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FACTORS AFFECTING THE PERFORMANCE OF CROSS BORDER ROAD FREIGHTTRANSPORT ASSOCIATIONS AND ORGANIZATIONS IN ETHIOPIA

BY

MENGISTU MEBA WOLDEKIDAN

JULY, 2022

ADDISABABA, ETHIOPIA

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STATEMENT OF DECLARATION

I declared that my thesis for MBA in Business Administration at St.Mary's University which was done independently with the advice of my advisor Mesfin Workineh (Ph.D.) is my original work and had not been done for the degree at this University or another and all reference materials have been properly acknowledged

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Signature

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Acronyms /Abbreviations

FTA	Federal Transport Authority
MoTL	Ministry of Transport and Logistics
AIAA	American Institute of Aeronautics and Astronautics
ASEAN	Associations of Southeast Asian Nations
CDOT	Colorado Department of Transportation
DACA	Drug Administration and Control Authority
DSGI	Descartes systems Group Inc
ERA	Ethiopian Road Authority
ERCA	Ethiopian Revenues and custom Authority
E.C	Ethiopian Calendar
EFYS	Ethiopian Fiscal year Series
ESLSE	Ethiopian Shipping and Logistics Service Enterprise
EUTRP	European Union Transportation Research
FNGP	Federal Negarit Gazeta Proclamation
FOB	Free on Board
ICT	Information Communication Technology
LPI	Logistics Performance Index
QSAE	Quality and Standard Authority of Ethiopia
SAD	Single Administrative document
U.S TRB	United States Transportation Research Board
UNCTAD	United Nations Conference and Development
UNMOFW	United Nations Manual on Freight Forwarding
US.FDOT	United States Department of Transport
VMFP	Virginia Multimodal Freight Plan
VTPI	Victoria Transport Policy Institute
WCO	World Customs Organization
WBGR	World Bank Global Ranking
WSDOT	Washington Department of Transport
WER	World Economic Review

Abstract

This study was made with the main objective of factor affecting the performance of cross border freight transport service in Ethiopia the case of some selected associations and organization to achieve this objective, has used explanatory research design and employed quantitative research approach in order to triangulate the data. To collect data from respondent and other sources, this study used primary and secondary sources of data. Out of the 263 questionnaires distributed all 263 were returned back. In order to analyze and present the collected data, descriptive and inferential statistics analysis method was used. The study used multiple linear regression modules to see the effect of independent variables, which were the factors under study, on dependent variable performance of cross border freight transport system using SPSS software. The findings from hypothesis testing showed that Customs, Infrastructure, Competence, Timeliness, have positive and significant relationship with performance of cross border freight transport system. However, the findings from regression analysis coefficients of ß (beta) showed that Customs have largest significant influence on the performance of cross border freight transport service followed by Timeliness, Competence, and infrastructure. Therefore, the researcher has recommended that the freight transport firms should work with different stockholders and give due emphasis to those driving factors to appropriately address performance issues.

Keywords:-*Custom, Infrastructure, Competence, Timeliness*

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Study

The ability to manage cross border road freight transport in today's global business environment is a crucial factor in national competitiveness of logistics enterprise (The World Bank, 2016). Low infrastructure performance (quality of roads, high time consumption, service delivery and ICT) appears to constrain for the logistics performance in the developing countries (The World Bank, 2016).The ability of road transportation to deliver goods and services on time and at the lowest possible cost is a key determinant of integration into the world economy today. "The minimization of the use of resources is a common motivation in logistics for import and export" (Damtew, 2020). Logistics firms have a strong incentive to provide predictable deliveries in both the developed and the developing world. Supply chain reliability continues to be a major concern among traders and logistics providers. In a global environment, consignees require a high degree of certainty on when and how deliveries will take place. This is more important than the speed of the delivery (World Bank, 2016).

Dawit, (2019) and Damtew, (2020) noted that inefficient logistical operation would result in delivery delay, a high cost of logistics, loss of customers, poor quality of service and discrepancy on quantity delivered, production interruption and extension of lead time, length of documentation process, ineffective ICT and inadequate dry ports. Global supply chains are becoming more complex, and the safety, social, environmental, and other regulations affecting cross border freight road transport operators are becoming more demanding. The World Bank's Logistics Performance Index (LPI) provides the most comprehensive international comparison tool to measure the trade and transport facilitation friendliness of countries. Understanding and decomposing the components of trade and logistics performance can help countries improve cross border road freight transport efficiency and identify where international cooperation could help overcome barriers (Çelebi, 2015) and (Damtew,2020)

Freight transportation represents a key factor of socio-economic development. Freight traffic volumes have significantly increased over the last decades, because of radical changes in production and distribution systems on the one hand and structural economic and geopolitical changes on the other (Marchetetal,2009). Changes in the production and distribution systems

relate to the development of just-in-time methods and stock minimization. These changes significantly affect the freight transport organization and flow patterns; shipments are now more frequent, volumes per shipment are less massive, orders are more irregular, lead times are shorter and transport distances are longer (Kapros,2009). Structural economic and geopolitical changes relate to the globalization process, involving a significant increase of commercial exchanges, integration of new markets in the world economy, relocation of economic activities and new procedures, behaviors and user practices as well. Globalization also affects the organization of freight distribution systems and the flow patterns.

The road transport industry characterized by a range of environmental and societal pressures, as well as ever-increasing customer demands for higher service levels at lower cost. In this scenario, road haulers are required to offer new and innovative ways to improve the efficiency of transport operations in order to fulfill the demand to move freight on time and reliably, as well as with greater visibility and lower environmental impact (Thomson,2010). In such environment, the competitiveness of road transport companies is increasingly dependent on their ability to embrace innovation (Dawit, 2019).

1.1. STATEMENT OF THE PROBLEM

As one of the landlocked countries in the horn of Africa, Ethiopia currently uses ports of Djibouti, Sudan and Somali land for its international trade. Port of Djibouti accounts for 95% of total maritime traffic and 91.5% of Ethiopia's total foreign trade, the balance (5%) passing through Port Sudan and Port Barbara (DFID, 2022).

The current rapid economic growth of Ethiopia has increased the import and export trades' volume. The majority of import and export trades of the country facilitates through cross border road transporters. Efficiency and reliability of the cross boarder transportation have a significant impact on the international trade and general economic development of the country. To be competitive in global market place, the cross border road transport sector need to operate at higher level of efficiency and reliability. Ethiopian government has been implemented huge road transport infrastructure and other projects to improve the efficiency and reliability of the cross border road transport industry. Despite these measures, the cross

border transport industry still operating at lower level of efficiency, reliability and high transport cost.

Regardless of the significant effect of being land locked on the efficiency and reliability of cross border freight transport activities, many other factors contribute for the inefficiency and unreliability of the current cross border transport operation of the country. There are few empirical researches discuss on Ethiopia road freight transport operation mainly on Addis Ababa – Djibouti corridor (Dawit, 2019; Damtew2020; Kalkidan,2017).However, none of them discussed the effect between improved efficiency, reliability, and operating costs, and overall performance of the transport firms. Transport firms need to keep up with continuous technological changes taking place around the world as this has the potentiality of affecting their performance in terms of efficiency and reliability. Despite this innovative information and communication technology, transport firms could not meet expectations of improved service level mandated by customers and increased market pressure to cut cost. In addition, transport firms have found it a challenge to grow and meet up with responsibilities as the volume of transaction increase

Despite the vital role of cross border road transport industry and its influence economy, environment and society, it is suffering from inefficiency, unreliability and high operating costs. Ethiopia's cross border transport strongly influenced by the fact that Ethiopia is landlocked country and that its international trade characterized by strong imbalance between exports and imports (7.34 million tones of imports and 1.34milliontonsofexportin2013).

The latter has a direct effect on transport efficiency with a high percentage of empty trucks in the direction of the neighboring foreign ports (EU, 2013). According to Kifle et al. (2000) stated that transit vehicles usually haltered for about two hours per trip on each of the four checkpoints (at Galaif border, Mille, Awash, and Nazareth) within Ethiopian territory, occasioning on the average total delay of eight hours per vehicle.

Road freight transportation in Ethiopia is characterized by inadequate supply and aging of vehicles with low carrying capacity and low utilization rates. According to the East Africa Logistics Survey report on East Africa Corridor efficiency (2012), truck turnaround time as an average truck recorder 5,000 – 6,000 km per month against an international average of between 9,000 km to 12,000 km per month. In fact, Ethiopia cross border transport operates in

a competitive way with regard to other corridors in Africa, but it still endures with inefficiency and unreliability. This thesis, therefore, aimed to assess factors affecting the performance of cross border freight transport in Ethiopia.

However, now a day's cross border railway is contributing a lot to the socio economic development of the the country. On January 1st, 2018, the Ethiopian Prime Minister Hailemariam Desalegn officially inaugurated the Ethiopia-Djibouti line, a new **standard gauge international railway** and Africa's first electrified cross-border railway that **connects Ethiopia to the Red Sea**. This was welcomed by the rest of the government, the local population, and the agrarian sector alike since land-locked Ethiopia has no natural access to the sea and therefore to passenger and industrial ports.

Ethiopia is a vastly **agrarian economy**. The UN Food and Agriculture Organization (FAO) defined the country as "one of the top-performing economies in Sub-Saharan Africa with an average growth rate of 11 percent over the last seven years" and highlighted as agriculture plays a vital role in this growth, with agricultural commodities making up almost the entirety of Ethiopia's exports.

More than 95% of Ethiopia's trade goes through Djibouti, accounting for 70% of the activity at the Port of Djibouti.

Tilahun Sarka, Director-General of Ethiopia-Djibouti Standard Gauge Railway Share Company (EDR) said to the media that **the railway will make a great difference** for the country as it will allow for Ethiopia's major exports and imports (wheat and fertilizer) to be transported in a majorly more efficient way.

The new railway has already achieved to carry 70,000 tons of fertilizer (a vital commodity for the national economy) into Ethiopia in the past few months. The railway is built to carry up to 24.9 million tons of freight annually, with 6 million tons annually expected in 2023.

1.2. RESEARCH QUESTIONS

According to statement of the problem, this study answers the following research questions.

1. Does Custom have effect on the performance of cross border road freight transport firms?
2. What is the effect of timeliness on the performance of cross border road freight transport?
3. Do infrastructures have effect on the performance of cross border road freight transport firm?
4. What is the effect of competence on the performance of cross border road freight transport?

1.3. OBJECTIVES OF THE STUDY

1.3.1. General objective

To identify Factor affecting cross border road freight transport associations and organizations performance in Ethiopia.

1.3.2. Specific Objectives

This research guided by the following specific objectives.

1. To identify the effect of custom on the performance of cross border road freight transport
2. To identify the effect of timeliness on the performance of cross border road freight transport
3. To assess the effects of infrastructure on the performance of road freight transport firms
4. To identify the effect of competence on the performance of road freight transport firms

1.4. SCOPE OF THE STUDY

1.4.1. Conceptual Scope

Conceptually, the scope of the study will be limited to identify the cross border road freight transport firms' performance using variables such as custom, infrastructure, competence, Timeliness and their effect on freight transport performance based on the various ideas, concepts, freight mode, and the availability of data and the interest of various stakeholders. Even though there are so many factors that can affect the performance of freight transport firms, most of them are categorized under the four main factors identified above.

