



School of Commerce

**THE EFFECT OF TRANSPORT MANAGEMENT PRACTICE ON
LOGISTICS PERFORMANCE**

THE CASE OF ETHIOPIAN DEFENSE FORCE LOGISTICS MAIN DEPARTMENT

BY:

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A THESIS SUBMITTED TO THE DEPARTMENT OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT, ADDIS ABABA UNIVERSITY, SCHOOL OF COMMERCE.

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The Effect of Transport Management Practice in Logistics Performance

(The Ethiopian Ministry of National Defense, Logistics Main Department)

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DECLARATION

This thesis is result of my independent research work “The Effect of Transport Management Practice in Logistics Performance (The Ethiopian Ministry of National Defense, Logistics Main Department) for partial fulfillment of the requirements for the award of the degree of master of arts in logistics and supply chain management, Addis Ababa University, school of commerce. This work is my original work in nature and has not been presented for a degree in any other university. All references are also duly acknowledged.

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CONFIRMATION

This is to certify that Getinet Gedamu has carried out this thesis on the topic entitled “the effect of transport management practice in logistics performance (the Ethiopian ministry of national defense, logistics main department) under my supervision. Accordingly, i here assure that his work is appropriate and standard enough to be submitted for partial fulfillment of the requirements for the award of the degree of Master of Arts in logistics and supply chain management.

Busha Temesgen (PhD.)

Signature ----- Date -----

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ACRONYMS

CRS: - Customer Requirement Strategy

CSS:-Combat Service Support

FPAP: - Freight payment and Audit Practice

LP: - Logistic Performance

MoND:-Ministry of National Defense

POL:-Petroleum, Oil and Lubricant

SCM:-Supply Chain Management

TMS:-Transport Management System

TPM:-Transport Performance Measurement

TPMP: - Transport Performance Monitoring Practices

TS:-Transport Service

ABSTRACT

As part of logistics, transportation has emerged to have huge potential in enhancing production and distribution of goods, personnel, military equipments materials in the organization. Understanding this is very essential and important in defense organization where each and every part of supply chain management is essential for the effectiveness of the entire department in the organization. The department was chosen because it has not been performing well as expected despite in the last three years (2016-2018). The study was guided by the following objectives; to establish the level of implementation of transport management practice on logistics performance, to determine the relation between transport management practices and logistics performance and to identify the challenges in the implementing of transport management practices on logistics performance at LMD. This study was adopted the descriptive and inferential statics on explanatory research design to obtaining the information about the study topic. The study's population comprised of all logistics main department employees who were selected based on stratified sampling approach. The data was collected by using questionnaire and interview and analyzed using descriptive and inferential analysis used by Statistical Package for Social Sciences (SPSS). The study found out that both customer requirement strategy and carrier management practice to low extent and both freight payment and audit practice and transport performance monitoring practice were implemented to a moderate extent. The study further found out that there exists a strong relationship between transport management practice and logistics performance at LMD. The study also found out that there are challenges that limit the effectiveness in the implementation transportation process. The study thus concludes that increase in transport management practice would result in enhanced logistics performance. The study recommends that the management at LMD conduct an evaluation of these strategies, and how exactly they are implemented. The study thus suggests that further studies to be conducted on how these challenges may be addressed. Further research should also be using a different approach in determination of the effect of transportation has in logistics performance.

Key words: Transport Management Practices, Transport Service, Logistics Performance and Supply Chain.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

As stated by, Engels, Donald W. (1980), in military science, logistics is concerned with maintaining army supply lines while disrupting those of the enemy, since an armed force without resources and transportation is powerless. Military logistics was already practiced in the ancient world and as modern military have a significant need for logistics solutions, advanced implementations have been developed. In military logistics, logistics officers manage how and when to move resources to the places they are needed.

As clearly stated by Chnag.F, (1988), among this big services of logistics, transportation plays a connective role in logistics among several steps that result in the conversion of resources into useful goods in the name of the ultimate consumer. Military logistics is the discipline of planning and carrying out the movement and maintenance of military forces. In its most comprehensive sense, it is those aspects or military operations that deal with: Design, development, acquisition, storage, distribution, maintenance, evacuation, and disposition of materiel, transport of personnel, acquisition or construction, maintenance, operation, and disposition of facilities, acquisition or furnishing of services, and medical and health service support. Transportation services for the military also involves the management of heavy lift and heavy haul project shipping, and under tight deadlines. When it comes to military shipping, it's often necessary to move cargo to remote destinations.

According to Association, C. (1988) clearly stated, transportation system is the key element in logistics chain, which joint the separated activities of combat service support/CSS/. He also explained transportation occupies one-third of the amount in logistics costs and the effect of transpiration system influence the performance of logistics system hugely. So transportation is required in the whole production procedures, from manufacturing to delivery to the final consumers and returns. This shows that the operation of transportation determines the efficiency of moving products. The progress in techniques and management principles improves the moving load, delivery speed, service quality, operation costs, the usage of facilities and energy savings.

As explained by Said Adejum obi and Mesfin Binega, Ethiopia is the oldest independent country. Unlike most other African countries, apart from a brief Italian occupation (1936-1941) it was

never occupied by a European power. The military history of Ethiopia dates back to the foundation of early Ethiopian Kingdoms in 980 BC .The army has been, beyond all disputes, one of the oldest institutions and used to secure the power. In Ethiopia however, the modernization of army was began from the Axumite Kingdom. It also legally established in the year of 1935 during Emperor Haile SilaseI regime. The Ethiopian Empire also known as Abyssinia was *kingdom that spanned a geographical* (online available) at: (www.newworldencyclopedia.org/entry) (accessed at October 21, 2018).

However, according to **Ethiopian Ministry of National Defense (EMoND), armed force regulation and directives, (1999:78)**, the current army of Ethiopian National Defense Force is built based on two basic concepts. These include, to defend the constitution from any internal and external violent forces, and to serve the society as well as the interest of the country. In order to accomplish this task, the country is established its military force based on some different main departments. Among them logistics main department (LMD) is the main back bone of the institution established and found in Addis Ababa and branched in to four departments namely, ordnance, petroleum oil lubricant (POL), supply, and transport departments.

According to EMoND training main department regulation and directives, (directive, (2006:56), the transportation department's vision is to ensure the provision of a modern, integrated and safe supportive combat service support to meet the needs of all the troops for strong combat system in logistics. The transport department is responsible to coordinate and strength the logistics system safely, and also strengthen the capacity of several divisions and mechanized regiments administrative in order to ensure the provision of adequate and integrated combat service support in the cost efficient manner .Clearly shows, the basic mandate of this department is to transport materials, supplies, personnel, and fluid and dry cargoes to the front of the country and facilitating day to day actives to manipulate and support logistics performance of the whole institutional missions.

Therefore, the researcher is intended to both empirically and will supported by theories there test the transportation system and employee perception towards identifying the impact and relationships among transportation management practices, transport performance and logistics performance of the case main department of logistics.

1.2. Statement of the Problem

According to Ronald, H.(2007:45) during the 1990s and the first part of the 21st century, the high availability and low cost of transportation services relative to the cost of holding inventory encouraged organizations to emphasize fast, frequent delivery to customers through such means as just-in-time delivery. But things have changed dramatically in the last decade, and companies increasingly are calling such long-standing strategies into question. The "game changers" are volatile, escalating oil prices and an imbalance of supply and demand for freight transport services. These realities have led to high transportation costs—high enough to cause companies to make transport-driven shifts in their supply chain strategies.

As clearly explained by Matiwoas,E.(2013:89-90) logistics measurement system should hold the logistics manager accountable in four categories of measures: total transportation cost, asset productivity, quality, and response time. Transportation performance measures fall in to four categories as well as their use in transportation performance benchmarking and project justification which includes, financial Metrics-transportation financial metrics should include total transportation costs and related ratios, as well as economic values for fleet assets, Productivity Metrics-transportation productivity metrics fall in two categories: transportation asset productivity and transportation operator productivity, Quality Metrics-transportation quality and reliability are just as important, if not more important, than cycle time.

According to EMoND armed force regulation and directives, (1999:78) non published manuals, there is a great and high transportation services have done in logistics main department which concern to full fill CSS. These functions are including transpiration of military and civil personnel, military equipment, combat units, supportive groups, and others. But, without good understanding and effective transportation performance, it would be difficult for logistics main department (LMD) to achieve its long and short term objectives.

However, the LMD department has not been performing well as expected. Many reports show that, there is a gap between the transportation service and its practical performance measurement process (logistics main department annual report, 2016). Accordingly, the past transportation personnel and transport officers experiences and assumption showed that, the military transportation functions and its performance in logistics sector faces to some extent credibility problem as a value adding unit of the defense organization. Some of these problem/gaps are damage of vehicles, turnover of personnel, unsatisfactory mission accomplishments, idle of

resources, problem of career relationship /sometimes failure of contract agreement and high cost incurred in the logistics that influence in logistics performance. (Logistics main department annual reports, 2016-18).

Accordingly, to conduct assessment and analysis on the effect of transport management practices on performance of logistics, taking as case such the effect of transportation as defense logistics main department is very essential. Therefore, since the effort to examine the effects and relationship between transportation practices and performance calls for theoretical and conceptually confirmation of their impacts on the organization, hence this study will contribute to the debate by testing the effect and relationship between transportation management practice and logistics performance in the case of the organization.

This study is therefore, intended to access the current EMoND military transportation system, the strengths and weakness related to its effect in logistics performance and its practical implementation.

1.3. Research Questions

Based on the above experiences, assumptions and gaps the researcher is initiated to assess and identify the effect of transportation management practices in logistics performances currently, and the researcher is interested to address the following basic research questions at LMD.

- ❖ How the department performs on each determinant of transport management practices (customer requirement strategy, carrier management practice, freight payment and audit practices, and transport performance monitoring practices) to logistics performance at LMD?
- ❖ What is the relationship between each determinant of transport management practice (customer requirement strategy, carrier management practice, freight payment and audit practices, and transport performance monitoring practices) and logistics performance at LMD?
- ❖ What are the challenges of transport management practices at LMD?

1.4. Research Objectives

1.4.1. General Objective

The general objective of this study is to explain and to describe the effect of transport management practice on logistics performance at LMD.

1.4.2. Specific Objectives

The specific objectives of this research are:

- To describe the level of implementation of transport management practice in logistics performance at LMD.
- To explain the relationships between each determinant of transport management practices (customer requirement strategy, carrier management practice, freight payment and audit practices, and transport performance monitoring practices) and logistics performances at LMD.
- To identify the challenges of transport management practices at LMD.

1.5. Significance of the Study

The result of this study will enable and important in so many different ways for the EMoND and transportation of LMD and other the military logistics personnel as well as. It helps, to build the importance of transportation in logistics which can influence the logistics performances. Finally it creates the importance and sufficient of relevant information for planning and making decisions about a transport strategy.

Last not least, few researches are conducted on the topic, particularly in the logistics main department. So, this research serves as a spring board for other researches and further studies that might be engaged in the area of the topic. In this respect, this study provides reference to those who need them indicate to the problems, and leads to the necessary data that might be helpful for their researches by adding to the literature produced on the topic.

1.6. Scope of the Study:

The target population of this study was logistics main department only. The management of transportation on logistics performances encompasses vast areas of managerial practices. However, it was difficult and unmanageable to conduct the study in all areas that summarizes transportation management in terms of time, finance, and research manageability. Therefore, the scope of this study was delimited to the effect of transport management practice on logistics performance was restricted only to EMoND logistics main department (LMD), which is located in Addis Ababa will be subjected of the study.

The subject scope of this study was delimited to the point view of logistics performances references towards quality, responsiveness, effectiveness, and flexibility. Besides, in terms transport management practice; customer requirement strategy, freight payment and audit

practices, performance monitoring practices and carrier management practice were only the main determinants in this study.

The investigation was conducted to determine the effect of transportation management practice in logistics performance during the evaluations years of 2016-2018.

1.7. Limitation of the Study

The researcher was faced some limitations during the course of research. Due to the delicate nature of the study; topic management of the LMD was unpleasant /peculiar itself giving information. Particularly, the respondents feared that information would be used for other purpose. Another limitation was that top management which comprised the target population of was not readily accessed. This was due to their busy schedules and long appointment. In addition, there was assessed the influences of transportation management practices from the stand point of the focal department (transport) it was involved the other member of the departments in the LMD such as ordnance, POL and supply. Additionally, the study was limited to four transport practices namely; customer requirement strategy, carrier management practice, freight payment and audit practices and transport performance monitoring practices which may not be exhaustive list of all transport management practices.

Thus, the researcher tried to minimize the effects of these limitations by established a very close relation with the whole respondents.

1.8. Definition of Terms

Transportation: As clearly explained by Matiwos, E. (2013:86), it refers to the movement of everything from raw material to finished goods between different facilities in a supply chain.

Logistics: is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfillment of orders. (Christopher, 2011: p. 2)

Transportation performance: It measures that quantity the effectiveness of transportation operations and policy. Theses allow for better management decisions accurate mapping of trends in the transportation industry. It is the function of safety, transit time, cost and sustainability. Transport Styrelsen. (n.d.a). Tider och belopp I Göteborg.,from (http://www.epa.gov/dced/transpo_performance.htm) (Accessed Novemebr 14, 2018).

Military: According to James,R.(1982:23) a military is also it forms as a military service responsible for the safety of maritime traffic in coastal.

Combat Service Support: Based on Rodriguez, F.(2006:97),combat service support is the activity, which actually provides services and supplies to the combat forces and ground combat troops to permit those units to accomplish their missions in combat and it is the inclusive of strategic, operational, and tactical logistics parallel and complement the levels of war.

Department: A specialized division in defense organization which is responsible for the accomplishment of logistics activities.

