on Mojo dry port quality service delivery situations; it does not cover the all branches of dry ports and satellite freight stations. The selections of this branch office were based on a highest number of customers (70% of the total) served in this branch office. It also cover only the service delivery of dry port service portion of ESLSE which comprises basically three sectors which are shipping, custom clearing, freight forwarding logistics and port terminal activities. This is because of ESLSE have a wide range of sectors which covers sea going activities in the Red Sea and Djibouti Branch.

### **4.3.2 Limitation of the Study**

The researcher had been travelled several times and spent a lot of time in Mojo city because the data should have been observed and controlled by the researcher when the sample households fill them. It might need to conduct comprehensive and detail study of service quality in all branches of dry ports of Ethiopia by taking large sample. However, due to finance and time constraints the study area is limited to Mojo Dry Port. It was also limitation

of this paper was that, some respondents were unwilling to fill the questionnaires and unhappy to be interviewed. SERVQUAL model which has weak points both theoretically and operationally can also be seen as a limitation. Besides to these, there are not as such literature sources on dry port; even studies on sea port are limiting.

#### **4.4 Organization of the Thesis**

The research report comprises five chapters, which include the following: in chapter one has introduction which includes background of the study, statement of the problem, basic research questions, objectives of the study, definition of terms, significance of the study, and delimitation/scope of the study. In chapter two, review of literature which deals with the subject matter of the issue. The third chapter presents methodology which comprises research design, data tools employed; the procedures of data collection; and the methods of data analysis. In chapter four analysis and results of the study are discussed based up on literature review; and finally, chapter five conclusions and recommendations have been presented.

## CHAPTER TWO

### LITERATURE REVIEW

In this chapter various literature related to concept of service, service quality, dry port service, model of service quality, customer satisfaction, and relationship of service quality and satisfaction have been be addressed. The literature has tried to assess the model to measure service quality, SERVQUAL (Gap analysis = P-E). Lastly conceptual framework has been displayed so as to clear the idea of research area.

#### 2.1 Concept of Service

Service is different from physical products. As compared to physical products, service has attribute of intangible, heterogeneous, produced and consumed simultaneously, unable to be kept in stock, etc. A widely accepted definition of service is proposed by Gronroos (1990)

*states that “service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of the service provider, which are provided as solutions to customer problems”.* This definition inferred that service is a process where interactions between customer and service provider most often exist.

A service is the intangible equivalent of an economic good. Service provision is often economic activity where the buyer does not generally, except by exclusive contract, obtain exclusive ownership of the thing purchased (Wikipedia, 2014).

Kotler, Armstrong, Saunders and Wong (1996) define service as *“an activity or benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product”.*

#### 2.2 Service Quality

Service quality is essential for the success of any organization in the global competitive business environment. Service quality is the basic and the most important aspect that affects the competitiveness of business.

As Parasuraman, Zeithaml and Berry (1985) state in their research paper, efforts in defining and measuring quality have come largely from the goods sector. According to the prevailing Japanese philosophy, quality is ‘zero defects doing it right the first time’. Crosby (1979)

defines quality as ‘conformance to requirements’. Garvin (1983) measures quality by counting the incidence of ‘internal’ failures (those observed before a product leaves the factory) and ‘external’ failures (those incurred in the field after a unit has been installed). Limited scope about service quality is insufficient as compare to quality of goods.

The challenge in defining quality is that it is a subjective concept. Service quality is the consumer’s judgment about an entity’s overall excellence or superiority (Zeithaml, Parasuraman and Berry, 1990). It is a form of attitude, and results from a comparison of expectations to perceptions of performance received.

Service quality is basically defined from customer perspective and not the producer’s; it is usually referred to as customer perceived quality. The concept of consumer-perceived quality was first defined by Gronroos (1982) as the confirmation (or disconfirmation) of a consumer’s expectations of service compared with the customer’s perception of the service actually received. One definition that is commonly used defines service quality as the extent to which a service meets customers’ needs or expectations (Asubonteng et al., 1996).

Parasuraman et al. (1988) have the same understanding, defining the concept of service quality as “*a form of attitude, related, but not equivalent to satisfaction, that results from a comparison of expectations with perceptions of performance. Expectations are viewed as desires or wants of customers, i.e. what they feel a service provider should offer rather than would offer*”.

Though service quality has been perceived for a long time to be an outcome of customer cognitive assessment, recent studies confirm that service quality involves not only an outcome but emotions of customers. “*It is argued that during the consumption experience, various types of emotions can be elicited, and these customer emotions convey important information on how the customer will ultimately assess the service encounter and subsequently, the overall relationship quality*” (Wong, 2004).

Edvardsson (2005) maintains that customer perception of service quality is beyond cognitive assessment as it is formed during the production, delivery and consumption of services and not just at the consumption stage. This is made possible as customers play their role as co-producers by carrying out activities as well as being part of interactions influencing both process quality and outcome quality. Again on the role of service quality, Berry, Carbone and Haeckel (2002) emphasize managing the total customer experience. Therefore an emotional reaction is part of a quality and favourable experience (Cronin, 2003). This is consistent with the findings of Mano and Oliver’s (1993) on utilitarian and hedonic consumption judgments, who argue that “*...satisfaction is naturally tied to cognitive judgments and to affective*

*reactions elicited in consumption*” (Mano and Oliver, 1993). Wong (2004) found that negative emotions have a stronger effect on satisfaction with quality than positive emotions.

Gronroos (1984) proposes that there are two types of service quality, technical and functional quality. Technical quality involves what the customer is actually receiving from the service. The customer can often measure the service outcome in an objective manner. Functional quality is the manner in which the service is delivered which refers to the interaction between service provider and recipient of a service. It is very vital to note here that, service quality is not only assessed as the end results but also on how it is delivered during service process and its ultimate effect on consumer’s perceptions (Douglas and Connor, 2003).

### **2.3 Service Quality of Dry Port**

According to the literature, the quality has become an important factor in promoting the port industry and has contributed significantly to the position of the port on the market. The pressure, made on ports by the interest groups, is the additional challenge for realizing a high quality port service on the competitive traffic and logistic market. Thus, dry ports must look the way for improvement the service and understand the user’s demands, thus creating directly the perception on quality of the obtained service.

Dry port service quality is a very complex and abstract one just like other service organizations due to its principal characteristics (intangibility, heterogeneity, indivisibility of production and consumption.). A great number of attributes expressing the demands of the port service buyer’s points out the complexity of the quality.

Containerisation has revolutionised the maritime industry and nowadays it is of critical importance especially in the context of multi-modal transport. More than 90% of world trade travels in containers aboard ocean-going ships whilst about 151 million TEU’s move through world ports in 2011 (UNCTAD, 2012). Dry ports have been playing an increasingly important role in the trading system economic reforms; trade liberalization and the development of land infrastructure have abolished captive hinterlands, thus obliging different dry ports to compete for customers. Greater choice in routing cargo and parallel advances in supply chain management has altered the nature of competition from ports and dry ports to one between supply chains.

Dry ports are most of the time located near or along gateway seaports, industrial regions and/or transportation axes which perform several important functions (Nozick and Turnquist, 2000; Woxenius Woxenius, Roso and Lumsden, 2004). These include: (i) cargo aggregation and unitization; (ii) in-transit storage; (iii) customs clearance; (iv) issuance of bills of lading; (v) relieving congestion in gateway seaports; (vi) assistance in inventory management; and (vii) deference of duty payment for imports stored in bonded warehouse (Paul, 2005). Dry ports also play a key role in the supply chain of a country's international trade and inland cargo transportation, acting as nodal points of cargo consolidation and distribution, while providing connectivity to the gateway seaports.

Dry ports are inter-modal transport hubs, exchanging goods between road, rail, sea waterways and air providing a full range of distribution and logistics services (Ng, 2006).

By any standard dry port is a complex operation and development in the world trade are if anything making container terminal even more sophisticated (Pantouvakis and Dimas, 2008). dry port now face some strong challengers, not at least those posted by new technology, customer demands for lower cost, quality services and most all customer satisfaction (Murphy et al., 1992). So in the dry port handling market, quality is important in attracting and retaining customers. In the Marine transport industry, container carriers do have choices between different container ports that can meet their demand (Murphy and Daley, 1994). For dry port operator, this results in the increasing importance of quality and the need to know the needs of (potential) customers. Therefore favourable network position and well-organized processes are no longer sufficient to attract container volumes. Meeting customer needs and delivering high quality Service are critical factors

The port service quality research work is in its initial phase connected with the research made by Foster 1978. Based on the data obtained from the questionnaires, he determined from the shipper's point of view the service frequency, facilities and closeness to the port to be the most important factors in choosing a port. His study indicated the priority of the service quality related to the cost of the service.

SERVQUAL model has been rarely applied in maritime area because only few previous studies have been presented. One of the examples is found in two ports in Nigerian (Ugboma et al., 2004). According to his findings ports services quality level is lower than customer's expectation in two ports. The authors have also proved that the dimensions –'responsiveness'

and tangibles on the ratings are stronger than empathy. Besides, reliability, assurance and responsiveness are determinants to overall perceptions of port service quality. These results have provided advises and suggestions on improving port services quality to port managers.

Ng (2006) made a research showing that, in choosing a port, the users of the Northern-European container ports were mostly influenced by efficiency, geographic position and service quality, rather than by the service cost.

Hence, so as to improve service quality, the service provider has to necessarily align both the aspects of expected and perceived service with each other. This is only possible if the gaps between the expected and perceived qualities are identified, analyzed and bridged over by the service provider. With regards to dry ports, service quality indicates several aspects such as on time delivery, accuracy of order fulfilments, frequency of service, compensation for loss or damage, promptness in attending to customer complaints, commitment to continuous improvement, etc. (Millen and Maggard, 1997).

Thus in the absence of objective measures, the quality of dry port services can only be assessed by measuring the stakeholders expectations/perceptions. However, there is no quantitative yardstick available for measure these perceptions precisely. It goes without saying that without a clear and unambiguous definition of service quality the dry port operator would issue vague instructions for improving service quality which would further complicate matters (Lehtinen and Lehtinen, 1982). In such circumstances the focus shifts to the service process from service outcomes (Asubonteng et al., 1996). In other words process quality assumes greater importance rather than final outcomes. This is particularly applicable in case of dry ports as the stakeholders compare their expectations against their experiences than eventual outcomes and develop impressions of service levels

## **2.4 Models of Service Quality**

To measure quality of service various researches have been tried to develop quality measurement models in the light of the changed business scenario and analyze the models for the suitability/need for modification in the current context (Nitin and Deshmukh, 2004). Thus in this research brief explanations of major models have been given in the following manner:

➤ **Technical and functional quality model (Gronroos, 1984)**

A firm in order to compete successfully must have an understanding of consumer perception of the quality and the way service quality is influenced. Managing perceived service quality means that the firm has to match the expected service and perceived service to each other so that consumer satisfaction is achieved. The author identified three components of service quality, namely: technical quality; functional quality; and image.

➤ **GAP model (Parasuraman et al., 1985)**

Parasuraman et al. (1985) proposed that service quality is a function of the differences between expectation and performance along the quality dimensions. They developed a service quality model based on gap analysis.

➤ **Attribute service quality model (Haywood-Farmer, 1988)**

This model states that a service organization has ‘high quality’ if it meets customer preferences and expectations consistently. In general, services have three basic attributes: physical facilities and processes; people’s behaviour; and professional judgment. Too much concentration on any one of these elements to the exclusion of other may be appropriate it may lead to disaster.

➤ **Synthesized model of service quality (Brogowicz et al., 1990)**

A service quality gap may exist even when a customer has not yet experienced the service but learned through word of mouth, advertising or through other media communications. Thus there is a need to incorporate potential customers’ perceptions of service quality offered as well as actual customers’ perceptions of service quality experienced.

