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**Assessing the Relation between Logistics Performance and Organizational
Performance: Ethiopian Breweries Perspective**

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**A Thesis Submitted to Logistics and Supply Chain Management Presented in
Partial Fulfillment of the Requirements for Master of Arts Degree
in Logistics and Supply Chain Management**

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June, 2020

DECLARATION:

I, Dawit Berhane declare that this thesis is a result of my independent research work on the topic entitled “ Assessing the Relation between Logistics Performance and Organizational Performance: Ethiopian Breweries Perspective ” in partial fulfillment of the requirements for the Degree of Masters of Art in Logistics and Supply Chain Management at Addis Ababa University School of commerce. This work is original in nature and has not been presented for a degree in any other University. All the references are also duly acknowledged.

Dawit Berhane

Signature_____

Date _____

Confirmation

This is to certify that Dawit Berhane carried out this thesis on the topic entitled “Assessing the Relation between Logistics Performance and Organizational Performance: Ethiopian Breweries Perspective” under my supervision. Accordingly, I here assure that his work is appropriate and standard enough to be submitted for the partial fulfillment of the requirements for the Award of the Degree of Master of Art in Logistics and Supply Chain Management.

Advisor: Matiwos Ensermu (PhD)

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Date _____

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ABSTRACT

Efficient and effective logistics management has turned into a possibly valuable way of ensuring competitive advantage by improving organizational performances. This study designed to examine the relation between logistics performance and organizational performance in selected three Breweries in Ethiopia: BGI Ethiopia, Heineken and Habesha Breweries S. The data for the research study has been collected from 79 employees of the case companies. To solve the problem this research utilized descriptive research design and also quantitative approaches were used. Questionnaire have been administered to gather data for the study. Information that has been obtained through questionnaire has been analyzed by using frequency; percentile and the relationships proposed in the hypothesis were tested using Spearman rho correlation by SPSS 20.0 software version. The study finds logistics ineffectiveness in terms of transportation cost and logistics costs, hence from the result of the analysis it is concluded that there is positive relationship between logistics performance and organizational performance. In the End, it has been suggested and recommended to companies to seriously look into their logistics performance so as to achieve their organizational performance of sales growth and return on investment.

Keyword: *Logistics Performance, Organizational performance*

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ACRONYMS

BSC	Balanced Score Card
COGS	Cost of Goods Sold
CSCMP	Council of Supply Chain Management Professionals
SNNPR	Southern Nations, Nationalities, and People's Region
SPSS	Statistical Package for the Social Science

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In today's exceedingly competitive environment, numerous companies are planning to gain a share of global market and to require advantage of higher production and sourcing efficiencies. A key factor of business performance these days is the role of the “logistics function” in securing a smooth flow of materials, products and information throughout a company's supply chains (Smyth, 2004). Globalization and strong competition are among the factors which led executives begin to take into account the question of providing more efficient logistics services. These days, logistics is becoming more and more significant and is recognized as a key element in competitive advantage (Bowersox & Closs, 2010).The logistics operations process includes the inputting, storing, transporting and distributing of physical goods. The sophisticated and dynamic business environment, the demand for diversified markets need companies to participate in this global business contest (Yi 2012). With the challenges of global competition, business companies are more concentrated on customer requirements and discovering ways to minimize costs, improving quality, and meeting the rising expectations of their customers (Lai and Cheng 2009). In order to achieve this goal, a large number of business organizations have discovered logistics as the area for decreasing the costs and enhancing services efficiency (Lai and Cheng 2009). “Logistics is that part of the Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods services and related information from origin to end users in order to meet customers’ requirements”(CSCMP, 2007).

In the current environment of great corporate competition and an increasingly vibrant and globalized economy, businesses need to find processes and management techniques that allow the development of a more efficient company with better outcomes. This idea has been the topic of several studies, which concentrated their evaluation on determination of the different effects and the importance of each for companies 'competitive success (Stock et al., 2000; Bañón and Sanchez, 2002 and Norek et al., 2007).

Logistics are becoming more and more have an important role to play in day-to-day business, and starting to become a significant factor of distinction to be made in the market, as referred to by Bowersox et al. (2002) and Gunasekaran and Ngail (2003). Under the current competitive environment there is a strong pressure, on one hand, to function in product and service differentiation, and on other hand, work on the price element allowing its reduction. As Melnyk et al. (2009) mention, logistics can handle these facets, comprising a strategic or value-creation tool.