1.9 Organization of the Study:

The study consists of five chapters and it was organized into as, chapter one contains background of the study, statement of the problem, basic research questions, objective of the study, definition of terms, significance of the study, delimitation/scope of the study and limitation of the study. The second chapter deals with the literatures relevant to the study and conceptual frame work adapted from previous studies. Under the third chapter, the type and design of the research, the subjects/participants of the study, the sources of data, the data collection tools, the procedures of data collection, and the methods of data analysis use will describe. Chapter four was summarized the results/findings of the study and interprets and/or discusses the findings. Finally chapter five comprises four sections, which includes summary of findings, conclusions, recommendations and suggestions for future study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Introduction

Accordingly the explanation of Jean-Paul, R. (2017) development is related at improving the welfare of a society through appropriate social, political and economic conditions. The expected outcomes are quantitative and qualitative improvements in **human capital** (e.g. income and education levels) as well as **physical capital** such infrastructures (utilities, transport, telecommunications). The highly transactional and service oriented functions of many transport activities underline the complex relationship between its physical and human capital needs. Transportation plays a key role in the supply chain, because without the efficient movement of finished goods and raw materials the entire system would not be able to work at its full potential (Green, Whitten, & Anthony, 2008). A study by Wiendahi, (2009) established that transportation is the operational area of logistics that geographically moves and positions inventory (Cohen and Roussel, 2005; Wagner, 2010). Transport Logistics, has evolved very naturally into a premier provider of 3PL services which specialize in providing its clients with cost effective, high tech solutions for the most demanding supply chain challenges (Bryman, 2006).

Because of its fundamental importance and visible cost, transportation has traditionally received considerable managerial attention. Almost all enterprises, big and small, have managers responsible for transportation. Speed and consistency combine to create the quality aspect of transportation. In designing a logistical system, a delicate balance must be maintained between transportation cost and service quality. In some circumstances low cost, slow transportation is satisfactory. In other situations, faster service may be essential to achieving operating goals.

This chapter constitutes an overview of the available of literature related to transportation and logistics and its effect on logistics performance. The chapter is structured into theoretical frame work, the concept of logistics and transportation on logistics performance at main department (LMD) while giving evidence from empirical literature. This concludes with the conceptual frame work with the identification of both dependent and independent variables.

2.2. The Development and History of Transportation Management

Accordingly the explanation of Jean-Paul, R. (2017) transportation developments that have taken place since the beginning of the industrial revolution have been linked to growing economic opportunities. At each stage of societal development, a particular transport technology has been

developed or adapted with an array of impacts. As clearly stated by the above source there are five major waves of economic development where a specific transport technology created new economic, market and social opportunities can be suggested namely:

- **Seaports.** Linked with the early stages of European expansion from the 16th to the 18th centuries, commonly known as the age of exploration.
- **Rivers and canals.** River trade has prevailed through history and even canals were built where no significant altitude change existed, since lock technology was rudimentary in the late 18th and early 19th centuries.
- **Railways.** The second stage of industrial revolution in the 19th century was linked with the development and implementation of rail systems enabling more flexible and high capacity inland transportation systems
- **Roads.** The 20th century saw the rapid development of comprehensive road transportation systems, such as national highway systems, and of automobile manufacturing as a major economic sector.
- **Airways and information technologies.** The second half of the 20th century saw the development of global air and telecommunication networks in conjunction with economic globalization. New organizational and managerial forms became possible, especially in the rapidly developing realm of logistics and supply chain management.

As we have seen from the above theories no single transport mode has been solely responsible for economic growth. Instead, modes have been linked with the economic functions they support and the geography in which growth was taking place.

2.3 Transportation in Defense

According to Schneider W, (1985) transportation is the key instrument for defense institutions to accomplish its vision, mission, objectives and goals. It improves the reliability, predictability, and efficiency of department of defense /DOD/ material moving with the nation by all modes through long term partnerships with a world-class coordinator of transportation management services. Furthermore, transportation in defense is one of the functions of logistics, it facilitates to the CSS which is transferring military equipment from initial to destination areas. Transport support is played an important role to multiply forces and it ensured effective use forces by

moving to the assigned area within limited terms. (EMoND Training Manuals Tactical Logistics).

2.4 Logistics and Transportation Practices

Logistics and transportations has emerged as one of most supply management practices in most institutions. Logistics activities entail all the production activities undertaken to ensure all the goods are effectively produced while transportations cover how the consumer gets the final products at the right time. These two concepts do not exist as separate entities but ought to be well coordinated as successful transportation will be achieved when the logistics was well managed (Ketchen & Hult,2007).

Logistics activities are incorporated in organizations mainly to improve the entire supply chain practices. Some organizations may lack the required expertise and resources to fully perform the desire logistician activities hence end up outsourcing logistics (Stevenson, 2009). All these are aimed at promoting the supply chain performance at the organization which will results in proved performance.

Transportation plays a connective role of both service delivery and customer satisfaction. The transportation costs that are aimed to be achieved include low cost, timely delivery and increased transport velocity while making optimum use of the organizations resources. Transportation and logistics targets to properly merge and organize all the activities in cost proficient manner (Byrne & Markham, 1991).This is essential in the current logistics performance environment whereby any slight mistake or delays are likely to result to large amount of losses being incurred (Shankar,2001).

The logistics and transportation practices incorporated in organizations also are through inventory management and distribution management. The inventory control aims to enhance credibility and transparency in the transport operations and transactions. Without proper inventory control, the entire transportation control scheme will not achieve its intended purpose (Mathur, 2010). While distribution ensures that the goods reach the specified destinations at the specified time. It also enables tracking and tracing of goods to prevent any loss goods (Phelan, 2009).

2.5 Logistics Performance

The performance of an organization refers to a detailed analysis of not only organization's productivity but also the efficiency in conducting. This may include all the measures undertaken

to ensure that the operation costs are minimized while attaining the organizations objectives (Hack man, 2008). This includes the ability to maximize the available resources, balancing the outputs and inputs and scaling up the efficiency in how the activities are conducted. Performance measures are used to gauge the extent to an organization meets its set targets. Most organizations have been established to evaluate their performance based on cost and efficiency (Jayne et al, 2010). This includes doing all the expected duties at the best quality whilst incurring the least costs. Through this, the transportations costs are minimized and thus, the gains accrued are boosted. However, in addition to the financial measures, there are non- financial measures which aim at capturing the entire effectiveness of the organization (Onyango, 2011).

These non-financial measures of performance include profitability, quality responsiveness, effectiveness, flexibility and reliability (Bwari, 2016). These are used to determine the how effective the organization is in accomplishing its tasks and operations. Additionally, ratios may also be incorporated in the organization in controlling the financial affairs.

Service Quality is the concept of service quality includes aspects of transportation service that are not always well defined and easily measured. In this article, quality of service is defined in terms of a set of attributes that each user perceives to be the sources of utility or satisfaction in bus use. The dimensions of quality, viewed from a customer's perspective, are complex. Consumers might consider comfort at the bus stop and the time to get a seat, or only the comfort of the seats. Modal choice surveys have identified a large number of influences on the use of buses in contrast to other private and public modes. Service quality can be divided into six broad classes of effects, each containing different quality dimensions (Hensher 1991).

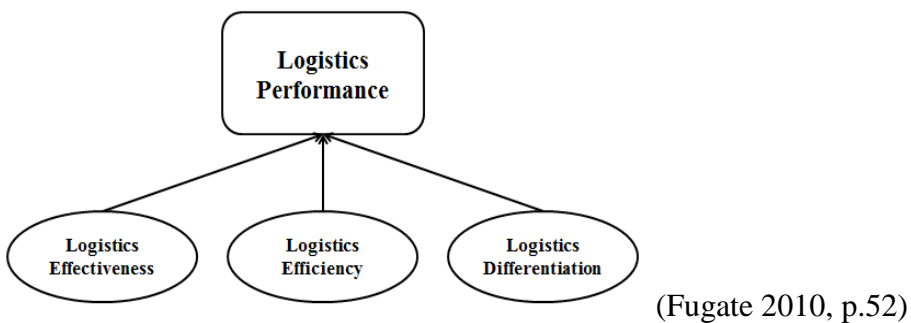
The above statement implies that transit operators are increasingly being asked to provide services more cost efficiently. To do this, operators must find ways to reduce the costs of delivering a given level of service (in contrast to simply reducing cost at the expense of lower service levels). Researches shows that there is growing concern in many countries that operators are not focusing enough attention on identifying whether transport **customers are satisfied** with existing service levels and what might be done to increase or at least preserve current service quality.

2.5.1 Determinants of Logistics Performance Measurement

Management experts often say that, “you can’t manage what you can’t measure.” What is measured, how it is measured, and how data are presented can affect how problems are evaluated and solutions selected.

This model and view of logistics performance is supported by several other scholars who agree logistics performance is a multidimensional function of efficiency, effectiveness, and differentiation (Bobbit, 2004; Cameron, 1986; Fugate, 2010) and that all can and should be “pursued simultaneously,” (Fugate, 2010, p.52). Thus, the model provides a useful lens from which to compare the identified body of literature (discourse).

Figure 2:1. Logistics Performance



2.5.1.1 Efficiency

- I. The ratio of resources utilized against the result derived (Mentzer and Konrad, 1991).
- II. The internal functioning of logistics and generally is considered best represented through some ratio of the normal level of inputs to the real level of outputs (Chamberlain 1968; Van der Meulen and Spijkerman, 1985).
- III. The measure of how well the resources expended are utilized (Fugate. 2010).

2.5.1.2 Effectiveness

- I. The extent to which the logistics function’s goals are accomplished (Mentzer and Konrad, 1991).
- II. The ability to achieve pre-defined objectives, for example, in meeting customer requirements in critical (e.g. product guarantee, in-stock availability, fulfillment time, convenience) (Langley and Holcomb, 1992). The efficient transport management practice is perceived that to ensure efficient movement of and coordination of goods and commodity to and fro the organization (Mugo, 2013).

2.5.1.3 Differentiation

I. Comparing results of logistics activities to competitors (Langley and Holcomb, 1992).

II. Superiority when compared to competitors (Fugate. 2010).

2.6 Relationship between Logistics, Transportation Management Practice and Logistics Performance

Logistics and transportations involve efficiency in integration of all materials in supply chain from the initial start point of production to the final destination point of the goods (Ovaci, 2016). The importance of that this brings to the organizations has been growing with it being recognized in both large and small organizations. This is largely because, through logistics and transportation, the already existing transportation and management practices are enhanced without the need to acquire any additional resources. Therefore it promotes the efficiency and competitiveness of a particular institution (Kahia, 2014).

The key emerging trends influencing logistics and transportations include increased focus to manage the logistics costs and emphasizes on execution excellence in the over ally supply chain model. This has seen organizations irrespective of institutions they belong to invest largely in) logistics with the aim of improving performances (NSDC, 2010). A well-executed logistics and transportation plan will save the organization a lot in terms of cost and lose of valuable resources hence positively influencing logistics performance (Green, Turner, Robert, Nagendra & Wininger, 2008).

2.7. Determinants of Transport Management Practices

According to Wikipedia, transportation is defined as the movement of people, animals and goods from one location to another. Modes of transport include air, rail, road, water, cable, pipeline and space. The field can be divided into infrastructure, vehicles and operations. Transport is important since it enables trade between people, which in turn establishes civilizations. I find it an interesting point that transportation is an enabler of civilization, but this makes sense, as it enables the ability to trade and communicate.

Transportation processes are essential parts of the supply chain as they perform the flow of materials that connects a company with its suppliers and with its customers (Fleischmann, 2005). Only by the appropriate and well-defined use of transportation can a supply chain be successful (Chopra and Meindl, 2004). To support participants of a supply chain in decision-making with

regard to transportation, information and planning systems called Transportation Management Systems (TMS) can be used.

(Michael A P Taylor et al.: 2005 as quoted by Yung-yu Tseng et al.2005:162) “The role that transportation plays in logistics system is more complex than carrying goods for the proprietors. Its complexity can take effect only through highly quality management. By means of well-handled transport system, goods could be sent to the right place at right time in order to satisfy customers’ demands. It brings efficacy, and also it builds a bridge between producers and consumers.” Therefore, transportation is the base of efficiency and economy in business logistics and expands other functions of logistics system. In addition, a good transport system performing in logistics activities brings benefits not only to service quality but also to company competitiveness.

2.7.1 Carrier Management Practices

A key decision in logistics management is the selection of the transportation mode and carrier to move the firm’s inbound and outbound freight. Managers typically consider multiple attributes when making this decision, often focusing on cost and transit time as the primary criteria (Meixell & Norbis, 2008). The importance of individual factors often differs from industry to industry, company to company, and even within a company from one facility to the next. Mode and carrier selection is often viewed differently for inbound and outbound shipments, even at the same location.

Mode choice and carrier selection are part of the decision-making process in transportation that includes identifying relevant transportation performance variables, selecting mode of transport and carrier, negotiating rates and service levels, and evaluating carrier performance (Monczka, Trent, & Handfield, (2005).

Carrier selection has been structured as a two-step process, first the choice of the mode followed by the selection of the carrier within that mode. These decisions today are often made simultaneously, along with the alternative of outsourcing to third-party logistics organizations.

2.7.2 Freight Payment and Audit Practices

Best practice leaders forge closer relationships with sales and customer service officers to help them better understand the cost of serving the customer and in the process identify opportunities for reducing costs. The existence of large shipper’s scale and technological advances are now driving efficiencies in freight payment processes. A case in point is the use of real time gross

settlement system (RTGS) in paying for services rendered. Rates are managed at a central location and invoices received are compared with contract terms. This ensures effective cost management and also supports the ability to generate revenue from transportation operations.

The process looks at the key functions of invoice processing. These include Invoice Receipt, Validation, Dispute Resolution, Approval, Payment and Audit. The audit results provide a prioritized list of cost savings opportunities. They highlight opportunities to strengthen the transportation organization. The audit also provides a road map for improving processes and customer satisfaction.

2.7.3 Transport Performance Monitoring Practices

Load planning and optimization is the creation of efficient transportation plans that allow shippers to reduce costs and improve service. Companies here look for opportunities to balance costs, expected transit times and the methods of shipment available. A good example is where a company consolidates shipments that are less than container load (LCL) into full container loads (FCL). Others may include use of pallets instead of loading loose cartons as they offer stability and safety during transit. For airfreight, the use of unit load devices assists in loading planning and safety consideration during the entire flight. Several authors consider packaging to be one of the most important activities in supply chain and distribution networks (Jahre & Hatteland, 2004), Gustafson, Jonson, Smith, & Sparks, (2006). It is the packaging that enables a product to be unitized, protected and transported securely (Prendergast, 1995). Consequently, the packaging's shape, volume and weight, which may differ to that of the product inside, have a significant impact on logistics activities (Ballou, 1987). Primary packaging characteristics are often taken for granted by designers, marketers and handlers, when slight modifications could impact positively on transport efficiency. For instance, the familiar *round* tin can is not ideally suited to maximize transport capacity, but metal *square* cans have proven difficult and expensive to construct (Jahre & Hatteland, 2004). Where transport costs represent a significant part of the total distribution costs, then one area which determines the efficiency of all others is the vehicle routing and scheduling activity which could collectively be known as load planning (Slater, 1979). The Logistics Managers concern would be to move shipments in optimal quantities to take advantage of any economies of scale. Load planning and optimization appeal is that it helps companies achieve agility and efficiency in highly demanding and dynamic planning environments.