➤ **Performance only model (Cronin and Taylor, 1992)**

The authors investigated the conceptualization and measurement of service quality and its relationship with consumer satisfaction and purchase intentions. They compared computed difference scores with perception to conclude that perceptions only are better predictor of service quality. They developed SERVPEF that is service quality is evaluated by perceptions only without expectations.

➤ **IT alignment model (Berkley and Gupta, 1994)**

This model links the service and the information strategies of the organization. It describes in detail where IT had been used or could be used to improve specific service quality

dimensions including reliability, responsiveness, competence, access, communications, and security, understanding and knowing the customers. According to the model, it is important that service quality and information system (IS) strategies must be tightly coordinated and aligned.

➤ **Attribute and overall affect model (Dabholkar, 1996)**

The author proposed two alternative models of service quality for technology-based self-service options. The attribute model based on cognitive approach to decision making, where consumers would use a compensatory process to evaluate attributes associated with the technology based self service option in order to form expectations of service quality. The overall affect model is based on an affective approach to decision making where consumers would use overall predispositions to form expectation self-service quality for a technology-based self-service option.

➤ **PCP attribute model (Philip and Hazlett, 1997)**

The authors propose a model that takes the form of a hierarchical structure – based on three main classes of attributes – pivotal (outputs), core and peripheral (jointly representing inputs and processes). According to the model, every service consists of three, overlapping, areas where the vast majority of the dimensions and concepts which have thus far been used to define service quality. When a consumer makes an evaluation of any service encounter, he is satisfied if the pivotal attributes are achieved, but as the service is used more frequently the core and peripheral attributes may began to gain importance.

➤ **Service quality, customer value and customer satisfaction model (Oh, 1999)**

The author proposed an integrative model of service quality, customer value and customer satisfaction. The model provides evidence that customer value has a significant role in customer's post-purchase decision-making process. It is an immediate antecedent to customer satisfaction and repurchases intentions.

➤ **Internal service quality model (Frost and Kumar, 2000)**

The authors have developed an internal service quality model based on the concept of GAP model. The model evaluated the dimensions, and their relationships, that determine service quality among internal customers (front-line staff) and internal suppliers (support staff) within a large service organization. The gap is based on the difference between front-line staff's expectations and perceptions of support staff's (internal supplier) service quality.

➤ **Model of e-service quality (Santos, 2003)**

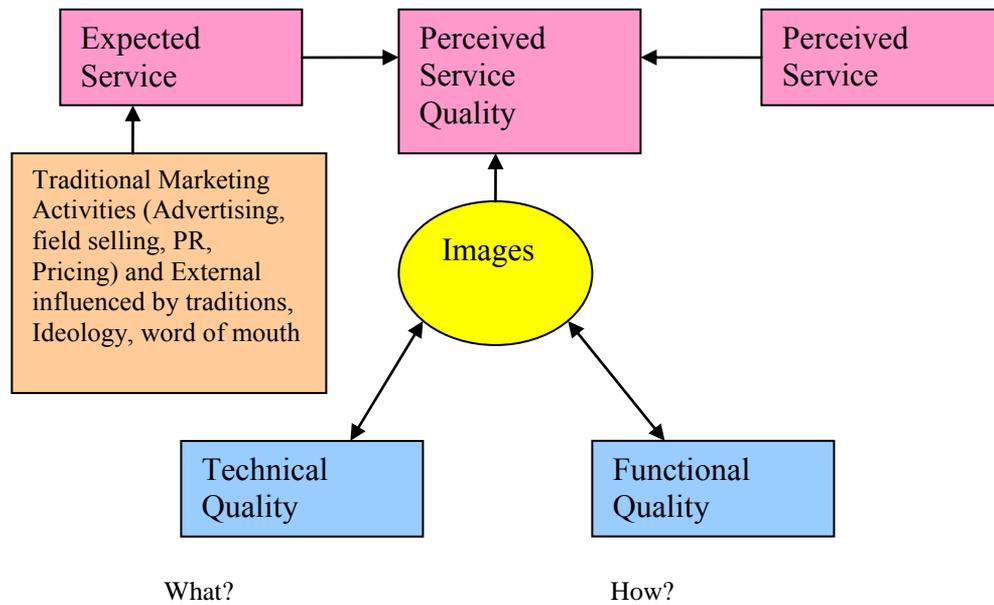
Service quality is one of the key factors in determining the success or failure of electronic commerce. It is proposed that e-service quality have incubative (proper design of a web site, how technology is used to provide consumers with easy access, understanding and attractions of a web site) and active dimensions (good support, fast speed, and attentive maintenance that a web site can provide to its customers) for increasing hit rates, stickiness, and customer retention.

Since the study depends on two models are selected in this research to demonstrate their content: Technical and Functional Quality Model (Gronroos 1984) and the Gap Model (Parasuraman et al. 1985) since both are used to measure service quality and to establish relationship between service qualities with customer.

#### **2.4.1 Technical and functional quality model**

In line with the disconfirmation paradigm, Gronroos(1984) developed a model in which he stressed that consumers compare the service as experienced with the service as expected in evaluating service quality. Gronroos' model attempts to capture how the quality of a given service is perceived by customers. In addition to this, it divides the customer's experience of any particular service into two dimensions: technical quality (i.e. what the consumer receives or the technical outcome of the service delivery process) and functional quality (i.e. how the consumer receives that technical outcome). Gronroos proposed that, in the context of services, functional quality is generally perceived to be more important than technical quality, assuming that the service is provided at a technically satisfactory level. Gronroos Model of Service Quality has been depicted in figure 1.

**Figure 1: Gronroos Model of Service Quality**



Source: Gronroos (1984)

Good perceived quality is obtained when the experienced quality meets the expectations of the customer; that is the expected quality. The level of perceived quality is not determined simply by the level of technical quality and functional quality, but rather by the gap between the expected and experienced quality. Consequently, every quality program should involve not only those involved in operations, but also those responsible for marketing and communications. Gronroos's model is important because it reminds us that service quality must include the manner in which it is delivered.

### 2.4.2 Gap model

The GAP model was proposed by Parasuraman et al. in 1985. The model presupposes that that service quality is the differences between expectation and performance relating to quality dimensions. These differences are referred to as gaps. The gaps model (figure 2) conceptualises five gaps which are:

Gap 1: Difference between consumers' expectation and management's perceptions of those expectations, i.e. not knowing what consumers expect.

Gap 2: Difference between management's perceptions of consumer's expectations and service quality specifications, i.e. improper service-quality standards.

Gap 3: Difference between service quality specifications and service actually delivered i.e. the service performance gap.

Gap 4: Difference between service delivery and the communications to consumers about service delivery, i.e. whether promises match delivery?

Gap 5: Difference between consumer's expectation and perceived service. This gap depends on size and direction of the four gaps associated with the delivery of service quality on the marketer's side.

According to this model, the service quality is a function of perception and expectations and can be modelled as:

$$SQ = \sum_{j=1}^k (P_{ij} - E_{ij})$$

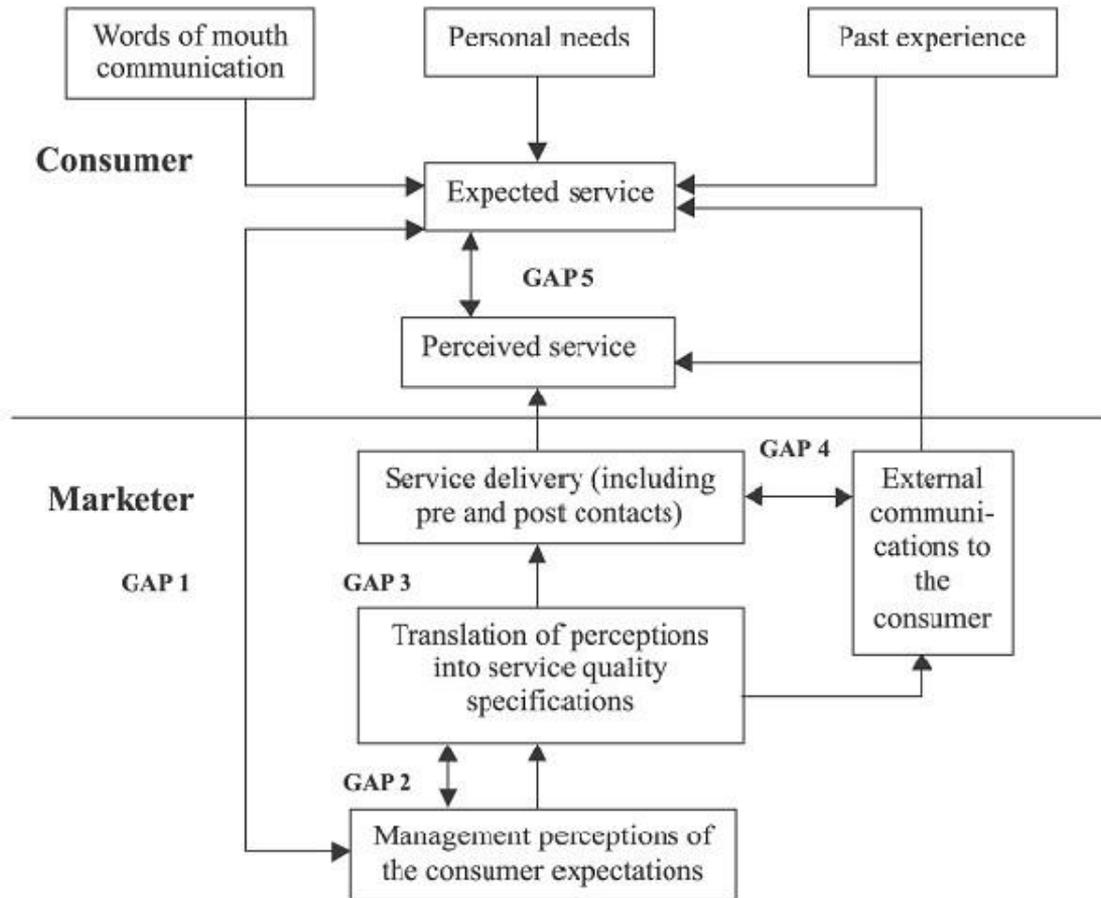
where:

SQ = overall service quality; k = number of attributes.

$P_{ij}$  = Performance perception of stimulus i with respect to attribute j.

$E_{ij}$  = Service quality expectation for attribute j that is the relevant norm for stimulus i.

**Figure 2: The Gap Model of Service Quality**



Source: Parasuraman *et al.* (1985)

So as to measure customer satisfaction with respect to different aspects of service quality and to overcome problems that are created as a result of the gap between management and customers, a survey instrument was developed by Parasuraman *et al.* in 1988. The instrument is called SERVQUAL. The basic assumption of the measurement was that customers can evaluate a firm's service quality by comparing their perceptions with their experience. Normally, it is designed to measure service quality as perceived by the customer.

The concept of measuring the difference between expectations and perceptions in the form of the SERVQUAL gap score proved very useful for assessing levels of service quality. Parasuraman *et al.*, argue that, with minor modification, SERVQUAL can be adapted to any service organization. They further argue that skills of SERVQUAL (Gap model) used to

identify diagnose where performance improvement can best be targeted. Therefore, in this research with some minor modification on SERVQUAL, it tried to apply to Mojo Dry Port service quality.

Based on their study Parasuraman et al. (1985) identified ten key determinants of service quality. They are:

1. Reliability
2. Responsiveness
3. Competence
4. Access
5. Courtesy
6. Communication
7. Credibility
8. Security
9. Understanding/ knowing/ the customer
10. Tangibles

In their 1988 work, Parasuraman et al discovered an instrument for measuring consumers' perception of service quality, after that it became known as SERVQUAL.