Therefore, logistics in intra-organizational and inter-organizational functions is a major activity within the companies, due to the fact that this plays a significant role in supply management, both internally and externally.

Various studies conducted by different authors, such as Ellinger et al. (2000), show that logistics is a strategic route in companies' and influences their performance, namely in terms of service quality and overall profitability. Side-by-side to the company's internal impact, logistics also influences effectiveness and profitability, as mentioned by Mentzer et al. (2001) and Fugate et al. (2010). The management of logistics activities has become a valuable way of ensuring competitive advantage and improving organizational performance (Li et al., 2006)

To enhance a company's logistics, like with any other business units, it is essential to be able to assess its performance. Many businesses have understood that supply chains need to be evaluated to become efficient and effective. Without measures and metrics, it is very difficult to establish a transparent direction for progress so that an organization could achieve its objectives. Effective performance measures and metrics are also required to test and evaluate different strategies (Gunasekaran, 2001).

Mentzer and Konrad (1991) well-defined logistics performance as effectiveness and efficiency in doing logistics activities. Longley and Holcomb (1992) widened his description by adding logistics differentiation as a key element of logistics performance due to the fact that the value customers receive from logistics also provides as an indication of logistics performance. They argued that logistics can create value through efficiency, effectiveness and differentiation.

Therefore, the researcher try to assess logistics performance of selected Breweries and how it related with organizational performance.

The Ethiopian brewery industry traces its origins back to 1922 with the establishment of the St. George brewery. At Present, the country produces about 7 million hectoliters of beer per year, a figure which is set to increase as acceptance for the beverage continues to rise.

Nowadays there are six main brewers that together own 12 breweries producing at least 24 different brands of beers. In today's global condition, international brewers possess strong presence in the country and engaged in the high levels of foreign investment in the sector. Although, in the last five years the entrance of small and locally led brewers into the industry has shifted the balance of foreign domination.

1.2 Background of the organization

In Ethiopia the first brewery was founded in 1922 and by 1996 there were six in the sector. In brewery industry, BGI, France's Castel group became the first private investment entered the market, building the seventh brewery and developing the first, St George Brewery, a year later. Today, BGI Ethiopia operates the biggest number of breweries, at four, and has a production capacity of 4.3 million hectoliters per year, giving it the second-largest market share.

Another foreign brewery called Heineken was the next foreign investment in the sector go into the market with two breweries in 2011 and become recently the second top beer producer in the country with a 5.6 million hectoliter a year capacities.

Diageo, one of the world's producer of beer as well as spirits enter into the market in 2012 by purchasing Meta Abo Brewery, which had been established in 1967, a capacity of producing from 350,000 hectoliter at Sebeta factory. In 2015 its production capacity increased into 1.7 million hectoliter annually.

Dashen founded in 2000; 2012 in a partnership with TIRET Group, a local endowment fund. and later joined with a 51% stake share with British Vasari Global and Duet Group operates two breweries with a 2.9 million hectoliters capacity. acquired in

In 2014, Raya Brewery was established and was purchased by BGI in 2018. In 2015 Habesha Brewery came up with 850,000 hectoliter production capacity, it is owned by a Duch brewing company Bavaria with 60% share together with 8,000 Ethiopian shareholders. In 2017, Zebidar begun brewing with 350,000 hectoliter capacity and purchased by BGI.

Locations

The 12 breweries are distributed across the roughly half of Ethiopia's administrative

regions and chartered cities. In Amhara there are four breweries, two in Addis Ababa. There are four in Amhara, two in the capital, Addis Ababa, as well as the regions of Oromia and (SNNPR), and one each in Harari and Tigray.