1.4.2. Target Scope

The study will focus on factors affecting the performance of cross border road freight transport associations and organizations.

1.4.3. Methodological Scope

This study is delimited to using quantitative research methods to measure the performance of cross border road freight transport associations and organizations.

1.5. SIGNIFICANCE OF THE STUDY

The study will present the status of the key cross border road freight transport performance in Ethiopia. This will give a clear picture of the performance of transport operation for policy makers, different stakeholders, academicians, and company managers those who want to

participate directly or indirectly in Cross border freight transport activities. It has an impact to make informed decisions related with the issue of transport system. It is also important to reduce the weakness and enrich the strength of the enterprise. Furthermore, the study will provide additional information to the existing literature and indicate areas that need further investigation in areas under studied.

1.6. LIMITATION OF THE STUDY

Although this study tries to see the effects of different variables on the performance of cross border freight transportation system, this study will have some limitations. The major limitations of this study are: it will not incorporate all the volume of transportation services made by each private and governmental transport companies since acquiring a well-organized data is very difficult. In addition, travelling to Djibouti port to see the general port operations and assess the major problems that cause effect on the performance of cross border freight transport firms is not possible due to lack of contacts and transportation problem. Moreover, the study was based on available information from secondary and primary sources. Accuracy of the study depends on provided information but adequate attention was given to reliability and validity of the research by persuading respondents about the importance of their response on the validity of this work and through crosschecking different literature together with random observations.

1.7. DEFINITION OF TERMS

Modes of transport: -are ways of transport used by transportation service providers in order to render their services such as water ways, railways and airways and land.

Freight Transport:-refers to the movement or transporting traded goods from place of origination to the place of consumer or buyer, using any mode of transport available or preferred.

Inland Transport:-road transportation service given using trucks and the like.

Logistics*:* is an integrated flow of goods and services and information in the supply chain process.

1.8. ORGANIZATION OF THE STUDY

This thesis was organized on five chapters. In chapter one background of the study, statement of the problem, research questions and objectives, significance, scope and limitation of the study discussed in detail. In chapter two review of related literature with transportation, and in chapter three the research design and methodology for the study ,in chapter four summary of findings and discussion, in chapter five conclusion and recommendation were discussed.

CHAPTER TWO
REVIEW OF RELATED LETRATURES

INTRODUCTION

This chapter reviews related literature on the key areas that the study covers. The literature review part of this study has theoretical literature review and empirical literature review. The theoretical part presents the summary of theories forwarded by different scholars about the subject under study at different times. Whereas the empirical part contains a summary of similar or related research findings obtained from other earlier researches.

2. THEORETICAL LITERATURE REVIEW

2.1. Freight transport Models of different countries

2.1.1. US and Canada Freight Transportation Model

A variety of interrelated factors have converged within side the ultimate zone of the 20th century and past to modify the character and scope of the American freight transportation enterprise's insignificant and pervasive ways. There were predominant adjustments with inside the extent and composition of goods, which might be moved over longer distances in each home and worldwide markets; freight is moved extra regularly in smaller shipments, and predominant freight routes (regionally and globally) are evolving, in quick order in reaction to adjustments with inside the worldwide financial system and with inside the geography of rising manufacturing centers (Konings et al.,2008).A major factor underlying this transformation of freight transport is due to changes in the scale, in the composition and in the structure of the American and global economies. The demand for transportation has grown in response to the generally brisk performance of the US and global economies during this period. The US economy is dominantly becoming service-oriented, and shifting from mass manufacturing to high value added custom manufacturing. The resulting combination of increasing information content and decreasing material intensity of goods changes the character and value of goods being moved. Further, the US and the Organization for Economic Cooperation and Development (OECD) countries have created global and regional free trade regimes, and globally organized production systems and value chains, which require speedy and timely movement of goods. These flows of goods are coordinated across national and global transport nodes and links in order to support the smooth functioning of the global economy *(Konings et al. ,2008).*

Technological changes in the transport sector in the US occurred in the form of Interstate Highway System, the jet aircraft, the container and container ships, container stacking in rails, roll-on/roll-off vessels, and a variety of micro infrastructure to facilitate operations at seaports and airports. The use of information technology (IT) greatly enhances transport operator and system efficiency, offering not only speedier goods transport at declining costs but also the ability to integrate goods supply chains regionally and globally while maintaining lean inventories.

The third factor underlying the major performance of the freight system is deregulation and privatization of the transport sector which stimulated technical innovations and enhanced productivity in the sector – in the process lowering costs and improving speed and reliability. At the same time, two organizational innovations – business logistics system and inter-modalism – provide major sources of change in the freight sector *(Debela 2013).* Business logistics service systems, aimed at minimizing total logistics cost (transportation, warehousing and inventories, insurance, administration and so on) by freight transport companies add value to the operation of their customers conferring strategic competitive advantage on US firms operating in the global market *(Debela ,2013).* Inter-modalism is the fully coordinated door-to-door efficient delivery of freight using two or more dissimilar modes of transport *(Konings et al., 2008).* This is desirable since inefficiencies in the freight sector impact the competitiveness of US firms in the transport and transport using sectors. Inter-modalism seeks to enhance the performance of transportation system by increasing safety, reducing congestion and decreasing delays, thereby enabling more efficient freight and passenger trips *(Konings et al., 2008).* It is widely recognized in the US, in both industry and policy circles, that the cooperation between transport modes has the potential to reduce congestion, especially in major freight corridors. The traditional attitude toward infrastructure investment to increase capacity and reduce congestion didn't work because increase in capacity attracts more traffic *(Konings et al., 2008).* Thus, the policy shift is towards addressing the unbalanced distribution of freight shipment across modes. Until recently, the competition between different freight transport modes for the same shipments gave rise to independent infrastructure decisions taken in the optimal interest of different modes. As these facilities and terminals are locked into specific locations, adapting them to inter-modalism requires not only major investments but also changes in attitudes and behavior of modal actors.

Transportation integration across modes also faces additional complex institutional and regulatory problems at federal, state and local levels. These problems are currently affecting the cost and quality of service of freight movement performances.

In conclusion, inter-modalism is considered the solution to the above problems and its aim is to provide seamless movement of cargo across a transportation network in which the physical, institutional and information infrastructure are integrated to reduce transaction costs and maximize operational efficiencies. The US inter modal freight is by far the most developed compared to other parts of the world but it is still in its early stages of development. The obstacles are not fully resolved transfer problem at ports, and information compatibility problem when goods are transferred between modes.

The development in Canada and the US are alike. One important point worth mentioning is that Canada-mid-west USA cross-border rail link is carrying large volumes of lorry trailers on piggyback trains *(Konings et al., 2008).* Canada Pacific Railway launched its Expressway scheme in 2002 and runs regular services between Montreal, Toronto, Windsor (Ontario) and Detroit in the USA. The heart of this operation is the inland Port of Montreal, 1000 miles along the St Lawrence River serving as a gateway for trade to and from mid-west USA *(Konings et al., 2008)*

2.1.2. **European Freight Transport Model**

As reported by *Site and Salucci, 2010*, a total of 2650 billion tone kilometer (tkm) of freight were transported in the EU-27 only considering the four land transport modes (road, rail, inland waterways and pipelines). More than two thirds of the total (72.7%) was attributed to road transport, while rail, pipelines, and inland waterways accounted for, respectively, 17.1%, 5.3%, and 4.9%. If we also consider intra-EU maritime transport and intra-EU air transport, then road transport accounts for almost half the total (45.6%), while rail and inland waterways contributions decreased respectively to 10.7% and 3.3% (the intra-EU maritime transport share is 37.3%).The average annual growth rate of freight transport between 1995 and 2007 has been 2.7%. It is also worth mentioning that the number of tkm run using road transport has increased by 49.6% during the period 1995-2007, while, in the same period, the rail freight transport trend has been fluctuating, but since 2002 it has increased by 17.7%. Freight transport is expected to

grow at roughly similar rates of GDP (2.1%) for the period 2000-2020. Modal split is expected to roughly stabilize in the longer term *(Nathan Associates Inc. ,2014)* As a result of freight and passenger traffic, congestion has become a serious problem. Around 7000 km or 10% of European road network is daily affected by congestion. Then, inter-modalism is considered the solution for congestion and environmental problems, and to attain competitiveness of European economy in the global market but much is not done physically on the ground *(Debela ,2013).*

2.1.3. Asian Freight Transport Model

The infrastructure and logistics system of the majority of Asian countries is under developed. The transport modes used in India are road followed by railway and finally coastal shipping. Airfreight is limited to a small percentage of courier service. Trucking accounts for 70 percent of transportation. Water is the cheapest but it is not heavily used in India. And transportation in India accounts for nearly 40 percent of cost of production *(Srivastava, 2006).* Government is trying hard to develop infrastructure and developed a double stack container freight line which started working from 2006 *(Srivastava, 2006).* Problems are insufficient infrastructure, lack of integration of supply chains and low use of ICT. The entry of large logistics service providers is transforming the nature of logistics services in India. China's railway freight is very good but the road density is low and its international trade has progressed highly and three of the world's busiest sea ports belong to China (Hong Kong), Singapore and Taiwan logistics infrastructure are highly developed in terms of both road infrastructure and sea shipping *(Bookbinder, J. H. and Tan, 2002).*

2.1.4. Freight Transport Models of African Countries

It is generally recognized that the African continent lacks natural ports, while its artificial sea ports have been poorly developed. African ports became more congested following the rise in GDP growth and levels of global trade witnessed in most African countries in the years leading to the global financial crisis of 2008. Indeed, over the last decade, the amount of cargo transiting through Africa's ports has tripled, but containerization is still low and the inland transportation linkages remain weak. African ports' poor performance can be attributed to a range of factors, principally: geography (poor connectivity); inadequate physical infrastructure resulting in

congestion; and weak institutional development. It is important to note that countries with higher port capacity have higher trade capacity

However, the types of commodity that the country trades in terms of imports and exports also matters. For example, Egypt is ranked number 1 in Africa in terms of port capacity and South Africa is ranked number 2. However, the value of trade in South Africa is higher than Egypt due to the type of exports, which are mainly expensive minerals such as platinum and gold. Moreover, the value can also be driven by the number of ports that the country services. In the case of South Africa, landlocked economies such as Botswana, Lesotho, Swaziland, Malawi, Zimbabwe, and Zambia depend on its ports, and this explains South Africa's higher trade volumes *(Port Development in Africa, 2010)*. South Africa's road infrastructure is comparable to the best in the world. According to the Wikipedia data, some of the transport modes in South Africa in 2002 are, for road (362,099km), in 2000 for railway (20,384km) and for sea shipping (8 ports)