Performance measurement is very important as a strategic tool and also provides means to achieve the objectives required, fulfilling a firm's mission or strategy statement. Many firms have been observed to evaluate performance, primarily on the basis of cost and efficiency (Skinner, 1971). Besides the financial measures, we now have the non-financial measures which include time, quality and flexibility. Time element has strategic importance in business and hence time has to be used as a strategic metric in performance measurement (Stack et al, 1990). These authors argued that measuring, controlling and compressing time shall improve quality, reduce costs, improve responsiveness to customer orders, enhance delivery, increase productivity, increase market share and increase profits. Flexibility (to measure the ability to deal with the dynamic nature of the business) is a performance apart, since it is an ability to change something (for example, the production volume or mix) in relation to all the three performances of cost, time and quality (De Toni and Tonchia, 1998). Logistics Managers have to agree on the metrics to be used in evaluating performance with their transportation providers. Scheduling and attendance at review meetings should involve all levels in the organization.

2.8. The Role of Transportations in Military Combat Service Support

“Transportation as a function has existed from the beginning of American military history. The quartermaster department was long responsible for wagon and boat transportation, except for harbor craft; responsibility for harbor craft resided with corps of Engineers since it had the mission of maintaining ports. When the army adopted the use of military railroads during the civil war, that function also fell to the corps of Engineers since it was responsible for repairing tracks and building bridges.” (Richard Killblane, 2017).

According to the American FM 4-01-series manuals reports army transportation plays a key role in ensuring that Army and joint forces can execute global force projection and sustain forces in operations. Supporting the JFC and the Defense transportation system (DTS), Army transportation is essential to effective and efficient force generation and sustainment. Army transportation operates as a partner in the DTS to deploy, sustain, and redeploy forces in all military operations. Transportation provides vital support to the Army and joint forces across the strategic, operational, and tactical levels of war. It is a seamless system that unites the levels of war with synchronized movement control, terminal operations, and mode operations. Army transportation incorporates military, commercial, and host nation capabilities. It Moves and transfer units, personnel, equipment, and supplies to support the concept of operations.

2.9. Transport Management Strategies

According to Thomas, C. (2017) a transport strategy, to be effective in supply chain management, is not playing one carrier off against another. It is not beating down rates. Rather it is a way to respond to the dynamic of the business, its customers, suppliers and operation. Moreover, accordingly his explanation the strategy, regardless of whether the business involved domestics or international or any kind of services giving, is much more should recognize the following strategies; namely **customer requirement**-therefore the transportation program must reflect and meet the customers' need, **modes selection**, **carrier relationships**, measuring/benchmarking, regulatory impacts, Carrier mergers and alliances and closings, and **flexibility**. Tom, C, .2017, Logistics and supply chain management, *solution that work* (online available) at: < (<http://www.ltdmngmt.com/index.php>)> (accessed 26 December 2018)

Shippers should pay carriers correctly and timely, resolve claims quickly, utilize driver's time efficiently and fulfill promises of consistent loads. Carriers must negotiate fairly, adhere to routing guide compliance, invoice shippers accurately and timely and provide a consistent level of exceptional service. Companies should build trust by keeping promises, showing respect and being loyal.

Technology can help manage the carrier and shipper relationship by capturing all transactional information. The data that is collected can be used for accountability. Transportation Management Systems (TMS) capture data across transport processes and gather transactional information to provide high levels of visibility within the supply chain. The accurate and timely data from the TMS can be used to monitor and validate communications and interactions between shippers and carriers.

Shippers need to see the history of shipping transactions to understand what they are paying in each lane. Each carrier needs to be benchmarked against one another to establish a minimum level of acceptable service.

Most importantly, shippers must have analytics at their fingertips. Carrier Scorecards will empower management to make sound decisions and present information to the carrier that can reward or improve their behavior based on results. Sitting down with carriers without the facts will lead to a series of anecdotes that are hard to substantiate as a pattern.

Carrier scorecards should address the following areas:

- On-time delivery performance
- Billing accuracy and quick resolution of discrepancies
- Monitoring damages and handling claims
- Load acceptance and denials
- Accessories as percent of total freight
- Spend per carrier, per lane, per mode

Once the carrier has a true picture of their performance and how they stack up against the competition, they have the information they need to work with their team to improve their service and gain additional business. An improvement plan should be designed and continually measured and analyzed. By monitoring performance, carriers and shippers can build and maintain a win-win.

Continuous communication will keep the relationship running smoothly and help build trust. During peak stress times, it will be important to rely on each other for integrity and respect. By understanding one another, the partnership has the opportunity to become stronger. Working together, carriers can run their businesses more efficiently and shippers will have the tools to achieve higher efficiency in their freight operations.

2.9.1 Customer Requirement Strategies

As clearly stated by Wathe (2016) who investigate the effect of customer requirement strategy on transport management, the logistics performance of the organization is better qualified and performed. The supply chain involves continuous and efficient movement of product from vendor to manufacturer to customer. Therefore the transportation program must reflect and meet the customers' needs. The time and service aspects of transportation are vital. Shipments must move timely, it includes Customers demand their shipments be delivered as they require--on the date needed, by the carrier preferred, in the proper shipping packaging method and complete, both shipped complete and delivered complete and in good order. Being able to have a transportation program with can do this provides customer satisfaction and can give your company a competitive advantage.

2.9.2 Carrier Relationships

Volume creates carrier/forwarder attention. Even if you have no strategy, the number of carriers trying to meet with you will make you develop one. Infrequent shipping dictates another

approach.

The carrier attention with volume creates a competitive interest in your business. But there is another side to this attention; you cannot divide your business among many carriers. You cannot do this for two reasons. First, as you fracture your business, you fracture your negotiating or leverage position. Second, you will not be able to develop carrier alliances which you need to meet the supply chain service requirements. Developing supply chain responsive programs requires effort by both the carriers and you. Transportation must be responsive and can create a competitive advantage. Doing this means a focus with a carrier--a relationship (Fleischmann, 2005, Chopra and Mehal, 2004).

2.10 The Effects of Transportation on Logistics Activities

Transportation plays a connective role among the several steps that result in the conversion of resources into useful goods in the name of the ultimate consumer. It is the planning of all these functions and sub-functions into a system of goods movement in order to minimize cost maximize service to the customers that constitutes the concept of business logistics. The system, once put in place, must be effectively managed. (Fair et al., 1981) Traditionally these steps involved separate companies for production, storage, transportation, wholesaling, and retail sale, however basically, production/manufacturing plants, warehousing services, merchandising establishments are all about doing transportation. Production or manufacturing plants required the assembly of materials, components, and supplies, with or without storage, processing and material handling within the plant and plant inventory.

Warehousing services between plants and marketing outlets involved separate transport. Merchandising establishments completed the chain with delivery to the consumers. The manufacturers limited themselves to the production of goods, leaving marketing and distribution to other firms. Warehousing and storage can be considered in terms of services for the production process and for product distribution. There have been major changes in the number and location of facilities with the closure of many single-user warehouses and an expansion of consolidation facilities and distribution centers. These developments reflect factors such as better transport services and pressures to improve logistics performance.

2.11 The Role of Transportation in Service Quality

The role that transportation plays in logistics system is more complex than carrying goods for the proprietors. Its complexity can take effect only through highly quality management. By means of

well-handled transport system, goods could be sent to the right place at right time in order to satisfy customers' demands. It brings efficacy, and also it builds a bridge between producers and consumers (Klassen and Jacobs, 2001). Therefore, transportation is the base of efficiency and economy in business logistics and expands other functions of logistics system. In addition, a good transport system performing in logistics activities brings benefits not only to service quality but also to company competitiveness.

2.12. Empirical Review of Studies

There are certain previous researchers which have devoted a great deal of attention to the relationship and effect and impact of transportation management practices and certain aspects of overall logistics performance from different perspective/dimensions or overall supply chain. Some of these researches finding are discussed as follow:

The effect of transportation has on logistics performances has been supported by several studies conducted. However, the studies show mixed result how transportation practices affect the performance of on logistics performances.

As stated by Salazar, (2012) conducted a study the effect of transportation process on competitive advantage and logistics performance. This research conceptualizes and develops three dimensions of transportation practice (career relationship management, Intelligent Transport Systems (ITS) and freight transport and commercialization) and tests the relationships between these transportation practices, competitive advantage, and logistics performance. Data for the study was collected from prominent organizations and the relationships proposed in the framework were tested using rigorous/exact statistical techniques. The results indicate that higher levels of transport practice can lead to enhanced competitive advantage and improved logistics performance.

Accordingly the explanation of Vijayaraghavan and Raju (2008) conducted a study on the effect of transport on the influence of logistics performance, taking a case of India based organizations. The study analyzed a ten year period to determine any significant change before and after implementation of transportation and logistics practices. The finding of this result was revealed that there was a positive relationship between the transportation capabilities on the logistics performance of organizations. This study will aims at determining whether the same positive relationship exist on the local department at LMD.

As Kiraga (2014) conducted a study on the transportation at humanitarian organization in Kenya. The population comprised of all the humanitarian logistics firms that make appeals for assistance and are actually involved in the distribution of the aid received to the intended beneficiaries. The study concludes that any set of performance metrics should represent performance indicators in the logistics chain, include financial, and control elements, distinguish between different levels in the organization, indicate the relationship between logistics functions and be capable for use as a calculation model in order to obtain quantifiable results. The exact transport strategies were however not identified by the study.

Based on Bwari *et al.* (2016) conducted a study research on supply chain in East Africans Breweries limited. The study adopted descriptive research design. The study was targeted all the 1653 employees in East Africans Breweries limited. From each stratum, the study took a 10% samples to give a sample size 165 respondents. The study found out that transportation management practices on supply chain performances to great extents. The study however didn't investigate the relationships that existed between the research variables.

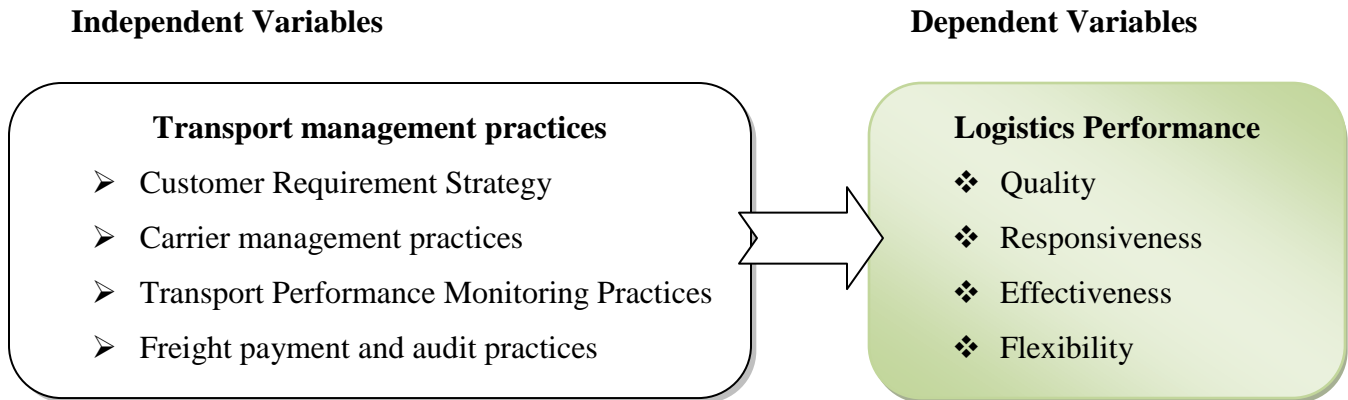
Generally, from above literature reviews it can be easily understandable that the work on transportation management measurements/ practices and its influences on different perspectives of the organization and overall logistics performance partners increasing and yields good backgrounds.

However, the relationship of transportation management with logistics performance cannot be regarded as conclusive (Cousins, *et al.*, 2006). Despite the increase of empirical research in the last few years, important differences in research design undermine comparability: lack of consensus about the dimensionality of the transport management construct, use of different units of analysis, and different approaches to logistics performance measurement.

2.13. Conceptual Framework

Based on the nature of the study and the above literature review, the component of transport management practice that will be identified their relationship and effect on logistics performance. By categorizing the logistics performance into transport management practices and related transport management strategies, the conceptual framework is proposed as the following figure.

Fig 2:2. Conceptual Framework for the Study



Sources: (Reuben, K.2014), (Timan, D.2015) and (Bewari *et al.*, 2016)

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter explains the research methodology that was used in addressing the research objective. Specifically, the chapter constitutes the research approach the research design, population of the study, the sample design, data collection instruments and the data analysis technique.

As clearly stated by Bryman,D. (2004) there are four main aspects of the research methodology: design, sampling, data collection, and the data analysis. If inappropriate methodology is used, or if appropriate methodology is used poorly, the results of a study could be misleading. This chapter provided the rationale and methodological detail for this study.

3.2 Description of the Study

All research is based on some underlying philosophical assumptions about what constitutes 'valid' research and which research method(s) is/are appropriate for the development of knowledge in a given study.

The main purpose of the research methodology is to explain how the research is accomplished, what knowledge is required, what information is needed and how information is collected. Therefore research methodology consists of research approach; sample design-sampling technique, sample size, source and instruments of data collection, methods of data analysis, ethical issues, validity and reliability of the study.

3.3 Research Approach

Based on the nature and type of this background of research, the researcher used both qualitative and quantitative research approach. According to Bryman, D. (2004:266) qualitative research method that usually emphasize words rather than quantification in the collection and analysis of data and is inductive as a research strategy. Among the two designs, this study prefers to depend more on the quantitative one because the study is more of explanatory and to some extent will be used Qualitative.

3.4. Research Design

The researcher used both descriptive and explanatory research design followed by qualitative and quantitative approach.

According to Kerlinger (2008) “a research design” is a plan, structured and strategy of investigations so conceived as to obtain answers to research questions or problems. The study will be adopted a descriptive research design, a scientific method which involves observing (surveying) and describing the behavior of a subject without influencing it in any way (Saunders, Lewis, & Thornhill, 2007). Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group. Studies concerned with specific predictions, with narration of facts and characteristics concerning individual, group or situation are all examples of descriptive research studies (Kothari, 2004, p37).

