Addis Ababa University

School of Commerce

Graduate Studies Program

Department Of Logistics and Supply Chain Management

The Effect of Logistics Management Practices on Organizational Performance: The Case of National Tobacco Enterprise (NTE)

BY

Alemayehu Tamene Abbadina

E2LSCM1- GSE/9362/2010

A Thesis Submitted to Addis Ababa University School of Commerce in Partial Fulfilment of the Requirements for the Degree of Masters of Art in Logistics and Supply Chain Management

Advisor: Busha Temesgen (PhD).

June 2023

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BY

ALEMAYEHU TAMENE (GSE/9362/2010)

APPROVED BY THE BOARD OF EXAMINERS

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Declaration

I, the undersigned, declare that this thesis entitled “The Effects of Logistics Practices on Organizational Performance: The Case of National Tobacco Enterprise” is my original work and has not been presented for the award of any degree or diploma in this or any other university. All sources of materials used in the thesis have been duly acknowledged.

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Statement of Certification

This is to certify that this thesis entitled “The Effects of Logistics Practices on Organizational Performance: The Case National Tobacco Enterprise”, is his original work and is suitable for submission for the award of Masters of Arts Degree in Logistics and Supply Chain Management, done by Alemayehu Tamene is an authentic work carried by him under our guidance. To the best of our knowledge, the theme embedded in this thesis has not been submitted earlier for the award of any degree or diploma in any other university.

_____	_____	_____	Addis Ababa, Ethiopia
Advisor	signature	date	place

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Abstract

Global academicians attempt to convince us that supply chains now compete with one another rather than with enterprises. However, logistics practices have emerged as a potentially advantageous way to get a competitive edge by enhancing organizational performances. The major objective of this study was to ascertain how organizational performance of the National Tobacco Enterprise (NTE) was impacted by logistics operations. This research conceptualizes and has built five logistics practices (transportation management, inventory management, warehouse management, supply Management, and distribution management) to evaluate their impact on organizational performance. A descriptive and explanatory research technique was used to analyze the performance of the NTE in regard to the effects of logistics operations. Using stratified purposive sampling, the appropriate samples for the inquiry were selected. It is deduced that a positive and substantial correlation exists between organizational performance, and logistics practices. The ANOVA test result demonstrated the statistical significance of the values of R and R2 obtained under the model summary. A total number of respondents were 46 NTE workers selected by using purposive stratified sampling methods to collect the study data. To ascertain their causal linkages, the postulated ties from the framework were put to the test using descriptive statistics, Pearson Correlation, and regression analysis. The results of the investigation show a strong relationship between logistics operations and organizational success. It is crucial for the NTE to give emphasis on the structures of logistics practices to be profitable, satisfy customer needs and be competent over the long term and bring sustainable organizational performance

***Keywords**: Logistics, Logistics practices, Key Performance Indicators, Organization, and Organizational Performance*

LIST OF ACRONYMS

CCM	Customer Compliant Management
NCPDM	National Council of Physical Distribution Management
CSCMP	Council of Supply Chain Management Professionals
GDP	Growth Domestic Product
IMF	International Monetary Fund
IP&M	Inventory Planning & Management
JTI	Japan Tobacco International
LP	Logistics Performance
MTO	Make to Order
NTE	National Tobacco Enterprise
OAR	Order Accuracy Rate
OLT	Order Lead Time
PPC	Picking and Packing Cost
USD	United States Dollar

CHAPTER ONE

1.1 Background of the Study

Logistics as an organizational function has an ancient history. Its history dates back to the wars of the Greek and Roman empires in which the military officials called logistics were responsible for supplying and distributing needed resources and services. These "logistics'' also worked to impair their enemies' stores while protecting their own. This gradually guided the development of current logistics systems"(Fabiana Meijon Fadul, 2019).

The purpose of reliable logistics management is to improve the efficiency of organizational operations, ensure customer satisfaction, and increase productivity. These tips and strategies help ensure process optimization (Bakar and Jaafar, 2016). Logistics efficiency is a measure of how effectively your business manages its logistics operations. It requires; for instance, online vendors to closely track and optimize the movement of product shipments to ensure that the customers receive their orders quickly and cost-effectively.

U.S. businesses spent $1.63 trillion on logistics in 2019, moving goods from origin to end-user through various supply chain network segments. By 2025, a total of 5.95 trillion ton-miles of freight will move across the United States. Malaysia Logistics Council, (2013) reported a 13% contribution to Malaysia's Gross Domestic Product (GDP). In every organization, logistics plays a very important part. It is an important part of supply chain management that helps manage and plan the flow of information, deliveries, and other information related to the point of origin and delivery to meet the customers' requirements (Bakar and Jaafar, 2016).

Logistics Performance (LP) definitions vary according to the objectives of the study. According to (Chow, Heaver, and Henriksson, 1994); researchers always have difficulties defining logistics performance because firms normally have multiple and frequently conflicting goals. The most recurring definition cited by (Ms Swati Parkash and Banerjee, 2020) defines LP as effectiveness and efficiency in performing practice. This definition has also been further extended by (Chala and Kumar, 2021) as multi-dimensional and is defined as the degree of efficiency, effectiveness, and differentiation associated with the accomplishment of logistics practices.

According to the definition given by the Council of supply chain management professionals (CSCMP, formerly known as the Council of Logistics Management), "*Logistics management is part of supply chain management that plans, implements, and controls the efficient,*

effective forward and reverses flow and storage of goods, services, and related information between the point of origin and the point of consumption to meet customers' requirements."

Logistics has the potential to improve performance of organizations and reduce costs. There are large unused capacities in logistics processes in terms of cost reduction and rendering quality of service (Windisch-Koenig, 2017). Logistics costs are driven or created by the practices that support its process.(Lambert, Douglas M., Jams R. Stock, 1998).

The logistics infrastructure in Ethiopia is not well developed, there is a lack of coordination in the movement of goods, the fleets of freight vehicles are too few and too old, and the goods are damaged and lose quality while being handled, transported, and stored. (Debela, 2017). The researcher is driven due to these drawbacks manifested elsewhere and tries to study the effects of logistics management practices on organizational performance based on the contribution of logistics management as part of success factors for the company. There have not been studies conducted on the effect of logistics management practices on organizational performance in the case of National Tobacco Enterprise. This study, therefore, enhances the attention given to logistics management practice and organizational performance through certain variables like inventory, transportation, Supply, Warehouse and Distribution management.

1.2 Statement of the problem

Local and international researchers have conducted various studies in logistics and supply chain management. These studies largely focus on specific and selected variables of logistics management of various for-profit and not-for-profit entities. The researcher tried to study the effects of the logistics management practice of NTE which is part of the Japan Tobacco International (JTI); a global tobacco company that has owned a majority share of Ethiopia's National Tobacco Enterprise (NTE) on December 21, 2017. National Tobacco Enterprise Share Company was established in 1942.

The company provides direct employment to over 1,200 Ethiopians and indirect employment to over 10,300 tobacco out-growers. In addition to its factory in Addis Ababa, NTE owns and manages five tobacco farms in Robi, Bilate, Hawassa, Wolaita, and North Shoa. This is the largest private sector investment by a Japanese company in Ethiopia to date (NTE Web site). NTE's Logistics department holds different departments to assist tobacco production by bringing together the raw materials (supply) from abroad and stored in the central warehouse, transporting them to factory site and add to inventory to avoid production interruption, and attain unhindered distribution of products. To understand the effects of these five variables on

the organizational performances of NTE, first, the researcher tries to assess the current operational status of the logistics and the underlying problems encountered by the NTE, and found that no study was conducted so far on the issue and due attention was not given to the importance of logistics practices in enhancing or scale back organizational performance. Second, the researcher wants to complement to some other related studies so that due attention will be given for logistics practices to enhance organizational performances.

Some of these studies, for instance (Chala and Kumar, 2021) show the effects of logistics management on organizational performance. In this instance, the researchers tried to assess the effects based only on *transportation, inventory, and warehouse management* variables of logistic management. The researchers; based on their specific scope of study and assessment of specific organization, indicated that maximum and minimum inventory levels are not adequately maintained, and factory inventory planning and management are not supported by technology.

Even though the findings are based on only on the aforementioned three variables, the result concluded that the performance of the entity under study is considerably impacted by all of the logistics operations under examination. The research further states that unlike the warehouse management, inventory management and transportation have higher impact on organizational performance. Even though the two practices have the greatest impact on organizational performance; they are not the only ones that pose negative or positive effects.

Another study on logistics practices in Ethiopia similarly stresses only customer service and transportation practices (Debela, 2013), and does not give emphasis specifically on all main logistics practices like inventory management, supply, and warehousing. Conversely, another similar research, (Gebisa, 2019); indicated that though more research has been studied, there is a gap even in a developed country because the effects of logistics functions on organizational performance have been missed. Besides, the relevance and contribution of logistics processes are often less evident, and easier to overlook. Logistics functions are relevant to study the whole organizational performance and apply to all firms and contribute to the national GDP (Bakar and Jaafar, 2016). The volatile market in the 21st century, increased competition, and sudden regulatory changes in unstable political environment pose ineffectiveness and inefficiency in multiple logistics practices and variables. These discrepancies should be treated as a part of the logistics management interdependent functions both as a system and as a whole to depict the overall organizational performance.

The goal of logistics management is to provide the right product with the right quality at the right time in the right place at the right price to the ultimate customer. With the help of logistics management, the proper flow of goods or services can be done, so that the needs of the clients can be fulfilled. All functions of the logistics management including transportation, inventory, warehousing, distribution, and supply should be studied to decide the total effects on organizational performance. Unless reasonably interdependent logistics practices are studied to show the logistics effect on organizational performance, only parts of the logistics practices cannot show the whole picture.

Firms adopt different strategies to enhance their performance. Logistics management is one of those strategies. Good performance in logistics management can be considered one of the competitive advantages of manufacturing entities. Thus, this study, unlike some other studies made and stated so far, tries to show the effects of five relevant logistics functions on posing negative or positive effects on the organizational performances of the Ethiopian National Tobacco Enterprise. The five major functions this study tries to focus on are: transport management, inventory management, warehouse management, supply management, and distribution management.

The study investigated the whole process of organizational manufacturing and included the most important logistics variables relevant to determining the effects of organizational performance. Finally, the absence of inclusive empirical studies on the effect of logistics management practices on NTE and some other similar enterprises calls for and motivates this study to investigate the effect of logistics practices on organizational performance.
This gap was addressed in terms of the five logistics management practices namely; inventory management, transportation management, supply management warehouse management and distribution management practices and subsequent research questions stated under. Therefore, this study addresses the effects of the five logistics management practices on organizational performance of National Tobacco Enterprise, Ethiopia.

1.3 Research Question

1. What is the contribution of the transportation system on organizational performance?
2. What is the contribution of inventory management practice to the organizational performance?
3. How does the warehouse management practice affect the organizational performance?

4. What is the supply management practices and how does it affect Organizational performance?

5. How does the cost of distribution management system affect organizational performance?

1.4 Objectives of the study

1.4.1 General Objective

To assess the effects of logistics management practices on organizational performance in the case of a National Tobacco Enterprise.

1.4.2 Specific Objective

1. To assess the effect of transportation management system on organizational performance
2. To identify how inventory management practice affects the organizational performance
3. To investigate the effects of warehouse management on organizational performance
4. To assess the effects of supply management on the organizational performance
5. To examine the plausibility of distribution system on organizational performance.