2.1.5. **Freight transportation in Ethiopia**

Commercial road freight transport services were among those that suffered most from the misguided economic policies of the "Derg" regime. Prior to 1991, this sub sector was excessively regulated and centrally controlled with services provided only through the Ethiopian Freight Transport Corporation (EFTC), a publicly owned commercial transport entity. This is operated under a cooperative system known as "ketena" whereby five "ketenas" catered for dry cargo transport while one "ketena" handled all bulk cargo transportation. The EFTC collected a five percent commission of total revenue generated by trucks of individual owners. Tariff rates were set and enforced without due consideration for the important need for investment in new vehicles. Non was provision made for vehicle operating costs (VOCs). Controls were imposed on the allocation of vehicles and the routes on which they operated. Private vehicle owners had no direct control over their vehicles and were forced to rely on whatever remuneration was given to them by the state through the "ketenas". The "Derg" regime created an unfavorable business environment that discouraged investment in road freight transport services, resulting in a continuous depletion of the stock of commercial vehicles and a severe shortage of spare parts *(Kifle et al. ,2000)*. The "ketena" system was dismantled through the new economic policy formulated by the Transitional Government of Ethiopia (TGE). Accordingly, tariffs were deregulated, operational mechanisms liberalized, and the private sector allowed free entry and

exit in the provision of freight transport services. Despite these policy changes and the improved operating environment created by the Government of Ethiopia (GOE), road freight transport development still suffers from the neglect of the years prior to 1991. GOE‟s efforts to develop services in this sub-sector have particularly been frustrated by the age of the vehicle fleet, their inadequate supply against an excessive demand and the under-utilization of the existing stock of vehicles due to poor technical back-up. Deployment of freight transport vehicles during the war aggravates the problem. There is an urgent need to stimulate investment in this sub-sector through private sector participation *(Kifle et al. ,2000).*

The logistic service in Ethiopia is still at the early stage of development against the global best practices. Well-developed logistic systems and services geared to meeting the impending logistics needs are lacking in the country because it doesn't align with the current and future growth and requirement of the country. Bank process time which takes about from 16 days to 6 month for import and 2&1/2 days for export is relatively higher compared to best practices. With respect to Customs and Dry Ports, there is a lack of synchronization and coordination with other government agencies. In addition, the monopoly control of Ethiopian shipping and Logistics service Enterprise (ESLSE) of the Shipping service and the high level of dependency on port Djibouti are added together in slowing down the Freight performance and trade activity of the country *(Shewangizaw, 2009).*

2.1.6. Current Freight transportation system in Ethiopia and it's challenges

Ethiopia became the only landlocked country in the Horn of Africa following the independence of Eritrea in 1993. Before that time, the country had access to the sea through the Red Sea ports of Assab and Massawa, both of which now belong to Eritrea. About 86 percent of Ethiopia's imports and exports were handled through the two major ports while only about 14 percent passed through Djibouti *(Kifle et al., 2000)*. As a result of the war with Eritrea in 1998, Ethiopian shipping lines (ESL) had to transfer 100 percent of its operations to Djibouti. Then Djibouti became the only feasible port available to serve Ethiopia. And the port of Djibouti has proven its capacity in handling all of Ethiopia's needs *(Hine et al., 2004).* But Ethiopia began experiencing problems as a result of loss of access to the two ports. These problems included high transit transport costs due to increased transit charges, restrictions and regulations imposed by littoral countries, inadequate infrastructure and poor port facilities, inefficient transport and a diminished

bargaining power with littoral countries. The inefficiency of its own road and transport system, as evidenced by factors such as the aging fleet of road trucks, poor roads and other non-infrastructural constraints have aggravated the increase in transit transport costs *(Kifle et al. 2000).*In the Addis-Djibouti corridor, the competition and the availability of transport is plenty to support the need of the exporters. One reason for this fact is that Ethiopia imports around two times more volume than it exports, so there are plenty of capacity available on the way to Djibouti. Ethiopian imports for 2021 were 39.11million USD and total export volume was a mere 11.76 million USD. Thus most of the trucks are traveling empty to the port *(Hine et al., 2004).* Currently, virtually all (98 percent) of Ethiopian imports and exports are routed through the port facilities in neighboring Djibouti *(Thomas et al., 2008).*

Road and railway transport are the two leading means of transport in Ethiopia with road transport accounting for the movement of about 95 percent of total Ethiopian cargo *(Kifle et al., 2000)*. But as in most Sub-Saharan African (SSA) countries, the first leading transport mode in Ethiopia is in land and cross border road transport *(Thomas et al., 2008).* Road transport is the mode of transport that the country relies on for both domestic as well as international transport services *(Debela ,2013).* In Ethiopia, the main challenges in the road transport sector include high transport costs due to high transit charges imposed by littoral country (Djibouti), cumbersome port and customs procedures and poor road infrastructure *(Kifle et al. ,2000).* Deterioration of transit roads in the country, leading to high vehicle operating costs (VOCs) and high road transport costs, has been a matter of serious concern to the government because of the heavy dependence of the national economy on this mode. An efficient low cost road transport system is of critical importance not only to the development of all sectors of the economy including agriculture, mining, manufacturing and service sectors but also to the stimulation of international trade and the integration of the national economy *(Kifle et al. ,2000). P*oor performance is one of the supply chain (SC) and logistics activities which can be exhibited in terms of higher cost, delay and unpredictability in delivering the product and service to the customer in turn affects economic growth of a country *(Shewangizaw ,2009).* The ability to transport goods quickly, safely, economically and reliably (logistics) is seen as vital to success of businesses, and to a nation's prosperity and capacity to compete in globalized economy *(Debela, 2013).*

According to (Konings et al., 2008) argument traditional attitude toward infrastructure investment to increase performance and reduce congestion didn't work because increase in capacity attracts more traffic. Thus, the policy shift is towards addressing the unbalanced distribution of freight shipment across modes. Until recently, the competition between different freight transport modes for the same shipments gave rise to independent infrastructure decisions taken in the optimal interest of different modes. As these facilities and terminals are locked into specific locations, adapting them to inter-modalism requires not only major investments but also changes in attitudes and behavior of modal actors.

According to *(Debela ,2013) argument,* congestion has become a serious problem. Around 7000 km or 10% of European road network is daily affected by congestion. Then, inter-modalism is considered the solution for congestion and environmental problems, and to attain competitiveness of European economy in the global market but much is not done physically on the ground.

According to (Port Development in Africa, 2010) argument, African freight transportation poor performance can be attributed to a range of factors, principally: geography (poor connectivity); inadequate physical infrastructure resulting in congestion; and weak institutional development.

My argument among the above argumentative models will agree with the (port development in Africa, 2010) argument. In both cases inter-modalism has been proposed as a solution, but it may not applicable in Ethiopian freight transportation context. Because in inter modal transportation the cargo is shifted multiple times, resulting in slowing down the entire progress. Additionally, some modes of transport may be very slow or may not offer a direct route. All these factors can result in loss of time and speed leading to low performance of freight in inters modal transportation.

2.2. EMPRICAL REVIEW GAP ANALYSIS

Cross border road freight transport is the part of Logistics that plans, implements, and controls the flow and storage of goods services and related information from the point of origin and the point of consumption in order to meet customer's requirements (CSCMP, 2017). The ultimate objective of logistics function is to support corporate goals by delivering products to the consumer at a time and place of his choosing. However, this objective must be balanced against

the cost of providing the service. Logistics is one of the major enablers of growth and commerce activity in a country.

According to (Dawit, 2010) Cross border road freight transport has become more prominent and is recognized as a critical factor in competitive advantage. The logistics operations process includes the inputting, storing, transporting and distributing of physical goods. Over the years, logistics has developed from single-party logistics (self-managed) to multi-party, using logistics networks focusing on global operations.

Many authors and organizations have been given much attention about logistics performance issue. World Bank is one of them which has complied logistics performance indices to more than 160 countries for about the last 11 years starting from 2007 up to date and it has provided total countries LPI score and ranks by using six key performance measurement variables including the efficiency of customs, infrastructure facilities, international shipment, quality of logistics service, tracking and tracing ability and delivery time accuracy (World Bank, 2016).

A study which was conducted by Chow *et al. (*1994) is a pioneer and worth mentioning in providing a systematic review on the existing literatures of logistics performance. With the aim of defining and measuring logistics performance, (Chow *et al.* 1994) has provided abridged account on various research works conducted on conceptualizing the notion of logistics performance with respect to their respective data collection methods, sources, and the measures of logistics performance.

World Bank (2017) report shows that Ethiopian logistics service sector is characterized by long transit time; the business requires obtaining more documents, problems in ICT infrastructure facilities, non-dependable port and customs clearance process and higher transport cost. Research findings are limited to both time and place. The study should be appropriately surveyed to get the real picture of the study and has to be supported by other evidences collected in collaboration with questionnaires. Addis (2017) conducted a study among employees, importers, exporters and transportation associations of Ethiopia Shipping and Logistic Service Enterprise on logistics performance. The result of the study revealed that ESLSE had a lower performance in its logistical performance. The findings of the study revealed that each dimension of logistic performance has had a lower performance. The study recommended continuously improving its logistics performance, among other things, by strengthening and developing a good relationship with others to modernize its order management practices. In addition, it also recommended an

additional improvement of the relationship between the client and another company or sister company of a foreign country.The study pointed to a number of key Factors affecting cross border freight transport performance of associations and organizations. The data was collected through questioner and descriptive statistical analysis was used for the study.

2.2.1. Customs clearance process in terms of speed, simplicity and predictability

According to Damtew, (2020), to implement cross border freight transport, Customs are required to facilitate the container flows, through minimization of import/export documents and to permit the movement of cargo to and from ports under bond or in a sealed container. According to Temple (2017), the international supply chain generally faces at least two sets of customs procedures. So, a simplified and effective procedure is essential for smooth flow of trade cargo and for investment. If customs procedures do not allow deeper penetration of containers the flow is hampered and the Inland Container Depot (ICD) will be less effective. It will result in more transit time, transport cost and uncertain schedule reliability due to multiple handling of cargo

2.2.2. Infrastructure and cross borders freight transport performance

The overview of the transportation infrastructures in Djibouti includes specifically the Roads and ports along the international trade route of Ethiopia-Djibouti border to Djibouti port and expansion of other ports. According to the World Bank 2013, the routes connecting the Djibouti port to Ethiopia are central to the role Djibouti plays in the region and the lowlands separating Djibouti city from the Ethiopian border are largely arid desert. The older route to Addis Ababa passes through Ali Sabieh and then south into Ethiopia at Dewele, This was the route taken by the railway built at the start of the 20th century. According to (Addis Ababa and Sectorial Associations, 2009), currently, Ethiopia's main transport route between Addis Ababa and Djibouti is via Adama ,Awash Decheto and Galafi which has been damaged and affect freight performance. There are also secondary goods flows from Djibouti to other main centers such as Kombolcha and Mekele, and between Addis Ababa and other main towns.