They prepared a quantitative research and the previous ten components were collapsed into five dimensions:-

1. **Reliability**: is ability to perform the promised service dependably and accurately.
2. **Responsiveness**: willingness or readiness of employee or professionals to provide service.
3. **Assurance**: knowledge and competence of service providers and the ability to convey trust and confidence.
4. **Empathy**: Caring, individualized attention the firm provides to its customers.
5. **Tangibles**: Physical facilities, equipments and appearance of personnel. Reliability, tangibles and responsiveness remained distinct, but the remaining seven components collapsed into two aggregate dimensions, assurance and empathy (Andersson, 1992).

#### **2.4.2.1 Criticisms of the SERVQUAL**

Notwithstanding its popularity and widespread application, SERVQUAL has been subjected to a number of theoretical and operational criticisms (Carman, 1990; Cronin and Taylor, 1992; Cuthbert, 1996; Snipes and Thomson, 1999 etc.). Buttle (1996) divided these criticisms and controversies into theoretical and operational parts:

- 1) Theoretical: paradigmatic objections, gaps model, process orientation, dimensionality and
- 2) Operational: expectations, item composition, momenth of truth, polarity, scale points, two administrations and variance extracted.

➤ **Disconfirmation paradigm**

Service quality is a function of the differences between expectation and performance along the ten (later, along the five) quality dimension (Parasuraman et al, 1988). Just this disconfirmation SERVQUAL's paradigm is most questioned issue. Cronin and Taylor (1992) argued that SERVQUAL is paradigmatically flawed because of its ill-judged adoption of this disconfirmation model. In other work, Cronin and Taylor (1994) comment that SERVQUAL confounds satisfaction and attitude and measuring neither service quality nor customer satisfaction. They stated that service quality can be treated as "similar to an attitude" and developed an alternative measurement tool, SERVPERF, which concerns only performance.

➤ **Expectations**

The term expectation is polysomic meaning it has different definitions; consumers use standards other than expectations to evaluate service quality; and SERVQUAL fails to measure absolute service quality expectations.

➤ **Number of dimensions**

By using operation of SERVQUAL, it has been demonstrated that the five dimensional structures claimed for SERVQUAL is unstable.

➤ **Item problems**

Four or five items cannot capture the variability within each service quality dimension.

➤ **Polarity**

The reversed polarity of items in the scale causes respondent error.

➤ **Two administrations**

Respondents appear to be bored and sometimes confused by the administration of E (expectation) and P (perception) versions of SERVQUAL, and this boredom and confusion will adversely affect data quality.

Even though such kinds of critics are given, still the model has a wide acceptance with respect to measuring service quality. Asubonteng et al. (1996) conclude that until better but equally simple model emerges SERVQUAL will predominate as a service quality measure. In addition to these SERVQUAL, had been tested in many service industries and results support its universal applicability. SERVQUAL has also been tested in marine industry by Durvasula, Lysonski, and Mehta (1999) and Ugboma et al. (2007).

## 2.5 Customer Satisfaction

Different definition of satisfaction has been given by several authors. *“Satisfaction is a consumer’s post purchase evaluation of the overall service experience (process and outcome). It is an affective (emotion) state of feeling reaction in which the consumer’s needs desires and expectations during the course of the service experiences have been met or exceeded”* (Hunt, 1977). *“Satisfaction is a post choice evaluation judgment concerning a specific purchase decision, on the other way it can be approximated by the equation: satisfaction = perception of performance – expectations”* (Oliver and Richard, 1980).

*“Satisfaction is a summary, affective and variable intensity response centred on specific aspects of acquisition and/or consumption and which takes place at the precise moment when the individual evaluates the objectives”* (Giese and Cote, 2000).

Zeithaml, Parasuraman and Berry (1990) defined satisfaction as an overall judgment, perception or attitude on the superiority of service. The judgment is based on the discrepancy between expectations and actual experiences of customer.

Rust and Oliver (1994) defined satisfaction as *“the customer’s fulfilment response which is an evaluation as well as an emotion-based response to a service.”* Customer satisfaction is *“a collective outcome of perception, evaluation, and psychological reaction to the consumption expectation with a product or services”* (Yi, 1990). Kotler (2000) defined satisfaction as *“a person’s feelings of pleasure or disappointment resulting from comparing product’s perceived performance or outcome in relation to his or her expectations.”*

According to Hansemark and Albinson (2004) satisfaction is *“an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfilments of some needs, goals or desire.”* Satisfaction is *“merely the result of things not going wrong; satisfying the needs and desires of consumers”* (Besterfield, 1994). Satisfaction refers to *“the buyer’s state of being adequately rewarded in a buying situation for the sacrifice he or she has made”* (Al-alak, 2009).

## **2.6 The Relationship between Satisfaction and Service Quality**

In order to achieve a high level of customer satisfaction, majority of researchers suggest that a high level of service quality should be delivered by the service provider as service quality is normally considered an antecedent of customer satisfaction (Cronin, Brady, and Hult, 2000; and Taylor, 1992). Nevertheless, the exact relationship between satisfaction and service quality has been described as a complex issue, characterized by debate regarding the distinction between the two constructs and the casual direction of their relationship (Brady, Cronin and Brand, 2002). Parasuraman, Zeithaml, and Berry (1994) concluded that the confusion surrounding the distinction between the two constructs was partly attributed to practitioners and the popular press using the terms interchangeable, which make theoretical distinctions difficult.

As to delineate the role of service quality and satisfaction have varied considerably. Parasuraman et al. (1988) confined satisfaction to relate to a specific transaction as service quality was defined as an attitude. This meant that perceived service quality was a global judgment, or attitude, relating to the superiority of the service

According to Sereshchandaretal, Rajendran and Anantharama (2002) pointed out that customer satisfaction should be viewed as multi-dimensional construct and the measurement items should be generated with the same dimensions service quality.

Fen and Lian (2005) found that both service quality and customer satisfaction have a positive effect on customer's re-patronage intentions showing that both service quality and customer satisfaction have a crucial role to play in the success and survival of any business in the competitive market. This study proved a close link between service quality and customer satisfaction.

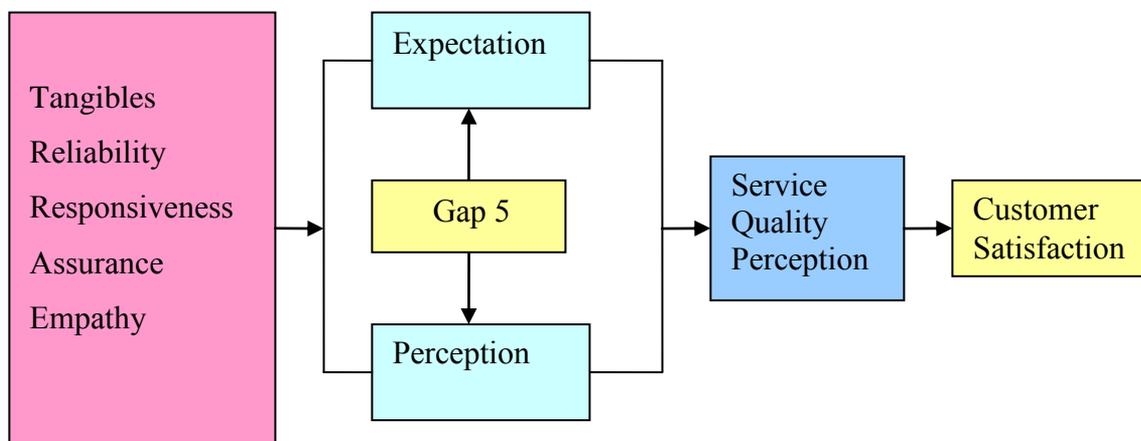
As Chingang and Lukong (2010) quoted from Su et al. (2002) carried a study to find out the link between service quality and customer satisfaction, from their study, they came up with the conclusion that, there exist a great dependency between both constructs and that an increase in one is likely to lead to an increase in another. Also, they pointed out that service quality is more abstract than customer satisfaction because, customer satisfaction reflects the customer's feelings about many encounters and experiences with service firm while service

quality may be affected by perceptions of value (benefit relative to cost) or by the experiences of others that may not be as good.

## 2.7 Conceptual Framework

The conceptual framework shows the crucial process, which is useful to show the direction of the study. The study shows the relationship between the five service quality dimensions (tangible, reliability, responsiveness, assurance and empathy) and customer satisfaction. Also the study focuses on gap 5 which represents the difference between customers' expectation and perceptions which is referred to as the perceived service quality.

**Figure 3:** Conceptual Framework of the Research



**Source:** Parasuraman et al. (1985)

The difference between expectations and perceptions is called the gap which is the determinant of customers' perception of service quality.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

This chapter tries to highlight the overall methodological considerations of the thesis. This includes the research design, sample size and sampling technique, source and tools/instruments of data collection, procedure of data collection, methods of data analysis, validity and reliability and finally ethics issue.

#### **3.1 Research Design**

Accordingly, from different types of research designs descriptive type of research design is employed for this paper for the realization of intended objectives. Descriptive type of research, according to Creswell (1994), is a technique of gathering information about the existing condition. So, this study used descriptive research design to describe the quality of service delivery and its effect on customer satisfaction. This study also used explanatory study design, to explaining, understanding, predicting and controlling the relationship between variables.

#### **3.2 Population and Sampling Techniques**

##### **3.2.1. Population**

According to Keller (2009), “*a population is the group of all items of interest to a statistics practitioner*”. Target population is a total group of people from whom the researcher may obtain information to meet the research objectives (McDaniel, 2001). So, the target population is the all customers utilizing MDP as dry port services. Based on ESLSE source, there are about 5,760 customers are currently registered who are using MPD as final destination of their imported goods (ESLSE, 2014).

##### **3.2.2. Sampling technique and sample size determination**

Sample is the segment of the population that is selected for investigation (Bryman and Bell, 2003). Sample size is actually the total number of units which are to be selected for the analysis in the research study. However, it is not possible for researchers to get in touch with a big number of samples, as the sample size is a critical question in practice. The decision

about the size of the sample needs to consider about time and cost, the need of precision, and a variety of further considerations (Bryman and Bell, 2003). Due to the limit of time and costs, therefore, one week customer's of MDP taken as survey sample. Since a population is 5760 customer among this one week customer of 120 in number chosen as sample size.

A non-probability convenience sample will be chosen for the survey in this research. Convenience sampling is a type of non-probability sampling, which involves the sample being drawn from that part of the population which is close at hand. That is, a sample population selected because it is readily available and convenient. Though non probability convenience sample has no controls to ensure precision, it is the most useful sampling method because it is the easiest and cheapest method to conduct a survey (Cooper, 2000).

Thus, customers who are selected as respondent are 120 in number and questionnaires are distributed to all of them to fill it.

### **3.3 Source and Tools/Instruments of Data Collection**

The sources of data are both primary and secondary sources. A primary source of data is gathered from respondents. Secondary sources of data collected from different books, journals, websites and various documents of ESLSE and MoFED (such as plan and report documents, study documents and related materials).

Data collection is done via a survey method where SERVQUAL instrument is used to record opinions of respondents about the quality of service they receive in MDP. In this research the original SERVQUAL model of Parasuraman et al. (1985), (five dimensions, namely Tangibles, Reliability, Responsiveness, Assurance and Empathy) are used.