1.5 Significance of the Study

Logistics management practices have significant positive or negative effects on organizational performance. Absence of studies that include all the necessary variables of the logistics management practices in organizational performance, nonexistence of specific studies to modernize the logistics practice to improve organizational performance of the NTE; and the researcher's intention to improve the organizational performance of the NTE by studying the relevant variables of the logistics practices are the major rationales to conduct the study. In addition, the requirement to fulfill the academic requirement and the researcher's intention to contribute to and substantiate for some other similar literatures are added reasons to conduct the study. In the meantime, it can also serve as an input to improve logistics management practices to contribute to organizational performance and a reference material for further studies.

From a practical point of view, the finding of the research depicted that the study would assist National Tobacco Enterprise in its endeavor to utilize logistics management practices to improve the demand and supply performance of its products and take corrective actions that can enhance its competitive capacity. To generalize the fact above, this study's findings will serve as a framework for businesses to enable the effective and efficient flow of goods and services, and the information gathered will ensure informed decision-making and foster

meaningful awareness about effective logistics management among the concerned body. Finally, for future studies on such areas, it gives a comprehensive starting point for further research on the effect of logistics practices on organizational performance.

1.6 Scope of the Study

This study focuses on the National Tobacco Enterprises (NTE) logistics practice – a subsidiary of the Global JTI. The researcher selected the Enterprise because international and national logistics practices are exercised and have practical advantage in understanding both aspects. NTE's logistics practices have long history since its establishment. However, according to the logisticians of the Enterprise, logistics practices were; until the past two years, exercised as ordinary practices without proper organizational setup. NTE's logistics department was organized two years ago, where the logistics were performed as part of either procurement (foreign and local), store, production, transport, or marketing practices. The researcher will focus on the five logistics practices (Transport, Inventory, warehouse, supply and Distribution) and their effects on the performance of the organization. The researcher understands that the global and national experience of the Enterprise gave basic insights into national logistics practices.

1.7 Limitations of the Study

Logistics management includes vast areas of managerial practices; however, it was difficult and unmanageable to conduct the study in all areas of logistics management. Thus, this study assessed the logistics practices of the Enterprise taking only five main logistics components: Distribution, warehouse, supply, inventory, and transportation. The difficulty to cover the entire domain of logistics in terms of time and cost is the main barriers to limiting the study only to the mentioned components and organizational performance of the case organization.

In addition to the aforementioned restriction, the majority of the respondents surveyed were hesitant to provide information due to the firm's private and secret nature. The researcher addressed the issue by promising the responders that the data would be kept with the highest confidentially and would only be used for academic purposes.

Another drawback was that the researcher had no control over the veracity of the information given. The researcher utilized the information as it was given, but he also called respondents to get clarification on any replies that were unclear.

The respondents from NTE were almost team leaders and above in their position with busy working schedules which delayed the data collection process. The researchers used to drop-and-pick-later method so as to give the respondents adequate time to fill in the questionnaires.

1.8 Organization of the Study

The researcher tried to organize this study into five chapters. The first chapter covered the introduction part that addressed the background information concerning logistics and in particular NTE logistics practices and its contribution to the performance of the organization. Consequently, the research questions, the general and specific objectives of the research, the significance and scope of the research, and finally the limitations of the research are explained.

The second chapter comprised relevant literature reviews. The theoretical and empirical studies made in logistics performance and effects of logistics practices on organizational performance had been explained in this part.

The third chapter has enclosed the research methodology, description of the study area, research approach, design, target population and sampling, data source and types, data collection procedures, ethical consideration, and the chapter also included information on the study's data analysis techniques and ethical boundaries.

The fourth chapter focused on the data analysis and findings of the study. In this chapter, the results of the data analysis are presented, and conclusions are drawn based on the findings.

The last chapter provides a summary of findings, conclusion, and recommendations to solve the observed gaps. The study's results are outlined in the last chapter, after which conclusions are reached. After then, suggestions for enhancing NTE's performance were provided. The researcher then shared his thoughts on the path of future study.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews related literatures to get basic insights in theoretical and empirical aspects of logistics practices, and has proposed conceptual framework of the study. Logical iteration of theoretical and practical understanding of logistics practices in terms of manufacturing industries sharpen our knowledge what constitutes proper logistics management and its effects.

2.1 Theoretical Literature review

A theoretical literature review helps the researcher to establish what theories already exist to support his study, the relationship between them, to what degree the existing theories have been practiced, and to develop new hypotheses that could be tested; if any. The purpose of this section will try to brief the reader on what theories or models have been established and support the research subject.

2.1.1 Concepts of Logistics management

The free encyclopedia defines Logistics as a part of supply chain management that deals with the efficient forward and reverse flow of goods, services, and related information from the point of origin to the point of consumption according to the needs of customers (Fu et al., 2021) Logistics as "the branch of military science related to procuring, maintaining and transporting material, personnel and facilities". However, the New Oxford American Dictionary defines logistics as "the detailed coordination of a complex operation involving many people, facilities, or supplies", and the Oxford Dictionary online defines it as "the detailed organization and implementation of a complex operation (Kumazawa et al., 2018). As such, logistics is commonly seen as a branch of engineering that creates "people systems" rather than "machine systems".

According to the Council of Supply Chain Management Professionals, logistics is the process of planning, implementing, and controlling procedures for the efficient and effective transportation and storage of goods including services and related information from the point of origin to the point of consumption to conform to customer requirements and includes inbound, outbound, internal and external movements (García-Dastugue, 2018).

Logistics Management practices typically include inbound and outbound transportation management, fleet management, warehousing, materials handling, order fulfillment, logistics network design, inventory management, supply/demand planning, and management of third-

party logistics service providers. To varying degrees, the logistics function also includes sourcing and procurement, production planning and scheduling, packaging and assembly, and customer service. It is involved in all levels of planning and execution--strategic, operational, and tactical. Logistics management is an integrating function, which coordinates and optimizes all logistics practices, as well as integrates practices with other functions including marketing, sales manufacturing, finance and information technology (Bolumole,2001).

Academics and practitioners typically reserve the term logistics for practices related to distribution.i.e.,.moving products across the region, and use operations or productio n management todescribe physical transformations occurring in a single business location (D evangan,2017). Therefore, managing a distribution center is considered to fall under the preview of logistics science. Although, in theory, the goods produced by a factory are ready for consumption, they still need to be moved along the distribution network by some logic, and the distribution center gathers and processes order coming from various regions of the territory (Quynh.etal.2020).

Nonetheless, operations management and logistics are equivalent from a modeling perspective, and firms may hire hybrid experts, such as a "Director of Operations" or a "Logistics Officer" who focuses on similar tasks. Furthermore, the original definition of "supply chain management" included having an integrated picture of manufacturing and logistics from the point of origin to the site of production, among other things (Sweeney et al., 2018). These concepts could all experience a semantic shift as a result of advertising.

2.1.2. Determinant of Logistic management

2.1.2.1 Logistics practice

The methods used in supply chain management, which include logistics, affect both the overall performance of an organization and its ability to compete. A company's actions taken to support effective supply chain management are referred to as supply chain management practices. The performance of the supply chain should be improved by a well-managed logistics strategy in terms of pricing, quality, delivery dependability, speed of market entry, and product innovation. (Fernie, & Mckinnon, 2011). The field of logistics has grown significantly in importance for business sustainability on a global scale. A logistics company's high-performance work will offer it and the country a competitive edge (Akdoğan & Durak, 2016). Because it is essential to gaining a competitive edge, logistics are therefore strategically significant in many businesses (Kenyon and Meixell, 2007). But businesses must adapt to shifting client demands, and logistical flexibility is a crucial component of such

adaptation (Zhang et al., 2005). Each business must establish or build its logistical values that will be included in the product or its value in usage.

To reduce costs and improve customer satisfaction, the concept of logistics Management entails the interaction of various operations and functions within a company's network (Bichou & Gray, 2007). Logistics as a multifaceted profession is a procedure for organizing, carrying out, and managing the effective and efficient flow and storage of commodities and related information. Choosing and organizing vehicles for the transportation of raw materials and finished goods, as well as managing and retaining inventory in warehouses or storage facilities until it is required for manufacturing or consumption, are all aspects of logistics. Efficient logistics techniques reduce the time needed for procurement, lower the cost of stock maintenance, reduce the time and cost of shipping, and provide safe and dependable services (Onay & Kara, 2009; Aziz, Hillegersberg, & Kumar, 2010).

Prior studies have demonstrated that outstanding organizational performance is correlated with competence in conducting logistical operations and skills (Lynch et al., 2000). The use of learning concepts in logistics is especially crucial in the current climate of the hypercompetitive global supply chain (Esper et al., 2007). Additionally, managers need to be careful to recognize how crucial organizational variables, such as culture, are in influencing the link between supply chain integration and operational effectiveness. The minimum permissible amount of every item which is in hand is checked at least once a week, and logistics managers are dedicated to doing so every day. When they have less of a product in stock than the minimum permissible amount, they put orders for it right away. The unit price of each item in stock, in addition to its quantity, is essential information, and the combined value of all items in stock should be as low as feasible or within an acceptable range.

The researcher uses to stud five main factors that may affect logistics practices unless managed properly, including Transportation, inventory, warehouse, supplies, and distribution, which will be examined in this study based on their relevance and research objective.

2.1.2.2. Distribution Management

The process of managing the flow of products from supplier to manufacturer to wholesaler or retailer to the final customer is known as distribution management (Forslund H. 2014).

Logistics is a crucial component in the supply chain as it enables the transfer of products from suppliers to manufacturers, sellers or distributors, and ultimately purchasers. Essentially, a supply chain is made up of transactions (Bagais and Aljaaidi 2020). When logistics go wrong, the supply chain collapses and business transactions come to a complete stop. The two main categories of distribution are Physical distribution and logistics.

Commercial distribution (sales distribution) and physical distribution (logistics). During this stage, the distribution channel handles four tasks: assembly, storage, product sorting, and delivery from the producer to the consumer. (Davis-Sramek et al. 2007).

We may state that distribution logistics' primary goal is to lower the cost of providing completed goods to clients while maintaining or raising the quality of service. The management of distribution logistics may be advantageous to the company in several ways. Among the advantages are greater customer service, reduced transportation expenses, and higher productivity. The company's profitability may rise as a result of all of these advantages.

Overseeing the physical distribution of inventory is a major component of supply chain management. But to understand distribution logistics, it's important to understand the different types of distribution channels and how inventory moves through the supply chain. By expediting distribution and order fulfillment, effective distribution management may assist you in reliably exceeding such expectations. Additionally, immediately adapting to market seasonality and boosting profit margins through analyzing distribution management data helps save money and energy (Edition *et al.*, 1994)(Rushton, Croucher and Baker, 2010)

Various sources claim that according to Martin Straka stated in his review on "Distribution and Supply Logistics" is a scientific field that deals with the thorough design, management, implementation, and control of material flows as well as the development of the essential material flows and information systems for material processing. Thorough management and implementation of material flow in industrial processes and the circulation of goods are referred to as logistics (Viestova 1993, Straka 2004). The goal of logistics is to establish a unified, integrated, and optimal material flow that emerges from various system components in order to guarantee a constant interchange of goods and services.