2.2.3. Competence: skill and expertise to provide quality transport services

According to (Dawit, 2013), availability of skilled manpower, conductive labor regulations and business environment promotes economic activities. On the most of these criteria, Ethiopian logistics system is found to be poor. The main freight transport companies lack capacity in terms of skilled human resources, management skills and number of fleets of vehicles. They are fragmented. The main companies are government owned, this will result in inefficiency

2.2.4. Timeliness; frequency with which shipments reach the consignee within the Scheduled or expected time

Timeliness of shipments in reaching destination measures how reliably shipments meet the promised delivery times. More reliable delivery will lower transit time of transport from origin to destination and will enable a greater control of costs, schedules and cargo safety (World Bank, 2015).

According to (Damtew, 2020) transport related decisions are dependent upon a set of transport service requirements, such as lead time, reliability, etc. This means that the shippers generally do not specifically demand a special transportation mode, but rather a transport performance. Shippers expect to receive a reliable door-to-door service from transport logistics service providers

2.3. Hypothesis Testing Variables

Quite often a research hypothesis is a predictive statement, capable of being tested by scientific methods that relates independent variables to some dependent variable Kothari (1990). It is usually considered as the principal instrument in research its main function is to suggest experiments and observations Kothari (1990). They are numeric estimates of population values based on data collected from samples Creswell (2009). In quantitative studies, investigators use research questions and hypothesis to shape and specifically focus on the purpose of the study Creswell (2009). The researcher has formulated his hypothesis based on the review of literature. It provides the rationale for the study Sigh (2006). In the context of statistical analysis, we often talk about null hypothesis and alternative hypothesis. The null hypothesis is generally symbolized as Ho and alternative hypothesis as Ha. Alternative hypothesis usually the one which wishes to prove and null hypothesis is one wish to disprove. Thus, a null hypothesis represents

the hypothesis we are trying to reject, and alternative hypothesis represents all other possibilities Kothari (1990). Depending on the review of different related literatures in the previous chapters, the researcher put forwarded the following hypotheses.

Ha1. Customs has positive and significant effect on the Performance of cross border freight Transport association and organizations.

Ha2. Infrastructure has positive and significant effect on the Performance cross border freight Transport association and organizations.

Ha3. Competence has positive and significant effect on the Performance of cross border freight Transport association and organizations.

Ha4. Timeliness has positive and significant effect on the Performance of cross border freight Transport association and organizations.

2.4. CONCEPTUAL FRAMEWORK

The conceptual framework is a diagrammatic representation that shows the relationship between the dependent variable and independent variables (Young, 2009). In the study, factors affecting the performance of cross border freight transportation are conceptualized. Accordingly, the study was established how the independent variables can lead to the realization of the dependent variables. The study measured cross border freight transport performance in terms of custom, infrastructure, competence and timeliness in related to road freight transportation

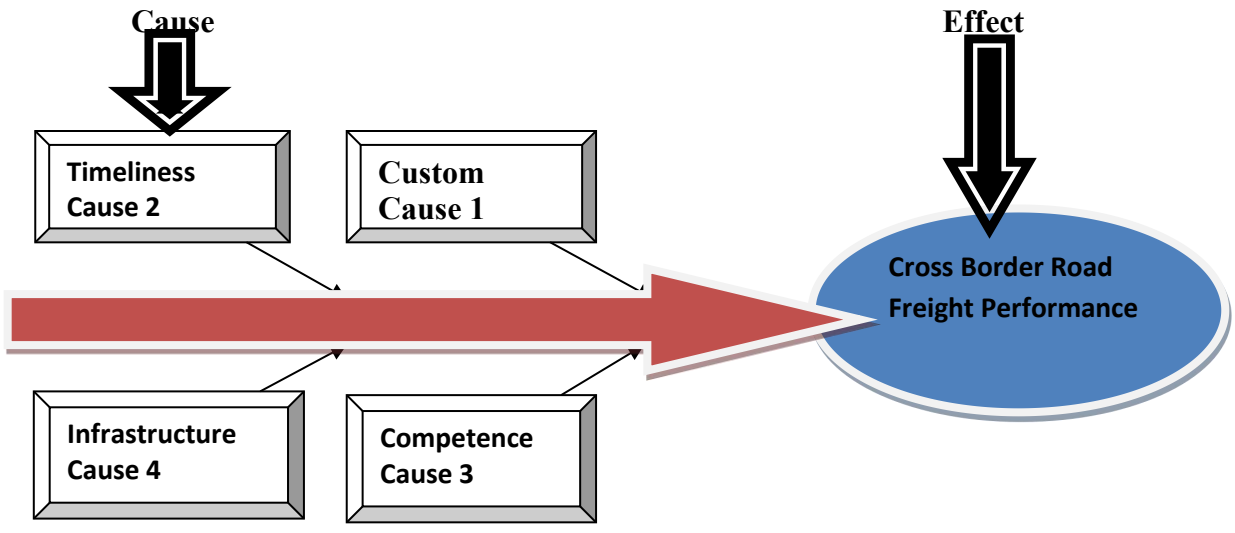


Figure 2.1: conceptual framework of the thesis

Source: Compiled by the Researcher, 2022

CHAPTER THREE
RESEARCH METHODOLOGY

3. METHODOLOGY OF THE STUDY

The study was conducted to measure Factors affecting freight transport performance in Ethiopia in the case of some selected cross-border freight transport service providers. To realize the objective of the study and provide a conclusive answer to the research questions outlined in chapter one, the following research design and methodology were employed.

3.1. RESEARCH APPROACH

The main objective of the researcher was to analyze Factors affecting cross-border freight transport performance in Ethiopia in the case of some selected associations and organizations. The researcher deployed a quantitative type of research approach in order to use objective measurement, quantify the relationships between variables, Collect data in the form of numbers and use statistical tools for data analysis.

3.2. RESEARCH DESIGN

From the point of view of the objectives and the research questions of the study, it implies explanatory type of research design and descriptive technique were used to answer the research questions of this study. The explanatory research design was used because the study attempted to explain the cause and effect of one variable on another. Descriptive technique has been employed to provide descriptions of phenomena or characteristics concerning a subject of a population, an estimate of the proportions of the population that have those characteristics, and to discover associations between different variables.

3.3. TYPES OF DATA AND DATA SOURCES

Data was gathered from both primary and secondary sources. Primary data refers to information obtained firsthand by the researcher on the variables of interest for the specific purpose of the study. For this study primary data sources were employees and management staffs of Cross Border Freight Transport Associations and Organizations. Quantitative data collection method was employed in order to obtain detail and reliable data for analysis. Secondary data refer to information that can be gathered from sources already existing. The study was collected data from secondary sources, as for example, company records or archives, government publications, websites, the Internet, and so on.

3.4 POPULATION OF THE STUDY

The target population for this study constituted of employees and management staffs of Cross Border Freight Transport Associations and Organizations. Currently there are 102 Cross Border Freight Transport Associations and Organizations. Hence, managers and employees of the 102 Cross Border Freight Transport Associations and Organizations were the total population of the present study.

3.5.SAMPLING PROCEDURE

3.5.1. Sample size

According to Kathari (2004), as a general rule, sample size must be of an optimum which should be neither excessively large nor too small. Regarding sample size, Corbetta (2003) also discussed that sample size is directly proportional to the desired confidence level of the estimate (z) and to the variability of the phenomenon being investigated, and it is inversely proportional to the error that the researcher is prepared to accept (Corbetta, 2003). For this research, Zikmund and Babin (2010) were used for sampling technique by determining the sample proportion success, not success based on previous research response rate. Saunders et al. (2007), states that the likely response rate shall be reasonably 50% or moderately high. Based on this, the researcher had assumed 90% success response which is anticipated high as most of the questionnaires were distributed and collected physically.

3.5.2. Sampling Techniques

The ever-increasing demand for research had created a need for an efficient method of determining the sample size needed to be representative of a given population. The right selection of sampling technique is important to ensure the representativeness of the sample that can be dependable to generalize the information obtained from the sample to the whole population of the study (Kothari, 2004).

The very objective of the present study was examining factors affecting the performance of cross border freight transport associations and organizations. Hence, cross border freight transport associations and organizations are units of analysis of the study thereby the existing 102 associations and organizations are sampling frame/unit of the study.

As the sampling technique the study employed multi-stage cluster sampling taking associations and organization as a basis for clustering. First, Cross Border Freight Transport Associations and Organizations clustered with operators of associations, companies and private owners. In reality there are 69 associations, 27 companies and 6 privately owned operators (102 in total). Of the total 102 associations and organization 25 of them (25%) are assumed to be representative of the total population because it is very difficult to cover all freight associations and organizations within the given time frame due to time and resource constraints. So, 17 associations, 7 companies and 1 privately owned operator was randomly selected.

Next, employees of operators of the 17 associations, 7 companies and 1 private owned operator were considered as the secondary sampling unit. In cluster sampling all members of the last sampling unit (associations and organizations in our case) are considered as samples. Thus, available sampling was used to select the sample of the study. Based on the data collected from each organization there are 263 workers where 100 of them hold leadership positions and 163 of them are subordinates. The leaders include general managers, finance managers, operation managers, marketing managers, human resource managers, and others. Therefore, 263 of the workers were considered as the sample size of the present study.

3.6.DATA GATHERING INSTRUMENTS

Mainly the data collection tool used in this study was a questionnaire. The questionnaire was found to be more appropriate to get maximum information since respondents found it easy to fill and forward their feelings and responses to questions. The questionnaire contained two parts. The first part was designed to collect respondents' background information and the second part was structured to collect respondents' evaluation of transport performance practices.

3.6.1. Procedure of data collection

Prior to the commencement of the data collection process, the researcher was carried out all the necessary activities that were required for the successful completion of the data collection process. Appropriate research tools for the study was designed and duplicated. The researcher asked for a support letter from the University for the Ease of data collection processes. Following a brief explanation of the research purpose by the researcher, the questionnaire was provided to

the sampled individuals of firm managers or senior officials of the selected firms. The researcher followed up the data collection processes closely and collected the research tools. During the data collection and handling phases, all the necessary ethical considerations had undertaken.

3.7.DATA ANALYSIS TECHNIQUE

In this study the primary data that was collected through the questionnaire was analyzed using descriptive statistics method by the statistical software called Statistical Package for the Social Science/SPSS/. By using descriptive statistics, the study describes the variables numerically. Descriptive statistics include frequencies, measures of central tendencies (mean, median or mode) and measures of dispersion (standard deviation, range or variance).The study used frequency and percentage to describe the variable

3.8.RELIABILITY AND VALIDITY

Reliability is defined as the extent to which results of a study are consistent over time and there is an accurate representation of the total population under study. According to Toke et al., (2012), reliability analysis aims to find the extent to which a measurement procedure produces the same result if the process is repeated over and over under the same conditions. There are different methods of reliability tests, for this study Cronbach's alpha was considered to be suitable. Cronbach's Alpha, is most commonly used to assess the internal consistency of a questionnaire made up of multiple likert type of scales and items Cronbach (1990). Cronbach's alpha ranges from0.00 to 1.00, a negative alpha means you probably need to reverse some items. Reliability coefficient of 0.70 or higher is considered or acceptable in most social science research situations. Cronbach's is often used in assessing the reliability of tests with questions that have more than two possible responses Sapp and Jensen (1997). The alpha value is ranges from a maximum of 1.0 for a perfect score to minimum of zero, good measure of the alpha should be 0.70 or higher Neuman(2007). According to Willima and Berry (2010) exhibiting a coefficient of alpha between 0.80 and0.96 are considered to have very good reliability, between 0.70 and0.80 are considered to have good reliability and alpha value between 0.60 and 0.70 indicated fair reliability and when the coefficient of alpha is below 0.60, the scale has poor reliability.