The original SERVQUAL model has 22 statements, however slightly modification has been done due to the fact that port service and dry port service has peculiar nature in measuring quality service with perspective of customers. This analysis is the first time application in dry in Ethiopian context. So that the researcher using measurement items from Murphy et al. (1992) and Scott, D. and Shieff, D. (1993) as well as through exchanging ideas with focus group of senior experts of MDP, the researcher had made slight modification from SERVQUAL model so that for this study 25 items had been selected for five dimensions: Tangibles, Reliability, Responsiveness, Assurance and Empathy. Therefore, to assess the gap

between customers' expectations and perceptions this study is based on the modified SERVQUAL model which is assumed to contain the five dimensions with 25 statements as depicted in Appendix A. The respondents are asked to rate all 25 statements each on how much their expectation level to rate it with five point Likert scale in the following manner: 'much worse than expected', 'worse than expected', 'equal to expected', 'better than expected' and 'much better than expected'. Five different scores were assigned: 1, 2, 3, 4, 5, to represent this five-point scale. Hence satisfied customers must have received perceptions equal to or more than expectations. So the hypothesized test value in this study is 3 and it can split customers into satisfied and unsatisfied customers and the null and alternative hypotheses can be specified as below.

Null hypothesis  $H_0: \mu = 3$

Alternative hypothesis  $H_a: \mu \neq 3$

Likewise the relative importance of each of the five dimensions with respect to MDP constituting the SERVQUAL scale using with five point Likert scale in the following manner: 'Not at all Important', 'Not Important', 'Neither Important nor Unimportant', 'Important' and 'Very Important'. Five different scores were assigned: 1, 2, 3, 4, 5, to represent this five-point scale.

The original SERVQUAL question was translated form English to Amharic (Appendix A). This was necessary since many of MDP customers are Ethiopians so that it tried to make convenient and easy for their communication.

The data collection tools employed questionnaire. The questionnaire has three parts. The first part of the questionnaire is about the demographic characteristics of respondents. The second section designed to measure how much customers' expectation level about Mojo dry port service delivery system. And third part about customers' level of importance of five dimensions measurement (Appendix A).

### **3.4 Procedures of Data Collection**

The study was used both primary and secondary data sources. First, to know about dry port industry secondary data sources detailed reviews of related literature have been done. For this purpose the researcher used e - books, study documents, manuals, plan

and report documents of ESLSE and MoFED, articles and related materials. This enabled the preparation of a draft questionnaire which was submitted to my supervisor for comments. So that closed ended questionnaires was developed and based on the advisory comments and pilot survey, the questionnaire were amended and interpreted in to Amharic before distribution. Then samples were drawn, the questionnaires were distributed to customers of MDP to gather primary data. After the result of pilot test, actual data are collected from Mojo Dry Port by spent one week. Accordingly the final questionnaire was distributed to around 120 customers and 94 of them was filled and returned

### **3.5 Methods of Data Analysis**

After collecting the data through questionnaires, the researcher has organized and prepared the various data depending on the sources of information. Moreover, in order to ensure consistency of data, editing was carried out by the researcher. Once editing has done, data were analyzed qualitatively and quantitatively. The quantitative data analysis was done by the use of used SPSS Version 16.0 software packages. The techniques for quantitative data analysis were descriptive statistics such as T-test and Mean difference and percentages, which used to determine the quality service dimensions significance and also the relationship quality service dimensions and satisfaction of customers. Finally, the analysis part was presented in the form of tables and figures form to ensure easily understanding of the analysis. Additional information from various documents analysis was analyzed in narrative form.

### **3.6 Validity and Reliability**

Validity means the validity of the results, i.e. how well the questions measure the matters chosen to be studied (Webropol, 2011). The content validity of the instrument for the present study ensured as the service quality dimensions and items would be identified from the literature and from similar thesis works. Pilot tests conducted with a small group where also feedback on questions asked and received to redefine it.

Reliability tells about stability of the results i.e. how accurately the study or measuring has been carried out (Webropol, 2011). Reliability refers to whether a measurement instrument

is able to yield consistent results each time it is applied. It is the property of measurement device that causes it yield similar outcomes for similar inputs.

In this regard in this study Alpha reliability is taken as a measure of internal consistency of the mean of the items at the time of administration of the questionnaire. Cronbach's alpha is a reliability coefficient that indicates how well the items in a set are positively related to one another. According to Hair, Anderson, Tatham and Black (2006), if  $\alpha$  is greater than 0.7, it means that it has high reliability and if  $\alpha$  is smaller than 0.3, then it implies that there is low reliability. To meet consistency reliability of 25 items, and Cronbach's alpha was found to be 0.93 which indicates that acceptable.

### **3.7 Ethical Issue**

Since the researcher used the data from customers which was collected through questionnaire, permission was obtained from the Mojo dry port managers so that St. Mary's University College cleared ethically question. In order to make customers free from any doubt on the information provide, they were instructed not to write their names on the questionnaire and assured of that the responses would be used only for academic purpose and kept confidential. In addition to these, instructions about the purpose of the research have given to them in order to motivate to fill the questionnaires All sources of information that are used by the researcher are acknowledged. The data gathered in process of the research was kept confidential and would not be used for any personal interest and the whole process of the research was controlled to be within acceptable professional ethics.

## **CHAPTER FOUR**

### **RESULTS AND DISCUSSIONS**

This chapter reveals the results and discussions of the research. The data collected through the means of questionnaires are analyzed and interpreted using the SPSS Version 16.0 software. Detailed analysis of the results derived from this analysis is presented in this chapter. The researcher spent one week stay in MDP in the distribution and collection of the questionnaires. Questionnaires were distributed among customers of MDP companies basically importers of containers, freight forwarders, custom clearing agents and the like. Therefore questionnaires are distributed for 120 customers selected as sample, of this 105 were returned but 11 of them were rejected as a result of missing data and 15 not returned questionnaires at time of collections. So that, 94 questionnaires (78%) complete responses were returned from the respondents.

First, the descriptive statistics of the research population is presented. Second, sample t-test is conducted to measure service quality level based on the five dimensions. Third, descriptive statistics used to determine which dimensions are important in dry port service delivery in Ethiopian context.

#### **4.1 Data Sample profile**

The demographic characteristics include: gender, age, level of education, and how many customer's import containers served in MDP. This aspect of the analysis deals with the personal data on the respondents of the questionnaires given to them. These data, specially customer's import containers served in MDP used in the study to know how much the customers have a relationship with MDP with respect to using dry port services and what type of customer are they.

**Table 1:** Distribution of Demographic Variables

		<b>Frequency</b>	<b>Percent</b>
<b>Gender</b>	Male	78	83
	Female	16	17
	<b>Total</b>	<b>94</b>	<b>100</b>
<b>Age</b>	18-25	23	24
	26-35	48	51
	36-45	15	16
	46-55	6	6
	above 55	2	2
	<b>Total</b>	<b>94</b>	<b>100</b>
<b>Education</b>	equal and less of secondary school	24	26
	Completion of secondary school	11	12
	Diploma	35	37
	First degree	22	23
	Master and Above	2	2
	<b>Total</b>	<b>94</b>	<b>100</b>
<b>Number of Container service given for customer by MDP</b>	1-2 containers served	5	5
	3-9 containers served	9	10
	10-19 containers served	8	9
	20-29 containers served	7	7
	above 30 containers served	65	69
	<b>Total</b>	<b>94</b>	<b>100</b>

Source: Own survey, 2014

As profile data of respondents are demonstrated in the table 1, males were 83% while females were 17% this indicated that customers are more dominantly by males. As far as age of respondents is concerned, 24% of the respondents are in the range of 18 - 25 years, 51% of the respondents are in the range of 26 - 35 years, 16% are in the range of 36 - 45 years, 6% are in the range of 46 - 55 and 2% are above 55 years. The majority respondents' age are between 36 and 45 years which portion is 51%. With regard to educational level of respondents, high school and below are 26% ; certificate holders that means completion of secondary high school represented 12% of the customers, diploma holders represented 37% of the customers, and first degree holders represented 23%. Finally, masters or second degree

holders and above represented 2% of the customers; So that a majority of the respondents were diploma graduate forming 37%.

The other main variable that the respondents were asked were the number of import containers served within a year in Mojo Dry Port. For this question majority 69% of the respondents answered they had gotten more than thirty import containers service with Mojo Dry Port, 7% of the respondents answered the category twenty to twenty nine containers service, 8% of the respondents answered the category ten to nineteen containers service, 9% of the respondents answered the category three to nineteen containers service and 5% answered the category one to two containers service. These show that the majority respondents had got more than thirty containers service in MDP.

## **4.2 Analysis of Service Quality and Customers' Satisfaction**

According to service quality measurement scale demonstrated in the previous sections, the researcher further analyzed the differences in perceived quality between MDP customers. Here, respondents were asked to separately evaluate each service attribute, according to the gap between their perception and expectations, using a five point likert scale: 'Much better than expected', 'better than expected', 'equal to expect', 'worse than expected', and 'Much worse than expected'. Five different scores were assigned: 5, 4, 3, 2, 1, to represent this five-point scale.

The researcher used one-sample t-test for the data analysis. The one-sample t-test procedure tests whether the mean of a single variable differs from a specified constant. This test assumes that the data are normally distributed; however, this test is fairly robust to departures from normality. The sample size in this study was 94 and based on 'Central Limit Theorem' which allowed presuming the data were normally distributed approximately. A 95% confidence interval for the difference between the mean and the hypothesized test value was supposed.

Satisfied customers must have received perceptions equal to or more than expectations. So the hypothesized test value in this study is 3 and it can split customers into satisfied and unsatisfied customers and the null and alternative hypotheses can be specified as below.

Null hypothesis  $H_0: \mu = 3$

Alternative hypothesis  $H_a: \mu \neq 3$

As noted earlier, the study specifies the level of sampling error (0.05) and thus the two-tailed critical value is  $\pm 1.96$ .

**Table 2:** One-Sample t-test

	One-Sample Test						
		Test Value = 3					
		t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
						Lower	Upper
TAN1	Mojo D/P/ has modern and up to date loading and unloading equipment, machineries and related facilities	1.387	93	0.169	0.191	-0.083	0.466
TAN2	Mojo D/P/ has appropriate connection to other modes of transportation	-5.334	93	0.000	-0.649	-0.891	-0.407
TAN3	Mojo D/P/ has sufficient storage areas and, loading platforms	2.610	93	0.011	0.383	0.092	0.674
TAN4	Mojo D/P/ has entertainment facilities	-11.044	93	0.000	-1.277	-1.506	-1.047
TAN5	Mojo D/P/ has appropriate logistical facilities	-3.892	93	0.000	-0.447	-0.675	-0.219
REL1	Mojo D/P/ has procedure of operation in the Terminal is secure for cargos	-2.596	93	0.011	-0.362	-0.638	-0.085
REL2	Mojo D/P/ has provide service at the appointed time without delay	-3.711	93	0.000	-0.479	-0.735	-0.223
REL3	Mojo D/P/ has accuracy in providing services without a mistake (receiving and delivering cargo and container) and in the event of a mistake it will be resolved quickly	-3.903	93	0.000	-0.500	-0.754	-0.246
REL4	Mojo D/P/ 's security and safety facilities of terminal are reliable	0.588	93	0.558	0.085	-0.202	0.373
REL5	Mojo D/P/ has offered the correct dynamic information of cargos	-0.804	93	0.423	-0.106	-0.369	0.156
REL6	Mojo D/P/ has Performing the services right the first time	-0.469	93	0.640	-0.064	-0.334	0.206