1.3 Statement of the Problem

In the literature, it's possible to acknowledge a considerable amount of work on the association between logistic performance and organizational performance, such as the work of Larson et al. (2007). Therefore, assessment of relation between logistics performance and organizational performance become crucial to seek out our feasible results on how logistics performance within the context of efficiency, effectiveness and differentiation related with organizational performance in selected breweries in Ethiopia. The underlying principles of supply chain management and logistics imply that, reducing costs and improving business performance (Fugate et al., 2010). The introduction, implementation and continuous improvement of the logistics management practice are key tools within the process of improving the efficiency and effectiveness of the operations and retaining the competitive advantage. Therefore, assessment of relation between logistics performance and organizational performance become crucial to seek out our workable results on how logistics performance within the context of efficiency, effectiveness and differentiation related with organizational performance in selected breweries in Ethiopia. Few studies in manufacturing companies in general and breweries in particular was conducted on the relation between logistics performance and organizational in the context of efficiency, quality and cost. This study , therefore came to fill the gap of logistics performance in the context of efficiency, effectiveness and differentiation.

1.4 Research Question

This research is specifically designed to answer the following research questions:

- What does the logistics performance of selected breweries in Ethiopia look like?
- How does logistics performance related with organizational?
- What are the major challenges of logistics performance of selected breweries in Ethiopia?

1.5 Research Objectives

This research has the following general and specific objectives.

1.5.1 General Objectives

The general objective of this study is to undertake assessment of the relation between logistics performance and organizational performance in case of Ethiopian brewery companies.

1.5.2 Specific Objectives

This study contains the following specific objectives:

- To identify the relationship between logistics performance and company's performance in case of Ethiopian brewery companies.
- To explain how logistics performance related with organizational performance of Ethiopian brewery companies
- To examine challenges of logistics performance in Ethiopian breweries
- To recommend findings based on analysis

1.6 Significance of the Study

The achievement of the precise supply chain partners may now depend upon the general success of the supply chain(s) during which the partners participate. The impact of overall supply chain at this global competition age become considered critically by manufacturing managers to make manufacturing, purchasing, selling and

logistics decision that ultimately satisfy customers better. Measuring supply chain performance become crucial to undertake organizational performance measurement. Theoretically, there is a proposition that indicates the success of supply chain will end in success at the organizational level. This study going to be used for the management bodies of brewing industry on improving their performance through appropriate and relevant logistics performance measures.

1.7 Scope of the Study

This study conducted the logistics performance in relation with organizational performance limited to the case of three brewery companies located in Addis Ababa. The topic of logistics limited to the Effectiveness, Efficiency and Differentiation of activities of logistics performance Fugate et al. (2010) and its relationship with organizational performances.

1.8 Limitation of the Study

The study mainly focused on logistics performance dimensions of Fugate which are called Efficiency, Effectiveness and Differentiation. within the literatures, there are other empirical models of logistics performance; The next model, that is generated by Aramyan et al. (2007), “examines the supply chain of agri-food products, based on efficiency, flexibility, responsiveness and food quality as determinants of logistic performance”. The latest available model, developed by Töyli et al (2008), evaluates logistics performance as dependent on the efficiency of logistics costs, quality of logistics services and logistics performance.

1.9 Definition of Terms

Logistics Performance: logistics performance is multidimensional and may be a function of the resources used in logistics, according to outlined objectives and outcomes against competitors. Throughout this context, the authors theorized that

analysis of logistics performance should be supported evaluation of a group of dimensions of the activities administered by the logistic function, which are namely, efficiency, effectiveness and differentiation.

Logistics Efficiency: The measure of how well the resources expended are utilized (Fugate et. al. 2010).

Logistics Effectiveness: the ability to realize pre-defined objectives, for instance, in meeting customer requirements in critical (e.g. product guarantee, in-stock availability, fulfillment time, convenience) (Langley and Holcomb, 1992)

Logistics Differentiation: Superiority in comparison to competitors (Fugate et.al. 2010).

1.10 Organization of the Study

The study is organized in five chapters. Chapter one dealt about background of the study, statement of the problem, objective of the study, significance of the study, scope, and limitation of the study. Chapter two focused on literature review which can emphasize on correlation between the prevailing studies, researches, reports, etc. which have been act as a basis for the propose study and was specific and up to the need of the propose study. Chapter three maintained about research methodology which can elaborate and identify all possible analysis bases on the available data. Chapter four examined data analysis and interpretation of the study and finally chapter five emphasized on conclusion and recommendations of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURES

The literature review describes the concept of logistics performance in accordance with logistics efficiency, effectiveness and differentiation and organizational performance in selected Ethiopian breweries. The source taken under consideration within the review includes books, websites, past article journals and former thesis

2.1 Basic Concepts and Definitions

2.1.1 Logistics

Logistics refers to the ongoing business process of managing procurement, smooth movement and storage of materials, parts and finished goods as well as information flow in the organization that will meet profitability align with cost effective order fulfilment (christopher1988).