3.9.Reliability Analysis

The reliability of an instrument refers to its ability to produce consistent and stable measurements. According to Cooper and Schindler (2003) reliability tests the stability, equivalence and internal consistency of an instrument. The most common reliability coefficient is the Cronbach's alpha which estimates internal consistency by determining how all items on a test relate to all other items and to the total test - internal coherence or consistency of data. Cronbach Alpha value is widely used to verify the reliability of the construct concept. Therefore, to test the reliability of the Likert scale used in this study, reliability analysis was done using Cronbach's Alpha as the measure. (Note that a reliability co-efficient of a = 0.7 was considered adequate or "acceptable" inmost social science research.)

Table 3.1

Independent variable factors	No. of items	Cronbach's alpha
1. Custom	7	0.886
2. Infrastructure	8	0.721
3. Competence	4	0.805
4. Timeliness	5	0.802
Total	24	0.804

Source survey finding, SPSS2022

The findings indicated that Customs factor, Infrastructure factor, Timeliness factor and Competence factor had a cronbach's alpha coefficient of 0.886, 0.721, 0.802 and 0.805, respectively. All constructs depicted that the value of Cronbach's Alpha are above the suggested value of 0.7 thus the study was reliable

3.10. Validity Test

Validation assessment is the process of determining the degree to which a model is an accurate representation of the real world from the respective of the intended use of the model. The goal of validation is to quantify confidence in the predictive capability of the model by comparison with experimental data AIAA (1998). To check the operational variables against some criterion, criterion-related validity type was selected. Criterion-related validity with different validity types usually makes a prediction about how the operation will perform based on the theory of the contract Trochim (2016). Measuring and evaluating the questionnaire consider some specifications for measuring tools, such as the validity of questionnaire. The validity of a

measuring tool means that it can measure the relevant specification not any other variable. Content validity was used for measuring the validity of the questionnaires of this research. For this purpose, the content of the questionnaire was prepared by referring to adopting previous study, theories and the model relevant to the subject and the questions of the research. After doing amendments by advisor the content validity and face validity of the questionnaire was approved.

3.11. Ethical Consideration

Regarding the research ethics, the author kept the research ethics. Data providers, organizations, and associations were properly acknowledged and the information collected from them was used for the purpose of the research objective, and the researcher respected issues related to confidentiality.

CHAPTER FOUR

RESULTS AND DISCUSSIONS OF THE FINDINGS

4.1.INTRODUCTION

In this chapter the survey was undertaken to Factors Affecting Performance of cross border freight transport associations and organizations, both descriptive and inferential data analysis and procedures were presented. The descriptive statistics utilized in this research, described the respondent's characteristics with mean score, standard division and percentages. Inferential analysis was concerned with the various test of significance about correlation, comparison of variables and regression analysis in order to made conclusions.

The first phase involved editing, coding and the tabulation of data. It assisted the researcher in identifying any inconsistencies in the responses and the assignment of numerical values to the responses in order to continue with the analysis. The data was then checked for possible mistaken entries and corrections made appropriately. The data were entered by using SPSS version 20.

4.2.Rate of Response

A total of 263 questionnaires were returned out of 263 questionnaires distributed to respondents. In this section of data analysis and interpretation, the first part presented and discussed descriptive statics results related with the demographic factors and the independent variables of the study and then followed by analysis of variance to examine in the variation on the performance of cross border freight transport associations and organizations in relation to the independent variables of the study.

4.3.RESULTS AND DISCUSSION

4.3.1. Characteristics of respondents on Demographic Factor

Table4.1:- Responses on the Sex, Age, Educational Qualification, Position and work experience

Measure	Item	Frequency	Valid Percentage (%)
	21-30	24	9.13%
	31-40	162	61.5%
	41-50	68	25.8%
	>51	9	3.4%
	Total	263	100%
Sex	Male	181	68.8%
	Female	82	31.2%
	Total	263	100%
Educational status	Degree	219	83.3%
	MSc/MA	7	2.7%
	Other	37	14.1
	Total	263	100%
Position	G/manager	13	4.9%
	Op/manager	53	20.2%
	Mk/manager	36	13.7%
	F/manager	22	8.4%
	HR	22	8.4%
	Accountant	42	16%
	Clerk acc.	15	5.7%
	Other	60	22.8%
	Total	263	100%
Work experience	<5	28	10.6%
	6-10	102	38.8%
	11-15	124	47.1%
	>15	9	3.4%
	Total	263	100%

Source: Survey Findings, SPSS 2022

The information presented in Table4.2 is statistically described as follows:-

- **Age of the Respondent's**

As clearly seen on the table4.1, the majority of the respondents (61.5%) were between the age of 31-40, 25.8% of the respondent were the age between 41-50, 9.13% of the respondent were the age between 21-30 and 3.4% of the respondent were the age above 50 years. This shows that the majorities of the respondents are in the range of productive age.

➢**Sex of the respondent's**

In this study **31.2**% of the participants were female; whereas 68.8% was male. The respondents were composed of relatively more male workers and lesser female workers.

- **Educational qualification of the respondent's**

According to the educational background of the respondents,1st degree graduates are (83.3%), followed by other (14.1%) and 2.7% of the respondents were MA/MSc. This shows that majority of respondents are 1st degree holders.

- **Position of workers**

As shown in the above table 4.1, the position of the workers of associations and organizations of cross border freight transport sector shows that, 20.2% are operation managers,16% are accountant, 13.7% are marketing managers,8.4% are HR managers,8.4% are Finance managers,5.7% are clerk accountant,4.9% are G/managers and 22.8% are occupied other position in the associations and organizations of cross border freight transport sectors

- **Work Experience of the workers**

As shown in the above table4.1, work experience of the workers of associations and organizations of cross border freight transport sector shows that, 47.1% worked from 11-15, 38.8% worked from 6-11,10.6% worked less than Five years, and 3.4% worked above 15 years' experience with associations and organizations of cross border freight transport sectors.

4.4.DESCRIPTIVE ANALYSIS PARTS

In orders to analyze, describe and summarize the characteristics of responses, mean score, standard deviation and percentages were used. These research designs were used to point out the degree of variability and percentage share of responses that were answered questions stated in below questionnaire for targeted respondent of the research.

4.4.1. Custom factor

According to Ruth Banomyong (2000), a literature review depicts that to implement cross border freight transport; customs are required to facilitate the bulk and container flows, through minimization of import/export documents and to permit the movement of cargo to and from ports under bond or in a sealed container.

Table4.2:- Descriptive Statistics Value of Custom factor

S.N	Variables	N	Mean	SD
1	Customs have developed a system or procedure for transportation	263	**3.05**	**1.268**
2	The custom clearance process for shipments of dry bulk is efficient	263	**2.68**	**1.264**
3	The customs clearance procedure is transparent	263	**2.50**	**1.226**
4	The customer receive adequate and timely information when regulations of custom change	263	**2.47**	**1.213**
5	The existing coordination level between customs offices and transporters is strong	263	**2.39**	**1.157**
6	There is regional single window to improve custom clearance service	263	**2.39**	**1.113**
7	All shipments of dry bulk cargo are cleared and delivered as scheduled	263	**2.23**	**1.123**
	Grand Mean/Grand standard deviation		**2.53**	**1.194**

The table 4.2 above shows the mean score and standard deviation of the seven items of custom performance dimension in evaluating the performance of cross-border freight transport service. According to the table result above, Customs have developed a system or procedure for cross border freight transportation of container scored a mean score value of 3.05 and standard deviation value equal to 1.268, for the statement, The Custom clearance process for cross border freight shipments of the container is efficiently scored a mean value 2.68 with standard deviation value 1.264, for the statement the custom clearance procedure is transparently scored a mean value 2.50 with standard deviation value 1.226, for the statement The customer receive adequate and timely information when regulations of custom change scored a mean value 2.47 with standard deviation value 1.213 for the statement The existing coordination level between customs office and transporters is strong scored a mean value 2.39 with standard deviation value 1.157 for the statement There is regional single window to improve custom clearance service scored mean value of 2.39 and standard deviation 1.113 for the statement. All shipments of dry

bulk cargo are cleared and delivered as scheduled scored the mean value of 2.23 and standard deviation of 1.123.

Discussion: For custom dimension about 73% of the respondents were disagreed which is implying that all customs dimension scored below the midpoint or the average result fall below the neutral level which indicate almost all respondents were disagreed with the existing customs dimension. This shows that custom is the major factor that can affect the performance of cross border freight transport associations and organizations.

4.4.2. Infrastructure factor

According to Ruth Banomyong, (2000), in order to benefit fully from cross border freight transport service the minimum level of transport related infrastructure must be in place. Thus, the importer will benefit from cross border freight transport service, as goods he has ordered, will be delivered to his premises at minimum cost and in good conditions.

Table4.3: Descriptive Statistics Value of Infrastructure factor

S.N	Variable	N	Mean	SD
1	The inland transport infrastructure is suitable for end-to end cargo movement	263	2.47	1.076
2	Road transport is adequate to meet the need of inland cargo movement	263	2.27	1.087
3	The road is capable to meet the need of inland-containerized cargo movement.	263	2.18	1.009
4	There are enough number of trucks with significant capacity to render effective and efficient transportation service	263	2.27	1.077
5	The dry ports, terminals and warehouses are adequate for handling cargo	263	2.28	1.075
6	The dry ports, terminals and warehouses are well equipped with the necessary equipment and facilities	263	2.25	1.050
7	The dry ports and terminals do have enough space and capacity to accommodate all incoming and outgoing cargo even in peak periods	263	2.19	1.059
8	Transport related infrastructure for transport service is improving through time	263	2.21	1.103
	Total		2.265	1.067

Source: Own Survey, 2022

Table4.3 above result revealed that, for the statement the inland transport infrastructure is suitable for end-to-end containerized cargo movement scored a mean value 2.47 and standard deviation 1.076, Road transport is adequate to meet the need of inland cargo movement scored a mean value2.27 and standard deviation 1.087, The road is capable to meet the need of inland-

containerized cargo movement scored a mean value 2.18 and standard deviation 1.009, There are enough number of trucks with significant capacity to render effective and efficient transportation services scored a mean value 2.27 and standard deviation 1.077 The dry ports, terminals and warehouse are adequate for handling cargo scored a mean value 2.28 and standard deviation 1.075, The dry ports, terminals and warehouse are well equipped with the necessary equipment and facilities scored a mean value 2.25 and standard deviation1.050,The dry ports &terminals do have enough space and capacity to accommodate all incoming and outgoing cargo even in peak period scored a mean value 2.19 and standard deviation 1.059 and Transport related infrastructure for transport service is improving through time scored a mean value 2.21and standard deviation 1.103

Discussion: For Infrastructure dimension about 68.7% of the respondents were disagreed which is implying that almost all workers were disagreed or dissatisfied with eight infrastructure dimensions mentioned. This means infrastructure affects cross border freight transport Performance.