When the focus is on cause-effect relationships, the study can be explanatory explaining which causes produce which effects (Yin, 1994). Our concern in casual analysis is how one variable affects, or is responsible for changes in another variable. The stricter interpretation of causation is that some external factor produces a change in the dependent variable. Explanatory research which is grounded in theory is another research purpose type, and the theory is created to answer why and how questions. We are more interested in understanding, explaining, predicting and controlling relationships between variables than we are in detecting causes. Explanatory studies go beyond description and attempts to explain the reasons for the phenomenon that the descriptive study only observed. In an explanatory study, the researcher uses theories or hypotheses to represent the forces that caused a certain phenomenon to occur. (Yin, 1994).

The independent variable refers to the antecedent phenomenon, while the dependent variable relates to the consequent phenomenon. Therefore, in order to accurately explain the effect and relationships between the independent variables and the dependent variable explanatory research studies were employed.

3.5. Sources of Data

The study used both primary and secondary source of data.

Primary Source of Data

The primary data was collected from the selected military personals which contains and take into account all military rank holders and military commanders through semi structured interview of logistics main department. The primary data was collected from employees of the logistics both military and civilian in logistics by using a self-administer questionnaire that consist both open and more of closed ended questions that was designed to collect responses for qualitative and quantitative analysis respectively.

The reason why the researcher used the primary data source is that the data are a fresh and for the first time, thus happen to will be original.

Secondary Sources of Data

The secondary data was collected from ministry of defense and logistics main department monthly or annual reports, and data centers, published and unpublished documents. In addition, information on the practical implementation of logistics manuals and rules, directives and the thought on the gap between transportation performance and practice were collected from the logistics main department.

According to Bryman, A. (2012) the main reason that the researches used secondary data source is that data are cheaper and more quickly obtainable. Therefore, it saves researcher effort, time and expenses.

3.6. Population of the Study:

The populations of the study were the whole employees of the logistics main department. The total numbers of employees are 355. The nature of the population is highly diversified. This is because; these employees work in different specialty areas such as Human resources, administration and finance, ,computer and IT centers, safety, security guard, drivers and chief mechanics, logistician officers and secretarial services, and transport operations . These employees are from different demography in terms of age group, gender, and ethnic group. Moreover, these employees graduated from different universities and colleges from over the country. In all its correspondence and daily activities, logistics main department use English and Amharic as the formal language.

However, based on the nature and characteristics of the research, the researcher grouped the whole above population as the following group of population in the study, those are Head office (20), Maintenance and Inspection (56), Supply and Storage of vehicles (76), Administrative and Finance (38), Transport Operations (70), Insurance and Licensing (15), and Referral Garage (80), totally 355. The reason behind the researcher decided to use these populations are; first they have full knowledge and skill about the nature of their job on transpiration, secondly they have administered huge amount of budget and personnel on the logistics, thirdly they are prepared annual plans, reports, and evaluations about logistics, and finally some transport officers, supply officers, and human resources officers are graduated from different higher institutions in their own field of discipline and they are also experienced.

3.7. Sampling Techniques and Sampling Size Determination

For this study, the researcher used stratified random sampling techniques. It is understandable that the logistics main department is highly diversified and need to be stratified to get adequate representation from each stratum. Therefore, the researcher classified the population in to seven main strata which is based on their departments. These are head office, Maintenance and Inspection, Supply and Storage of vehicles, Administrative and Finance, Transport Operations, Insurance and Licensing, and finally Referral Garage, were used in the study due to their expertise and experience. Once the strata are identifying, sample is randomly was picked from the master lists using random sampling. This was done by lottery system, where the names of respondents write on pieces of paper roll out and one was randomly picked. This was continued until the required number of sample was selected. The reason to take sample from population is because of economic advantage, taking sample requires less recourse than a census. The other reason is because of time factor. Sampling helps to collect vital data quickly.

Therefore, the researcher used Yamane's (1967) formula; which is calculated mathematically as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = the sample size

N=the study population

e = the level of precision

1 = designates the probability of the event occurring

Therefore:

$$n = \frac{355}{1 + 355(0.07)^2} = 130$$

Therefore, 130 respondents were used as sample for this study to gather date through questionnaire.

Therefore, the sample size for each department was calculated by using proportion. The study used proportionate sample allocation formula so as to make each stratum sampled identical with

proportion of the population. Therefore, proportional sample size from each stratum was calculated by using the following formula.

$$n_i = \frac{n \cdot N_i}{N}$$

Where:

n_i = sample size for individual departments

N_i = the total number of employees in each departments/stratum

N =the total number of population in the study

n = the total sample size for selected stratum:

Yamane, T.1967.*how to determine the sample size required for a population?*

(<http://ocw.jhsph.edu/courses/statmethodsforssamplesurvey>) (Accessed at May 19, 2018)

In the same hand, according to the explanation of Kothari,R(2004:63) when using a stratified sampling technique, we usually follow the method of proportional allocation under which the sizes of samples from the different strata are kept proportional to the size of the strata. That is, if P_i represents the proportion of population included in stratum i , and n represents the total sample size, the number of elements selected from stratum i is $n \cdot p_i$.

Table 3:1. Sample Size Determination

Strata(Departments)	Total population of each stratum	Sample size of each Stratum
Head Office	20	7
Maintenance and Inspection	56	21
Supply and Storage of vehicles	76	28
Administrative and Finance	38	14
Transport Operations	70	26
Insurance and Licensing	15	5
Referral Garage	80	29
Total	<u>355</u>	<u>130</u>

Source: (Logistics Human Resource Departement.2018)

3.8. Data Collection Methods

Questionnaire and interview were considered as the major means of data gathering tools. As mentioned above, these study try to demonstrate facts and findings by using primary and secondary sources of data. The secondary data was gathered from such sources as published and unpublished documents was collected from organizations' documents, reports, and related books. The primary data was collected through the dissemination of questionnaires and session of interviews.

Questionnaire: The questionnaire in this study was prepared in three ways which includes both modified and adopted from previous researches and some it part was prepared originally by the researcher. The questionnaire for sample survey was composed of closed ended questions as well as open ended questions so that the closed ended questions assist to collect factual data from the options give whereas the open ended questions help to find the respondent's opinions at length. Since the respondents are both Amharic and English speakers, first the questioner was prepared in English and then was translated into Amharic for respondent's clarity and simplicity and again the raw data from the questionnaire are interpreted in English for analysis purpose.

Interview: According to William, H. (1991:25), structured interviewing method is often used on descriptive research. It gives freedom for the researcher to move the conversation in any direction of interest that may come up. Questions were fixed and were asked in a specific order, which is similar to a survey.

The researcher used face to face interview to collect data from 2 commanders of logistics main department, 4 logistics officers and 6 select from drivers. In order to make the interviews and the data consistent and complete, the questions are design to be open ended and closed ended so that they allow large amount of discussion and dialogue between the interviewer and interviewees. As they were selected those people the reason behind them was that, because they had had more information and more responsibility in strategic planning or /and objectives of all logistics activities in the main department and lead a huge amount of budget and the whole human resources in the logistics main department.

3.9. Methods of Data Presentation, Analysis and Interpretation

Both qualitative and quantitative types of data was gathered and used in the study. The primary data were collected through questionnaires and interview and the secondary data was obtained from logistics main department annual report, and related books proceed classified ,and tabulated

using computer software such as excel. Thus, the data was organized in the form of tables; figures and was analyzed and interpreted against the research question raised. Moreover, information was collected through review of documents; questionnaire and interview was analyzed based on the framework of the study objectives. After making the necessary coding, to analyze the usable data were collected from respondents; Statistical Package for Social Sciences (SPSS) was used.

In order to come up with a better result, both descriptive and explanatory statistics was used to describe a set of data in terms of its frequency of occurrence, its central tendency, and its dispersion, regression analysis, correlation analysis and reliability test were explained through employing inferential statistics.

Subsequently, they were analyzed by using descriptive statics. Average, mode, percentage and frequency tables were utilized to explain characteristics of respondents and present based on the collected data.

Before analysis, data were cleaned to eliminate discrepancies and then after, data were covered and was keyed into the computer. The data was stored, tabulated and summarized using both description and explanatory statistics such as means, standard deviations, and regression analysis, correlations and relations tests. Tables and graphs were used for presentations of findings. Regression model was used to determine the relationship between variables.

3.10. Ethical Considerations

Ethical considerations in research are critical. Ethics are the norms or standards for conduct that distinguish between right and wrong. They help to determine the difference between acceptable and unacceptable behaviors.

As clearly explained by Kothari, C. R. (2004) when people are invited to participate in research, there is a strong belief that it should be their choice based on their understanding of what the study is about, and what the risks and benefits of the study are. The primary basis for recruiting participants will be the scientific goals of the study not vulnerability, privilege, or other unrelated factors.

Therefore, a formal letter was written from Addis Ababa University, School of Commerce, to ministry of defense and concerned authorities of the logistics main department. The data collection only was started after getting consent/permission from the parties mentioned above. Any type of misleading information, as well as representation of primary data findings in a

biased way was avoided. In addition to this, name of the employees (select for the sample) included to maintain confidentiality.

3.11. Data Analysis

Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, concentrate and summarize, and evaluate data. According to Shampoo and Resnik (2003) various analytic procedures “provide a way of drawing inductive inferences from data and distinguishing the phenomenon of interest from (statistical fluctuations present in the data”. In this research, data analysis mostly based on quantitative, can include statistical procedures. Data was analyzed by using descriptive statistics including mean and standard deviation using Statistical Package for Social Sciences (SPSS) program.

A regression analysis model was used to determine the relationship between transport management practices and logistics performance at LMD.

The multiple regression model was assumed linear in the form of:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

Y= Dependent Variables (Logistics performance)

β_0 = Constant (the intercept of the model)

β_1, \dots, β_4 = coefficient of independent variables

X_1, X_2, X_3 and X_4 , re the research control variables and represents

X_1 = Customer Requirement

X_2 = Carrier management practices

X_3 = Freight payment and audit practices

X_4 = Performance monitoring practices

ε =Error

3.12. Validity and Reliability

A. Analysis of Validity

Malhotra (2010) mentioned about three types of validity in his study: content validity, predictive validity, and construct validity. This study addressed content validity through the review of literature and adapting instruments used in previous research.

B. Reliability Test

According to Gottschalk, (1995), reliability can be performed “upon coding text material for content analysis, raters must classify each code into an appropriate category of a cross-reference matrix.”

Reliability Analysis refers to the consistency of results across items in the questionnaire. Cronbach’s Alpha was used to determine the reliability in measurement of the study variables. The findings obtained are presented in Table 3.2.

Table 3: 2. Reliability

S/ No	Variables	No of Items	Cronbach’s Alpha
1	Customer Requirement Strategy	10	0.829
2	Carrier Management Practices	7	0.851
3	Freight Payment and Audit Practices	5	0.810
4	Transport Performance Monitoring Practices	5	0.872

Source: (SPSS Output 2019)

As shown in the above table, customer requirement strategy had a Cronbach’s Alpha of 0.829, carrier management practices had a Cronbach’s Alpha of 0.851, freight payment and audit practices had a Cronbach’s Alpha of 0.810, while transport performance monitoring practices had a Cronbach’s Alpha of 0.872. This shows that all the variables have a Cronbach’s Alpha of more than 0.70 and hence the research instrument was reliable and valid, (Gottschalk, 1995).

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND DISCUSSION OF FINDINGS

4.1. Introduction

The study sought to look at the relationship between transport management practice and logistics performance at logistics main department in Ethiopian defense force. Data was collected from different logistics main departments in their respective organizations. Moreover; this chapter presents the results of the data that was collected from study, analyzed and interpreted. The overall objective of the study was to determine the effect of transport management practice in logistics performance and their relationships at logistics main department /EMoND/. The chapter contains the study response rate, reliability analysis, descriptive analysis and inferential analysis, correlation and multiple regression analysis. This chapter finalizes with the discussion of the key findings.

4.2 Demographic Information

4.2. 1 Response Rate

A total of 130 questionnaires were distributed to employees that were targeted and samples selected and 108 (83%) were obtained and collected. The remaining 22 questionnaires were not collected due to three main reasons; first some of them were unwillingness to respond, second some of them were leave from their placement of job, and finally some of them were leave for the purpose of other mission in and out of the country. This translates to a response rate of 83% as shown in Table 4.1. This response rate is considered very good to enable the determination of the phenomenon that exists as it is in line with Mugenda, O. & Mugenda, A. (2003) assertion/statement. They state that the response rate of above 75% is recommended for the generalization of the study findings.

Table 4.1: Response Rate

S/ No	Name of the departments	Number of questionnaires distributed	Number of questionnaires Collected	Number of questionnaires un collected
1	Head office	7	5	2
2	Maintenance and Inspection	21	17	4
3	Supply and Storage of vehicles	28	23	5
4	Administrative and Finance	14	11	3
5	Transport Operations	26	23	3
6	Insurance and Licensing	5	4	1
7	Referral Garage	29	25	4
Total		<u>130</u>	<u>108</u>	<u>22</u>

Source: (questionnaire 2019)

4.2.2 Position of the Respondents

This section sought to look at the position held by the respondents. This was used as a measure of their involvement with the organization activities the results obtained are in Table 4.2.

Table 4.2: Position in the Organization

S/No	Positions	Frequency	Percentage
1	Clerk	34	31%
2	Supervisor	28	26%
3	Head of Sections	30	28%
4	Head of Department	16	15%
Total		<u>108</u>	<u>100%</u>

Source: (questionnaire 2019)

From the above table (table 4.2), majority (31%) of the respondents were clerks, 28% were head of sections while 26% were supervisor and 15% were head of departments respectively. This implies that majority of respondents were clerks. This shows that the respondents were directly involved in transport and logistics operations, therefore more conversant or familiar with the study topic.

4.2.3 Sex of Respondents

This section sought to determine the sex of respondents based. This was important as it enabled determination of whether there was sex /gender/ balance and diversity among employed. The results presented in Table 4.3.

Table 4.3: Sex of Respondents

<u>S/No</u>	<u>Sex/Gender</u>	<u>Frequency</u>	<u>Percentage</u>
1	Male	96	89%
2	Female	12	11%
Total		<u>108</u>	<u>100%</u>

Source: (questionnaire 2019)

The results obtained showed that 89% were male while the remaining 11% were female. This shows that there was unequal representation of both genders at the LMD regardless of gender employment participants.