Transportation, warehousing, and product packaging are all part of logistics and distribution. To establish what adjustments are necessary, logistic analysts look at delivery methods and transportation costs including the distribution channels. The logistics or distribution manager is responsible to organize the storage and distribution of goods. He'll ensure that the right products are delivered to the right location on time and at a good cost. He may also be involved in transportation, stock control, warehousing, and monitoring the flow of goods (Carvalho, Vilas-Boas and Neill, 2014).

Order Accuracy Rate (OAR) This logistics key performance indicator measures the number of orders that are processed, shipped, and delivered perfectly and without mishaps (Ying et al. 2018).

Order Lead Time (OLT) For the majority of businesses in this industry, order lead time is a distribution KPI that is essential. It is a measurement of how long it typically takes from the moment an order is placed until it is filled, packaged, and delivered to the consumer (Ying et al. 2018).

Picking and Packing Cost (PPC) This distribution KPI monitors how much money your business spends on order lines for practices like handling, labeling, and packing (Falk & Tilley, 1990).

Customer Complaints Management (CCM) Customer satisfaction should always be the company's first priority. If this is the case, the company should look at the number of customer complaints and problem occurrences. However, keep in mind that a variety of issues, such as picking errors, shipment damage, and mis-ships, to mention a few, can lead to customer complaints. It's a good idea to monitor issues and these finer indicators, but the firm should also be aware of factors beyond your control that could also affect the data (Shahin, A., Khodadady, Z. & Shirouyehzad, H. 2015). Any trends can be used to examine the underlying mechanisms and results of elements inside your process flows that are under your control. Shipping times may vary depending on a variety of criteria, including weight, size, and hazardous goods. Weight is crucial because it affects both transportation costs and delivery times. Heavy packages might cost more to send and typically take longer to reach their destination (Abdurazzokov, 2023).

2.1.2.3. Supply management

Supply is the process of creating inventory (by manufacture and/or purchase) to the objectives stated in inventory planning. Supply Management attempts to lower the total acquisition cost while maintaining the availability, response time, and quality requirements established in the customer service policy and the inventory master plan (Li and Yang 2020).

A retailer's capacity to satisfy client demand at a certain item is referred to as product availability. To assist customers in planning and decision-making, retailers may offer comprehensive information regarding product availability (Kephart et al., 2019).

Purchasing goods and services from outside sources is the process of acquisition management in supply chain management. It is an essential part of the supply chain process since it guarantees that the right goods are delivered at the proper time and place. Product availability is a crucial supply chain performance indicator that most businesses track using KPIs. However, if the method of measurement is not ideal, we would have a supply chain that performs poorly on this metric (Jacobs & Mafini, 2019). The cycle service level of the fill rate is used to measure the degree of product availability. The service rate is the percentage of

customer demand that is met by the inventory that is on hand. the effectiveness of the supply chain and the degree of product availability.

Response time is the period of time between placing an order and receiving the ordered item. The reaction time in make to order (MTO) supply chains comprises of the lead times for assembly and delivery since a customer order initiates the assembly of a finished good from components (Betrand, J. & Van.O Oijen, H.2008).

2.1.2.4. Inventory

An inventory, according to (Stevenson, 2009), is a stock or store of goods. The goal of inventory management is to establish and maintain the lowest inventory levels that can be achieved while still ensuring that the customer service policy requirements are met (Ensermu,2013). In either case, any business that sells goods is likely to have both the raw materials and finished goods on hand. The company's inventory consists of these finished goods and materials that are kept on hand. (Hedrick, 2008) asserts that effective stock management is necessary to boost profits and that many small businesses are unable to absorb the kinds of losses brought on by ineffective inventory management. Inventory management is obviously essential to the success of logistics and business. Without proper inventory management, a business may lose out on opportunities. improve earnings, and many small businesses are unable to absorb the kinds of losses brought on by weak inventory income generators. If there is a market for a product that is less readily available, the price will go up. Supply and demand are met by optimal inventory management, which maximizes the value of the current asset. The expenses related to managing inventory include learning about supply, demand, current inventory, trends, etc. Companies must do research for newer items or keep track of demand trends for orders or incoming products in order to determine demand (Stevenson, 2009). Order quantity engineering, service level optimization, replenishment planning, inventory deployment, and service level optimization are all.

The goal of inventory planning and management (IP&M) is to establish and maintain the lowest inventory levels that can be achieved while still meeting the customer service policy's objectives. Forecasting is included in the logistics of inventory planning and management (Kmiecik 2022).

2.1.2.5. Transportation

Logistics would not be able to fully utilize its benefits without well-developed transportation infrastructure. A good transport system could improve logistical efficiency, save operating costs, and foster service quality. Both the public and private sectors must work together to enhance transportation infrastructure. The efficiency of the logistics system could improve

the competitiveness of both the government and private businesses. According to the investigation of National Council of Physical Distribution Management (NCPDM) in 1982 (Chang, 1988), the cost of transportation, on average, accounted for 6.5% of market revenue and 44% of logistics costs.

In order to convert resources into usable items for the final customer, a number of processes must occur, and transportation is one of them. The idea of business logistics is the structuring of all these tasks and sub-functions into a system of products movement in order to maximize service to the consumers and reduce cost. Once implemented, the system needs to be administered well. (Fair et al.,1981)

Transportation is the process of moving any items or finished products from suppliers to a facility, or to warehouses and sales sites (Kenyon & Meixell, 2011). Under the limits of customer service standards, the overall goal of transportation is to connect sourcing areas with customers as cheaply as possible. (Ensermu,2013)

Transportation plays a key role in the supply chain, because without the efficient movement of finished goods and raw materials the entire system would not be able to work at its full potential (Randall et al., 2010). The creation of time and location usefulness in commodities is a crucial and important subfunction of logistics. Transport management, which enables supply to achieve the well-known seven Rs—the right product, in the right quantity, in the right condition, at the right time, for the right client, and at the right cost—is actually the foundation of the industry.

2.1.2.6. Warehouse

It is impossible to move the material flows in the supply chain without focusing on specific areas of required supplies and storage for dedicated storage. In this regard, the issue with warehouse operations has a big impact on the rationalization of material flow movements in the supply chain, the usage of vehicles, and distribution costs (Linder & Harold, 2002). (Kenyon & Meixell,2011) Storage of parts, raw materials, and finished goods is outlined as warehousing. A warehouse is used to add value to some items, much like every other link in the supply chain, by either storing them there for a specific use or processing them through it. In order to meet the cycle time and shipment accuracy criteria of the customer service policy and the storage capacity requirements of the inventory, warehousing is intended to lower the cost of labor, space, and equipment in the warehouse (Stevenson, 2009). Warehouses have always been paid a great deal of attention by managers due to the large potential impact it can have in creating customer value. Like most areas, the key objectives for managing warehouses have changed over time to create additional competitiveness. The first objectives

within warehousing related to maximizing the utilization of resources within the warehouse. The objective of present warehouse management is to efficiently and effectively organize the processes in a warehouse i.e., it encompasses both the objectives of inventory control and warehousing (Faber, 2013).

2.1.3. Organizational Performance

Organizational performance depends on the people who engaged themselves as parts of that organization as a worker, especially leaders' mastery to create a cooperative working climate and their ability to lead a team (Conţu, 2020). Operative outcomes require emotional engagement and empathy from participants in terms of practices performed within a team to provide solutions to issues that need to be resolved as professionally as possible (Conţu,2020). According to Contu, performance of a firm refers to the degree to which the organization with some information, finance, and human resources positions itself in the business market. Individual performance can influence the performance of the entire organization in the short, medium, or long term in a positive or negative direction. Organizational performance can be judged by effectiveness and efficiency on organization, group, or company in meeting its goals.

From Wikipedia, the free encyclopedia "Organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). Organizational performance is also the success or fulfillment of organization at the end of program or projects as it is intended. According to Richard et al. (2009). organizational performance encompasses three specific areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc.); (b) product market performance (sales, market share, etc.); and (c) shareholder return (total shareholder return, economic value added, etc.).

2.1.4. What are KPIs in Logistics?

Businesses can evaluate their own logistics performance in relation to industry averages by using logistics KPIs. Businesses can gain valuable information that helps them improve operations by tracking KPIs. This information demonstrates the errors and how to fix them to cut costs. This statistic displays the proportion of shipments that left the warehouse on schedule.

All deliveries are subject to strict deadlines, and delayed deliveries may harm customer satisfaction and can result in losses for businesses. If the benchmark for on-time shipping is not met, there may be issues at the warehouse. Understanding client happiness can be started by measuring on-time deliveries. (Abdurazzokov, 2023). Companies utilize logistics KPIs to

pinpoint areas for improvement in the flow of products. By industry, logistics KPIs have varying degrees of importance. Choosing relevant KPIs that are representative of your company's position in the field is highly necessary. KPIs should be broken out according to supply chain stage. Choose a few KPIs for each stage that focus on the industry position of your business and room for growth. For each level of the logistics chain, the image below highlights certain best-practice metrics (Elwy Habib 2015). The stages may slightly overlap when you organize your logistics KPIs by stage, but their practices and KPIs do not. The indicators for logistics listed below are unique and show how well the company is operating in each area (Hrusecka 2017).

Logistics Key Performance Indicators (KPI)		
Transportation	Delivery time	Delivery time, sometimes referred to as on-time delivery, gauges how quickly a complete purchase arrives. The time is for the whole order, not just the individual portions. Customer loyalty and satisfaction are impacted by this measure.
	Average days late	The number of days between the deadline for the delivery and the moment the customer receives the order is known as the average days late. This statistic gives information on the delivery process and has an immediate effect on client satisfaction and loyalty.
	Truck Turning	The amount of time that passes between when a delivery vehicle enters a facility to pick up or deliver items and when it leaves is referred to as truck turning, also known as truck turnaround rate. The length of time a truck spends on the road increases with decreasing vehicle turning rates. This rating reveals how efficiently a business manages loading and unloading.
	Freight payment accuracy	The proportion of error-free freight bills to all other freight bills in a given period is known as freight payment accuracy, also referred to as freight bill accuracy. Although data inaccuracies are quite expensive, freight invoices are highly error-prone.
	Transportation costs	The set of indicators used to track an order's price from start to finish includes transportation charges. This measure comprises expenses for order processing, management, maintaining inventory, warehousing, and shipping. Check your transit operations' efficiency using these costs.
Inventory Management	Customer backorder rate	How frequently a business cannot fill an order is known as the customer backorder rate. Customer satisfaction is significantly influenced by this statistic.
	Inventory Accuracy	Inventory KPIs may concentrate on cash flow and productivity as well as the efficiency of the manufacture and purchasing of inventory.
	Inventory turn over	Inventory turnover sometimes referred to as stock rotation, is the frequency with which a business sells out of all of the stock of a particular product. For a retailer to succeed and for their business to remain competitive, inventory turnover is crucial.
	Inventory to	The inventory-to-sales ratio calculates how much inventory is on

	sale ratio	hand compared to how many orders were completed. Since inventory is sometimes a business's largest expense, those that can manage their inventory costs in line with sales save money overall.
Warehouse Management	Receiving	'Goods receiving' is the process of inspecting supplies or new stock that has been delivered to the company. Any arriving items must be examined for quality, quantity, and condition before being assigned to a place in the warehouse.
	Put away	Put away in a warehouse refers to all the operations that take place between receiving merchandise from vendors and having it all put away in its designated locations. A put-away system makes it easier to store products, lowers the possibility of losing or misplacing them, and maintains your warehouse tidy and organized.
	Storage	Order picking is when the products listed in an order are retrieved from their respective warehouses. It is the first stage in fulfilling a customer's order, and the process must be flawless so that the remaining fulfillment processes—order packing, shipping, and post-sales activity—can also run smoothly.
	Order picking	Order picking is the process of obtaining the items indicated in an order from the appropriate warehouses. It is the initial step in completing a customer's order, thus it must go off without a hitch so that the subsequent steps—order packing, shipping, and post-sale activity—can also be completed without issue.
	Shipping	The procedures used to deliver goods from the warehouse to the client are referred to as shipping processes in warehouses. Getting products from suppliers, keeping them in the warehouse, choosing, packing, and shipping them to the consumer are all included in this process.
Supply Management	Lead time	The time between a client placing an order and when they actually receive it is lead time. Sometimes referred to as order cycle time. This measurement is essential for locating potential bottlenecks.
	Capacity utilization	What percentage of a resource a corporation is using is called capacity utilization. This resource could be the ability to produce commodities or qualified services., This measure is crucial for resource tracking and maintenance management.
	Productivity	Productivity is a gauge of how efficiently a company's tools, divisions, and/or employees are working. Understanding and measuring productivity enables firms to make sure they can fulfill their commitments.
Distribution Management	Order Accuracy Rate:	This logistics key performance indicator measures the number of orders that are processed, shipped, and delivered perfectly and without mishaps.
	Order Lead Time.	For the majority of businesses in this industry, order lead time is a distribution KPI that is essential. It is a measurement of how long it typically takes from the moment an order is placed until it is filled, packaged, and delivered to the consumer.
	Picking and Packing Cost	This distribution KPI monitors how much money your business spends on order lines for practices like handling, labeling, and packing.