4.4.3. Competence factor

According to Fekadu (2013), a literature review reveals that availability of skilled manpower, conducive labor and business environment promotes economic activities. On the most of these criteria, Ethiopian logistics system is found to be poor.

Table4.4: Descriptive Statistics Value of Competence factor

S.N	Variables	N	Mean	SD
1	There is enough skill and expertise in the sector to operate transport systems	**263**	**2.45**	**1.074**
2	Logistics knowledge and skill of management and employee in the sector is excellent.	**263**	**2.26**	**1.050**
3	Employees in the transport sector are all skilled and professional	**263**	**2.25**	**1.098**
4	There is work group quality between transporters	**263**	**2.29**	**1.076**
	Grand Mean/Grand standard deviation	**263**	**2.312**	**1.074**

Source: Own Survey, 2022

Table4.4 above shows mean score and standard deviation of the four items of Competence dimension of performance of cross border freight transport service. According the table result above, there is enough skill and expertise to operate transport systems had been given a mean

score value 2.45 and standard deviation value 1.074, Logistics knowledge and skill of management and Employee in the sector is excellent had been given a mean score value equal to 2.26 and standard deviation value 1.050, Employees in the transport sector are all skilled and professionals had been given a mean score value equal to 2.25 and standard deviation value 1.098, There is work group quality between transporters had been given a mean score value equal to 2.29 and standard deviation value 1.076.

Discussion: For competence dimension about 69.2% of the respondents were disagreed which implies that all workers were disagreed and dissatisfied. From the result I checked that Competence dimension of cross border freight transport associations and organizations affects their performance.

4.4.4. Timeliness factor

According to World Bank (2015), a literature review indicates that timeliness of shipments in reaching destination measures how reliably shipments meet the promised delivery times. More reliable delivery will lower transit time of transport from origin to destination and will enable a greater control of costs, schedules and cargo safety.

Table4.5:-Descriptive Statistics Value of Timeliness factor

S.N	Variable	N	Mean	SD
1	Shipment process is requiring short period of time in Djibouti	**263**	**2.59**	**1.152**
2	Shipments reach at dry ports within the schedule	**263**	**2.35**	**1.133**
3	Cargo handling time in warehouse is short	**263**	**2.22**	**1.050**
4	Customers are receiving their shipments within the designated time from warehouse	**263**	**2.25**	**1.086**
5	The cross border freight transport service is becoming better to meet the schedule	**263**	**2.33**	**1.127**
	Grand Mean/Grand standard deviation		**2.348**	**1.109**

Source: Own Survey, 2022

Table4.5 above result shows that the Timeliness dimensions of performance of cross border freight transport service, the statement Shipments process requiring short period of time in Djibouti scored a mean value 2.59 and standard deviation value 1.152, shipments reach dry ports

within the scheduled scored a mean value 2.35 and standard deviation value 1.133, Cargo handling time in warehouse is short scored a mean value 2.22 and standard deviation value 1.050, The Customers are receiving their shipments within the designated time from warehouse scored a mean value 2.25 and standard deviation value 1.086, The cross border freight transport service is becoming better to meet the schedule scored a mean value 2.33 and standard deviation value 1.127.

Discussion: For Timeliness dimension about 69.6% of the respondents were disagreed which is implying that almost all respondents of cross border freight transport associations and organizations were disagreed and dissatisfied in all timeliness dimensions, therefore the researcher checked that timeliness affects the performance of cross border freight transport associations and organizations.

4.5.Comparing Central Tendency and Dispersion result of each Independent Factors

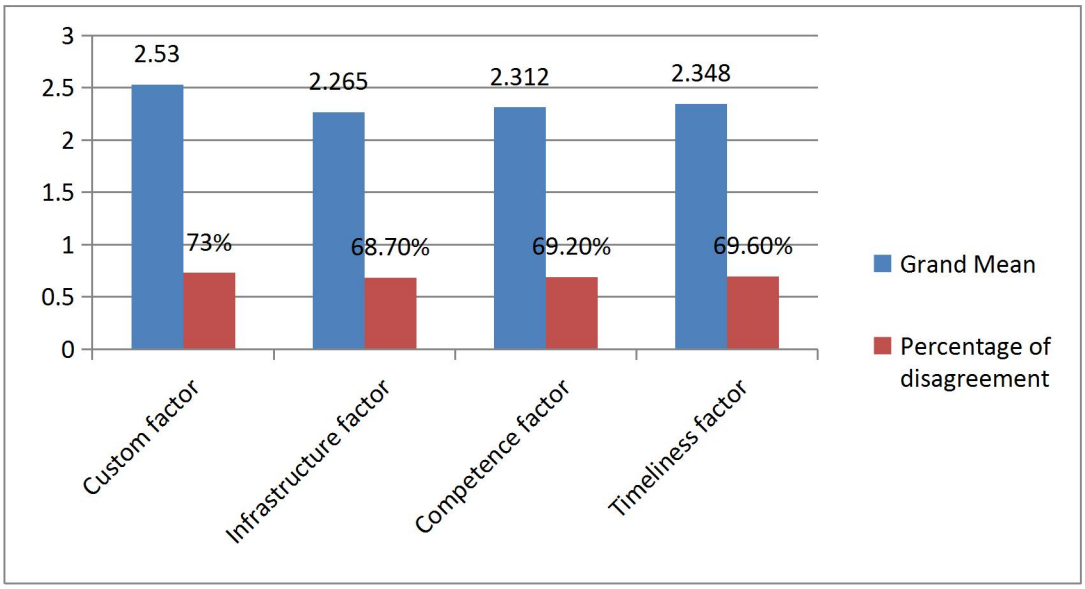
As it has been mentioned Customs factor, Infrastructure factor, Competence factors, Timeliness factor, are factors affecting Performance of cross border freight transport associations and organizations, and this does not mean that all factors are equally affecting the Performance of the business. The following table clearly compares the overall effect of all key factors discussed in detail above.

Table4.6:-Comparison of the major factors

S.N	Descriptive statistics			**Rank of factors**
	Factors	Grand Mean	**Percentage of disagreement**	
1	Custom factor	2.53	**73%**	**1st**
2	Infrastructure factor	2.265	**68.7%**	**4th**
3	Competence factor	2.312	**69.2%**	**3rd**
4	Timeliness factor	2.348	**69.6%**	**2nd**

Source: Survey Findings, SPSS 2022

Figure4.1 Statistical representation of major factors Grand mean and grand standard deviation



Source: Survey Findings, SPSS 2022

This is revealed that as it can be compared the above factors, Custom factors and Timeliness factors are the series factors that affect the performance of cross border freight transport service activities at a selected area of study, followed by Competence factor, and Infrastructure factor.

According to Debela (2013) "Ethiopian logistics system is characterized by poor logistics management system and lack of coordination of goods transport, low level of development of logistics infrastructure and inadequate fleets of freight vehicles in number and age, damage and quality deterioration of goods while handling, transporting and in storage. This coupled with lack of sea port resulted in poor linkage of producers (farmers) to the consumers (market) and non competitiveness of Ethiopian goods on global market, which compromised livelihood of the people and economy of the country. There is a very high rate of traffic accident (first in the world) and congestion in cities and at city inlets/outlets to which freight vehicles contribute significantly He recommended that efficient and effective logistics system needs to be put in place to solve the socioeconomic problems and there is an urgent need for research on the logistics gap identified, and human resource needs in freight transport and logistics needs of the country

4.6.INFERENTIAL ANALYSIS PART

This study needed to establish relationship between; the four factors that affecting the performance of cross border freight transport associations and organizations, as well the relationship of independent variables with the dependent variable which is performance. The inferential statistics analyses aimed to reach conclusions are drawn and decisions are made from the results of research objectives.

4.6.1. Correlation and Regression Analysis

According to Julie (2005) Correlation coefficient is a measure of relationship (association) and strength between two variables. The correlation coefficient ranges between -1 and 1. If the two variables are in perfect positive linear relationship, the correlation coefficient will be 1 and if they are in perfect negative (inverse) relationship, the correlation coefficient will be -1. The correlation coefficient is 0 (zero) if there is no linear relationship between the variables.

A low correlation coefficient (r), between 0.1 and 0.29, suggests that the relationship between the two variables is weak or non-existent. If r is between 0.3 and 0.49, the relationship is moderate and a high correlation coefficient, i.e. $r > 0.5$, indicates a strong relationship between the variables. The direction of the dependent variables change depends on the sign of the coefficient. If the coefficient is a positive number, then the dependent variable will move in the same direction as the independent variable and if the coefficient is negative, then the dependent variable will move in the opposite direction of the independent variable.

In this study, Pearson‘s correlation coefficient is used to find out the relationship of Custom, Infrastructure, Competence, Timeliness, with Performance of cross border freight Transport associations and organizations (Independent variable & dependent variable). The results of correlation coefficient may be interpreted as follows according to researcher data respondent. First Spearman’s Rho would be testified in order to identify the relation of independent variable.

Table 4.7 The Correlation matrix between Independent Variables

SPEARMANS RHO		Custom	infrastructure	Timeliness	Competence	Performance
Custom	Correlation Coefficient	1.000	.250**	.096	.068	.899**
	Sig. (2-tailed)	.	.000	.121	.283	.737
	N	263	263	263	263	263
Infrastructure	Correlation Coefficient	.250**	1.000	.166**	.117	.879*
	Sig. (2-tailed)	.000	.	.007	.058	.021
	N	263	263	263	263	263
Timeliness	Correlation Coefficient	.096	.166**	1.000	.296**	.894**
	Sig. (2-tailed)	.121	.007	.	.000	.000
	N	263	263	263	263	263
Competence	Correlation Coefficient	.068	.117	.296**	1.000	.889**
	Sig. (2-tailed)	.283	.058	.000	.	.000
	N	263	263	263	263	263
Performance	Correlation Coefficient	.899	.879*	.894**	.889**	1.000
	Sig. (2-tailed)	.737	.021	.000	.000	.
	N	263	263	263	263	263

. **Correlation is significant at the 0.01 level (2-tailed).Source survey finding SPSS2022

As we can see from above table there is no strong pair-wise correlation between Independent Variables. As a rule of thumb, Bryman and Cramer (1999,) stated that the independent variables that show a relationship at or greater than 0.80 suspected of exhibiting multi co-linearity. In this study as shown in table 4.8 below, the relationship is equals or exceeds spear man correlation coefficients of 0.80. Finally the result observed form the table is generally indicates that the correlation coefficients for the relationships between independent variables are linear and positive correlation coefficients.