Logistics is increasingly playing an important role in everyday business and becoming a significant factor of differentiation within the market, as referred to by Bowersox et al. (2002) and Gunasekaran and Ngail (2003). within the current competitive climate there's a robust pressure, on one hand, to work in product and service differentiation, and on other hand, operate on the price factor allowing its reduction. Logistics, therefore become a crucial business activity in inside and outside companies' activities.

In the literature, various empirical studies like Ellinger et al. (2000), demonstrates that "logistics is a key strategic direction that influences their performance, namely in terms of service quality and overall profitability". Apart from its organizational importance internally, Logistics affect profitability and effectiveness as per Mentzer et al. (2001) and Fugate et al. (2010). Managing logistics activities has also impact

competitive advantage and organizational performance (Li et al., 2006). Therefore, this paper undertake a theoretical approach to the relationship between logistical and organizational performance.

2.1.2 Logistics Performance

Logistics Performance At the logistical level, the importance of analyzing performance was to start with appeared within the work of Bowersox and Closs (1996), who detailed that measurement of logistics performance comprised of a technique for analyzing resources of the logistic work, and its primary targets were observing and control of the logistics operations. After this starting step, analysis of logistics performance has ended up an critical issue within the world of management science research, but in spite of this attention from researchers, there's small convergence both in terms of strategies and in terms of comes about for its validity.. As Robb et al. (2008) mention, since logistics deal with the physical, informational and cash flow administration, it's widely known as a key determinant of business performance, but methods particularly based on focusing performance analysis, are still at the phase of conducting studies by professionals and academics. In the literature, it's possible to spot a significant amount of work on the relationship between logistic performance and organizational performance, like the work of Larson et al. (2007) who has shown that the performance of logistics activities could influence organizational performance. Studies made by those authors on the relationship of logistics performance on organizational performance found that a big number of managers reflect that the perceived relationship between logistics with companies' performance based on customer service, better inventory levels and optimization costs. Other scholars, like Zhou and Benton (2007) examined the connection between logistics management practices and distribution performance regarding reliability of service, and concluded that practices associated with the

spread and the sharing of information have an immediate effect on performance. Also Green et al. (2008), came up with an approach of focusing the relationship between logistics activities practices and organizational performance in U.S large companies and reach on conclusion that logistics practices have a positive impact on organizational performance in terms of speed of delivery, responsiveness and flexibility of delivery as well suggesting its effect on marketing performance of sales growth and profitability. Roth et al. (2008) examined the experiences and performance results of a global businesses and reach on conclusion that information technology and logistics management contribute to increased sales and profitability. More precisely, “ information and communication technology improved sales and logistics management improved organizational profitability”. Chow et al. (1994), another scholar who specializes in examining the relationship between objectives, practices, skills and management performance within the supply chain, concluded that logistics practices influence logistics capabilities positively in terms of quality and repair, operation distribution and efficiency.

2.1.3 Logistics Efficiency

Efficiency considered as one of the most common measurement tools of organizational operations (Kallio, Sarrinen, Tinnila, and Vepsalainen, 2000) and is functional at several business levels, from specific processes measuring the performance of entire supply chains. Kiefer and Novack (1999) discuss logistics efficiency measurement within the context of warehouse measurement systems (providing parallels with the industry data presented later during this study). Kallio et al., 2000 investigates achievement of efficiency of businesses through varying delivery processes, that firms undertaking routine delivery processes should take place more value on efficient, low-cost operations than people who provide custom delivery processes to satisfy specific needs of the receiving party. Griffis et al. (2004