	Customer Complaints	Customer satisfaction should always be the company's first priority. If this is the case, the company should look at the number of customer complaints and problem occurrences. However, keep in mind that a variety of issues, such as picking errors, shipment damage, and mis-ships, to mention a few, can lead to customer complaints. It's a good idea to monitor issues and these finer indicators, but the firm should also be aware of factors beyond your control that could also affect the data. Any trends can be used to examine the underlying mechanisms and results of elements inside your process flows that are under your control.

Table 1: Key Performance Indicators (KPI) for five logistics components

https://www.netsuite.com/portal/resource/authors/abby-jenkins.shtml

(Compiled by the researcher for the purposes of study)

2.2. Empirical Literature Review

The following part covers previous research in the area of logistics management. The research arguments, conclusions, and suggestions are all taken into account in this part. Success in logistics translates in business into higher efficiency, cheaper costs, higher production rates, better inventory control, more efficient use of warehouse space, higher customer and supplier satisfaction, and better customer experiences with low cost of transportation in and distribution of products for end user availability (Abdurazzokov, 2023).

The logistics industry contributes significantly to a company's competitive edge in customer service and operational excellence (Buyukozkan et al., 2008). The process of organizing and carrying out the effective storage and movement of commodities from the point of origin to the point of consumption is known as logistics (Springinklee & Wallenburg, 2012). Providing timely and cost-effective client service is the aim of logistics. The right product is delivered at the right time and location through effective logistics practices. It entails managing product and information flow to provide value-added practices that enable delivery through appropriate distribution channels (Narasimhan & Das, 2001).

Mukolwe & Wanyoike (2015) evaluated the impact of logistics management practices on Mumias Sugar Company's operational efficiency. This study was examined using descriptive and inferential statistics; among other conclusions, the study shows that physical distribution and transportation management are synonymous with cost-effective flows of raw materials and goods, which have a favorable effect on operational efficiency.

According to(Green, Whitten and Inman, 2005) study on “the impact of logistics performance on organizational performance in a supply chain context” tries to reveal that a focus on the supply chain and efforts by managers to improve relationships with suppliers and customers are necessary for the implementation of a supply chain management strategy to be successful. As a result of these deeper ties, supply chain-related practices like purchasing, selling, and logistics perform better. In this instance, improving logistics performance led to better organizational performance as a result of a supply chain focus. Supply chain management strategy has a beneficial influence on logistical performance, which in turn has a direct impact on marketing performance and financial success. These findings confirm the beneficial correlation between organizational effectiveness in the industrial sector and logistics performance.

Ineffective logistics practices, according to the IMF count report (2014), not only hinder exports but also raise consumer prices for imported commodities. The Ethiopian logistics

system is characterized by poor logistical practices, a lack of coordination in the movement of goods, and a lack of infrastructure development in the logistics sector (Fekadu, 2013).

Even though (Fekadu, 2013) conducted a study on Ethiopian logistics systems, he did not pay attention to certain logistical key performance indicators (KPIs) that comprises, distribution management, supply, inventory management, and warehousing. By examining the effects of logistics practices on organizational performance through these KPIs, the current study will be able to address the gap in understanding that exists and take into account the shortcomings of earlier studies in this field (Bempong, 2019).

According to (Green, Whitten and Inman, 2008) on their study on the title "the impact of logistics management practice on company's performance", on their conclusion shows that timely decision-making is made possible by accurate, pertinent, and timely information coming from both inside and outside the firm. To achieve this, full management information, pertinent data selection and control, quick transmission, and appropriate utilization are all required. The correctness of the data prevents making erroneous judgments and incurring needless expenditures, and if the information is ranked according to relevance, the processing time will be reduced, enabling you to make crucial decisions more rapidly. As a result, the logistics operations are crucial to modern businesses since they increase their value compared to their expenses. The area that businesses should focus on and enhance to rank among the most successful businesses on the market is logistics management.

Nowadays, the entire performance of the supply chain(s) in which the partners are involved may determine the success of any individual supply chain partner. The ramifications for the whole supply chain should now be taken into account by manufacturing managers when making choices about their company's production, purchasing, selling, and logistics procedures (Nag & Ferdausy, 2021).

To better serve the final clients, those procedures are linked and coordinated across the supply chain. Measuring organizational performance as well as logistics management performance has become very crucial. Theoretically, an organization's success at the supply chain and logistics management level will always translate into organizational success.(Green, Whitten and Inman, 2008). A supply chain management strategy is strongly supported by the logistical procedures connecting producers and consumers. Manufacturers assist their organization's supply chain strategy by working to enhance the logistics operations, which leads to increased performance for the whole supply chain and, eventually, their manufacturing businesses (Wiengarten et al., 2019).

According to (Kant, 2023), the study's on the title “Effects of logistics on Organizational performance” findings shows that there is a very high association between organizational performance (the dependent variable), which is a dependent variable, and all logistical management practices, which are independent factors mentioned are Inventory, Transportation, Information flow, and Procurement management practice. All independent factors demonstrated a favorable and statistically significant ability to predict the effectiveness of the organization. Descriptive and explanatory research designs (on his methodology part) were used in the study to attempt to address the objective of the research. Moreover, He recommend that the study couldn’t be generalized for other organization (since it concerned on the mentioned firm only), he left for another researcher to be work on it. So, the objective of this study is to grasp the relationship between the 5 independent variables stated on the conceptual framework and the dependent one i.e., organizational performance.

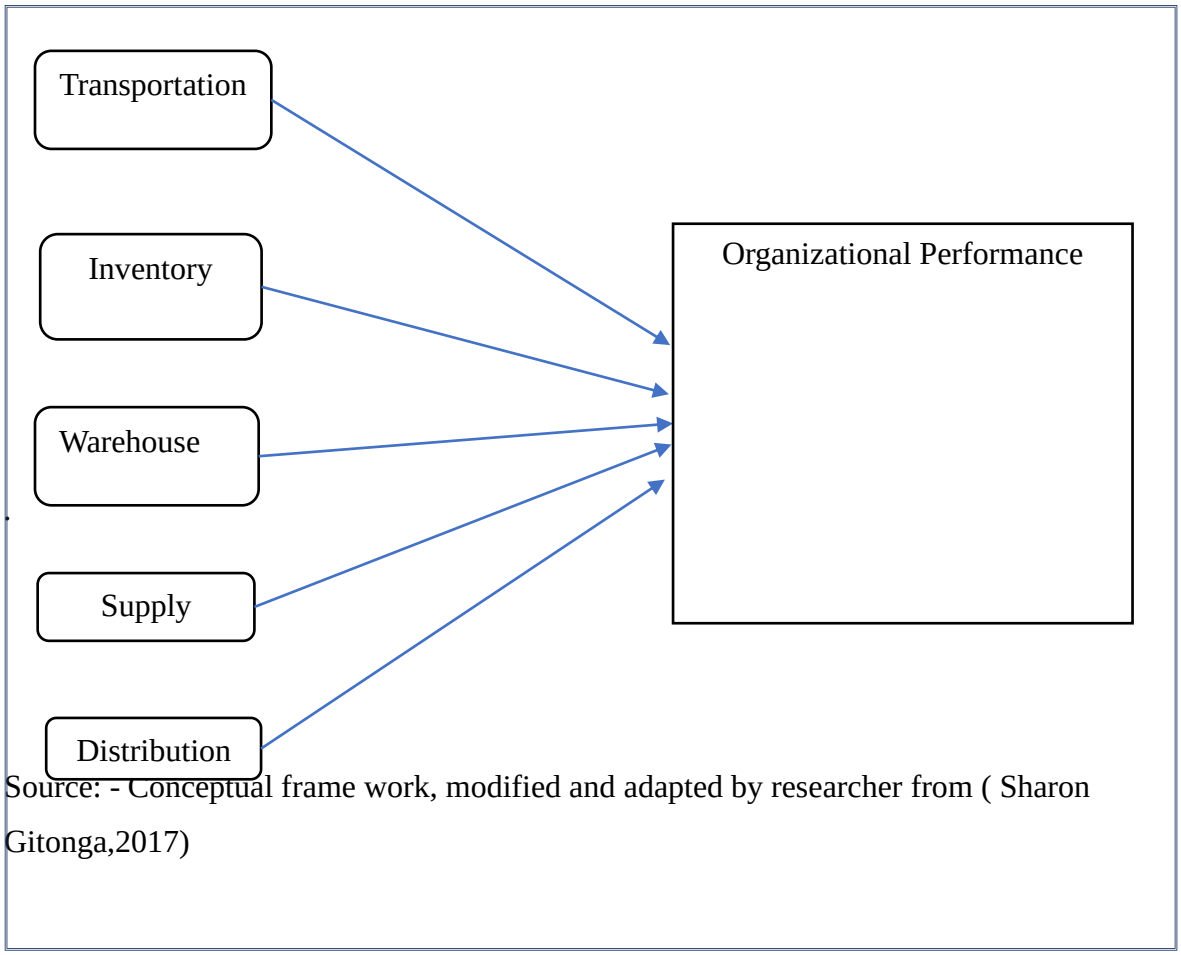
Another researcher (Begashaw, 2020) study on the title “The effects of logistics management practice on organizational performance” the problem was attempted to be addressed by the study utilizing explanatory research design. The study's goal is to investigate the effects of logistics management practices in order to scientifically assess their link with Awash Wine s.c.'s organization performance. the five logistics management functions of transport, inventory, warehousing, customer response, and distribution management are the only ones covered by this research. However, first, this study does not take into account management of packaging, information flow, or order processing, she recommends for further study. Second, the research concentrated on Awash Wine S.C.'s logistics management procedures. For the purpose of comparing the logistics management strategies used by businesses in related industries, comparable research on another manufacturing companies should be carried out.