4.2.4 Educational Background

This section shows at determine the educational background of respondents obtained through assessing their distribution level of education. The results are shown in table 4.4.

Table 4.4: Education Level

<u>S/No</u>	<u>Qualification</u>	<u>Frequency</u>	<u>Percentage</u>
1	Certificate and below	8	7%
2	Diploma/level	42	39%
3	First Degree	52	48%
4	Second Degree and Above	6	6%
Total		<u>108</u>	<u>100%</u>

Source: (questionnaire 2019)

This data indicates that majority of the respondents 48% and 39% had first degree and diploma/level respectively, 7% had certificate and below while only 6% had second degree and above. This therefore shows that the respondents were well qualified for providing response with the study subject and their respective profession.

4.2.5 Job Status

This section depicts the job status of respondents. This was important as it enabled to show whether respondents were civil/or military and diversity among employees. The results presented in Table 4.5.

Table 4.5: Job Status

<u>S/No</u>	<u>Sex/Gender</u>	<u>Frequency</u>	<u>Percentage</u>
1	Military	90	83%
2	Civil	18	17%
Total		<u>108</u>	<u>100%</u>

Source: (questionnaire 2019)

The results obtained showed that 83% were military while the remaining 17% were civil. This shows that the majority of the respondents were from military and it shows unequal representation of both job statuses, thus there is also biasness at the LMD regardless of military and civil employment participants.

4.2.6 Work Experienced at LMD

This section shows the duration that the respondents had worked at LMD. This was used in the transport and logistics activities /operations at LMD. The result shown in Table 4.6: below.

Table 4: 6. Work Experienced at LMD

S/N ₀	Durations	Frequency	Percentage
1	1-7 years	6	6%
2	8-15 years	38	35%
3	16-25 years	48	44%
4	More than 25 years	16	15%
Total		<u>108</u>	<u>100%</u>

Source: (questionnaire 2019)

The findings shows that 48% had worked for a period of 16-25 years, 35% for a period of 8-15 years, 15% for a period of more than 25 years and only 6% for a period of 1-7 years .This shows that majority of the respondents had been working at LMD for a long period of time/more than 16-25 years) hence it implies that the respondents had been working at their current positions for a considerable length of time and therefore were knowledge of the nature of operations in their respective positions.

4.2.7 The Age of Employees

Table 4.7: The Age of Employee

S/N ₀	Age	Frequency	Percentage
1	20-30 years	15	14%
2	31-40 years	55	51%
3	41-50 years	34	31%
4	More than 50 years	4	4%
Total		<u>108</u>	<u>100%</u>

Source: (questionnaire 2019)

The response shows that 51% of the respondents were in the age of 31-40 years, 31% for age of 41-50 years, 14% for age of 20-30 years and only 4% for age of more than 50 years .This age category shows that old employees have a wealth of experiences on their job. In addition old workers old workers are more efficient and effectives (Dessler, 2008).

4.3. Descriptive Analysis

This section presents the descriptive statistics in relation to the study namely; level of implementation of transport management practices, logistics performances and challenges of transport management practices.

4.3.1 Level of Implementation of Transport Management Practices at LMD.

The study tried to determine the extent of implementations of transport management practice in the department of transport at logistics main department. Specifically, the study investigated four main practices namely; customer requirement strategy, carrier management practice, freight payment and audit practices, and transport performance monitoring practices. To achieve this, a five-point Likert scale was used .The findings are presented in the table below.

4.3.1.1 Customer Requirement Strategy

The study sought to establish customer requirement strategy adopted by transport management practice at LMD. The research questionnaire were designed in the item scales of five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 =agree, 5 = strongly agree. The mean and standard deviations were generated from SPSS and are as illustrated in Table 4.8 below.

Table 4.8: Customer Requirement Strategy

Customer Requirement Strategy	N	Minimum	Maximum	Mean	Std. Deviation
The department has developed transportation management programs considering with customer requirement strategy.	108	1	4	2.02	.596
Transportation programs in the department have reflected to meet customer needs regardless of time service aspects.	108	1	3	1.98	.473
Our department has properly identified the strategy regardless of whether it is involved with domestic or international.	108	1	4	2.11	.518
Customers demand shipments are delivered as they required on the date needed by the carrier preferred in the proper shipping packaging method and complete	108	1	4	2.13	.513
Transport service being able to have transportation programs which can do provide customer satisfaction and can give your department a competitive advantage	108	1	3	2.14	.587
Our department has identified the current required inventory for the coming period the transportation capabilities leads to very efficient transportation requirements.	108	1	4	2.04	.472

The department has fully developed transportation requirement planning programs considering with transport management strategies	108	1	4	2.11	.535
Transportation capabilities are formally communicated with logistics service customers	108	1	4	2.04	.452
Your transportation strategy does balance responsiveness vs. efficiency and it does consider sustainability.	108	1	4	2.02	.511
Our department has communicated performance goals with relating to logistics performance through the main department	108	1	4	2.03	.520
Average				<u>2.06</u>	<u>.283</u>

Source: (SPSS Output 2019)

Based on the response of the respondents the mean was computed for each item and the results found as in the above Table 4.8. Accordingly McLeod,S.A.(2008) the five point Likert Scale standards indicates that the extent they agree with statements that is categorized as a mean (M) score of 0-1.5 means that the respondents disagree, between 1.50 to 2.50 means they disagreed, 2.50 to 3.50 means the respondents were neutral, 3.50-4.50 means they agreed and a mean above 4.50 means the respondents strongly agreed Bertram, D. “Likert Scales “(2016). Based on the findings on Table 4.8, majority of respondents in the practice of customer requirement strategy scores between in the rate of 1.50-2.50, which imply that the respondents disagreed to the fact that the implementation of customer requirement strategy is less performing. Besides, findings from the interview accordingly as evaluated their interview questions, majority of the respondents believe that the department has a little practice of customer requirement strategy, due to poor and lack of scientific practices. While improvements in customer orders and meeting customer’s requirements, the performance were lowest having means in between 1.50-2.50. This thus shows that overall, customer requirement strategy at LMD were relatively less in meeting the department’s set objectives as an average mean of 2.06 and standard deviation of .283. As clearly stated by Wathe (2016) who investigate that as effective implementation of customer requirement strategy on transport management, the logistics performance of the organization is better qualified and well performed.

4.3.1.2 Carrier Management Practices

The research also tried to look at whether the transport department performs carrier management practice or not at LMD. The research questionnaire were designed in the item scales of five-point

Likert type scales 1- Not at all, 2- Small extent, 3- Moderate extent, 4- Great extent, 5- Very great extent. The mean and standard deviations were generated from SPSS and as stipulated in Table 4.9 below.

Table 4.9: Carrier Management Practices

Carrier Management Practice	N	Minimum	Maximum	Mean	Std. Deviation
The department has carefully makes decision to optimize the transport mode when choosing a carrier.	108	1	2	1.86	.347
Our department has considered the carrier to move inbound & outbound cargo to minimize costs of movement.	108	1	4	1.99	.398
The department carefully considers measures for evaluating transport performance when choosing the carrier.	108	1	4	2.08	.476
The department considers transit time in selecting carriers	108	1	4	2.00	.432
The department considers environmental and energy concerns of transport providers when selecting carriers.	108	1	4	2.15	.508
The department considers security measures deployed to safe guard shipments in transit by individual carriers.	108	1	3	1.94	.330
Our department has considered the nature of cargo to be shipped in deciding appropriate carriers.	108	1	4	2.03	.442
Average				2.01	.243

Source: (SPSS Output 2019)

Accordingly McLeod,S.A.(2008) the five point Likert Scale standards indicates that the extent they agree with statements that is categorized as a mean (M) score of 0-1.5 means that the respondents not at all, between 1.50 to 2.50 means small extent, 2.50 to 3.50 means moderate extent, 3.50-4.50 means great extent and a mean above 4.50 means very great extent.

From the above table (Table 4.9), majority of the respondents agreed to a small extent and less than mean of 2.00 that the department carefully makes decision to optimize the transport mode when choosing a carrier; considered the carrier to move inbound & outbound cargo to minimize costs of movement and carefully considers measures for evaluating transport performance when choosing the carrier and considers security measures deployed to safe guard shipments in transit by individual carriers, as shown by the mean scores of 1.86, 1.99, and 1.94 respectively. On the other hand, most of respondents agree to a small extent slightly more than the mean of 2.00 that the department considers measures for evaluating transport performance when choosing the carrier; The department considers transit time in selecting carriers; the department has considers environmental and energy concerns of transport providers when selecting carriers and considered the nature of cargo to be shipped in deciding appropriate carriers as shown by the mean scores of 2.08, 2.00,2.15 and 2.03 respectively.

Findings from the respondents of interview had responded that carrier management practices in the department has adoption to small extent .The main problem here is the failed of contract with the transport company due to mode choice and carrier selection are unstructured with the negotiations of place of transportation area. In this case they incurred hang cost and the department fails in fatal time demand to transport the goods and services. From the empirical literature founded in transportation that includes identifying relevant transportation performance variables, selecting mode of transport and carrier, negotiating rates and service levels, and evaluating carrier performance has a great positive effect in logistics performance (Monczka, Trent, & Handfield, (2005). This is also true in this practice accordingly findings from both interview and questionnaire.

4.3.1.3 Freight Payment and Audit Practices

The research also tried to identify freight payment and audit practices common with transport department at LMD. The responses were rated on a five point Likert scale indicating to what extent respondents agree to the statements, where: 1- Not at all, 2- To a little extent, 3- To a moderate extent, 4- To a great extent and 5-To a very great extent. The mean and standard deviations were generated from SPSS and are as illustrated in table below.

Table 4.10: Freight Payment and Audit Practices

Freight Payment and Audit Practices	N	Minimum	Maximum	Mean	Std. Deviation
The department carefully inspects invoices received they are billed as per contract.	108	1	3	2.07	.487
The department ensures payments are made as per agreed credit terms.	108	1	4	2.06	.438
The department manages contracts and payment centrally for better cost control.	108	1	3	1.93	.379
The department conducts regular audits reconciliations to clear outstanding payments.	108	1	4	1.92	.456
the department ensures compliance on tax and other statutory obligations when selecting carriers	108	1	3	2.01	.483
Average				<u>2.00</u>	<u>.256</u>

Source: (SPSS Output 2019)

From the Table 4.10, majority of respondents agreed to a moderate extent the department carefully inspects invoices received they are billed as per contract; ensures payments are made as per agreed credit terms; conducts regular audits reconciliations to clear outstanding payments, the department conducts regular audits reconciliations to clear outstanding payments; the

department ensures compliance on tax and other statutory obligations when selecting carriers and ensures compliance on tax and other statutory obligations when selecting carriers as shown the mean scores of 2.07, 2.06, 1.3, 1.92 and 2.01 respectively. On the other hand the findings show that the department manages contracts and payment centrally for better cost control was the small extent implemented with total variable average mean of 2.00 and standard deviation of .256.

This implies that reason for its low implementation levels of freight payment and audit practices was that still there are poor and a fairly new concept in the department of transport at LMD. Freight payment and audit practices have numerous advantages to any transport system to enhancing and increase efficiency the quality of logistics by minimizing cost to logistics performance. This relates to Hyvenon (2007), who conducted a study on the logistics in Finland firms and established that when freight payment and audit practices when applied to transportation management in logistic it resulted both in the audit providers for a road map for improving processes and customer satisfaction.

4.3.1.4 Transport Performance Monitoring Practices

The respondents were also asked to give an indication of the practices adopted to monitor performance of transport providers. The responses were rated on a five point Likert scale indicating to what extent respondents agree to the statements, where: 1- Not at all, 2- To a little extent, 3- To a moderate extent, 4- To a great extent and 5-To a very great extent. The mean and standard deviations were generated from SPSS and are as illustrated in Table 4.11.

Table 4.11: Transport Performance Monitoring Practices

Transport Performance monitoring Practice	N	Minimum	Maximum	Mean	Std. Deviation
The department considers percentage of requested shipment dates attained	108	1	3	2.11	.460
Does the department records percentage of shipments that arrive at destination on time?	108	1	4	1.92	.435
Does the department consider frequency of requests to expedite shipments?	108	1	3	1.98	.334
The department arranges for regular performance reviews with service providers agreement on areas of improvement	108	1	3	1.92	.390
The department conducts compliance audits on transport providers in areas of government & industry requirements for improvement opportunities.	108	1	3	2.04	.452
Average				1.99	.247

Source: (SPSS Output 2019)

As show from the above table (Table 4.11), almost majority of respondents agreed that transport performance monitoring practices had lowest extent almost less than a mean of 2.00 in the implementing this variables in all items a means of 2.11, 1.92, 1.98, 1.92 and 2.04 and a mean average and standard deviation of 1.99 and .247 respectively.

This shows that the department considers all practices in the transport performance monitoring practices had moderate extent of adoption. As clearly explained by (Kiraga, 214) on his study on “the transportation at humanitarian organizations” in Kenya states that if the organizations should have well aligned transport performance monitoring practices schemes to ensure smooth flows of operations in transportations it makes highly performed and qualified in the measurement of good responsiveness. Through this the speed and efficiency of logistics performance will be significantly enhanced. However; in the above findings this statement is not achieved the goals of efficiency of logistics due to the result means of all moderate to the extent. Findings from the interview, most of the respondents responded that transport performance monitoring practices to some extent is lowest which is very similar to scores of questionnaire. The main problem in this transport practice is there is idle of resources under no functionally due to lack of spare parts and geographical choices.

4.4 Logistics Performance

The research also sought to identify logistics performance with the transport department at LMD. The responses were rated on a five point Likert scale indicating to what significantly respondents agree to the statements, where: 1- Significantly decreased, 2- decreased, 3- same as before, 4- Increased and 5- Significantly Increased. The mean and standard deviations were generated from SPSS and are as illustrated in table below.

Table 4.12: Logistics performance

Logistics performance	N	Minimum	Maximum	Mean	Std. Deviation
In my department transport services Quality have specific features compared to other types of services.	108	1	3	2.07	.447
In my department effective demand management attempts to enhance vehicle utilization	108	1	3	2.02	.493
In my department, demand responsive transportation has been developed aiming at responding to customer needs.	108	1	3	1.96	.385
Our department conducted Flexibility in supply perspectives to measure the ability of the transportation system to fluctuations in demand.	108	1	4	2.08	.476
Average				<u>2.03</u>	<u>.252</u>

Source: (SPSS Output 2019)

As shown by Table 4.13, in terms of logistics performance in the last three years in the operations of quality, effectiveness, responsiveness and flexibility in logistics performance were decreased having the means of 2.07, 2.02, 1.96, and 2.08. This thus shows that overall the logistics performance at LMD was relatively lowest in meeting the department's set objectives as an average mean of 2.03 and standard deviation of .252 was obtained due to low performance of the above listed variables This shows that the performance at this department LMD was the lowest with regards of quality, effectiveness, flexibility and responsiveness in operations.