RES1	Mojo D/P/s staffs are honest and trustee to assist the customers, information transfer and solving their problems	1.268	93	0.208	0.181	-0.102	0.464
RES2	Mojo D/P/ is responsible for taking feedback from learners and instructors in view point of service quality	-1.694	93	0.094	-0.234	-0.508	0.040
RES3	Mojo D/P/ has understanding the specific needs of customers	-3.534	93	0.001	-0.468	-0.731	-0.205
RES4	Mojo D/P/ has been keeping customers informed about when services will be performed	-2.607	93	0.011	-0.340	-0.600	-0.081
RES5	In Mojo D/P/ there is effectiveness and efficiency of operators in the container yard	2.450	93	0.016	0.372	0.071	0.674
RES6	Mojo D/P/ Providing services consistently	2.676	93	0.009	0.330	0.085	0.575
ASS1	Customers feel relax and convenience while interacting with Mojo D/P/s staffs	1.088	93	0.280	0.149	-0.123	0.421
ASS2	Mojo D/P/ 's staffs suggesting efficient loading mode and service schedule	-2.483	93	0.015	-0.319	-0.574	-0.064
ASS3	Mojo D/P/ 's staffs Sincerity and patience in resolving customers' problems	-0.816	93	0.416	-0.117	-0.402	0.168
ASS4	Mojo D/P/ 's staffs have knowledgeable and skillful provision and services	1.163	93	0.248	0.160	-0.113	0.432
EMP1	In Mojo D/P/, all customers are given equal amount of importance.	-0.418	93	0.677	-0.064	-0.367	0.239
EMP2	Mojo D/P/ has g sympathetic and reassuring staff when customers are in trouble	-1.254	93	0.213	-0.181	-0.467	0.106
EMP3	Mojo D/P/ has a sound loyalty program to recognize you as a frequent customer	-2.067	93	0.042	-0.319	-0.626	-0.013
EMP4	Working time of Mojo D/P/ is appropriate for customers	-1.437	93	0.154	-0.213	-0.507	0.081

Source: Own survey, 2014

As depicted in Table 2, and from the data of customers, it can be seen that for the perceptions of service quality attributes which were better than expected have positive t values and service scores while for those attributes which were worse than expected have negative t-

values and service scores. The factors which had t-values greater than 1.96 were significant in positive direction and the factors with t-values less than -1.96 were significant in negative direction which implies that, in both cases, their p-values approach to zero and their respective mean difference values also largely deviate from the test value (3) as their t-values far from the critical value in both direction. In other words, in both directions the null hypothesis can be rejected. On the contrary, those attributes whose calculated t-value lies between 1.96 and - 1.96 were statistically insignificant in both directions. That means their mean value do not differ from the test value and thus we cannot reject the null hypothesis for these attributes, which includes TAN1, REL4, REL5, REL6, RES1, RES2, ASS1, ASS3, ASS4, EMP1, EMP2 and EMP4. Accordingly, we can say that in these attributes MDP is performing a service level that is more or less equal to what customers expect. Thus, MDP needs to strive more to provide a service level that exceeds the expectation of customers.

Based on the above general analysis, in those attributes such as TAN1, RES5 and RES6; we reject the null hypothesis as their calculated t-values is larger than the critical value (1.96). In other words, their mean differences were positive and their means were greater than (different from) the test value (3). Therefore, from the perspective of these attributes MDP has scored a service level that exceeds expectation of customers.

However, in the attributes such as TAN2, TAN4, TAN5, REL1, REL2, REL2, RES3, RES42, ASS2 and EMP3; we reject the null hypothesis as their calculated t-values were greater than the critical value in absolute terms which implies that the mean differences had negative sign and the means of each were less than (different from) the test value. Therefore, we can say that in these attributes the MDP has scored a service level that is below what customers' expect.

We can notice on the above that the top three best record performance of MDP with respect of customer service in sequence are RES6(Providing services consistently), TAN3(sufficient storage areas and, loading platforms) and RES5(effectiveness and efficiency of operators in the container yard) and on the other hand the least three performance of MDP with respect of customer service in sequence are TAN3(entertainment facilities for customer), TAN2(appropriate connection to other modes of transportation) and REL3(accuracy in providing services without a mistake (receiving and delivering cargo and container) and in the event of a mistake it will be resolved quickly).These are major items in which the MDP managers give due attention to satisfy customers.

### 4.3 Importance of Dimensions

In order to compare dimensions with respect to MDP that is Tangibles, Reliability, Responsiveness, Assurance, and Empathy, Customers were asked to rate importance of service quality dimensions on a five-point likert scale: ‘Not at all important’, ‘Not important’, ‘Neither important nor unimportant’, ‘Important’, and ‘Very important’. A summary of descriptive statistics is presented in table 3.

So as to identify the significance dimensions, a ranking method with percentage rate has been used and depicted in table 3. As result shown in the table 3, ‘Tangibles’ dimension is the most important dimensions among five dimensions with respect to MDP taking into customer’s point of view. Among 94 respondents 21(22%) customers selected ‘Tangibles’ as most significant dimension among five dimensions. The second most important dimension is ‘Reliability’, it has got 21% among the five dimensions. Responsiveness, Empathy and Assurance are respectively got the rank of third, fourth and fifth as per customers’ attitude. On the other hand satisfaction level of the five dimensions is very low since the mean differences of all dimensions are negative value. As depicted in table 3, even though the most significant dimension is ‘Tangibles’, on the other side the worst dimension with respect to dissatisfaction of customers among the five dimensions is ‘Tangibles’. Thus, in order to satisfy customers management should give due to attention to ‘Tangibles’ and next to ‘Reliability’.

**Table 3:** Ranking of Dimensions of SERVQUAL in MDP

Dimensions	Ranking ( in Ascending Order)	Percentage	Mean difference of dimensions
Tangibles	1	22.1	-1.798
Reliability	2	20.6	-1.426
Responsiveness	3	19.4	-0.160
Empathy	4	19.0	-0.128
Assurance	5	18.9	-0.777
		100	

Source: Own survey, 2014

#### **4.4 Satisfaction of Customers in Mojo Dry Port**

In general twenty five items considered in measuring satisfaction of service delivery in MDP. Tangibles attribute had got first priority in especially storage areas and loading platforms MDP was the first most important aspect and gained the first highest mean difference in MDP performance from the customers' point of view. With this short time there has been invested a large amount of budget in MDP for infrastructure expansion works such as construction of large container terminals. Because of this, carrying capacity of containers in MDP has been improved year to year. In addition to this, MDP had got new port machineries and up to date loading and unloading equipment, machineries and related facilities and because of these customers pointed out their satisfaction. We can see the mean deference of this attribute had got at fourth position. On the other hand performance of MDP with regard to connection to other modes of transportation has got least mean factor from table 2; Customers had showed their grievance since there are much crowded of trucks due to lack of parking and way out of terminals in MDP (ESLSE, 2012).

As we can see from table 3, though 'Tangibles' has got the priority in preferences of customers, as same time it was the worst dimension in which customers express their dissatisfaction among five dimensions. Thus, manager should take into consideration to increase customers' satisfaction, the undergoing infrastructures should be completed within short time and as well as MDP should be equipped with essential logistic facilities.

The second in the most important factors as well as the third worst dimension was reliability (MDP's ability to perform the promised service dependably and accurately). Even though reliability is very important from customers point of view, all the six attributes of this category have got negative mean differences. Particularly with regard to providing services at the appointed time without delay has got the second least mean factor among 25 attributes. This indicates that even though customers appreciate the importance of this dimension; they were very dissatisfied by MDP service delivery time. Several literatures had depicted that the importance of service delivery on time and it is among the major critical factors in sea and dry port services. Likewise, MDP's accuracy in providing services without a mistake (receiving and delivering cargo and container) and in the event of a mistake it will be resolved quickly had got the third least of mean factor. Since customers dissatisfied with

attributes managers have to give due attention about timely service delivery to their customers.

The third level important feature category was responsiveness (willingness to help customers and provide prompt service) based on customers attitude. Among six items in this category ‘effectiveness and efficiency of operators in the container yard’ has got mean difference of second higher level and also ‘providing services consistently’ had got the third mean difference among all attributes; so that customers express their satisfaction not only on modern machineries but also their operators who manages the machineries and equipments of MDP. Likewise mean difference of ‘MDP’s stuffs are honest and trustee to assist the customers’ item is in good position. We can see from customers point view in table 2, they appreciated the performance of MDP with regard to these items. This in line with the claim of MDP managers they had changed the mind of works through constantly training of operators of machineries and take measure as to correct the dishonest and bad manner workers and tried to solve customer problems (ESLSE, 2013).

On the other side of point of view of customers, among six items in this ‘responsiveness’ dimension ‘listening the specific needs of customers’ was not given attention since it has got the six least mean difference; Similarly with respect to ‘keeping customers informed about when services will be perform and as to taking feedback from customers and tried improve the service delivery’ had got the least consideration in MDP as per customers’ feelings.

As per customers’ opinion, the fourth position category among five dimensions was empathy (the caring individual attention the MDP provides its customers). In this category ‘MDP has a sound loyalty program to recognize as a frequent customer’ and ‘Working time of MDP is appropriate for customers’ are among the least items and had got relatively large negative mean differences. From this point we could understood that MDP should have appropriate mechanisms to keep up the loyal customers.

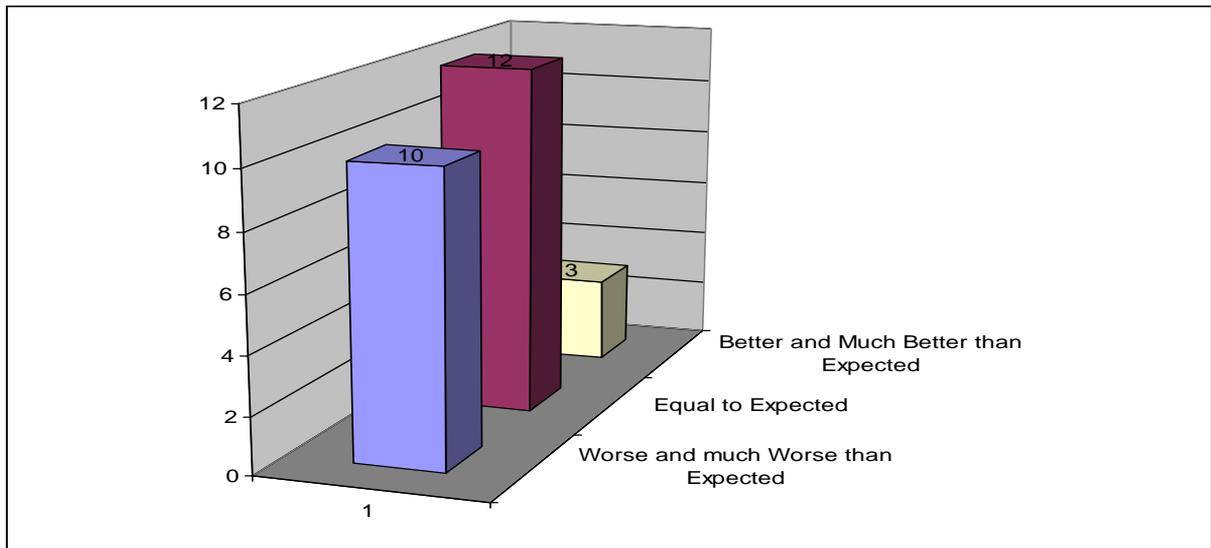
The fifth and the last category as per customer point view with regard to importance is Assurance (Mojo D/P/ has a sound loyalty program to recognize you as a frequent customer). In this category four items were provided in questionnaires in order to gain customer’ suggestions. As result of the customers’ expectation with respect to ‘MDP’s staffs efficient loading mode and service schedule’ scored the eight least of mean factor among all items. On the other side, there were positive suggestion of customers with items such as ‘Customers

feel relax and convenience while interacting with Mojo D/P/s staffs’, ‘Mojo D/P/s staffs Sincerity and patience in resolving customers' problems’ and ‘Mojo D/P/s staffs have knowledgeable and skilful provision and services’ since these three items have scored positive mean difference.