A review of the various studies shows that manufacturing firms seek different logistics practices and the reasons why companies decide to outsource logistics services vary greatly. However, majority of these studies have been conducted mostly in developed countries where companies have extensively adopted or hired logistics services providers on various logistics services. (Rahman,2008).

2.3. Conceptual Framework

In the study, Logistics practices will be conceptualized as a five- Independent Variable. They are Distribution Management, Supply/Demand, Inventory Management, Transportation, and Warehouse. Using Literature support and the table formed above, the researcher try to see the

relationship between independent and dependent variable formulated below as conceptual frame will be discussed.



Source: - Conceptual frame work, modified and adapted by researcher from (Sharon Gitonga,2017)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In the Methodology portion of this chapter, which included a variety of subtopics, the researcher attempted to provide detailed explanations of how to accomplish the study goal. The main objective of this research methodology is to explain how the study is conducted, what expertise is required, what information is essential, how information is acquired, and how data is processed and managed.

This chapter provides a description of the proposed research methodology and methods. The practical approaches employed to address the research questions and achieve the study objectives are discussed. It comprises the research approach, design, population and sampling, data source and types of data, data gathering technique, and procedures, ethical consideration and data analysis techniques, and validity and reliability of the study along with an appropriate justification associated with each approach. In addition, to use the advantages of qualitative and quantitative research approaches (to better generalize, triangulate and explain findings) a mixed approach is used.

The implications of logistics management methods on the organizational performance of the National Tobacco Enterprise were the main subject of this study. The main practices of the enterprise were getting raw materials such as tobacco leaf from different sources like local farmers and imports and then transport them to factory site and, process production, and store the products in warehouses, and finally distribute the final product customers throughout the country. Therefore, it included practices of transportation, inventory, warehouse, supply, and distribution as independent variables and organizational performance as dependent variables upon those practices stated.

3.2 Research Approach

The study tries to answer all the research questions employing both quantitative and qualitative data collections so that better findings could be attained and reliable judgement could be attained. The reason behind this is to better understand the reality on the ground in both subjective and objective dimensions and to benefit from the different advantages of the two methods for better explanation and generalization. Most of the data to be gathered using a qualitative and quantitative approach (mixed approach) is used to cover subjective issues, to better explain realities, and to triangulate the findings of the quantitative data. Hence, it is

used to sequentially design explanation to help examine, explain, and contextualize quantitative findings. The researcher was formulating the type of data needed to respond to the research question (Creswell, 2009).

3.3 Research Design

The main objective of this research was to assess the effects of logistics management practices on organizational performance. Research design is a blueprint for empirical research aimed at answering specific research questions by specifying the methods and procedures for collecting and analyzing the needed information (Kumar, 2014). Three different study design types were discussed by various writers. These three types of research are exploratory (which stresses the discovery of new ideas and insights), descriptive (which is focused with figuring out how frequently an event occurs), and explanatory (which is concerned with figuring out the links between causes and effects). According to Burns and Groove (2003:201), research is designed to provide a picture of a situation as it naturally happens. Both the descriptive and the explanatory aspects of the study were utilized by the researcher. While an explanatory study looks at the correlations between variables, a descriptive study lets the researcher explain the data and helps to understand the event that occurred. These two study strategies, according to Kothari (2004), may make it easier for research to be as effective as possible and provide the most information. The cross-sectional research design adopted became imperative because of the population characteristics and the representative nature of the sample of the population for the study. Therefore, this research design works to assess the effects of logistics management on logistics practices and its contribution to organizational performance based on the selected independent variables in terms of their efficiency and cost.

3.4 Population and Sample

3.4.1 Targeted Population

The target population for the study was all the NTE's logistics, production, transport, warehouse, marketing and sales, quality assurance, and manufacturing department practices in Addis Ababa and practices of raw materials production sites of the enterprise and logistics, with total population of 525 (from table 2 below). The total population of the study comprises all departmental practices related to logistics within the organization's head office, farm sites, and practices related to logistics.

Tbale 3. 1: The current total population of JTI (NTE) at the Head office level is 525.

S.No	List of Departments	Counts
1	Agronomy Operations	3
2	Anti-Illicit Trade (AIT) (Vertical)	1
3	Business Service	7
4	Clinic	6
5	Corporate Affairs & Communication	4
6	Corporate Security (Vertical)	43
7	EHS	4
8	Engineering	20
9	Factory Management	2
10	Finance	8
11	Finance management	2
12	Finance Planning and Analysis	2
13	Fleet	18
14	General Management	1
15	Global indirect Procurement (vertical)	7
16	General indirect tax (vertical)	1
17	GSC Finance	5
18	Internal Audit	3
19	IT (vertical)	4
20	LBS Department	6
21	Leaf Finance	5
22	Leaf Management	25
23	Legal and regulatory affairs (vertical)	3
24	Logistics	4
25	Make and Pack	135
26	Manufacturing Service Management	1
27	Marketing	3
28	Payroll	3
29	People and culture agile operation	3
30	People and culture management	1
31	People and culture market	1
32	People and culture GSC	1
33	People and culture Leaf	1
34	People and culture market personnel	4
35	Planning	4
36	Primary	41
37	Process Improvement	1
38	Quality	14
39	Sales	104
40	systems and Personnel Administration	2
41	Tax (Vertical)	1
42	Treasury (Vertical)	5
43	Warehouse Operations	16
	Total population	525

Table 3.1 Population according to their work (compiled by the researcher) Data Source NTE Human Resource Department.

3.4.2. Sample Size Determination (Sampling technique)

To determine or get a reasonable sample size the researcher prefers to use subject-based respondents based on a two-stage sampling technique, stratified purposive sampling method for selecting departments, and using purposive sampling, also known as judgmental, selective, or subjective sampling is a form of non-probability sampling technique for selecting respondents from departments. The target population from which researchers rely on their own judgment when choosing members of the population to participate in their surveys. The target population were departments related to Logistics (3), Business service departments (4), Operations or productions management (10), Materials management (6), Marketing or sales (6), Agile operation (2), Purchasing (5), Quality management(4) and Make & Pack(6) are among the selected departments (as strata) because these departments are expected to have a better understanding regarding the study area of concern. The total number of employees selected purposively interrelated to the study was 46. It means, organizing as a sample frame primarily divides as strata based on their work division that is more related to the study area, and from the strata the researcher tries to use purposive sampling refers to a group of non-probability sampling techniques in which units are selected because they have characteristics that the researcher needs in his sample. In other words, units are selected "on purpose" in purposive sampling.

3.5. Data Sources and Types

The sources of data are both primary and secondary data. The secondary data was gathered from relevant documents like periodic reports, internal and external communication documents, operating procedures and manuals, company bulletins, and websites. On the other hand, primary data was collected from the selected group, which was the result of structured questionnaires. The respondents who were selected from the related department to logistics purposely filled the questionnaire the source of primary data. The data was collected and organized in both qualitative and quantitative methods.

3.6. Data Collection Procedures

The methodical process used to compile measurements or observations for the study was known as a data collection procedure (Abdurazzokov 2023). Academics, governments, businesses, and other organizations use it in a variety of settings. Since the researcher uses qualitative and quantitative (mixing methods) methods, he can put findings in context and add richer detail to the conclusions by using qualitative data to illustrate what quantitative findings shortage and vice-versa. Using mixed methods, to collect data on the same subject

can make the result more credible. Also, the researcher can be more certain that his conclusions are correct and triangulate technically if the qualitative and quantitative facts are consistent Bhandari, P. (2022). The researcher has designed questionnaires that respondents easily understood as per the required approach. Following the well-designed questionnaires distributed to respondents, and collected with filled responses, the raw data will be categorized based on the research questions. Finally, the collected data were analyzed and meaningful findings were compiled and interpreted.

3.7. Validity and Reliability test

Validity assesses how accurate the research findings are or whether the research measures what it sets out to measure (Kumar, 2014). In this study, the researcher employed Cronbach's Alpha (with coefficient more than 75% could be acceptable) and evaluated the reliability and the services of an expert to assess content validity. The more consistently and accurately results reflect the whole population under research, the more dependable they are from a scientific standpoint. The results of a study can be reproduced under a similar methodology, then the research methods have considered reliable (Rushton, Croucher, and Baker, 2010).

*Tbale 3. 2***:.** *The internal consistency for each dimension*

	No of basic question	***Cronbach's alpha***
Transport Management Practice	5	.831
Inventory Management practice	5	.959
Warehouse Management Practice	5	.921
Supply Management Practice	5	.881
Distribution Management	5	.921
Organizational Performance	5	.826
Logistics management practices	6	0.80

Source: Researcher, 2023

3.8. Ethical Consideration

Research ethics refers to a set of guidelines on how to conduct and report research. This research was conducted with full knowledge and consents of the NTE, individual respondents, participants or the members of the study in the selected company. Thus, in this study, the researcher collected the necessary data ethically and follow the ethical standard and considerations of the Logistics and Supply Management Department and the University. Institutionally secured data like financial statements that are not required for the study

analysis were not used, and this in turn encouraged the firm's representatives to freely participate in responding to the questionnaires. Thus, the ethical considerations put forward have improved the respondents' confidence and the reliability and validity of this research.

3.9. Methods of Data Analysis and Presentation

This study used both quantitative and qualitative data collection methods and the data were analyzed accordingly. After collecting the essential data by using data collection tools, the processing stage of data analysis was followed. The researcher was following steps to address its objective: edit the data first, then code. Then the information/data gathered from participants have analyzed by classifying quantitative and qualitative approaches. The quantitative data will be analyzed by using percentages, frequencies, and the SPSS software among others to process and look at the effects of logistics practices in NTE, and for a qualitative part, relevant published documents were used to provide proper explanations, understanding, and interpretation of the enterprise. Furthermore, data presentation and interpretation tables were applied to show the collected data concisely and meaningfully. Then, the Interpretation of the data will be presented based on statistical findings.

CHAPTER FOUR

4.1. Data Analysis and Discussion

This section is concerned with analyzing and discussing data acquired from various groups of respondents via questionnaires. The questionnaires were created and distributed to employees of the Tobacco Manufacturing Factory. The information gathered from respondents is summarized in tables, and an analysis of the responses is provided. The data gathered from closed-ended questions was analyzed by calculating percentages and mean values. The open-ended questions and interviews are analyzed using paraphrases and narrations to enhance the data acquired from the questionnaire. Questionnaire papers were delivered to all groups of sampled respondents, a total of 46 people. All copies of the questionnaire papers were returned by all groups of respondents. This chapter comprises two major parts of data presentation, analysis, and interpretation. The first part consists of the demographic characteristics of the respondents. The second part illustrates data analysis and interpretation by tabulating and analyzing the information gathered from different groups of respondents. Demographic Characteristics of respondents.

This section presents general information about respondents. The general information collected was on Gender, education level, position, work experience and their work unit. Gender was assessed to understand the involvement of both genders in the study. The level of education was important to imply that the respondents were well educated and had the ability to understand and respond to the issues sought by the study. work experience was important to ensure aspects of familiarity and experience of the respondents in matters of logistics management practices and the last one shows the department of their work related to this study.