Table4.8: The relationship between independents variables and Dependent Variables

		Performance of cross border freight transport associations and organizations
Custom	**Pearson correlation**	**0.899****
	Sig.(2tailled)	**0.000**
	N	**263**
Infrastructure	**Pearson correlation**	**0.879****
	Sig.(2tailled)	**0.000**
	N	**263**
Competence	**Pearson correlation**	**0.889****
	Sig.(2tailled)	**0.000**
	N	**263**
Timeliness	**Pearson correlation**	**0.894****
	Sig.(2tailled)	**0.000**
	N	**263**

Correlation is significant at the 0.01 level (2-tailed). Source: Survey Findings, SPSS 2022

The above Table 4.8 justifies that, the relationship between the selected variables and the performance of cross border freight transport associations and organizations for a sample of 263 respondents registered indicate the following results:

- There is a strong positive significant correlation between Custom and the performance of cross border freight transport firms (r=0.899, p< .01) which are statistically significant at 99% confidence level of transporters which are engaged in Containerized cargo, Break Bulk, Liquid Bulk, Dry Bulk and Steal profile.
- There is a strong positive significant correlation between Infrastructure and the performance of cross border freight transport firms (r=0.879, p< .01) which are statistically significant at 99% confidence level of transporters which are engaged in Containerized cargo, Break Bulk, Liquid Bulk, Dry Bulk and Steal profile.
- There is a strong positive significant correlation between Competence (r=0.889, p< .01), and (r=0.894,p<0.01) Timeliness and performance of cross border freight transport firms

Generally From this we can conclude that according to the collected data there is statistically significant (at P <0.05) positive relationship between Custom, Infrastructure, Competence, Timeliness and performance of cross border freight transport firms in Ethiopia . The next step is to test the assumption to find out step by step multiple linear regression analysis.

4.6.2. Testing assumptions of multiple linear regression

According to Julie (2005) before proceeding to multiple regressions analysis, first the researcher has to check the following assumptions such as sample size, outliers, normality, linearity, multi-collinearity and singularity, and found they were not a problem for the researcher. Then the researcher proceeds to the regression analysis

4.6.3. Multi-collinearity Test

Multi-collinearity refers to the relationship among the independent variables. Multi-collinearity exists when the independent variables are highly correlated (r=.9 and above) (Julie, 2005)

Table4.9 .Multicollinearity Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
Custom	0.920	1.087
Infrastructure	0.895	1.117
Competence	0.869	1.151
Timeliness	0.862	1.159

Source: Own Survey, 2022

According to Julie (2005) to check multi-collinearity effect two things should be checked Tolerance and VIF from the coefficient table. If the value of Tolerance is very small (less than .10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multi-co linearity. The second value given is the VIF (Variance inflation factor), which is just the inverse of the Tolerance value (1 divided by Tolerance). If VIF values shows above 10 would indicating multi-co linearity. The value of VIF does not exceed 10 and the value of tolerance is not below 0.1. Therefore, it indicates that there is no multi collinearity among the predictor variables and the study does not violate the assumption.

4.6.4. Test of Normality

The distribution of scores on the dependent variable should be normal describing a symmetrical, bell-shaped curve, having the greatest frequency of scores around the mean, with smaller frequencies towards the extremes. For this research, the data used in the study is normally distributed and therefore it has fulfilled the assumption

4.6.5. Test of linearity

Linearity assumption of multiple regressions was tested using scatter plot test (Kothari, 2004) and it was found that there is linear relationship between independent and dependent variables. According to the linearity result, the distributions of residuals are near to the mean zero. Therefore, based on the above result of assumptions multi-collinarity, normality, linearity, outlier effect, missing data are not a problem for this study and we can proceed to multiple linear regression analysis.

4.6.6. Multiple Regression Analysis

Regression analysis is a statistical measure that attempts to determine the strength of the relationship between one dependent variable and a series of other changing variables (known as independent variables). More specifically, regression analysis helps one understand how the typical value of the dependent variable (criterion variable) changes when any one of the independent variables is varied, while the other independent variables remain constant. For the purpose of determining the extent to which overall cross border freight transport associations and organizations performance depends on the independent variables competence, infrastructure, custom, timeliness, the researcher used multiple regression analysis models as in below table

Table4.10:- Model Summary[b]

Model	R	R square	Adjusted R square	Std.Error of the estimate	Change statistics				
					R square change	F change	Df1	Df2	Sig.F change
1	0.86a	0.595	0.583	0.51486	0.595	8.430	6	625	0.000

a. Predictors: (Constant), COMPETENCE, INFRASTRUCTURE, CUSTOM, TIMELINESS

b. Dependent Variable: Overall performance of cross border freight transport associations and organizations is excellent

Source: Own Survey, 2022

Table above indicates R, R Square, Adjusted R Square and standard error of the estimate. Further, it lists the independent variables that are entered in to the regression model. R (.806) is the correlation of independent variables with the dependent variable. The model summary, above shows the R Square is.595 this tells us how much of the variance in the dependent variable (Performance of cross border freight transport service in the Ethiopia) are explained by the independent variables (as Custom, Infrastructure, Competence, Timeliness). This means that our model (independent variables) explains 59.5% of the variance in the performance of crosses border freight transport associations and organizations (dependent variable)

4.6.7. Coefficients for Performance of cross border freight transport associations and organizations dimensions (Table 4.11)

Model	Un standardized coefficient		Standardized	T	Sig.
	B	Std.Error	Beta		
Constant	0.234	0.526		0.445	0.002
Custom	0.065	0.027	0.172	2.115	0.036
Infrastructure	0.022	0.023	0.011	0.144	0.000
Competence	0.029	0.029	0.002	0.023	0.000
Timeliness	0.056	0.029	0.003	0.033	0.000

a. Dependent Variable: Performance of cross border freight transport associations and organizations **Source: Survey result, 2022**

- The standardized beta coefficient column shows that, the contribution of an individual variable to the model or the dependent variable
- The un standardized coefficients B column, gives us the coefficients of the independent variables in the regression equation including all the predictor variables as indicated below.

Hence un standardized coefficient B column is used for this study purpose as standards used in literature. The regression function can be derived from the above table as follows: -

The model of multiple linear regressions is presented below:

$$Y= ß0+ ß_1X_1 + ß_2X_2 + ß_3X_3 + ß_4X_4 + Ɛi$$

$$Y= 0.234 + .065 (Custom) + .022 (Infrastructure) + .029 (Competence) + .056 (Timeliness) + Ɛi$$

Where: Y is Performance of cross border freight transport associations and organizations and X_1, X_2, X_3, X_4 are Custom, Infrastructure, Competence and Timeliness respectively.

The result of this study implied that all dimensions (Custom, Infrastructure, Competence, Timeliness have positive and significant effect on Performance of cross border freight transport associations and organizations. The highest correlation by the model result shows us multiplying by their coefficient cause to increase Performance of cross border freight transport by the same proportion in associations and organizations. Coefficients of ß (beta) showed that Custom had the largest influence on the performance of cross border freight transport associations and organizations followed by Timeliness, Competence and Infrastructure.

Table 4.12 Hypothesis Summary

	Hypothesis	Result
H1	Custom of cross border freight transport associations and organizations has positive and significant effect on their performance	**Support**
H2	Infrastructure of cross border freight transport associations and organizations has positive and significant effect on their performance	**Support**
H3	Competence of cross border freight transport associations and organizations has positive and significant effect on their performance	**Support**
H4	Timeliness of cross border freight transport associations and organizations has positive and significant effect on their performance	**Support**

4.7.ANALYSIS OF OPEN ENDED QUESTIONS

Major problems regarding improvements of the cross border freight transport associations and organizations performance

The respondents were asked to mention major problems and suggest solutions to improve the performance of cross border freight transport associations and organizations.

What are your recommendations regarding improvements of the cross border freight transport associations and organizations performance?

Out of 263 respondents more than 51% of respondents had been written some of the major problems to improve the overall performance of cross border freight transport associations and organizations.

World Bank LPI also shows Ethiopia is ranked 126thin 2016 (LPI score is 2.37) and 104th in 2014 (LPI score is 2.59) among 160 countries on overall performance with much improvement from 2007-2012. Besides, Ethiopia's LPI score on the four measures shows that the country is lagging behind the average sub-Saharan Africa and low-income countries. Yet, specific indicators for customs and logistics infrastructure have shown steady improvement during this period but, international shipment and in particular timeliness show deterioration compared to previous LPI reports. This is implied by higher logistic cost, longer transit time and poor service reliability, (Ethiopian Maritime Affairs Authority, National Freight Logistics strategy for Ethiopia, 2016; Aklile.M (2017)).However, the respondents issued their own solution as follows:-

- Some of Challenges are mentioned from the respondents network connectivity, lack of ICT usage at each level, lack of advanced railway infrastructure, and lack of clear laws and regulations that support the involvement of privately owned service providers, lack of professional workers (employee's knowledge and skill is limited), Poor documentation process and handling, pay extra storage for the operation service ,and also challenge for loading /unloading related activities due to inadequate containers and other port machineries (forklift, terminal tracker, and terminal chassis)

Since the demand of cross border freight transport service had been increasing due to growing of importing cargo, all stakeholders, customers, the government body should work hand to hand and the activities should be supported by online technology. Because the demand of country importing cargo is growing and also adapting new technology and improving knowledge of human resource is mandatory.

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CHAPTER FIVE
SUMMARY, CONCLUSSION AND RECOMMENDATION

5. Introduction

This chapter presents summary of key findings, conclusion and recommendation of the researcher. The conclusion of this study was based on the findings and the recommendation was presented based on the conclusion.

5.1. Summary and key findings

The purpose of this study was to measure the performance of cross border freight transport .The study was carried out using descriptive research design and a quantitative research approach to collect primary data from workers of freight transport association and organizations, out of 263 questionnaires, 263 questionnaires were analyzed using SPSS version 20 to achieve the research objective of this study.

The Descriptive analysis of Performance of cross border freight transport service are analyzed based on Custom, Infrastructure, Competence, Timeliness , performance part of the service provided by the freight transport firms. According to the result obtained from chapter four the researcher was summarized and presented as follows:

Custom: For custom performance evaluation, seven questions were provided to the respondents. As per the respondents' evaluation result, most of them were not satisfied with the current operational activities of custom as far as the seven measurement questions were concerned. And for the remaining two measurement questions they have shown their agreement. The average mean and standard deviation of the total items represents 2.53 and 1.1948 respectively, this implies that the all of the responded evaluated custom performance as disagree. Thus the custom clearance process is not suitable for the cross border freight transport associations and organizations performance.

Infrastructure: In relation to the performance level of infrastructure, eight questions have been provided to the respondents. Out of the eight questions provided, the respondents scored strongly disagreed on the six questions provided and they scored agree on two questions only. The average mean and standard deviation of the total items represents 2.265 and 1.067 respectively,

this implies that the majority of the respondent evaluated infrastructure performance as disagree. Thus the existing transport related infrastructure is not suitable to provide optimal cross border freight transport associations and organizations performance.