4:5. Challenges Experienced in the Implementation of Transportation at LMD.

The study also aimed at determining as to whether there were any challenges experienced during the implementation process of the transport at LMD. The responses were rated on a five point Likert scale indicating to what extent respondents agree to the statements, where: 1- Not at all, 2- To a little extent, 3- To a moderate extent, 4- To a great extent and 5-To a very great extent The findings are shown below by Table 4.14.

Table 4.13: Challenges Experienced in the Implementation of Transportation at LMD.

Challenges Experienced in the Implementation of Transportation	N	Minimum	Maximum	Mean	Std. Deviation
The employees lack the adequate training to coordinate new transportation practices.	108	2	5	3.88	.914
There is low acceptance levels for the transportation practices by the employees	108	2	5	3.93	.893
There is lack of adequate funds to advance for the manual transport Operations	108	1	5	3.62	.974
The managements are reluctant in venturing into new transportation Practices.	108	2	5	3.92	.908
Increased cost in implementation process.	108	1	5	3.64	.891
There is an increase in the transport supply chain in the logistics Operations.	108	2	5	3.91	.912
Average				<u>3.81</u>	<u>.637</u>

Source: (SPSS Output 2019)

The results show that there were a number of challenges that were experienced at LMD in the implementation of transportation process. This includes, lack the adequate training to coordinate new transportation practices with a mean of 3.88, low acceptance levels for the transportation practices by the employees with a mean of 3.93, lack of adequate funds to advance for the manual transport operations with a mean of 3.62, the managements are reluctant in venturing into new transportation practices with a mean of 3.92, increased cost in implementation process with a mean of 3.64 and an increase in the transport supply chain in the logistics operations. All the mean of practices lies in between 3.50-450 in the interval of great extent. This therefore confirms that there are challenges presents which limit the overall implementation process of the transport in logistics practices. To benefit the most output of this transport in logistics practices, these challenges ought to be addressed and appropriate solutions provided.

4.6 Relationship between Transport Management Practice and Logistics Performance at LMD.

This section consists of correlation and regression analysis. The section was meant to achieve both general and specific objectives in establishing the relationship that exists between the study variables.

4.6.1 Correlation analysis

Correlation analysis was done to achieve the study specific objectives which were to establish the effect of transport management practices determinant namely; customer requirement strategy, carrier management practices, transport load planning & optimization practices, freight payment and audit practices, and transport performance monitoring practices on logistics performance at LMD. The findings are presented in Table 4.15.

Table 4:14. Correlation Analysis

	No of Items	Variables	CRS	FPAP	CMP	TPMP	LP
CRS	10	Pearson Correlation	1				
		Sig. (2-tailed)					
FPAP	5	Pearson Correlation	.726**	1			
		Sig. (2-tailed)	.000				
CMP	7	Pearson Correlation	.745**	.615**	1		
		Sig. (2-tailed)	.000	.000			
TPMP	5	Pearson Correlation	.521**	.738**	.498**	1	
		Sig. (2-tailed)	.000	.000	.000		
LP	4	Pearson Correlation	.679**	.747**	.633**	.723**	1
		Sig. (2-tailed)	.000	.000	.000	.000	

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

Source: (SPSS Output 2019)

Based on the above table the result of correlation matrix between each four building blocks of logistics performance all variables there is genuine relation between each other and with logistics performance. In relation to this fact (Bwari, 2016), also proved that, these non-financial measures of performance include profitability, quality responsiveness, effectiveness, flexibility and reliability. These are used to determine the how effective the organization is in accomplishing its tasks and operations. Additionally, ratios may also be incorporated in the organization in controlling the financial affairs.

As shown by Table 4:15, customer requirement strategy (CRS) has a positive and significance effect on logistics performance at LMD with a correlation coefficients of $.679^{**}$ ($r=0.679$) and significance is 0.000. This implies that increase of customer requirement strategy practice will greatly improve logistics performance at LMD. This coincides with Wathe (2016) who investigated the effect of transport on logistics performance of the organization. He found out that the organizations that had well developed customer requirement strategy practice had better performance compare to others. Therefore investing in transport management practices will result in positive outcomes being achieved.

The study established that freight payment and audit practices (FPAP) under transportation has a positive effect on logistics performance at LMD with a correlation coefficients of ($r=.747^{**}$) and significance is 0.000. This significance tells that there is genuine relationship between the two. This implies that increase of freight payment and audit practices will greatly improve logistics performance at LMD. This is also matched with Salazar (2012) conducted a study the effect of transportation process on competitive advantage and logistics performance. This research conceptualizes and develops three dimensions of transportation practice (career relationship management, Intelligent Transport Systems (ITS) and freight transport and commercialization) and tests the relationships between these transportation practices, competitive advantage, and logistics performance.

The findings revealed that carrier management practices (CMR) has a positive and significance effect on logistics performance of LMD with a correlation and significance of ($r= .633^{**}$), 0.000 respectively. This clearly indicates that when the performance of carrier management practices increases, the effect of logistics is also increases simultaneously. This finding also supported by literatures indicated below mode choice and carrier selection are part of the decision-making process in transportation that includes identifying relevant transportation performance variables, selecting mode of transport and carrier, negotiating rates and service levels, and evaluating carrier performance (Monczka, Trent, & Handfield, (2005).

The findings also show that transport performance monitoring practices has a positive and significant effect on logistics performance at LMD having with a correlation of ($r=.723^{**}$) and significance of 0.000. This implies that This implies that increase of transport performance monitoring practices will greatly improve logistics performance at LMD. This coincides with Tonchia(1998) as stated flexibility (to measure the ability to deal with the dynamic nature of the

business) is a performance apart, since it is an ability to change something (for example, the production volume or mix) in relation to all the three performances of cost, time and quality (De Toni and Logistics Managers have to agree on the metrics to be used in evaluating performance with their transportation providers. Scheduling and attendance at review meetings should involve all levels in the organization. Efficient and reliable transport performance monitoring practices is crucial for not only transport timely, but also building trust among customers and transporters.

To sum up; as we have seen from the above correlation matrix the independent variables has a direct effect the dependent variable(logistics performance) due to their strong relation, the scores of low logistics performance is due to their low performance of each variables. This implies that when the increasing of one practice determinant of transport directly increasing the performance of logistics and the vises-verse is also true.

4.6.2 Assumptions of Multiple Regression Mode Analysis.

When running a Multiple Regression, there are several assumptions that we need to check our data meet, in order for our analysis to be reliable and valid. The following assumptions will help us how they can be tested using SPSS.

As clearly explained by statistician report on regression analysis (2007), it is important to make sure that any violations of the assumptions when writing up the results of the multiple regression analysis should be fulfill the following six main assumptions. In this case:

Assumption #1: The relationship between the IVs and the DV is linear.

Assumption #2: There is no Multicollinearity in your data. Analysis of co linearity statistics show this assumption has been met, as VIF scores were well below 10, and tolerance scores above 0.2 (statistics = 1.36 and .74 respectively).

Assumption #3: The values of the residuals are independent. The Durbin-Watson statistic showed that this assumption had been met, as they obtained value was close to 2 (Durbin-Watson = 1.93).

Assumption #4: The variance of the residuals is constant.

Assumption #5: The values of the residuals are normally distributed.

Assumption #6: There are no influential cases biasing your model.

4.6.3. Tests on Multicollinearity

As clearly stated by Black, W.C. (1995), the term collinearity implies that two variables are linear combinations of one another. When more than two variables are involved it is often called Multicollinearity, although the two terms are often used interchangeably.

The primary concern is that as the degree of Multicollinearity increases, the coefficient estimates become unstable and the standard errors for the coefficients can get wildly inflated. In this section, we will explore some SPSS commands that help to detect Multicollinearity.

The **tolerance** is an indication of the percent of variance in the predictor that cannot be accounted for by the other predictors. This means that very small values indicate that a predictor is redundant, which means that values less than 0.10 are worrisome. The VIF, which stands for **variance inflation factor**, is (1/tolerance) and as a rule of thumb, a variable whose VIF values is greater than 10 are problematic (Black, W.C.1995).

In the making process of Multicollinearity test, the following two points should be under consideration for the interpretation of the out puts.

1. If the VIF value lies between 1-10, then there is no Multicollinearity.
2. If the VIF <1 or > 10, then there is Multicollinearity.

Table 4:15 .Tests on Multicollinearity

Model	No of Items	Coefficients ^a					Collinearity Statistics		
		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Tolerance	VIF
		B	Std. Error	Beta					
(Constant)		.133	.135			.991	.324		
Customer Requirement Strategy	10	.181	.087	.203		2.071	.041	.327	3.063
1 Freight Payment and Audit Practices	5	.230	.102	.233		2.251	.026	.294	3.398
Carrier Management Practices	7	.161	.089	.155		1.802	.074	.427	2.341
Transport Performance Monitoring Practices	5	.375	.085	.368		4.392	.000	.448	2.232

a. Dependent Variable: Logistics Performance

Based on the coefficients output - Collinearity Statistics, obtained VIF value of less than 4 in all variables, meaning that the VIF value obtained is between 1 to 10, it can be concluded that there is no Multicollinearity symptoms.

4.6.4 Regression Analysis

The regression analysis was used to establish the relationship that exists between the research variables (dependent and independent). The independent variables were determinants of transport management practice, while the dependent variable was logistics performance at LMD.

This regression analysis was conducted to know by how much the independent variable explains the dependent variable. The regression model summary result obtained is shown by Table 4:16.

Table 14: 16. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.822 ^a	.676	.663	.146

a. Predictors: (Constant), Transport Performance Monitoring Practices , Carrier Management Practices , Customer Requirement Strategy, Freight Payment and Audit Practices

Source: (SPSS output 2019)

As indicated in the above table the coefficient of determinant R square is 0.676 and R is .822^a. The coefficient of determinant R square indicates that 67.6% of the variation in the performance is by explained by determinants of transport management practices factors namely; customer requirement strategy, freight payment and audit practice, carrier management practice and transport performance monitoring practices. Thus, 32.4% of the variations in performance are accounted for by other factors/practices not presented in the model.

The study further conducted an Analysis of Variance to check the significance of the Model. The findings were as shown Table 4:16 below.

Table 4:17. ANOVA ^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.601	4	1.150	53.690	.000^b
	Residual	2.207	103	.021		
	Total	6.807	107			

a. Dependent Variable: Logistics Performance

b. Predictors: (Constant), Transport Performance Monitoring Practices , Carrier Management Practices , Customer Requirement Strategy, Freight Payment and Audit Practices

Source: (SPSS Output 2019)

The ANOVA result for regression result coefficient indicates that the model is significance the 95% of level of confidence as the p-value is 0.000 which is less than both 0.01 and 0.05. This shows that the model was highly significance in explaining the relationship that exists between the study variables. Hence, implying a good fit for the model since it shows a significant effect of; customer requirement strategy, freight payment and audit practice, carrier management practice, transport performance monitoring practices and logistics performance. The model coefficient obtained by the study as shown by Table 4:17 below.

Table 4: 18. Coefficients^a

Model	No of Items	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
(Constant)		.133	.135			.991	.324
Customer Requirement Strategy	10	.181	.087	.203		2.071	.041
Freight Payment and Audit Practices	5	.230	.102	.233		2.251	.026
Carrier Management Practices	7	.161	.089	.155		1.802	.074
Transport Performance Monitoring Practices	5	.375	.085	.368		4.392	.000

a. Dependent Variable: Logistics Performance

Source: (SPSS Output 2019)

From the analytical model developed show that customer requirement strategy ($\beta_1= 0.181$, $p= 0.041$), freight payment and audit practices ($\beta_2= 0.230$, $p= 0.026$), carrier management practices ($\beta_3= 0.161$, $p=0.074$) and transport performance monitoring practices ($\beta_4=0.375$, $p=0.000$) have a positive relation and significance on logistics performance. Findings in the above table shows that the major significance variables are transport performance monitoring practice ($P=.000$), customer requirement strategy ($p.041$), freight payment and audit practices ($p= 0.74$) while the least insignificance variable is carrier management practices ($p=0.74$) respectively.

This shows that increases in the dimensions of transport management practice determinants will cause increased logistics performance. This positive relationship is in line with Stevenson, (2009) who states that robust and efficient transportation practice enable an organization to gain an organization a competitive advantage through superior customer service. Besides, except a variable of carrier management practices others variables are highly significant in the logistics performance because of high contrition factor (67.6%). The predictive model developed by the study is $Y=.133+0.181x_1+0.230x_2+0.161x_3+0.375x_4$ where; Y is logistics performance, x_1 is customer requirement strategy, x_2 is freight payment and audit practices, x_3 is carrier management practices and x_4 is transport performance monitoring practices.

As we have seen from the above multiple regression mode analysis the assumptions listed above were tested and fulfill the assumptions. Therefore; all findings from the SPSS were reliable and valid.

CHAPTER FIVE

SUMMARY, CONCLUSITON AND RECOMENDATIONS

5.1 Introduction

This chapter presents the summary of the study findings, conclusion and recommendations drawn from the study of findings. The chapter is based on the study objectives, which were to establish transport management practice among logistics performances at LMD and to determine the relationship between transport management practice and logistics performance in EMoND at LMD.

5.2 Summary of the Findings

The study sought to determine the effect of transport management practice in logistics performance of Logistics Main Department (LMD). The department was chosen because it has not been performing well as expected for the last three years (2016-2018). The study adopted more the descriptive and explanatory research design in obtaining information about the study topic. The study's population comprised of all logistics member of staffs which were selected in stratified sampling techniques approach. The data was collected using questionnaire and interview using descriptive and inferential statics of explanatory analysis. The findings obtained are summarized below as per the study's specific objectives.

5.2.1 Relationship between Transport Management Practice and Logistics Performance at LMD.

The study sought to determine the relationship transport management practice and logistics performance at LMD. To achieve this, both correlation and regression analysis were employed.