4.1 Demographic Characteristics of respondents

Table 4. 1:Demographic Characteristics of respondents

		Frequency	Percent
Gender	Male	40	87.0
	Female	6	13.0
	Total	46	100.0
Qualification	College Diploma	13	28.3
	Degree	2	4.3
	MA/MSC	31	67.4
	Total	46	100.0
Position	Manager or Director	11	23.9
	Team Leader	22	47.8
	Expert	6	13.0
	Others	7	15.2
	Total	46	100.0
Service year	1—5 years	27	58.7
	6 - 10 years	16	34.8
	Above 10 years	3	6.5
	Total	46	100

Source: Researcher, 2023

The study has 46 participants with a 100% response rate. Table 3 shows the demographics of the respondents. As a result, 40 (87%) and 6 (13%) of those polled were male and female respectively. According to the data, males out number females in the studied area. In terms of education, 13 (28.3%) held a diploma, 2 (4.3%) held a bachelor degree, and 31 (67.4%) held a second degree or above. This suggests that the respondents were educated enough to understand and reply to the study questions. In terms of respondents' service years, 27 (58.7%) were between 1 and 5 years, 16 (34.8%) were between 6 and 10 years, and 3 (6.5%) were above 10 years. In addition, 11 (23.3%) were managers/directors, 22 (47.8%) were team leaders, 6 (13%) were experts, and 7 (15.2%) held other positions.

4.2 Data Analysis and Presentation

As per the research proposal the data collection started in the end/beginning of June/2023 and ended in the first week. The researcher was the only one involved in the data collection along with three NTE staffs from factory and head office, who are familiar with the organization; voluntarily organize data collection process and provide me with the necessary documents relevant to the research. Survey notes and fair notes were arranged on daily basis and quantitative data are entered using applicable software of SPSS. The qualitative data collected are summarized based on the thematic categories of the data collection instruments prepared

The findings were compared and confirmed with those of previous studies on similar issues. The semi-structured interview responses compiled from the 46 questions presented to the interviewees were converted into five Likert scale categories: namely; strongly disagree, disagree, Moderate, agree, and strongly agree were employed to display their responses, and the statistical rounding technique was used to determine whether the mean value for the group indicates disagree, moderate, or agree. Since the goal of the study was to examine the logistics management practices, the respondents were asked to rate the state of distribution management, warehouse management, inventory management, transportation management, and supply management. To assess the current condition of logistics management practices, through a five-point Likert scale ; 1 was denoted by strongly disagree, and 2 = disagree, 3 = moderate, 4 = agree, and 5 = highly agree was employed. Means and standard deviations were used to analyze the data. The means observed were interpreted as follows: 1-1.49 = strongly disagree; 1.5-2.49 = disagree; 2.5-3.49 = moderate; 3.5-4.49 = agree; 4.5-5.0 = highly agree (Lady, 2016).

*Table 4. 2: Effects of **Transportation***

No	Item	N	Mean	Std. Deviation
1	NTE delivers its products to customers on the time	46	3.72	1.089
2	NTE has a flexible delivery schedule system to satisfy its external customer	46	3.61	1.043
3	NTE applies a fleet management controlling system (fuel consumption, checklists)	46	3.78	1.209
4	NTE is sensible in-vehicle route planning to control transport costs	46	3.65	1.079
5	NTE prepares schedules for vehicle inspection or maintenance	46	3.33	1.156
	Aggregated mean	46	3.26	1.144

Source: researcher 2023

As shown from the above table, an overall mean and standard deviation of (M=3.26, SD= 1.14) was recorded indicating that Transportation management. As revealed from the table, the statement that NTE delivers its products to customers on the time (M=3.72, SD=1.089), NTE has a flexible delivery schedule system to satisfy its external customer (M=3.65, SD=1.043), NTE applies a fleet management controlling system (fuel consumption, checklists) (M=3.61, SD= 1.209), NTE is sensible in-vehicle route planning to control transport costs (M=3.78, SD= 1.079), NTE prepares schedules for vehicle inspection or maintenance (M=3.33, SD=1.156). Indicating that above stated factors of transportation has determine the performance of organization.

Table 4. 3: Inventory Management

No	**Item**	N	Mean	Std. Deviation
1	The inventory management practices enable the firm to avoid bottlenecks in production	46	3.04	1.414
2	NTE keeps inventory investment at a minimum level	46	3.04	1.563
3	The firm uses the right inventory management technique (ABC analysis, etc.) to manage its inventory	46	2.78	1.632
4	NTE has automated its inventory recording system	46	3.20	1.376
5	NTE applies a demand-based replenishing system	46	3.07	1.436
	Aggregated mean	46	3.07	1.104

Source: researcher 2023

As shown from the above table, an overall mean and standard deviation of (M=3.07, SD= 1.104) which is leveled as moderate indicating that inventory management was occasionally practiced. As revealed from the table, the statement that, inventory management practices enable the firm to avoid bottlenecks in production with mean of (M= 3.04, SD= 1.414), NTE keeps inventory investment at a minimum level (M= 3.04, SD= 1.563), firm uses the right inventory management technique (ABC analysis, etc.) to manage its inventory (M= 2.78, SD= 1.632), NTE has automated its inventory recording system (M= 3.20, SD= 1.376), NTE applies a demand-based replenishing system (M= 3.07, SD= 1.436) showing it was occasionally practiced.

Table 4. 4: Warehouse management

No	Item	N	Mean	Std. Deviation
1	NTE's warehouse management system allows easy receipt/ issuing system	46	3.61	1.238
2	NTE labels and load the right product to the right vehicle	46	3.48	1.410
3	Products leave the warehouse with tight inspection for the customer	46	3.41	1.484
4	NTE's production center is close to the warehouse	46	3.57	1.167
5	NTE uses its storage space economically	46	3.52	1.188
	Aggregated mean	46	3.59	1.35

Source: researcher 2023

As shown from the above table, an overall mean and standard deviation of (M=3.59, SD= 1.35) was recorded indicating that warehouse management was occasionally practiced. As revealed from the table, the statement that, NTE's warehouse management system allows easy receipt/ issuing system (M= 3.61, SD= 1.238), NTE labels and load the right product to the right vehicle (M= 3.48, SD= 1.41). Products leave the warehouse with tight inspection for the customer (M= 3.41, SD= 1.48), NTE's production center is close to the warehouse (M=3.57, SD= 1.167), and NTE uses its storage space economically (M=3.52, SD= 1.18) were occasionally practiced respectively.

The findings from the above table agree with the literature review that was conducted in the second chapter of the study. According to Bagshaw (2017), inefficient warehouse management can lead to shipping delays, processing errors, and more complication that could negatively impact on the rate of customer satisfaction.

Table 4. 5: Supply Management

No	Item	N	Mean	Std. Deviation
1	NTE responds quickly to the Customers' needs	46	3.41	1.045
2	NTE has created a strategic relationship with suppliers	46	3.33	1.212
3	NTE measures customer satisfaction level.	46	3.28	1.294
4	NTE has a regular supplier performance evaluation system	46	3.65	1.100
5	NTE exercises a win-win negotiation with a supplier	46	3.39	1.145
	Aggregated mean	46	3.48	1.441

Source: researcher 2023

As shown from the above table, an overall mean and standard deviation of (M=3.48, SD= 1.44) was recorded indicating that supply management was occasionally practiced.

As revealed from the table, the statement that, NTE responds quickly to the Customers' needs (M= 3.41, SD= 1.045) followed by NTE has created a strategic relationship with suppliers (M= 3.33, SD= 1.212). NTE measures customer satisfaction level (M= 3.28, SD= 1.29), NTE has a regular supplier performance evaluation system (M=3.65, SD= 1.1), and NTE exercises a win-win negotiation with a supplier (M=3.39, SD= 1.145) were occasionally practiced respectively.

Table 4. 6:Distribution Management

No	**Item**	N	Mean	Std. Dv
1	NTE's products are delivered to customers in the right quantity to the right place at the right time	46	3.57	1.241
2	NTE uses easy and flexible customer order handling systems	46	3.48	1.260
3	NTE conducts regular customer satisfaction evaluation	46	3.46	1.345
4	NTE's products are adequately packed, so easy to load and unload during delivery	46	3.80	1.108
5	NTE ensures smooth information flow to all logistics functions at the right time	46	3.50	1.243
	Aggregated mean	46	3.63	1.356

Source: researcher 2023

As shown from the above table, an overall mean and standard deviation of (M=3.63, SD= 1.356) was recorded indicating that Distribution Management was occasionally practiced. As revealed from the table, the statement that NTE's products are delivered to customers in the right quantity to the right place at the right time (M= 3.48, SD= 1.26) , NTE uses easy and flexible customer order handling systems (M= 3.48, SD= 1.260). NTE conducts regular customer satisfaction evaluation (M= 3.46, SD= 1.345), NTE's products are adequately packed, so easy to load and unload during delivery (M=3.80, SD= 1.108), and NTE ensures smooth information flow to all logistics functions at the right time (M=3.50, SD= 1.243) were occasionally practiced respectively.

Table 4. 7:Organization performance

No	Item	N	Mean	Std. Deviation
1	NTE's market share has grown over the last three years	46	3.70	1.025
2	NTE's sales has grown over the last three years	46	3.41	.979
3	NTE's return on investment has grown over the last three years	46	3.61	.856
4	NTE's organizational profit has grown over the last three years	46	3.59	1.024
5	NTE's competitive positions has grown over the last three years	46	3.85	.868
	Profitability growth	46	3.70	1.025

As shown from the above table, an overall mean and standard deviation of (M=3.7, SD= 1.22) was recorded indicating that logistics management practices contributed to Organization performance. As evidenced from the table, the statement that NTE's market share has grown over the last three years (M= 3.7, SD= 1.025), NTE's return on investment has grown over the last three years (M= 3.41, SD= 0.979). NTE's sales has grown over the last three years with a mean of (M= 3.61, SD= 0.868). NTE's organizational profit has grown over the last three years with a mean of (M=3.59, SD= 1.024) and NTE's competitive positions has grown over the last three years with mean of (M=3.85, SD= 0.86) showing it was moderate extent.

4.2.1 Correlation Analysis

The sign of the correlation coefficient determines whether the correlation is positive or negative. The magnitude of the correlation coefficient determines the strength of the correlation. The strength of correlation can be described using the guide that Evans (1996) suggests for the absolute value of r as cited in (Beldjazia and Alatou, 2016). If "r = 0.00-0.19 - very weak, r= 0.20-0.39 - weak, r = 0.40-0.59 - moderate, r = 0.60-0.79 - strong and r = 0.80-1.0 - very strong".

Table 4. 8: Correlations Dependent and Independent variable

Correlations							
		Effect of transportation	Inventory mgt.	Warehouse mgt.	Supply mgt.	Distribution mgt	Org. performance
Transportation	Pearson Correlation	1	.814**	-0.043	0.098	0.135	0.264
	Sig. (2-tailed)		0	0.774	0.518	0.37	0.077
Inventory Management	Pearson Correlation	.814**	1	-0.189	-0.048	0.016	0.081
	Sig. (2-tailed)	0		0.208	0.751	0.914	0.594
Warehouse Management	Pearson Correlation	-0.043	-0.189	1	.750**	.796**	.696**
	Sig. (2-tailed)	0.774	0.208		0	0	0
Supply Management	Pearson Correlation	0.098	-0.048	.750**	1	.775**	.813**
	Sig. (2-tailed)	0.518	0.751	0		0	0
Distribution Management	Pearson Correlation	0.135	0.016	.796**	.775**	1	.773**
	Sig. (2-tailed)	0.37	0.914	0	0		0
Org. performance	Pearson Correlation	0.264	0.081	.696**	.813**	.773**	1
	Sig. (2-tailed)	0.077	0.594	0	0	0	

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

*. Correlation is significant at the 0.05 level (2-tailed).