& 2007) further emphasize the necessity for firms to align performance measures to their specific goals and information reporting needs. A number of the identified articles include adoptions of Kaplan and Norton's famous Balanced Scorecard (BSC) approach to performance measurement. The BSC assists managers in obtaining balance between performance measures capturing the customer, innovation and learning, financial and internal business perspectives. In tune with the assertions of Griffis et al., (2007), the implementation of a BSC begins with a transparent definition of a firm's overall strategy to insure that, "Each measure ultimately incorporated into the scorecard emanates from a firm's strategic goals and subsequently drives the belief of these goals," (Brewer et. al., 2000, p.82). Brewer et. al., 2000 expands the Balanced Scorecard to include the goals of the general supply chain. for instance, within the customer perspective, the goal of providing customer view of timeliness is assessed by the measure relative customer order response time. The rapid change and risky environment of supply chains necessitates metrics that span across processes and across the supply chain (Barber, 2008). like Brewer et. al., 2000, Barber (2008) revises the BSC to measure multiple value adding areas of the whole supply chain, both tangible and intangible. Barber illustrates how the BSC are often wont to measure overall customer satisfaction and total value chain participant satisfaction. Efficiency is represented within the strategic management perspective along side effectiveness, growth, and environmental risk as intangible measurement areas reflective of total value chain participant satisfaction. Overall, these works communicate that efficiency measures should still be present throughout the decision-making levels of a corporation and will drive behaviors according to the firm's overall strategy.

2.1.4 Logistics Effectiveness

The reviewed literature provided eight samples of scholarly discourse associated with logistics effectiveness. Several of those articles incorporated efficiency measures also (Griffis et al., 2004; Griffis et. al., 2007; Brewer et. al., 2000; Barber et. al., 2008; Kiefer et. al., 1999) and were expanded upon within the previous section. Kiefer has come to the conclusion that firms that execute a supply chain strategy perceive their measurement system as being simpler than firms that don't implement a supply chain strategy. Though it had been the foremost dated article identified, Kiefer's work highlights the connection between measurement effectiveness and therefore the achievement of a supply chain orientation developed in additional recent research like efforts conducted by Brewer (2000) and Barber (2008). The adoption of supply chain metrics is identified as a fashion setting measurement area and is further expanded upon later during this paper. Defined broadly because the extent to which logistics function's goals are accomplished (Mentzer et. al., 1991), logistics effectiveness measures present themselves within each of the four BSC perspectives (Brewer et. al. 2000; Barber et. al., 2008). One such measure, incorporated within the financial perspective of the BSC, is that the cash-to cash cycle. Farris II and Hutchison (2002) crown cash-to-cash "The new supply chain metric," (p.288). Though numerous definitions exist, Farris II (2002) adopts this description of cash-to cash as "the average days required to show a dollar invested in staple into a dollar collected from a customer," (Stewart, 1995). C2C was included amongst other newly developed supply chain metrics as accurately describing a world class supply chain (Stewart et. al., 1995; Farris II et. al., 2002). C2C isn't only useful as an accounting measure but is additionally a valuable indicator of supply chain performance. this is often because C2C (characterized sometimes because the cash conversion cycle) spans across the four functional walls of individual firms to incorporate entire procurement,

fulfillment, and delivery processes. Included within the returned body of literature also, Farris and Hutchison (2003) further strengthens the case for the C2C concept as an ultimate measure of supply chain effectiveness while providing logistics managers with optimal ways of capturing the metric completely. Spanning across multiple firms, the inventory turnover curve is cited as being an accurate way of measuring inventory management performance of a supply chain (Ballou, 2000). The inventory turnover curve measures total network inventory as a function of the amount of points and annual stocking point throughput (2000). Its ability to be developed from readily available and accessible data and its representation of inventory management performance at multiple points within a supply chain validate the inventory turnover curve as a valuable supply chain effectiveness metric. The returned body of literature provided both quantitative and qualitative means of auditing logistics effectiveness and highlights its importance overall supply chain success.

2.1.5 Logistics Differentiation

Ten of the reviewed articles represented scholarly discourse of logistics differentiation focused metrics making differentiation the foremost represented measurement category within the literature sample. The body of logistics differentiation literature contains several characteristics in common with the logistics efficiency and effectiveness literature. Griffis (2004, 2007), Brewer (2000), Barber (2008), and Kiefer (1999) are all represented throughout the three measurement areas. In observance with meanings laid out by Fugate et. al., 2010, the bias between the measurement of differentiation and therefore the other measurement areas occurs when metrics are wont to compare one firm's or supply chain's performance thereto of a competitor firm or supply chain. Brewer (2000) and Barber(2008) provide multiple samples of differentiation measurement, again, within the framework of the balanced scorecard. Ballou (1999) discusses how an inventory turnover curve are