#### 4.5 Describing over all Results

In the questionnaire, differences in customers’ perception and expectation have been evaluated in connection with MDP, including the five dimensions of services defined by SERVQUAL model with 95% confidence interval. According to the services that are offered by MDP, the researcher measured customer satisfaction among the customers of port service using the five dimensions of SERVQUAL model. All 25 attributes have been tested for finding out whether the customers are satisfied or not. With these findings research objectives have been addressed and answered.

**Figure 4:** Customer Satisfaction with SEVQUAL Dimensions



Source: Own survey, 2014

As figure 4 depicted, among twenty five items tested in customers point of view, customers were satisfied in fifteen attributes that is in twelve items customers meet with their expectation and in three items customers have better and much better expected. However, in ten attributes out of 25 attributes, customers pointed out that they were experienced worse and much worse than expected. It means customers felt dissatisfaction.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

This research has been undertaken to assess the customer perceptions of service quality and their satisfaction on Mojo dry port using a measurement model SERQUAL. In light of this, the summary of findings of this study will be summarized in brief. Conclusions drawn from the findings of this study are presented. Recommendations based on the conclusions of the study presented at end of this chapter.

#### 5.1 Summary of the findings

The following findings are derived from the analysis and interpretations made in the previous chapter.

- The demographic characteristics of respondents reveal that (69%) of the respondents were who have gotten above 30 containers service in MDP.
- Among five dimensions of measurement 'Tangibles' category is chosen as priority (22.1%) importance and 'Reliability' is the second (20.6%) choice of customers of MDP. The rest 'Responsiveness' (19.4%), 'Empathy' (19%) and 'Assurance' (18.9%) are ranking third, fourth and fifth respectively.
- All five dimensions of measurement has scored a negative group mean difference: Tangibles with a group mean difference of -2.699, 'Reliability' with a mean value of -1.426, Assurance with mean value of -0.777, Responsiveness has scored a mean difference of -0.160 and Empathy with a mean value of -0.128.
- From these five categories 25 items of measurement provided for customers so that among 25 items, in 3 items customers got the service better and better than they expected and in 12 items customers got the service equal to their expectation, but in 10 items they got the service worse and much worse than they expected.
- The top three best record performance of MDP with respect of customer service in sequence are RES6(Providing services consistently), TAN3(sufficient storage areas and, loading platforms) and RES5(effectiveness and efficiency of operators in the container yard) and on the other hand the least three performance of MDP with respect of customer service in sequence are TAN3(entertainment facilities for customer), TAN2(appropriate connection to other modes of transportation) and

- REL3(accuracy in providing services without a mistake (receiving and delivering cargo and container) and in the event of a mistake it will be resolved quickly).
- In Tangibles dimension, with respect to fulfilling infrastructure and container service and storage areas and equipped by modern and up to date machineries and equipment facilities, MDP has got remarkable results. However, transport mode connections and crossing areas have scored a negative mean difference.
  - MDP was not keeping customer informed about their cargo flow and not provide prompt service as expected by customer. Besides to these MDP employees are not always willing to help customers, in alternative ways of handling ways of cargo and they did not respond to feedback and customers' specific needs as customers expected.
  - MDP has got good looking as per customers' attitudes with regard to knowledge and competence of service providers and the ability to convey trust and confidence.
  - MDP had record less expectation with regard to giving personalized attention to customers.
  - The SERVQUAL model provided a satisfactory level of overall reliability (0.93) meaning all items were cohesive in forming dimensions.

## **5.2 Conclusion**

Based on analysis of the data and findings the following conclusions are drawn:

- From the analysis carried out, it was found that negative mean difference scores of all the five dimensions as a group (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) which indicates that the MDP are not able to meet customers' expectation or the customers are not satisfied with the services offered. In the overall, service quality is low as perceived by customers in MDP and hence no customer satisfaction
- Even though the most significant dimension is 'Physical', at the same time the worst dimension with respect to dissatisfaction of customers among the five dimensions is 'Physical'. This implies that customers urgently need an accessibility and availability of infrastructures and facilities to easily movements of their goods in dry port however currently MDP situation in this regard are not comfortable to customers who import goods in foreign countries.

- Physical appearance with respect to fulfilling infrastructure and container service and storage areas and equipped by modern and up to date machineries and equipment facilities MDP are as per customers' expectations. These indicate that customers are well satisfied with these MDP services. However, transport mode connections and crossing areas are scored a negative mean difference implies that customers are dissatisfied because of much crowded of trucks without easy movement of goods.
- Customers are not satisfied with Reliability dimension indicated with a mean difference of (-1.426). This implies that MDP is not providing the service as promised time without a delay; besides to this, the service provided by MDP is not accurate and without mistake, if mistakes made it would not be solved timely.
- MDP's keeping customer informed about their cargo flow and provide prompt service are not met as customer expected. Besides to these, MDP employees willing to help customers in alternative ways of handling ways of cargo; and respond to feedback and customers' specific needs are not as customer expectation. These imply that customers were not satisfied with these services.
- With regard to knowledge and competence of service providers MDP has got good result as per customers' attitudes. This indicates that because employees of MDP are skilful and knowledgeable; as the same time, operators are effective and efficient create confidence in customers and well satisfied with them.
- If the MDP understand customer feeling and provide individualized attention to their customer or increase the empathy they can also improve the level of customers' satisfaction. However, the MDP had a problem in giving individualized attention and they don't have employees who could give personalized attention.

### **5.3 Recommendation**

So as to solve the problems that were identified by the study, the following recommendations were forwarded.

- With respect to physical feature, MDP in has been built and expanding infrastructures and equipping modern machineries this is has impact on service deliver in dry port service. However, since undue delay of container terminals construction work result in negative consequences on easy movement trucks and this in turn made dissatisfaction on customers. Thus MDP should design the way constructions completed early and providing appropriate services.

- Hence, delivering prompt and timely service as per promise for the customer adds the satisfaction level of our customers, which in turn contributes to the profitability of an organization; MDP should design one window shop service and should be supported by information and communication technology to provide prompt and accurate service as promised.
- Giving attention for customers' needs and their feedbacks about service delivery contributes to the increment of loyal customers who are the blood vessels of the organizations. Hence, the employees of MDP should pay due attention to their customers' specific needs and feedbacks, by appearing being polite and cooperative to solve customers' problems which should be followed up from the management.
- Good working environment and incentive schemes and well organized office arrangement facilitates and encourages the employee and creates satisfied staffs which in turn encourages to provide service as per customers' wants. Thus MDP manager should give attention to not only material things but also human elements. MDP has a great role in delivery services and satisfying the customers.
- Furthermore, to serve the customers well, providing timely training and development for employees plays a great role. Thus, the MDP manager should give training and facilitate foreign port experience and as well as aware the aims of the organization to staff so that enable them in serving the customers well and provide them with relevant and timely information.
- Dry port service is a very demanding service as it has a great role in reducing logistics cost and time for import and export cargo of the country, so MDP has to improve performance on all the dimensions of service quality in order to increase customer satisfaction and this enables MDP to maintain a level of competitiveness.
- In general, delivering a quality service for customers has a tremendous effect on customers' satisfaction that in turn determines the existence and success of MDP. So, MDP should attempt to maintain consistent service quality better and much better than customers' expectation by assessing all the service quality dimensions regularly.

## **5.4 Implications for Future Research**

- This study was covered only Mojo dry port but by now the number of dry port in the country is increasing so the future search may consider and incorporate all branches of dry ports.
- Moreover, Dry port are administrable alliance with other logistical sectors custom clearing, fright forwarding and shipping service are merged, so that the whole chain of logistics from door to door logistics that is shipping, clearing service and dry port service and trucking service quality with respect to delivery time and the whole cost of export and import activities on customers satisfaction and this impact on economy of the country

## REFERENCES

- Anderson, E., Fornell, C. and Lehmann, D.R. (1994). "Customer satisfaction, Market share, and Profitability: Findings from Sweden". *Journal of Marketing*, 58(1), 53 - 66.
- Asubonteng, P., McCleary, K. J. and Swan, J. E. (1996). SERVQUAL Revisited: A critical Review of Service Quality. *Journal of Services Marketing*, 10(6), 62 - 81.
- Beliyu Girma, (2012). *Quality of Service Delivery and its Impact on Customer Satisfaction in Four Selected Commercial Banks of Ababa Addis*, Unpublished Master's Thesis, Addis Ababa University.
- Berry, L., Carbone, L. and Haeckel, S. (2002). "Managing the total customer experience". *MIT Sloan Management Review*, 43(3), 85 - 88.
- Besterfield, D.H. (1994). *Quality Control*. Prentice-Hall, Englewood Cliffs, NJ.
- Brady, M.K., Cronin, J.J. and Brand, R.R. (2002). "Performance-only measurement of service Quality: a replication and extension". *Journal of Business Research*, 55(1), 17.
- Brogowicz, A.A., Delene, L.M. and Lyth, D.M. (1990). "A synthesized service quality model with managerial implications", *Journal of Service Industry Management*, 1(1), 27- 44.
- Bryman, A. and Bell, (Ed.) (2003). *Business Research Methods*. New York: Oxford University Press Inc.
- Buttle, F. (1996). SERVQUAL: review, critique, research agenda. *European journal of marketing*, 30(1), 8 - 32.
- Carman, J.M. (1990). Consumer perceptions of service quality: an assessment if the SERVQUAL dimensions. *Journal of Retailing*, 66, 33 - 55.
- Chingang, N.D. and Lukong P.B. (2010). *Using the SERVQUAL Model to assess Service Quality and Customer Satisfaction in Umea*. Unpublished Master's Thesis, Umea School of Business.
- Collart, D. (2000). *Customers Relationship management*. price water house cooper. New York, USA.

- Cooper, D.R. and Schundler, P.S. (2000). *Business Research Methods, 9th ed.* Singapore: McGraw-Hill.
- Creswell, J.W. (1994). *Research Design: Qualitative & Quantitative Approaches.* London: SAGE Publications.
- Cronin, J. J. and Taylor, S. A. (1992). Measuring service quality; a re-examination and extension. *The Journal of Marketing*, 56(3), 55 - 68.
- Crosby, P. B. (1979). *Quality Is Free: The Art of Making Quality Certain.* New York: New American Library.
- Dabohlkar, P., Thorpe, D. I. and Rentz, J. O. (1996). A measure of service quality for retail stores. *Journal of the Academy of Marketing Science*, 24(1), 3 - 16.
- DPSE (2011). *DPSE 2003-20007 Strategic Plan Document*, Addis Ababa, Ethiopia.
- Durvasula, S., Lysonski, S. and Mehta, S. (1999). "Testing the SERVQUAL scale in the business-to-business sector", *Journal of Services Marketing*, 13 (2), 132-50.
- Edvardsson (2005). *GURU'S VIEW, Service quality: beyond cognitive assessment Service Sweden Managing Service Quality.* Emerald Group Publishing Limited, 15(2), 127-31.
- ESLSE (2013). *2005 Annual Performance Report.* Unpublished manuscript, Addis Ababa, Ethiopia.
- ESLSE (2013). *2006 Mid-term Performance Report.* Unpublished manuscript Addis Ababa, Ethiopia.
- Fekadu M. Debela (2013). *Logistics Practices in Ethiopia.* SUAS, Swedish University of Agricultural Sciences.
- Fen, Y. S. and Meillian, K. (2005). Service quality and customer satisfaction: Antecedents of customer's re-patronage, *Sunway Academic Journal*, 4, 60 - 73.
- Foster, T. A. (1978). *Ports: what shippers should look for? Distribution Worldwide.*
- Frost, F.A. and Kumar, M. (2000). "INTSERVQUAL: an internal adaptation of the GAP model in a large service organization", *Journal of Services Marketing*, 14(5), 358 - 77.