Source: Researcher, 2023

The Pearson correlation the above table shows the organizational performance dependent variable predictor Transportation Management, Inventory Management, Warehouse Management, Supply Management and Distribution Management are. 0.264, 0.081, .696, .813 and .773 respectively this shows positively correlated and also P-value is less than alpha value showing statistical significance.

4.2.2 Regression Analysis

A multiple regression analysis was carried out to determine the influence of independent variables on the dependent variable. Multiple regression analysis was also used to determine the overall fit (variance explained) of the model and the relative contribution of each of the predictors to the total variance. According to Ballance (2004), the correct use of the multiple regression model requires that several critical assumptions be satisfied in order to apply the

model and establish validity. Inferences and generalizations about the theory are only valid if the assumptions in an analysis have been tested and fulfilled. Before carrying out multiple regression analysis, the researcher has checked the required assumptions that the data must meet to make the analysis reliable and valid. The following assumptions of multiple linear regression were tested using SPSS.

Table 4. 9: Model summary

Model Summary[b]									
					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.863[a]	.745	.713	.657	.745	23.404	5	40	.000
a. Predictors: (Constant), Distribution Management, Inventory Management, Supply Management, The effect of transportation, Warehouse Management									
b. Dependent Variable: Organization performance									

Source: Researcher, 2023

As stated in Table 4.9, the findings show the **model summary** tells us how much of the variance in our outcome variable is accounted for by our explanatory variable (that is how much variance does the simple linear regression model account for). The R Square column gives us this value, which is known as the coefficient of determination.

The r^2 values shows 0.713 (71.3%) of the variable of the dependent organizational performance is expected by the predictor variables - *Distribution Management, Inventory Management, Supply Management, Transportation Management and Warehouse Management* of logistics practices. The amount of unexpectedness of the dependent variables of distribution Management, inventory management, supply management, transportation management, warehouse management is 1-.713 w/c is 0.287; showing less than the cut point 0.5. dependent variable *of organizational performance* is explained by predictor variables of Distribution Management, Inventory Management, Supply Management, Transportation Management and Warehouse Management joint variability is fit the model given data. The adjusted R square measure has got a value of .713 which shows an increase in the adjusted R square compared to either one of these implies that the second added variable has increased the explained variance in organizational performance.

Table 4. 10: ANOVA table

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.483	5	10.097	23.404	.000[b]
	Residual	17.256	40	.431		
	Total	67.739	45			
a. Dependent Variable: Organization performance						
b. Predictors: (Constant), Distribution Management, Inventory Management, Supply Management, The effect of transportation, Warehouse Management						

Source: Researcher, 2023

The **ANOVA** table tells us whether or not our simple linear regression model is better at predicting the outcome variable than simply using the mean of the outcome variable. In this Table the impact between the independent and dependent variables follows the linear model; value F (5, 40) = 23.404, p = .000. p<with significance (0.000) which is lesser than the value (0.05), so the model is fit and satisfactory. The calculated value (F) indicates the suitability of the model for the regression test.

Table 4. 11: Coefficients table

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.413	.430		.960	.343	-.456	1.281
	Transportation Management	.272	.152	.253	1.792	.081	-.035	.578
	Inventory Management	-.098	.159	-.088	-.613	.543	-.420	.224
	Warehouse Management	.088	.134	.097	.656	.516	-.183	.358
	Supply Management	.422	.115	.495	3.654	.001	.188	.655
	Distribution Management	.252	.137	.279	1.836	.074	-.025	.530
a. Dependent Variable: Organization performance								

Source: Researcher, 2023

The **coefficients table** provides lots of information about the model.

The regression intercept takes value .413 while the regression slope for Organization performance, the slope for transportation takes value .272, also the slope of Inventory Management takes value of -.098 while the slope of Warehouse Management takes value of .088, the slope of Supply Management and Distribution Management takes the value of .422 and .252 respectively.

Generally to conclude the means, standard deviations, and inter correlations of variables significantly predicted the Organization performance, $F(5, 40) = 71.3$, $p = .000$. p<the alpha value, with all five variables significantly contributing to the prediction. The beta weights, presented in above Table, suggest that Distribution Management, Inventory Management, Supply Management, Transportation Management, and Warehouse Management contribute most to predicting the organization performance, and the adjusted R squared value was .713. This indicates that 71.3% of the variance in organization performance was explained by the model. According to Cohen (1988), this is a large effect.

The Model Summary provides the correlation coefficient and coefficient of determination (r2) for the regression model. As we have already seen a coefficient of .713 suggests there is a strong positive relationship between, suggest that Distribution Management, Inventory Management, Supply Management, Transportation Management, and Warehouse Management while r2 = 71.3% suggests that the variance in Organization performance can be explained by the exam.

The Coefficients table gives us every one standard mark increase in Organization performance (one tenth of a standard deviation) the model predicts an increase of Organization performance. Finally, the t-test in the second row tells us whether the variable is making a statistically significant contribution to the predictive.

CHAPTER FIVE

Summary of Findings, Conclusion and Recommendations

The study sought to establish the effect of logistics management practices on the organizational performance. The objectives of the study were to assess the effects of logistics management practices to examine the relationship between logistics management practices and organizational performance. This chapter provides the summary of findings with respect to the study objectives, conclusions and recommendations of the study as well as limitations and suggestions for future research.

5.1 Summary of Findings

The study made an effort to examine *the effect of supply management practices, inventory management practices, warehouse management practices, transportation management practices and distribution management practice on organizational performance*. The study also sought to identify the difficulties associated with current logistics management techniques. The study attempted to thoroughly examine key ideas in relation to the research goal in question. It includes a review of relevant literature on the development and history of logistics, logistics management techniques, logistics management difficulties, organizational performance, and reviews of the theoretical and empirical literatures relevant to the subject.

The National Tobacco Enterprise (NTE) was used as a case study to examine how logistics management practices affect organizational performance. A literature review on the idea of logistics management practice and organizational performance has been referred. The goals of the research findings were met using the explanatory and descriptive survey approach. As a result, an effort has been made to determine how logistics management practices effect organizational performance. The case-and-effect relationship was examined using inferential statistics (an independent t-test), frequency, mean, and standard deviation. This data study produced the following key conclusions: To achieve the goals of the study, the following fundamental questions were posed and answered:

1) To assess the effect of the distribution management system on organizational performance
2) To identify how supply management practices affect organizational performance
3) To investigate the effects of inventory management on organizational performance
4) To evaluate the effects of warehouse management on organizational performance

5) To examine the contribution of the transportation system to organizational performance.

A predetermined sample of employees were given questionnaires to complete to collect data for the study. Respondents were provided a total of 46 questions, and every single one of them was responded. The overall internal consistency test of research equipment was found to be in the "excellent" reliability range, with a Cronbach's alpha score of (=0.800).

The purpose of the study was to assess how logistics management practices affected organizational performance. An overall mean score was calculated for each independent variable (logistics management practices) by the descriptive statistical analysis.

The research found that warehouse management (M = 3.59, SD = 1.359) and distribution management (M = 3.63, SD = 1.356) were the two logistics practices that were relatively the most practiced.

In addition to warehouse management, supply management, transportation management, and inventory management were also practiced with mean and standard deviations of 3.48, 3.26, and 3.07, respectively. The study also found that, with an overall mean of M = 3.70 and SD = 1.227, logistics management practices contributed to organizational performance to a respectable amount.

The study also aimed to investigate the link between organizational performance and logistics management practices. To learn more about the relationships between the dependent (organizational performance) and independent variables (logistics management practices), Pearson correlation coefficients were calculated. The study found that each independent variable and the dependent variable have a positive and statistically significant association.

To ascertain if the independent variables would have an impact on the dependent variable, multiple regression analysis was utilized. The R square value from the regression model summary (R2 =.713) showed that logistics management practices (independent variables included in the model) can account for 71.3% of the variation in organizational performance. The dependent variable F (5, 40) = 23.404, p =.000, with significance (0.000), was statistically and significantly predicted by the independent factors, according to the results of the ANOVA test. The results of the regression study also showed that transportation management, inventory management, warehouse management, supply management, and

distribution management practices are statistically significant predictor factors of organizational performance. Despite considering literatures that highlights them as essential logistics management practices, the p-value for inventory management practices and transport management practices is greater than the alpha level of 0.05, indicating that they are not statistically significant in predicting organizational performance. This demonstrates that they are not properly addressed.

5.2 Conclusions

The study came to the following conclusions based on the results that were previously presented. According to the findings of the descriptive statistical research of the state of logistics management practices, transportation management, inventory management, warehouse management supply management, and distribution management were all used sporadically. Additionally, the study came to the conclusion that management practices for logistics had a major impact on performance. The study's findings about the connection between logistics management practices and organizational performance were that there is a positive and significant connection between the two. Furthermore, there is a high correlation between organizational success and all logistics management practices, such as supply management, inventory management, and distribution management. In terms of the predictive ability of independent variables, the study came to the following conclusion: the coordinated and systematically designed performance of transportation management, inventory management, warehouse management, supply management and distribution management practices predicted organizational success.

5.3. Recommendations

Based on the above findings stated above, the study; therefore, recommends the following. The findings of the study showed that systematically organized logistics management practices are not adhered occasionally. Moreover, the study confirmed that logistics management practices had strong positive relationship with organizational performance. Therefore, the study recommends to give priority and enhance the logistics management practices because if properly practiced, they can significantly improve its organizational performance as compared to the current position.

In addition, the study confirmed that logistics management practices namely transport management, inventory management, warehouse management, supply management and

distribution management significantly influence the organizational performance. The study therefore recommends to:

- Exercise anticipating and becoming more responsive to implement fleet control system, cost-effective and responsive transportation system. In addition, aligning distribution management to customer needs, creating interaction with customers and easing customer ordering system should be properly handled to benefit from the positive impact of customer service practices on organizational performance.
- Have inventory management strategy such as accurate inventory recording, periodic inventory counting, stock planning and optimal inventory utilization.
- Future research possibilities based on the findings from this study are exciting and involve investigating theoretical issues, investigating new conceptual questions, and executing new empirical studies. Employing inventory management techniques including precise inventory documentation, routine inventory counts, stock planning, and optimum inventory utilization are also necessary for smooth organizational performance.
- Exciting future research opportunities based on the study's findings include examining theoretical problems, looking into fresh conceptual concerns, and doing fresh empirical studies are highly necessary.

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Appendix I-Questionnaire

Addis Ababa University School of Commerce Department of Logistics and Supply Chain Management Questionnaire to be filled by Employees of NTE

Dear Participants/ respondent

This questionnaire is developed for an academic effort planned for the collection of data to conduct a thesis paper on the title : "The Effects of Logistics Management Practices on Organizational Performance in National Tobacco Enterprise (NTE) Ethiopia". The study is purely for academic purposes and thus does not affect any. All reactions will be kept secret and will not be traceable to the person/respondent. So, your honest-to-goodness, straight-to-the-point, and convenient reactions are crucial for the success of research. Subsequently, I ask you to reply to each point of the questionnaire genuinely.

Thank you Very much!!