often went to gauge inventory management performance and minimization of associated costs against respective practices of competing firms, while Kiefer (1999) compares a firm's differential performance of warehouse management operations in relation with their level of supply chain management. A yet to be mentioned logistics differentiation area is one among an intangible nature. Nyaga and Whipple (2011) explore "The overall caliber of relationship ties and their overall impact on outcomes," (Palmatier, 2008, p.85; Nyaga and Whipple, 2011, p. 347). The advantages of relationship quality are numerous, intangible, and tangible. Relationship quality results in increased operational performance, improved market and financial performance, and increased customer loyalty in both B2C and B2B environments (Nyaga et. al., 2011; Autry, Skinner, and Lamb, 2008; Fynes and Voss, 2005; Fynes, Bu'rcá, and Magnan, 2008; Crosby, Evans, and Cowles, 1990; Auh and Shih, 2005). In analysis of both buyer and supplier samples, Nyaga and Whipple provide evidence that relationship quality positively contributes to supply chain operational performance.

Another article captured within the logistics differentiation section of this study further develops the supply chain management concept within the scope of LSP performance management practices. Forslund (2011) identifies the choice of performance variables together with the many obstacles logistics service providers face when attempting to adopt a supply chain scope. Specifically, Forslund identifies lack of understanding, failure to adopt effective performance metric definitions, and IT solutions that fail to satisfy performance reporting needs as obstacles experienced by the investigated LSPs. Forslund findings include that several of the empirically investigated LSPs report CO₂ emissions as an important performance variable. Green logistics performance metrics like this are identified and expanded upon within the

findings section of this study. Achievement of logistics differentiation is highlighted by Stapleton, Hanna, Tagla, Johnson, and Markussen (2002) through the strategic profit model. The authors identify five activities heavily influenced by a firm's logistics decisions that affect return on net worth. These contains increasing sales, reducing cost of products sold, reducing variable expenses, reducing inventories, and reducing accounts receivable. Application of the SPM to six firms within the volatile athletic footwear industry yields the conclusion that logistics (especially inventory and COGS) play a crucial role during a firm's financial performance. The finding that the best level of discourse focused on logistics differentiation is not surprising given the will of all kinds of organizations to differentiate themselves from competitors.

2.2 Empirical Review of Related Literatures

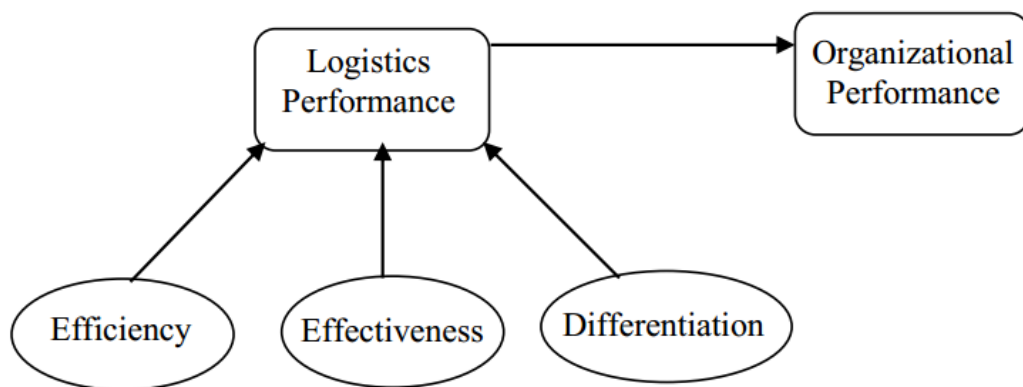
2.2.1 Logistics Performance Models

2.2.1.1 Logistics Performance: Dimensions of Fugate

Fugate et al. (2010) analyzed the relationship between logistics performance and organizational performance, stating that logistics performance is multidimensional and is a function of the resources used in logistics, according to outlined objectives and outcomes against competitors. In this context, the authors theorized that analysis of logistics performance should be based on evaluation of a set of dimensions of the activities carried out by the logistic function, which are namely, efficiency, effectiveness and differentiation, According to these authors, efficiency may be a dimension associated with the utilization of resources allocated to the logistic function, effectiveness can be defined as the extent to which objectives are achieved and differentiation is understood as the value that can be generated by the weather of customer service in reference to competitors. In the opinion of Fugate et al. (2010), the higher the standard of the joint work of human resource logistics, planning and implementation of solutions to customers' requests, the lower the level of

redundancies, conflicts and customer complaints, which increases efficiency levels due to responsiveness (less time), allows lower levels of waste and invested capital, and thus increases logistics efficiency and the likelihood of meeting deadlines. In this context, Fugate et al. (2010), in completing inquiry to research the interrelationships between the various variables of logistic performance and organizational dimension, outlined the subsequent conceptual model.