- Garvin, D. A. (1983, September-October). "Quality on the Line," *Harvard Business Review*, 61, 65 - 73.
- Gashaw Girma, (2011). *Assessment of Service Quality and Customer Satisfaction: A case study on Ethiopian airlines*. Unpublished Master's Thesis, Addis Ababa University.
- Giese, J. L., and Cote, J. A. (2002). Defining Consumer Satisfaction, *Academy of Marketing Science*, 2000(1), 1- 24.
- Gujar, G.C. (2008). *Essays on Dry Ports*. Mumbai, India.
- Gronroos, C.A. (1984). "Service model and its marketing implications". *European Journal of Marketing*, 18 (4), 36 - 44.
- Gronroos, C. (2000). "Service Management and Marketing: A Customer Relationship Management Approach", (Second edition). John Wiley & Sons, Ltd.
- Gronroos, C. (1990). "Service Management: A Management Focus for Service Competition. *International Journal of Service Industry Management*, 1(1), 6 - 14.
- Hair, J. F. J., Anderson, R. E., Tatham, R. L., and Black, W.C (2006). *Multivariate data analysis (5th Ed.)*. New Jersey: Prentice - Hall.
- Hassan, J. and Ziba, B. (2013). An Empirical Study of Service Quality at Iranian Marine Container Terminals Using SURVQUAL and MAPPK Methods. *Technical Journal of Engineering and Applied Sciences*, 1(1), 6 - 14.
- Hayes, B.E., (1997). *Measuring Customer Satisfaction: Survey Design, Use and Statistical Analysis Methods*, 2nd ed., ASQ Quality Press, Milwaukee, WI.
- Haywood-Farmer, J. (1988). "A conceptual model of service quality". *International Journal of Operations & Production Management*, 8 (6), 19 - 29.
- Hunt, H. K. (Ed). (1977). CS/D-Overview and Future Directions in H.K. Hunt (Ed.). *Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction*, Marketing Science Institute. Cambridge. MA.
- Keller, G. (2009). *Managerial Statistics Abbreviated*, 8th ed. South Western: Cengage Learning.

- Kotler, P., Armstrong, G., Saunders, J. and Wong, V. (1996). *Principle of Marketing*. The European Edition. Prentice-Hall International. Hemel. Hempstead.
- Lehtinen, U. and Lehtinen, J. R. (1991). Two Approaches to Service Quality Dimensions. *The Service Industries Journal*, 11(3), 287 - 305.
- Lovelock H. C. and Jochen W., (2004). *Service Marketing People Technology*.
- Mano, H. and Oliver, R.L. (1993). "Assessing the dimensionality and structure of the consumption experience: evaluation, feeling, and satisfaction". *Journal of Consumer Research*, 20, 451 - 66.
- McDaniel, A. G. (2001). *Marketing Essentials: DECA Preparation*. Last Access February 20, 2014, from online: [http://www/glencoe.com](http://www.glencoe.com).
- Millen, R. and Maggard, M. (1997). *The change in quality practices in logistics*. Total Quality Management, 8( 4), 173 - 209.
- MoFED (2013). *Annual Progress Report for F.Y. 2011/12 Growth and Transformation Plan*. Addis Ababa, Ethiopia.
- Munusamy, J., Chelliah, S. and Mun, W. H. (2010). Service quality delivery and its impact on customer satisfaction in the banking sector in Malaysia. *International Journal of Innovation, Management and Technology*, 1(4), 398 - 404.
- Murphy P, Daley D. and Dalenberg J. (1992). Port Selection Criteria: An Application of a Transportation Research Framework. *Logistics and Transportation Review*, 28(3), 237- 255.
- Murphy, P.R, Daley J.M. (1994). A Comparative Analysis of Port Selection Factors. *Transportation Journal*, 34(1), 15 - 21.
- Nitin, S. and Deshmukh, S.G. (2004). *Service quality models: a review*. Emerald Group Publishing Limited, 22(9), 913 - 949.
- Ng. KY. (2006). *Assessing the attractiveness of ports in the North European container transshipment market*. Maritime Economics and Logistics.

- Notteboom, T.E. and Rodrigue, J.P. (2005). *Port regionalization: towards a new phase in port development*. *Maritime Policy and Management*, 32(3), 297 - 313.
- Nozick, L. and Turnquist, M. (2000). A two-echelon inventory allocation and distribution centre location analysis. *Transportation Research Part E: Logistics and Transportation Review*, 37(6), 425 - 441.
- Oliver, R. L. (1980). Cognitive Antecedents and Consequences of Satisfaction. *The Journal of Marketing Research*, 17, 460 - 469.
- Pantouvakis, A., Chlomoudis C. and Dimas A. (2008). *Testing the SERVQUAL scale in the passenger port industry: a confirmatory study*. *Maritime Policy and Management*. 35(5), 449 - 467.
- Parasuraman, A., Berry, L. and Zeithaml, V. (1994), "Reassessment of expectations as a comparison standard in measuring service quality: implications for future research", *Journal of marketing*, pp. 45-58.
- Parasuraman, A., Zeithaml, V. A., and Berry, L. L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49, 41-50.
- Parasuraman. A., Zeithaml, V. A. and Berry, L. L. (1988). SERVQUAL: A Multiple Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64(1), 12 - 40.
- Paul, J. (2005). *India and the Global Container Ports, Maritime Economics and Logistics*, 7(2), 189 - 192.
- Philip, G. and Hazlett, S.A. (1997). "The measurement of service quality: a new P-C-P attributes model". *Journal of Quality & Reliability Management*, 14(3), 260 - 86.
- Rust, R.T. and Oliver, R.L. (1994). "Service quality: insights and managerial implications from the frontier", *Measuring Consumer Perceptions of Service Quality. Journal of Retailing*, 64(1), 12 - 40.
- Sereshchandaretal, G.S., Rajendran, C. and Anantharama, R.N. (2002). The relation between service quality and customer satisfaction, *Journal of service marketing*, 6(4), 363 - 79.

- Scott, D. and Shieff, D. (1993). Service quality components and group criteria in local government. *International Journal of Service Industry Management*, 4 (4), 42 - 53.
- Simon, G.N. and Foresight, K.A. (2009). *An Assessment and Analysis of Customer Satisfaction with Service Quality of Mobile Telecommunication Network in Ghana*. Unpublished Master's Thesis, Lulea University of Technology, Sweden.
- Slack, B. (1999). Satellite terminals: a local solution to hub congestion? *Journal of Transport Geography*, 7(4), 241 - 246.
- Ugboma, C., Callistus, I. and Ogwude, C. I. (2004). *Service quality measurement in ports of developing economy: Nigerian ports survey, Managing Service Quality*.
- UNCTAD, (1991). *Handbook on the management and operation of Dry ports*, Geneva.
- UNCTAD, (2012). *Review of Maritime Transport*. Geneva.
- Webropol, (2011, October). Webropol training material 2011. A training held.
- Wikipedia, the free encyclopedia (2012). Service Definition. Last Access February 25, 2014, from online: <http://en.wikipedia.org/wiki/Service>.
- Wong, A. (2004). "The role of emotions in service encounters". *Managing Service Quality*, 14 (5), 365 - 76.
- Woxenius, J., Roso, V. and Lumsden, K. (2004, September). *The Dry Port Concept – Connecting Seaports with their Hinterland by Rail*. Proceedings of the First International Conference on Logistics Strategy for Ports, Dalian, China.
- Yi, Y., (Ed). (1990). A critical review of consumer satisfaction, in Zeithaml, V. *Review of Marketing, American Marketing Association*, Chicago, IL, pp.68 - 123.
- Yusuf Ahmed, (2009). *Feasibility Study of Dry Ports in Ethiopia*. UNECA, ATPC, Addis Ababa, Ethiopia.
- Zeithaml, V. A., Parasuraman, A. and Berry, L.L. (1990). *Delivering quality service: Balancing customer perceptions and expectations*. The Free Press. New York.

## **APPENDIX A**

### **Questionnaire**

**Dear Customer,**

This questionnaire is designed to gather information on “Assessment of Customer Service Quality in Mojo Dry Port”. The purpose of the study is to fulfil a thesis requirement for the Masters of Business Administration (MBA). The information that you provide will be used only for the purpose of the study and will be kept strictly confidential. You do not need to write your name. Finally, I would like to thank you very much for your cooperation and sparing your valuable time for my request.

Please respond on the following questions by circling on choices given.

**Thank you in advance for your cooperation.**

#### **Part I :**

**1. Gender** a) male b) female

**2. Age group** a)18-25 years b) 26-35 c) 36-46 d)46-55 e)55 and above

**3. Level of Education,**

a) Secondary school and below b)Certificate of Completion High school

C ) Diploma d) First degree e)Second Degree and above

**4. Number of Containerized goods imported by you and served in Mojo Dry Port in within a year**

a)1-2 b) 3-9 c) 10-19 d)20-29 e)More than 30

## Part II

In your opinion, how does the service quality of Mojo Dry Port meet your expectations in terms of following dimensions? Please indicate your responses from 1-5 by circling it:

1. Much worse than Expected    2. Worse than Expected  
 3. Equal to Expectation            4. Better than Expected    5. Much better than Expected

<b>I</b>	<b>Tangibles</b>					
1	Mojo D/P/ has modern and up to date loading and unloading equipment, machineries and related facilities	1	2	3	4	5
2	Mojo D/P/ has appropriate connection to other modes of transportation	1	2	3	4	5
3	Mojo D/P/ has sufficient storage areas and, loading platforms	1	2	3	4	5
4	Mojo D/P/ has entertainment facilities	1	2	3	4	5
5	Mojo D/P/ has appropriate logistical facilities	1	2	3	4	5
<b>II</b>	<b>Reliability</b>					
6	Mojo D/P/ has procedure of operation in the Terminal is secure for cargos	1	2	3	4	5
7	Mojo D/P/ has provide service at the appointed time without delay	1	2	3	4	5
8	Mojo D/P/ has accuracy in providing services without a mistake (receiving and delivering cargo and container) and in the event of a mistake it will be resolved quickly	1	2	3	4	5
9	Mojo D/P/ 's security and safety facilities of terminal are reliable	1	2	3	4	5
10	Mojo D/P/ has offered the correct dynamic information of cargos	1	2	3	4	5
11	Mojo D/P/ has Performing the services right the first time	1	2	3	4	5
<b>III</b>	<b>Responsiveness</b>					
12	Mojo D/P/'s staffs are honest and trustee to assist the customers, information transfer and solving their problems	1	2	3	4	5
13	Mojo D/P/ is responsible for taking feedback from learners and instructors in view point of service quality	1	2	3	4	5
14	Mojo D/P/ has understanding the specific needs of customers	1	2	3	4	5
15	Mojo D/P/ has been keeping customers informed about when services will be performed	1	2	3	4	5
16	In Mojo D/P/ there is effectiveness and efficiency of operators in the container yard	1	2	3	4	5
17	Mojo D/P/ Providing services consistently	1	2	3	4	5
<b>IV</b>	<b>Assurance</b>					
18	Customers feel relax and convenience while interacting with Mojo D/P/'s staffs	1	2	3	4	5



## ለደንበኞች የተዘጋጀ መጠይቅ

ይህ መጠይቅ የተዘጋጀው “የጥጅ ደረቅ ወደብ የደንበኞች አገልግሎት ጥራትና በእርካታ ያለበት ደረጃ” በሜላ አርዕስት ለሚጠናው የሁለተኛ ደግሪ ጥናት መሠረታዊ መረጃ ለመከታተል ነው። የሚጠቀሙት መልስ ለዚህ ጥናት አላማ ብቻ የሚወልድ መሆኑን አረጋግጧል። ስምዎን መጠቀስ አያስፈልገዎትም።

ስለሆነም ከዚህ በታች ለቀረበት መጠይቆች ትክክል ነው የሚሉትን መልስ በመከታተል ምላሽ እንዲሰጡ በትህትና እጠይቃለሁ።

ለትብብርዎ በቅድሚያ አመሰግናለሁ!!