Competence: For competence performance evaluation, four questions were provided to the respondents. The majority of respondents showed their disagreement regarding to all questions. The average mean and standard deviation of the total items represents 2.312 and 1.074 respectively, this implies that the majority of the respondents evaluated competence performance as disagree. Thus the management and employee in the sector have no competence to provide efficient cross border freight transport service

Timelines: In this regard, five questions have been provided to the respondents. Out of the five questions, they showed strongly disagree on one question, disagree on four questions. The average mean and standard deviation of the total items represents 2.348 and 1.109 respectively, this implies that the majority of the respondents evaluated Timelines performance of cross border freight transport associations and organizations as disagree. Thus cross border freight transport associations and organizations performance on meeting scheduled or expected delivery time is poor

In addition to the above, the researcher compared the central tendency and dispersion of each independent factor. How they are affecting the performance of cross border freight transport service, and this doesn't mean that all factors are equally affecting the performance of freight transport firms. Hence, researcher found that Custom factor and Timeliness factor are the series factors that affects the performance of cross border freight transport service, followed by competence factor and infrastructure factor computing with their Grand Mean and Grand Standard Deviation.

In Inferential Analysis the correlation matrix result shows performance of cross border freight transport service (dependent variable) has direct and positive relation with Custom, Infrastructure, Competence and Timeliness dimensions (independent variables). The model summary result depicted that the model (independent variables) explains59.5% of the variance in performance of cross border freight transport (dependent variable).

5.2. Conclusions

In conclusion, freight transport associations and organizations can benefit from the complexity of the Logistic performance index from the fact of knowing how the interpreted performance of cross-border freight transport services considering the specific cases of the association and organizations. Therefore, the management can use the specific data obtained from the measurement of founding in their strategies and plans. This will facilitate freight transport associations and organizations to better understand and approach a priority step by step in order to tackle the problem by giving a solution.

- Based on the findings the researcher conclude that the **customs** operation had its own impact on the cross border freight transport associations and organizations system either by stretching or shrinking the freight transport clearance time. As per the findings of the research it is possible to conclude that the inefficiency of the customs clearance process, excessive procedures, manual inspections, paper reviews and repetitive checks generally hinders the efficient transit of goods which worsen the role of customs office to the efficient and effective cross border freight transport associations and organizations.
- As per the findings of the research, although Ethiopian government has been investing a large share of its development budget in transport **infrastructure**, the inland transport system which is an integral part of freight transport system of the country is entirely dependent on road transport system is not suitable for containerized door to door cargo movement. The dry ports and terminals substantially support the operation of freight transport service being the final destinations for incoming cargoes but as per the finding of the research, the poor infrastructure facilities and lack of enough space to accommodate all incoming and outgoing cargoes, the dry ports, terminals and warehouses have not helped the sector in achieving efficient and effective cross border freight transport service.
- Effective cross border freight transport associations and organizations require skill and expertise manpower in freight and logistics service sector as well as a clear focus on customer requirements. As per the research findings cross border freight transport associations and organizations have no the required skill and expertise manpower in freight and logistics sector as a freight transport operator which decreases the effectiveness of cross border freight transport

- Timeliness measures how reliable the shipment is in meeting the scheduled or expected delivery time. As per the research finding the overall performance of freight transport service in meeting the scheduled or expected delivery time is poor. The cargo handling time at dry port is high due to lack and shortage of modern cargo handling equipment and facilities. The dwelling time at dry ports is high because the customer is not receiving their cargo within the free times, which result in congestion of the dry ports and decrease the intake capacity of the dry ports. Thus less reliable delivery will increase transit time of transport from origin to destination and will not enable a greater control of costs, schedules and cargo safety. This becomes obstacles for customers to function in a manner that is turned into modern just in time international trade practice. Accordingly, the current freight transport service lacks reliability in meeting time.

As a general conclusion standing from the research findings, the freight transport have not reached to the level of efficiency, cost effective and reliable service by acquiring skilled and expertise manpower in freight and logistics sector, infrastructure, automated or modern technology, modernized cargo handling equipments and facilities required to render freight transport service

In general, Custom, Infrastructure, Competence and Timeliness dimensions have positive and significant effect on Performance of cross border freight transport associations and organizations in Ethiopia.

5.3. Recommendations

In relation to the finding, the researcher got here up with the subsequent recommendations. Since Ethiopia is a land-locked country cross border freight transport operation service is the key success to attaining the international market to the growth of imported cargo. Hence researcher proofed with related theoretical literature and empirical studies in-depth study to determine the exact cause and effect relationships of the factors that affect the performance of freight transport service were incorporated with the World Bank Logistics Performance Index (LPI) as used as independent variable in the study to provide the intensity of Practical performance of cross border freight transport service in Ethiopia forwarded as follow.

- MoTL and FTA as a cross border freight transport firms operator recommended coordinating and integrating to all stakeholders mentioned with specified planed time in order to achieve the overall performance of cross border freight transport service.
- MoTL and FTA have no integrated information and communication technology which enables them to coordinate all parties toward the successful implementation of the system. Therefore, the researcher recommends MoTL and FTA better if they install latest output of information and communication technologies for the success of the system to attain Infrastructure.
- MoTL and FTA are recommended to provide a timely and fundamental capacity building program by upgrading the employee's professional qualification like flit management training in the country to attain competence.
- MoTL, FTA and ESLSE are recommended to adjust not incur additional cost by respecting and committing strongly working with Djibouti government to avoid non value adding customs formalities to pick cargo early as possible within the grace period to shorten the length of clearance and customs formalities by reducing the number of required documents and procedures at port Djibouti. Dwelling time of cargo should be reduced at Djibouti and Dry Ports. To shorten the dwelling time at Djibouti, the government of Ethiopia should reduce the transit permit process time at Ethiopian customs, customs clearance time at Djibouti and Dry port.
- Ethiopian government, as infrastructure provider, better invest on road, railway, dry port and terminal infrastructure in line with cross border freight transport service to ensure efficient and effective performance of freight transport service.
- ESLSE is state owned operator and Monopolizing the business which Cause hindering the performance of cross border freight transport service. Researcher recommends if the company privatized it would be competitive advantage to attain competition
- Use of railway transport as comparative advantage which may be the efficient and the least cost mode of transport with less logistic problem with respect to inland road transportation to attain over all mentioned factor.
- Equipping the dry ports, terminals and warehouse with highly modernized loading/unloading machineries so that the cargo handling time at the dry ports minimized to attain better performance.

5.4.Implication for Further Study

Cross border freight transport service needs to be investigated further. It would be beneficial to carry out research that improves the overall performance of cross border freight transport system in Ethiopia from a broader perspective. Accordingly, researcher has forwarded perversely.

- Further research is suggested to the impact of proclamation and legislation on the performance of freight transport system in Ethiopia to improve the LPI
- The researcher suggested that other researchers to focus on the contribution of freight transport to increase export than import.

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Appendix A

SURVAY QUESTIONNAIRE

ST.MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

QUESTIONNAIRE TO BE FILLED BY EMPLOYEES AND ADMINISTRATORS OF CROSS BORDER FREIGHT TRANSPORT ASSOCIATIONS AND ORGANIZATIONS INS IN ETHIOPIA

***Purpose**: The Overall Objectives of This Questioner is to Gather Data from Stakeholders to Investigate Factors Affecting the Performance of Cross border Freight Transport associations and Organizations.*

General Information

*This research survey is designed to fulfill an academic requirement. I can assure you that the research data will only be used for academic purposes. Personal information of participants will remain confidential. Your open and prompt response is highly appreciated. Please give your response to the questions here **by putting a (√)** mark at your appropriate choice or by putting your answers in the space provided.*

*The questionnaire has **five parts** -background information custom related questions, infrastructure related questions, , timeliness related questions and competence related questions. This questioner shall take about **15minutes**. Your input in this regard is highly valuable as it will provide insight in to solve factors affecting cross border freight transport performance*

For any clarification on this questionnaire, please call me by

0911915556 (Mengistu Meba)

Thanking you in advance

PARTI: background information

1. Your age_____
2. Your sex? Male ☐ Female ☐
3. Educational status? University graduate ☐ university post graduate ☐ other ☐
4. Would you mention your position held in the Organization?

   General Manager ☐ Operation manager ☐ Marketing manager☐

   Finance manager ☐ HR manager☐ Accountant ☐ clerk accountant ☐other ☐
5. For how many years do you have served in the Organization?

   For 0-5years ☐ 6-10 years☐ 11-15 years☐ greater than 15 years ☐

Please indicate your opinion regarding to the following statements (Make tick Mark as √)
5. Strongly agree (SA))4. Agree (A),3.Neutral (N),2.Dis-agree (D), (1.Strongly disagree (SD)

		5	4	3	2	1
CU6	Customs have developed a system or procedure for transportation					
CU7	The custom clearance process for shipments of dry bulk is efficient					
CU8	The customs clearance procedure is transparent					
CU9	The customer receive adequate and timely information when regulations of custom change					
CU10	The existing coordination level between customs offices and transporters is strong					
CU11	There is regional single window to improve custom clearance service					
CU12	All shipments of dry bulk cargo are cleared and delivered as scheduled					

		5	4	3	2	1
INF13	The inland transport infrastructure is suitable for end-to end cargo movement					
INF14	Road transport is adequate to meet the need of inland cargo movement					
INF15	The road is capable to meet the need of inland-containerized cargo movement.					
INF16	There are enough number of trucks with significant capacity to render effective and efficient transportation service					
INF17	The dry ports, terminals and warehouses are adequate for handling cargo					
INF18	The dry ports, terminals and warehouses are well equipped with the necessary equipment and facilities					
INF19	The dry ports and terminals do have enough space and capacity to accommodate all incoming and outgoing cargo even in peak periods					
INF20	Transport related infrastructure for transport service is improving through time					

		5	4	3	2	1
TI21	Shipment process is requiring short period of time in Djibouti					
TI22	Shipments reach at dry ports within the schedule					
TI23	Cargo handling time in warehouse is short					
TI24	Customers are receiving their shipments within the designatedtime from warehouse					
TI25	The cross border freight transport service is becoming better to meet the schedule					

		5	4	3	2	1
COM26	There is enough skill and expertise in the sector to operate transport systems					
COM27	Logistics knowledge and skill of management and employee in the sector is excellent.					
COM28	Employees in the transport sector are all skilled and professional					
COM29	There is work group quality between transporters					
		5	4	3	2	1
PER30	Financial performance of cross border dry freight transporters is excellent					
PER31	Transport and Logistics Minister supports cross border dry freight transport firms to improve their performance					
PER32	Delivery service performance of cross border dry freight transporters is excellent					
PER33	Overall performance of cross border freight transport associations and organizations is excellent.					
34	What are your recommendations regarding improvements of the cross border freight transport associations and organizations?					

Appendix B

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✓ (√)

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1. _____ የስራድርሻ----------

2. _____

3. ----------

4. ----------

5. ( ) _____

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1 ( ) 2 ( ) 3( ) 4 ( ) 5 (
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		5	4	3	2	1
CU6						
CU7						
CU8						
CU9						
CU10						
CU11	/					
INF12						
INF13						
INF14						
INF15						
INF16						
INF17						
COM18	/					
COM19						

COM20						
COM21						
		5	4	3	2	1
TI22						
TI23						
TI25						
TI26	.					
TI27	(ESLSE)					
PER28						
PER29						
PER30						
PER31	?					

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