- The correlation analysis found out that based on the positive correlation obtained the variables had a positive effect on the logistics performance.
- Hence an increase in the transport practices would result in improved returns. In addition, all the variables significance at 95% confidence level as their p-value were less than 0.5. This shows that at any particular time changes in transport practices would result in changes in logistics performance positively.
- The regression analysis further showed that 67.6 % of the variation in the performance may be explained by transport factors in the study. This showed that the variables which included in the study high percentages factor for logistics performance. It implies that there are other factors or variables effect the performance (32.4%).

- Therefore, confirming that positive strong relationship between the research variables which was significant at the 95% level of significance.
- From the model coefficients obtained, all the variables had positive coefficients. This thus confirms that determinants of transport management practices have a positive and significant effect of on logistics performance.
- This is because, through these practices, the logistics performance is enhanced through reduced cost, reduced capital and improved service quality (Onyango, 2011).
- These findings confirm with Vijayaraghvan and Raju (2008) who established a positive relationship between the transport capabilities with logistic performance of the department. However, Baiya and Kithinji (2010) did a study on transforming the Dairy Sector in Kenya found out that integrating logistics and transportation into the milk industries led to incurring additional expenses which resulted in decreased returns.

5.2.2 Level of Implementation of Transport Management Practices at LMD.

The study sought to determine the extent of implementation the transport management practices determinants in logistics performance at LMD.

- ❖ Specifically, the study investigated four main practices namely; customer requirement strategy, carrier management practices, freight payment and audit practices and transport performance monitoring practices.
- ❖ On customer requirement strategy, all practices were established to be implementing to a small extent which scores less than 2.06 on average and standard deviations was 0.283.
- ❖ On the extent of implementation of freight payment and audit practices, below an average mean of 2.00 and standard deviation of 0.247 were obtained. This implies that a moderate extent of implementation which may be lack of full potential of labor skill and fairly new concept for the practices.
- ❖ On the extent of implementation of carrier management practices also a small extent of implementation was obtained as the mean average was 2.01 and standard deviation of 0.243.
- ❖ This shows that though carrier management practices were implemented in the department was yet to be achieved.

- ❖ While on the extent of implementation of transport performance monitoring practices was implemented, having with a mean of 1.99 and standard deviation of .247 were attained thus showing below an average extent of adoption. In general; thus findings therefore reveal that the implemented practice of transport management determinants in logistics performance were scores lowest.

5.2.3 Challenges in Implementation of Transport Management Practices in Logistics performance at LMD.

The study also aimed at determining whether there were any challenges experienced during the implementation process of the transport practices. The findings show that there were a number challenges that were experienced at LMD in the implementation process.

- The most experienced challenges where there were low acceptance levels for the transportation practices by the employees which scored the mean of 3.93 with the standard deviation of .893, while the least experienced challenges was lack of adequate funds with a mean value and standard deviation 3.62 and .974 respectively to advance for the manual transport operations.
- This concurs with Mahulo (2015) who conducted a study on supply chain management practices and organization performances among cement companies in Kenya.
- He found that low acceptance levels for the transportation practices by the employees to the implementation of process of the supply chain management practice acted as a big barrier to success.
- To benefit the most out of this transport and logistics practices, the challenges ought to be addressed and appropriate solutions provided.

5.3 Conclusion

The study found out that all variables under this study namely; customer requirement strategy, carrier management practice, transport performance monitoring practices and freight payment and audit practices were implemented below average and small extent. The study therefore concludes that there are very least of variation and almost similar least implementation among all variables. Hence the extent implementation is concluded to base largely on the desired outcomes or the managements' preference. The study also found out that there are challenges that limit the effectiveness of the implementation process. The thus concludes that for the implementation to be successful these challenges have to be addressed.

The study further found out that there exist strong positive relationships between transport management practice and logistics performance at LMD. The study thus concludes that increase in the transport operations would result in enhanced logistics performance.

5.4 Recommendation

Based on the above results and conclusions drawn above; some recommendation are proposed as a means of alleviating the problems found.

- The study found that the LMD had implemented transport management practices in less and lowest extent to enhance the logistic performance. It is therefore recommended that the LMD will adopt and implement those practices to provide high quality services that will enable them achieve the desire objectives.
- The study also found out the logistics performance at the LMD is predetermined by transport management practices strategies employed.
- The study thus recommends that the management at LMD monitors and evaluates these transport strategies more often. This will be enable them formulate measures to ensure proper implementation and success of these strategy.
- The study also sought to establish that implementing transport practices led to incurring additional cost. The study thus recommends that prober budgetary considerations and plans to be considered before undertaking any process.
- The study further recommends that polices and legislations should consider the need for facilitating and setting up policies which will enhance implementation process of transport strategies in the main department.
- Further, the study recommends the management should provided smoothing management process, aware employees about important of transport in logistics, provided proper budget allocation and adequate training to coordinate new transportation practices to minimizing transport challenges.
- Finally, monitoring and evaluating of all the transport management practices is crucial to excellent logistics performance at LMD. Therefore, management should be keep in the timing and frequently of the evaluation process.

5.5 Suggestion for Further Study

The study confined itself to transport management practices in logistics performance at LMD. Despite the study being address the research questions few areas are yet to be addressed, requiring further research. Other emerging practices like warehouse management and inventory practices should be investigated to established how the effect logistics performance at LMD. The study found that there were challenges faced in the implementation of the transport practices. The study thus suggests that further studies to be conducted on how these challenges may be addressed. Further research should also be using a different approach in determination of the effect that transportation has on logistics performance. This could be through using other variables other than those used by the study.

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Questionnaire to Respondents

School of Commerce

ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE
DEPARTMENT OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT
GRADUATE PROGRAM

Dear Respondents!

I am conducting this research on *The Effect of Transport Management Practice in Logistics Performance* in the Ethiopian ministry of national defense, logistics main department. The research is a part for my partial fulfillment of the requirements for Master of Arts in logistics and supply chain management. Its result is also beneficial for both the main department as well as university.

In order to make this research competes and beneficial, I am kindly requesting your genuine and positive response to the issues' asked in this questionnaires' sheet. With due confidence I have in you, I believe your answer plays a fundamental role in validating this thesis and its outcome. Nevertheless, I would like to assure you that your response or information to be provide are to be used for the purpose of this research only ,otherwise, they are subject to confidentiality and must be kept authentically.

Having said the above, I am kindly requesting your cooperation and would like to extent my thanks in advance for giving me valuable time in response this questions.

General Directions:

- ❖ No need of writing your name
- ❖ Please put check mark (✓), in the appropriate box/table.
- ❖ Read carefully each questions or statement.
- ❖ Check this questionnaire has 5 Pages.
- ❖ If you have any questions or comments, contact me and I am available as per your convenience at:
 - Cell-phone +251911782643
 - E-mail getinetgedamm@gmail.com

I thank you in advance for your kindness and cooperation!

Part I: Demographic Information

- 1. Sex: Male Female
- 2. Age in year: 20-30 31-40 41-50 above 50
- 3. Job Status: Military Civil ; if your Job status is military please write your rank.....
- 4. Job Title: Clerk Supervisor Head of Section Head of Department
- 5. Educational level: Certificate and below Diploma/Level First degree
Second degree and above
- 6. Work experienced/stayed at the institution: 1-7 Years 8-15 Years
16-25 Years above 25 Year

Part II: Determinants of Transport Management Practice at Logistics Main Department (LMD).

Based on determinants of transport management practice in your department please tick the appropriate box to indicate the extent to which you agree or disagree with each statement. The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 =agree, 5 = strongly agree.

S/ No	1. Customer Requirement Strategy Descriptions	Item Type Scales				
		Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
		1	2	3	4	5
1.1	The department has developed transportation management programs considering with customer requirement strategy.					
1.2	Transportation programs in the department have reflected to meet customer needs regardless of time service aspects.					
1.3	Our department has properly identified the strategy regardless of whether it is involved with domestic or international.					
1.4	Customers demand shipments are delivered as they required on the date needed by the carrier preferred in the proper shipping packaging method and complete.					
1.5	Transport service being able to have transportation programs which can do provide customer satisfaction that can give your department a competitive advantage.					
1.6	Our department has identified the current required inventory which matches with in the coming period on transportation capabilities leads to very					

	efficient transportation requirements.					
1.7	Transportation department has fully developed transportation requirement planning transport management strategies.					
1.8	Transportation capabilities are formally communicated with logistics service customers.					
1.9	Our department has communicated performance goals with relating to logistics performance through the main department.					
1.10	Your transportation strategy does balance responsiveness vs. efficiency and it does consider sustainability.					

In addition the above, (regardless of the transport management practices) in your department please to what extent has your department implemented the following transport management practices in an effort to improve logistics performance? (Use the scale of: 1- Not at all, 2- Small extent, 3- Moderate extent, 4- Great extent, 5- Very great extent).

S/ No	Descriptions	Item Type Scales				
		Not at all	Small Extent	Moderate Extent	Great Extent	Very Great Extent
		1	2	3	4	5
2.1	The department has carefully makes decision to optimize the transport mode when choosing a carrier.					
2.2	Our department has considered the carrier to move inbound & outbound cargo to minimize costs of movement.					
2.3	The department carefully considers measures for evaluating transport performance when choosing the carrier.					
2.4	The department considers transit time in selecting carriers					
2.5	The department considers environmental and energy concerns of transport providers when selecting carriers.					
2.6	The department considers security measures deployed to safe guard shipments in transit by individual carriers.					
2.7	Our department has considered the nature of cargo to be shipped in deciding appropriate carriers.					
	3. Freight Payment and Audit Practices.					
4.1	The department carefully inspects invoices received they are billed as per contract.					
4.2	The department ensures payments are made as per agreed credit terms.					
4.3	The department manages contracts and payment centrally for better cost control.					
4.4	The department conducts regular audits reconciliations to clear outstanding payments.					

4.5	The department ensures compliance on tax and other statutory obligations when selecting carriers					
4. Transport Performance Monitoring Practices						
5.1	The department considers percentage of requested shipment dates attained					
5.2	Does the department records percentage of shipments that arrive at destination on time?					
5.3	Does the department consider frequency of requests to expedite shipments?					
5.4	The department arranges for regular performance reviews with service providers agreement on areas of improvement					
5.5	The department conducts compliance audits on transport providers in areas of government & industry requirements for improvement opportunities.					

❖ Kindly mention other transportation management practices, if any, adapted by your organization.-----

-----.

Part III: Challenges in the Implementing of Transport Management Practices at LMD.

This section aims at determining the various challenges experienced in transport implementation at LMD. Please indicate to what extent has your department implemented the following transport management practices in an effort to improve logistics performance? (Use the scale of: 1- Not at all, 2- Small extent, 3- Moderate extent, 4- Great extent, 5- Very great extent).

S/No	Descriptions	Item Type Scales				
		Not at all	Small Extent	Moderate Extent	Great Extent	Very Great
		1	2	3	4	5
1	The employees lack the adequate training to coordinate new transportation practices.					
2	There is low acceptance levels for the transportation practices by the employees					
3	There is lack of adequate funds to advance for the manual transport Operations.					
4	The managements are reluctant in venturing into new transportation Practices.					
5	Increased cost in implementation process.					
6	There is an increase in the transport supply chain in the logistics Operations.					

- ❖ Are there any other challenges experienced in transport Management Practice implementation at LMD?

Part IV: Logistics Performance at Logistics Main Department (LMD)

Please indicate to what extent the following measurement of logistics performance at LMD have been enhanced by the use of transportation in logistics. Use the scale 1-5 where; 1 is Significantly Decrease, 2 is Decrease, 3 is same as before, 4 is Increase, and 5 is Significantly Increase.

S/No	Descriptions	Item Type Scales				
		Significantly Decrease	Decrease	Same As Before	Increase	Significantly Increase
		1	2	3	4	5
1	In my department transport services Quality have specific features compared to other types of services.					
2	In my department, demand responsive transportation has been developed aiming at responding to customer needs.					
3	In my department effective demand management attempts to enhance vehicle utilization					
4	Our department conducted Flexibility in supply perspectives to measure the ability of the transportation system to fluctuations in demand.					

- ❖ Are there any ways in which transportation enhances at logistics performance at LMD?

Thank You for Your Cooperation!

March, 2019
Addis Ababa, Ethiopia



ለመላሾች የተዘጋጀ መጠይቅ!

School of Commerce

አዲስ አበባ ዩኒቨርሲቲ ንግድ ስራ ት/ቤት

የሎጀስቲክስ እና አቅርቦት አስተዳደር ትምህርት ክፍል

የድህረ ምረቃ ፕሮግራምጃ

ወድ መላሻችን!

ይህን የምርምር ጥናት የማድረገው በኢትዮጵያ መከላከያ ሚኒስቴር በሎጀስቲክስ ዋና መምሪያ ስር “የትራንስፖርት አስተዳደር ልምድ በሎጀስቲክስ አፈፃፀም ያለው አነድምታ/ወጤት” በሚል ነው።ይህም ጥናት በመግባር ላይ ያለሁትን የሎጀስቲክስ እና አቅርቦት አስተዳደር ትምህርት አንዱ የትምህርቱ ማሙያ እና መመርቂያ ነው።የዚህ ጥናት ወጤት ምርምሩ ለሚሰራበት ዋና መምሪያው እንዲሁም ለዩኒቨርሲቲው ጠቀሜታ እንደሚኖረው ይታመናል ።

በዚህም መሰረት ይህ ምርምር የተሟላና ጠቃሚ እንዲሆን የእርስዎን እውነተኛና ቅንነት የተሞላበት መልስ መሰረታዊ ስልጣን ከዚህ በታች በቀረበው መጠይቅ መሰረት መልስዎን እንዲሞሉ በማክበር እጠይቃለሁ ። እርስዎ የሚሰጡት መልስም ሆነ አስተያየት ጠቃሚነቱ ለጥናቱ ብቻ በማመን ማንኛውም የሚሰጡት መልስ ምስጢርነቱን የጠበቀ መሆኑን ለማረጋገጥ እወዳለሁ ።

ይህን ከአልኩ በሁላ የእርስዎን ቅን ምላሽ ፤ትብብርና ለሚሰጡኝ ጠቃሚ መረጃና መልስ እንዲሁም ለወድ ጊዜዎ መስዋዕትነት ምስጋናዎ ከፍ ያለ ነው።

አጠቃላይ መመሪያ፤፤

- ስምዎን መፃፍ አያስፈልግም፤
- መልስዎን በተሰጠው ሳጥን (✓)በማድረግ ያስቀምጡ፤
- የተሰጠውን መጠይቆች በጥንቃቄ ያንብቡ፤
- መጠይቁ 5 ገፅ መሆኑን ያረጋግጡ፤
- ማንኛውም ጥያቄ ፤አስተያየት ካለዎት በሚፈልጉት እና በተመቸዎ ሰዓት በሚከተለው አድራሻ ጥናት አድራጊዎን ያገኙታል።

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ለቅን ትብብርዎ በቅድሚያ አመሰግናለሁ!