### ክፍል አንድ

1. ጾታ ሀ. ወንድ ለ. ሴት

2. ዕድሜ ሀ. 18-25 ለ. 26-35 ሐ. 36-45 መ. 46-55 ሰ. ከ55 ዕድሜ በላይ

3. የትምህርት ደረጃ ሀ. ሁለተኛ ደረጃ ትምህርትና ከዚያ በታች ለ. ሰርቲፊኬት ሐ. ዲፕሎማ መ. ዲግሪ ሰ. ሁለተኛ ዲግሪና ከዚያ በላይ

4. በአንድ አመት ውስጥ በደረቅ ወደብ ለስንት የገቢ ኮንቴነር አገልግሎት አግኝተዋል?  
ሀ. 1 - 2 ለ. 3 - 9 ሐ. 10 - 19 መ. 20 - 29 ሰ. ከ30 በላይ

### ክፍል ሁለት

በእስከ ግምት የጥጅ ደረቅ ወደብ አገልግሎት በሚከተሉት መለኪያዎች እስከ ከሚጠበቁት ጋር ምን ደረጃ ላይ ይገኛል። ከ1-5 ባሉት ቁጥሮች እባክዎ በመከታተል ምላሽ ይሰጡ።

1. ከጠባቂት ደረጃ በጣም የወረደ ነው      2. ከጠባቂት ደረጃ የወረደ ነው      3. በጠባቂት ደረጃ ላይ ይገኛል      4. ከጠባቂት ደረጃ የተሻለ ነው      5. ከጠባቂት ደረጃ በጣም የተሻለ ሆኖ አግቶታለሁ። :

I						
1	ሞጅ ደ/ወ/ ዘመናዊ የወደብ ማሻሻያ ሪፖርትና መሳሪያዎች አለት	1	2	3	4	5
2	ሞጅ ደ/ወ/ የትራንስፖርትና መተላለፊያዎች መንገዶች ትስስር የተሟላ ነው	1	2	3	4	5
3	ሞጅ ደ/ወ/ በቂ የሆነ የሚከማቸውና የሚስተናበሪያ ተርጉሞች አለት	1	2	3	4	5
4	ሞጅ ደ/ወ/ የመዝናኛ ክበቦችና ፋሲሊቲዎች አለት	1	2	3	4	5
5	ሞጅ ደ/ወ/ በቂ የሆኑ የሎጂስቲክ ፋሲሊቲዎች አለት	1	2	3	4	5
II						
6	ሞጅ ደ/ወ/ በተርጉሞች ልዩነት ያለው የሚያስተናግድበት ጠንካራ የአሠራር ስርዓት አለው	1	2	3	4	5
7	ሞጅ ደ/ወ/ አገልግሎቱን በጊዜ ቀጠሮ መሰረት ያስተናግዳል	1	2	3	4	5
8	በሞጅ ደ/ወ/ ያለስህተት አገልግሎት ይሰጣል፤ ስህተት ሲፈጠርም በአፋጣኝ ማስተካከያዎችን ያደርጋል	1	2	3	4	5
9	ሞጅ ደ/ወ/ አስተማማኝ የአደጋ መከላከያ መሳሪያዎች አለት	1	2	3	4	5
10	ሞጅ ደ/ወ/ ስለዕቃዎች ሂደት ተገቢ መረጃ ያቀርባል	1	2	3	4	5
11	ሞጅ ደ/ወ/ ቅድሚያ ለመጣበቅ መሆኑን ይስተናገዳል በሙሉ መሆኑን ያስተናግዳል	1	2	3	4	5

III						
12	በሞጅ ደ/ወ/ ያሉ ሠራተኞች ታማኝ፣ ደንበኛን ለማዘዝ ዝግጁ የሆኑ፣ ማረጃ በተገቢው የሚሰጡ ችግር ፈቺዎች ናቸው	1	2	3	4	5
13	በሞጅ ደ/ወ/ የደንበኞች የሚሰጡ ግብረ መልሶችና አስተያየቶች አገልግሎቱን ለማሻሻል ይወላሉ	1	2	3	4	5
14	በሞጅ ደ/ወ/ የተለየ የደንበኛን ፍላጎት ማሟላት አለ	1	2	3	4	5
15	በሞጅ ደ/ወ/ ለደንበኛ አገልግሎት መቻቻ በምን ጊዜያት እንደሚጠየቅ ያሳውቃል	1	2	3	4	5
16	በሞጅ ደ/ወ/ አፕራዎች ወጠታማ ብቃት ያላቸውናቸው	1	2	3	4	5
17	በሞጅ ደ/ወ/ አገልግሎት ቀጣይነት ገለጻው መልኩ መሰጠት መቻል አቅም አለው	1	2	3	4	5
IV						
18	በሞጅ ደ/ወ/ ደንበኞች ከሠራተኞች ጋር ሲገናኙ ይቀላቸዋል፣ ምሽት ይሰማቸዋል	1	2	3	4	5
19	በሞጅ ደ/ወ/ ሠራተኞች የዕቃ የሚከበሩትን አሜሪካና ፕሮጀክት ምዘዶች ሃሳብ ያቀርባሉ	1	2	3	4	5
20	በሞጅ ደ/ወ/ ሠራተኞች የደንበኞችን ችግር በማቀላቀል በኩል ታጋሽና እውነተኛ ችግሮች ናቸው	1	2	3	4	5
21	በሞጅ ደ/ወ/ ሠራተኞች በቂ ክህሎትና ዕውቀት አላቸው	1	2	3	4	5
V						
22	በሞጅ ደ/ወ/ ለሁሉም ደንበኞች እኩል ክብር ይሰጣል	1	2	3	4	5
23	በሞጅ ደ/ወ/ ደንበኞች ችግር ሲያጋጥማቸው ስሜት መሰጠትና ማረጋገጫ ይደረጋል	1	2	3	4	5
24	በሞጅ ደ/ወ/ ለታማኝ ደንበኞች በተለየ የሚሰጡ ግብረ መልሶች ስርዓት አለው	1	2	3	4	5
25	በሞጅ ደ/ወ/ አገልግሎት መስጫ ለደንበኞች የተመቻሰው	1	2	3	4	5

**ክፍል ሦስት**

በእስከ ግምት የሞጅ ደረቅ ወደብ አገልግሎት ለመስጠት የሚከተሉት ጉዳዮች ምን ያህል አስፈላጊ ናቸው ይላሉ፡፡

ከ1-5 ባለት ቁጥሮች እባክዎ በመከብብ ምላሽ ይስጡ፡፡

1. በጭሽ አስፈላጊ አይደለም

2. አስፈላጊ አይደለም

3. መካከለኛ ነው

4. አስፈላጊ ነው

5. በጣም አስፈላጊ ነው

1	ሞጅ ደ/ወ/ አጠቃላይ ምልክታ በማሸነፊያዎችና መሳሪያዎች እንዲሁም ፋሲሊቲዎች ማሟላት ረገድ	1	2	3	4	5
2	ሞጅ ደ/ወ/ በተሰጠው ቃል መሰረት የሚደረግ ስራና አገልግሎት አስተማማኝነት መኖር	1	2	3	4	5
3	ሞጅ ደ/ወ/ ደንበኞችን ማዳመጥና የተፋጠኑ አገልግሎት ማቅረብ ላይ ያለው ፍላጎት	1	2	3	4	5
4	የሞጅ ደ/ወ/ ሠራተኞች ያላቸው ሰውነትና ብቃት ለደንበኞች የሚሰጡት መተማመን	1	2	3	4	5
5	ሞጅ ደ/ወ/ ደንበኞችን በመከታተልና ትኩረት መስጠት	1	2	3	4	5

## APPENDIX B

### Descriptive of Statistics for dimensions of service Quality

Dimensions	N	Mean	Std. Deviation	Std. Error Mean
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<b>TAN1</b>	Mojo D/P/ has modern and up to date loading and unloading equipment, machineries and related facilities	94	3.191	1.338	0.138
<b>TAN2</b>	Mojo D/P/ has appropriate connection to other modes of transportation	94	2.351	1.180	0.122
<b>TAN3</b>	Mojo D/P/ has sufficient storage areas and, loading platforms	94	3.383	1.423	0.147
<b>TAN4</b>	Mojo D/P/ has entertainment facilities	94	1.723	1.121	0.116
<b>TAN5</b>	Mojo D/P/ has appropriate logistical facilities	94	2.553	1.113	0.115
<b>REL1</b>	Mojo D/P/ has procedure of operation in the Terminal is secure for cargos	94	2.638	1.351	0.139
<b>REL2</b>	Mojo D/P/ has provide service at the appointed time without delay	94	2.521	1.251	0.129
<b>REL3</b>	Mojo D/P/ has accuracy in providing services without a mistake (receiving and delivering cargo and container) and in the event of a mistake it will be resolved quickly	94	2.500	1.242	0.128
<b>REL4</b>	Mojo D/P/ 's security and safety facilities of terminal are reliable	94	3.085	1.404	0.145
<b>REL5</b>	Mojo D/P/ has offered the correct dynamic information of cargos	94	2.894	1.282	0.132
<b>REL6</b>	Mojo D/P/ has Performing the services right the first time	94	2.936	1.318	0.136
<b>RES1</b>	Mojo D/P/'s staffs are honest and trustee to assist the customers, information transfer and solving their problems	94	3.181	1.383	0.143
<b>RES2</b>	Mojo D/P/ is responsible for taking feedback from learners and instructors in view point of service quality	94	2.766	1.339	0.138
<b>RES3</b>	Mojo D/P/ has understanding the specific needs of customers	94	2.532	1.284	0.132
<b>RES4</b>	Mojo D/P/ has been keeping customers informed about when services will be performed	94	2.660	1.266	0.131
<b>RES5</b>	In Mojo D/P/ there is effectiveness and efficiency of operators in the container yard	94	3.372	1.474	0.152
<b>RES6</b>	Mojo D/P/ Providing services consistently	94	3.330	1.195	0.123

<b>ASS1</b>	Customers feel relax and convenience while interacting with Mojo D/P/'s staffs	94	3.149	1.328	0.137
<b>ASS2</b>	Mojo D/P/ 's staffs suggesting efficient loading mode and service schedule	94	2.681	1.246	0.129
<b>ASS3</b>	Mojo D/P/ 's staffs Sincerity and patience in resolving customers' problems	94	2.883	1.390	0.143
<b>ASS4</b>	Mojo D/P/ 's staffs have knowledgeable and skillful provision and services	94	3.160	1.330	0.137
<b>EMP1</b>	In Mojo D/P/, all customers are given equal amount of importance.	94	2.936	1.480	0.153
<b>EMP2</b>	Mojo D/P/ has g sympathetic and reassuring staff when customers are in trouble	94	2.819	1.399	0.144
<b>EMP3</b>	Mojo D/P/ has a sound loyalty program to recognize you as a frequent customer	94	2.681	1.497	0.154
<b>EMP4</b>	Working time of Mojo D/P/ is appropriate for customers	94	2.787	1.436	0.148