Part I. General Information

1. Gender

A. Male B. Female

Grade 12 completed Certificate College diploma First Degree Second Degree above

2. Educational Qualification:

3. Job Title

CEO/President Vice President/deputy Director manager /manager Team leader Expert Other_____

Under 1 year 1−5 years 6−10 years over 10 years

4. Length of Service in the organization

5. Your department/work unit_____

Part II: Questions related to Logistics activity

Please read each statement carefully and show the extent of your agreement with the statements by putting a tick mark (√) in the boxes against each rating scale of choice. Show to what degree their impact is in your organization. The rating speaks to your level of assertion as takes after:**5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=Strongly Disagree**

Logistics Management Practices

Transportation Practices		1	2	3	4	5
1	NTE delivers its products to customers on the time					
2	NTE has a flexible delivery schedule system to satisfy its external customer					
3	NTE applies a fleet management controlling system (fuel consumption/ checklists)					
4	NTE is sensible in-vehicle route planning to control transport costs					
5	NTE prepares schedules for vehicle inspection or maintenance					

1. Please you are kindly requested to write your response as much as possible to the following open-ended question. Is any other effect of transportation management in your organization? List down them.

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Please read each statement carefully and show the extent of your agreement with the statements by putting a tick mark (√) in the boxes against each rating scale of choice. Indicate to what extent they affect your organization. The rating represents your level of agreement as follows:

5=Strongly agree 4= agree 3= Neutral 2= disagree 1= Strongly disagree

Inventory Management		1	2	3	4	5
1	The inventory management practices enable the firm to avoid bottlenecks in production					
2	NTE keeps inventory investment at a minimum level					
3	The firm uses the right inventory management technique (JIT, ABC analysis, etc.) to manage its inventory					
4	NTE has automated its inventory recording system					
5	NTE applies a demand-based replenishing system					

2. Please you are kindly requested to write your response as much as possible to the following open-ended question. Could you provide any suggestions on the effect of inventory management in your organization?

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Please read each statement carefully and show the extent of your agreement with the statements by putting a tick mark (√) in the boxes against each rating scale of choice. Indicate to what extent they affect your organization. The rating represents your level of agreement as follows: **5=strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=strongly Disagree**

Warehouse Management		1	2	3	4	5
1	NTE's warehouse management system allows easy receipt/ issuing system					
2	NTE labels and load the right product to the right vehicle					
3	Products leave the warehouse with tight inspection for the customer					
4	NTE's production center is close to the warehouse					
5	NTE uses its storage space economically					

3. Please you are kindly requested to write your response as much as possible to the following open-ended question. What do you think are the effects of a warehouse on your organizational performance?

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Please read each statement carefully and show the extent of your agreement with the statements by putting a tick mark (√) in the boxes against each rating scale of choice. Indicate to what extent they affect your organization. The rating represents your level of agreement as follows: **5=strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=strongly Disagree**

Supply Management		1	2	3	4	5
1	NTE responds quickly to the Customers' needs					
2	NTE has created a strategic relationship with suppliers					
3	NTE measures customer satisfaction level.					
4	NTE has a regular supplier performance evaluation system					
5	NTE exercises a win-win negotiation with a supplier					

4. Please you are kindly requested to write your response as much as possible to the following open-ended question. How do you evaluate the relationship between your organization and suppliers and their contribution to the performance of Your organization?

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Please read each statement carefully and show the extent of your agreement with the statements by putting a tick mark (√) in the boxes against each rating scale of choice. Indicate to what extent they affect your organization. The rating represents your level of agreement as follows: **5=strongly Agree, 4=Agree, 3=Neutral, 2=Disagree, 1=strongly Disagree**

Distribution Management		1	2	3	4	5
1	NTE's products are delivered to customers in the right quantity to the right place at the right time					
2	NTE uses easy and flexible customer order handling systems					
3	NTE conducts regular customer satisfaction evaluation					
4	NTE's products are adequately packed, so easy to load and unload during delivery					
5	NTE ensures smooth information flow to all logistics functions at the right time					

5. Please you are kindly requested to write your response as much as possible to the following open-ended question. Is there any suggestion you can raise for the effects of Distribution on organizational performance?

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Part III: organizational performance

Please tick the appropriate box that best indicates your organization's overall performance. The item scales are five-point Likert scales with 1 = Significant Decrease, 2 = Decrease, 3= same as before, 4=Increase, 5=Significantly increase

Organization performance	1	2	3	4	5
NTE's market share has grown over the last three years					
NTE's sales has grown over the last three years					
NTE's return on investment has grown over the last three years					
NTE's organizational profit has grown over the last three years					
NTE's competitive positions has grown over the last three years					

Please do not hesitate to add (If it is helpful) here anything you know about the five functions of Logistics Management

Thank you!

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.863[a]	.745	.713	.657	.745	23.404	5	40	.000	1.863

a. Predictors: (Constant), Distribution Management, Inventory Management, Supply Management, The effect of transportation, Warehouse Management

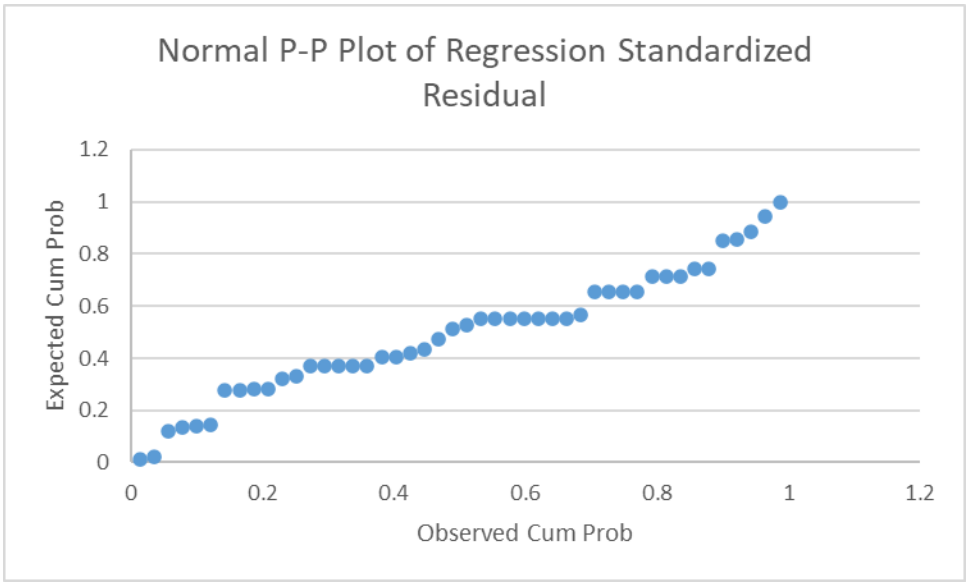
b. Dependent Variable: Organization performance

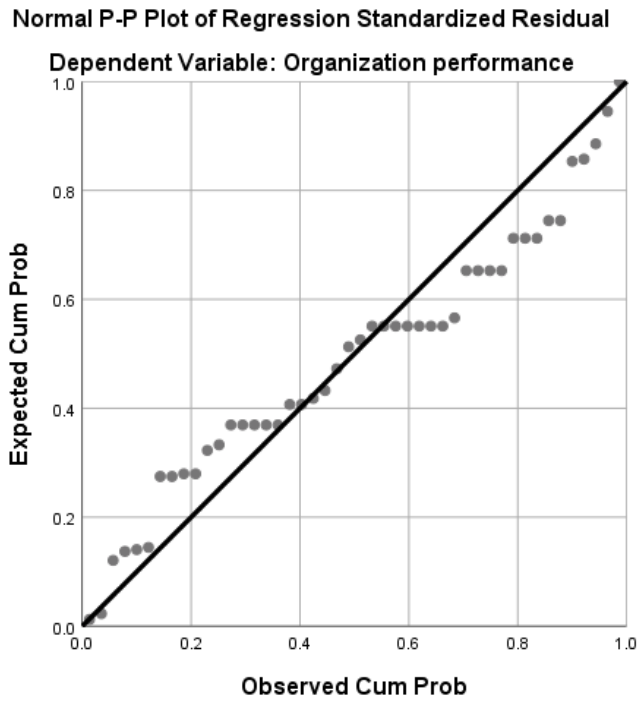
ANOVA[a]

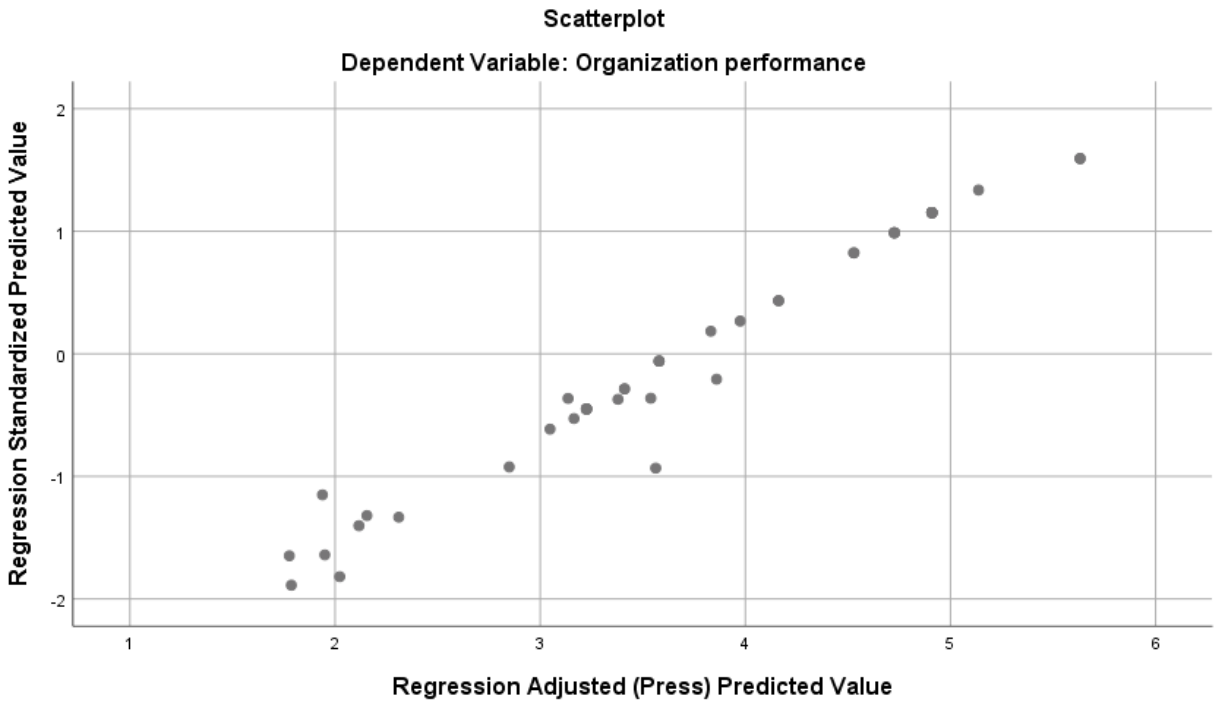
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	50.483	5	10.097	23.404	.000[b]
	Residual	17.256	40	.431		
	Total	67.739	45			

a. Dependent Variable: Organization performance

b. Predictors: (Constant), Distribution Management, Inventory Management, Supply Management, The effect of transportation, Warehouse Management


Normal P-P Plot of Regression Standardized Residual
Expected Cum Prob
Observed Cum Prob
0
0.2
0.4
0.6
0.8
1
1.2


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Organization performance
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0


Scatterplot
Dependent Variable: Organization performance
Regression Standardized Predicted Value
2
1
0
-1
-2
1
2
3
4
5
6
Regression Adjusted (Press) Predicted Value