ክፍል I-የግል መረጃ/ዳታ፤

1. ያታ፤ ወንድ ሴት 2. ዕድሜ፤ 20-30 31-40 41-50 50 በላይ

3. የስራ ሁኔታ፤ ወታደር ሲቪል

❖ ወታደር ከሆኑ ማዕረግዎን ያስቀምጡ/ይጻፉ/.....

4. የስራ ሀላፊነት፤ ስራተኛ ተቆጣጣሪ ክፍል ሀላፊ መምሪያ ሀላፊ

5. የትምህርት ደረጃ፤ ስርቴልኬትና በታች ዲፕሎማ/ደረጃ የመጀመሪያ ድግሪ

ሁለተኛ ድግሪ እና በላይ

6. የስራ ልምድ በተቋሙ፤ 1-7 ዓመት 8-15 ዓመት 16-25 ዓመት 25 ዓመት በላይ

ክፍል-II ፤ በዋና መምሪያዎ የትራንስፖርት አስተዳደር የስራ ዝርዝሮችን፤

የትራንስፖርት አስተዳደር የስራ ዝርዝሮችን በተመለከተ ከዚህ በታች በሰንጠረዥ ከ 1-5 በቀረቡት ምርጫዎች መሰረት የእርስዎን ግንዛቤና ስምምነት በሰንጠረዥ ያስቀምጡ (የተዘጋጁት ዝርዝሮች በሊከርት አይነት ደረጃ ሲሆን 5 ደረጃ አላቸው) ::

ተ/ቁ	1. የደንበኞች ፍላጎትና ዕቅድ፤ መግለጫ	ዝርዝር ደረጃ				
		በጣም አልሰማማኝም	አልሰማማኝም	አላውቅም	እስማማለሁ	በጣም እስማማለሁ
		1	2	3	4	5
1.1	የትራንስፖርት ክፍሉ የስራ ዕቅድ ሲያዘጋጅ የደንበኞችን ፍላጎት መሰረት ያደረገ ነዉ					
1.2	በክፍሉ የሚዘጋጁ የትራንስፖርት ፕሮግራሞች የደንበኞችን ፍላጎት፤ጊዜና የአገልግሎት ተደራሽነትን ያነፀባርቃሉ፤					
1.3	የትራንስፖርት ክፍሉ የስራ ዕቅድ ሲያዘጋጅ የወጭ ወይም የወስጥ አገልግሎት በሚል በሚገባ ለይቶና ግምት ውስጥ አስገብቶ ያዘጋጃል፤					
1.4	ክፍሉ የሚያቅደው ዕቅድ የደንበኞችን ፍላጎት፤ የደንበኞችን ፍላጎት ቀንና ጊዜ፤ በሚገባ የአሸጋሽግ /Packaging/ ስልት የተሙላ በሆነ መልኩ በዝርዝር የዘጋጃል፤					
1.5	የትራንስፖርት ክፍሉ የሚሰጠው የትራንስፖርት አገልግሎት የደንበኞችን ፍላጎት የሚያሟላና የተወዳዳሪነቱን ጥቅም የሚያስጠብቅበት ፕሮግራም አለው፤					
1.6	ክፍሉ በወቅቱ ያለውን ሀብት ለይቶ በማወቅ እንዲሁም መጭውን ጊዜ በማገናዘብ የትራንስፖርት ችሎታውን ከፍ በማድረግ ውጤታማ የሆነ የትራንስፖርት ፍላጎትን ያሟላል፤					
1.7	የትራንስፖርት ክፍሉ ዕቅድ ሲዘጋጅ የትራንስፖርት ፍላጎት ከትራንስፖርት አስተዳደሩ ተልኮ ጋር ሙሉ በሙሉ የተገናዘበ ነዉ፤					
1.8	የትራንስፖርት አቅምና ችሎታ ከሎጀስቲክስ ደንበኞች አገልግሎት ጋር በግልፅ ይገናኛሉ/ይናበባሉ/					
1.9	የትራንስፖርት ክፍሉ የራሱን የአፈፃፀም ብቃት ከሎጀስቲክስ የአፈፃፀም አላማ ጋር ግምት ውስጥ በማስገባት ግንኙነት ያደርጋል፤					
1.10	ክፍሉ የትራንስፖርት ዕቅድ ሲዘጋጅ ፈጣን ምላሽን ፤ቅልጥፍንና ቀጣይነትን ግንዛቤ ውስጥ ያስገባ ነዉ፤					

S/no	2. የትራንስፖርት /የአገልግሎት የአመራር ልምድ፤	ዝርዝር ደረጃ				
	መግለጫ	በጣም አልሰማምም	አልሰማምም	አላውቅም	እስማማለሁ	በጣም እስማማለሁ
		1	2	3	4	5
2.1	ትራንስፖርት ክፍሉ ማሳደግ በሚጠበቅ ጊዜ አዋጭ የሆነ የትራንስፖርት አይነት/ሞድ/ በተመለከተ ጥንቃቄ ያለው ውሳኔ ይሰጣል፤					
2.2	ክፍሉ ገቢና ወጭ ጭነቶችን ሲያጓጉዝ የአጓጓዣን የጉዞ ቅነሳ ግምት ውስጥ ያስገባል፤					
2.3	ትራንስፖርት ክፍሉ አጓጓዣ በሚመርጥበት ወቅት የትራንስፖርት ብቃት መለኪያዎች ግምገማ ግምት ውስጥ ያስገባል፤					
2.4	ክፍሉ ማሳደግን ሲመርጥ የማሳደግ ሰነድ ግምት ውስጥ ያስገባል፤					
2.5	ትራንስፖርት ክፍሉ አጓጓዣ ሲመርጥ ለትራንስፖርት አቅራቢዎች አካባቢን ፤ሀይል አጠቃቀምን ግምት ውስጥ ያስገባል፤					
2.6	ትራንስፖርት ክፍሉ ለአያንዳንዱ አጓጓዣ ጥበቃ/Security guard/ በመመደብ ለጉዞው ትኩረት ይሰጣል፤					
2.7	ትራንስፖርት ክፍሉ አጓጓዣ ሲመርጥ ተገቢ የሆነ የጭነቱን ፀባይ ጥናት ግምት ያስገባል፤					
3.5	የትራንስፖርት ክፍሉ የማሳደግ ዋጋን ለመቀነስ ተከታታይ የሆነ የደርሶ መልስ የጭነት አጋጣሚዎችን ግምት ውስጥ በማስገባት ይጠቀማል፤					
3.6	የትራንስፖርት ክፍሉ ክፍሉ ለግምጃ ቤት፤ለወደብ፤ለኤርቦት ቅርብ ያሉ የትራንስፖርት አቅራቢዎችን ግምት ውስጥ ያስገባል፤					
3 የጭነት ክፍያና የአዲት ስራን በተመለከተ፤						
4.1	የትራንስፖርት ክፍሉ የክፍያ ደረሰኞችን ቁጥጥር አግባብነት በመከተል በኩንትራት መሰረት ክፍያን የፈጸማል፤					
4.2	የትራንስፖርት ክፍሉ ክፍያዎች በውሉ መሰረት መሆኑን ያረጋግጣል፤					
4.3	የትራንስፖርት ክፍሉ ወሎችንና ክፍያዎችን ለተሻለ አስተዳደርና ዋጋ በማዕከልነት ቁጥጥር ያስተዳድራል፤					
4.4	የትራንስፖርት ክፍሉ ያለበትን ክፍያ ለማጠናቀቅ መደበኛ የሆነ አዲትና የማስታረቅ ስራ ይሰራል፤					
4.5	የትራንስፖርት ክፍሉ የማሳደግ አቅራቢዎችን ሲመርጥ የግብርና ተያያዥ የፋይናንስ ህጎችን ያረጋግጣል፤					
4. የትራንስፖርት የአፈፃፀምና ቁጥጥር ስራዎች						
5.1	የትራንስፖርት ክፍሉ የጭነት ጥያቄዎችን ከክትል ለማድረግ የመቶኛ ስሌት ተግባራዊ ያደርጋል፤					
5.2	የትራንስፖርት ክፍሉ የመቶኛ ስሌት በመጠቀም ጭነቶችን በትክክል ወይም በታና ሰዓት መድረሳቸውን ምዝገባና ቁጥጥር ያደርጋል፤					
5.3	የትራንስፖርት ክፍሉ ድግግሞሽ የሆኑ የጭነት ጥያቄዎችን በፍጥነት ያስተናግዳል፤					
5.3	የትራንስፖርት ክፍሉ መደበኛ የሆነ የአፈፃፀም ክለሳ ከአገልግሎት አቅራቢዎች ጋር ወይም በማድረግና መሻሻል በአለባቸው ጉዳዮች የጋራ ስምምነት ያደርጋል፤					
5.5	የትራንስፖርት ክፍሉ የትራንስፖርት አቅራቢዎችን የአዲት ማረጋገጫ መንግስታዊ፤አካባቢዊና የእንደስተሪ ፈላጎቶችን የማሻሻያ አጋጣሚዎችን ይጠቀማል፤					

❖ በትራንስፖርት መምሪያው ሌላ የትራንስፖርት የአፈፃፀምና ቁጥጥር ስራዎች አይነት አለ የሚሉት ካለ ከዚህ በታች ቢያብራሩልኝ ? -----

ክፍል 3 - በመምሪያዉ ዉስጥ በትራንስፖርት አስተዳደር ስራዎች ላይ ያሉ መሰናክሎች/ተግዳሮቶች/

ይህ ክፍል የትራንስፖርት አስተዳደር ስራዎችን ለማከናወን ከሚያጋጥሙ ተግዳሮቶች ያሉ ልመዶችን ምን ያህል እንደሆኑ ለማወቅ ነዉ፤ በዚህም መሰረት ቀጥሎ በቀረበዉ ሊከርት ስኬል መሰረት በታች ባለዉ ሳጥን መልስዎን ያስቀምጡ፤ (ሊከርት ስኬሉም ፣ 1 = በጣም አልሰማማም፣ 2 = አልሰማማም፣ 3 = አላዉቅም ፣ 4 = እስማማለሁ፣ 5 = በጣም እስማማለሁ፤)

<p><u>በመምሪያዉ ዉስጥ በትራንስፖርት አስተዳደር ስራዎች ላይ ያሉ መሰናክሎች/ተግዳሮቶች/</u></p> <p>መግለጫ</p>	ዝርዝር ደረጃ/ ስኬል				
	በጣም አልሰማማም	አልሰማማም	አላዉቅም	እስማማለሁ	በጣም እስማማለሁ
	1	2	3	4	5
አዲስ የትራንስፖርት አሰራርን ለመተግበርና ለማቀናጀት ለሰራተኞች የሰለጠና ዕጥረት አለ፤					
የሎጀስቲክስና የትራንስፖርት ልምድን በተመለከተ በሰራተኞች ያለዉ ተቀባይነት ዝቅተኛ ነዉ፤					
የትራንስፖርት አሰራሩን ለማዘመን የበጀት ዕጥረት አለ፤					
የሰራ አመራሩ አዲስ የትራንስፖርት አሰራርን ለመተግበር እንቅፋት ይሆናል፤					
በሰራ አተገባበር ሂደት ዉስጥ የዋጋ መጨመር አለ፤					
በሎጀስቲክስ አሰራሮች ዉስጥ የትራንስፖርት አቅርቦት ሰንሰለት የተነዛዛ ነዉ፤					

❖ ሌላ የትራንስፖርት አሰራር ተግዳሮት አለ የሚሉት ካለ በተጨማሪ ያብራራሉን?

ክፍል 4- የሎጀስቲክስ አፈፃፀምን በመለከተ፤

በትራንስፖርት እንቅስቃሴ ዉጤት ዉስጥ ባለፉት 3 አመታት ዉስጥ በዕስዎ እይታ የሎጀስቲክስ አፈፃፀምን በተመለከተ ቀጥሎ በተመለከተዉ ሳጥን መሰረት አጠቃላይ የክፍሉን አፈፃፀም በሚከተሉት መለኪያዎች መልስዎን ያስቀምጡ፤ (የዝርዝሩ 5 ደረጃ ሊከርት መሰረት ተቀምጧል ፤ይህም 1 = ትርጉም ባለዉ ቀንሷል፤ 2 = ቀንሷል፤ 3 = ተመሳሳይ ነዉ፤ 4 = ጨምሯል፤ 5 = ትርጉም ባለዉ ጨምሯል)

ተ/ቁ	የሎጀስቲክስ አፈፃፀምን በመለከተ	ዝርዝር ደረጃ				
	መግለጫ	ትርጉም ባለው ቀንኳል፤	ቀንኳል፤	ተመሳሳይ ነው፤	ጨምሯል፤	ትርጉም ባለው ጨምሯል፤
		1	2	3	4	5
2.1	በእኔ የሥራ ክፍል ውስጥ የትራንስፖርት አገልግሎት ጥራት ለመጠበቅ ሌሎች የሚሰጡትን የአገልግሎት አይነት ግምት ውስጥ ያስገባል፤					
2.2	በእኔ የሥራ ክፍል የትራንስፖርት አገልግሎት ሀላፊነት/ተጠያቂነት የሚወጣው የደንበኝነትን ፍላጎት አለማ ያደረገ ነው፤					
2.3	በእኔ የሥራ ክፍል ውጤታማ የሆነ የተሸከርካሪ አጠቃቀም ፍላጎትን መሰረት ያደረገ አስተዳደርን ይተገብራል፤					
2.4	በእኔ የሥራ ክፍል የትራንስፖርት አሰራር ተጣጣሬነቱን የሚፈፀመው የአቅርቦት ልኬት ችሎታን ከፍላጎት መለዋወጥ ጋር መሰረት ያደረገ ነው፤					

ለቅን ትብብርዎ ከልብ አመሰግናልሁ!

መጋቢት፣ 2011 ዓ.ም

አዲስ አበባ፣ ኢትዮጵያ