Figure 2.1. Logistics Performance: Dimensions of Fugate



Source: Fugate *et al.* (2010)

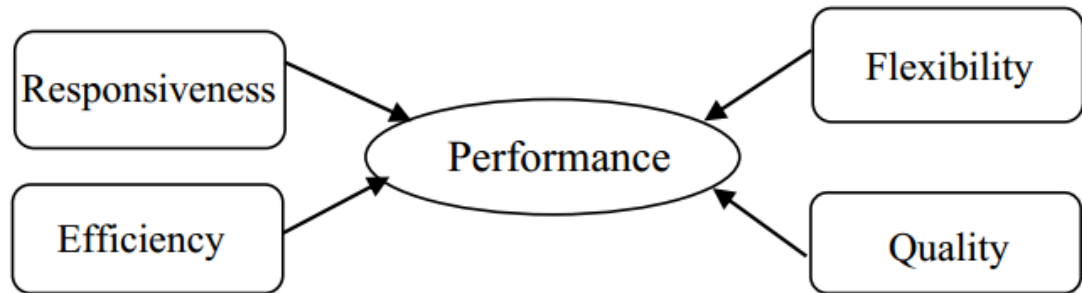
The conceptual design of the Fugate model consists of two levels of study. The central level, which represents the convergence of the model for analysis of the relation between logistics performance and organizational performance, where the authors seek to get the ultimate results of the investigation. And at a previous level, it examines variables that form the constructs of logistic performance. This model has been tested and validated with a number of randomly selected large companies. These authors' conclusions point to confirmation of a significant relationship between organizational performance and logistics performance.

2.2.1.2 Aramyán Approach

In order to know performance in the agri-food supply chain, Aramyán et al. (2007) developed a conceptual framework to analyze logistics performance. The Aramyán model is predicated on a literature review of the most methodologies for analyzing

performance and contains the precise features of an agri-food supply chain. The model structure is predicated on four categories of variables which, within the authors' opinion, collect specific information that industry. The model structure is as follows:

Figure 2.2. Logistics Performance: Aramyan Approach



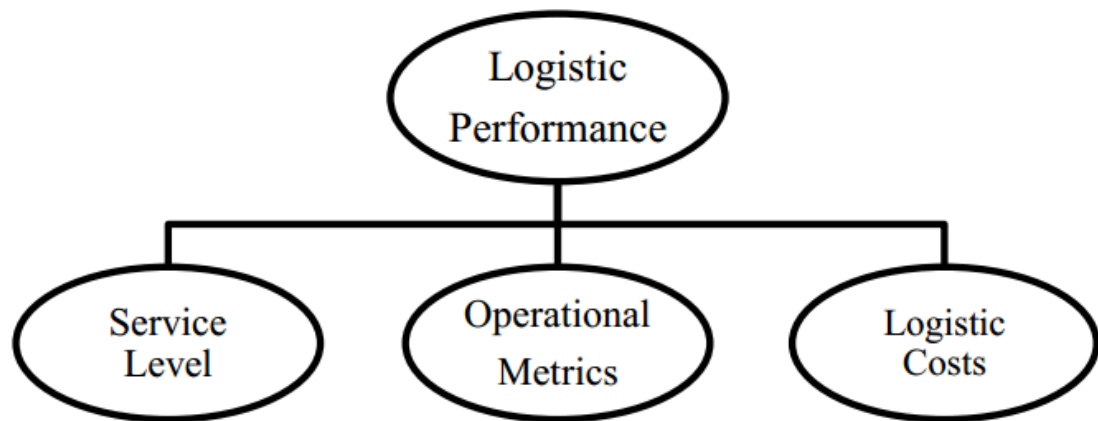
Source: Aramyan *et al.* (2007).

Based on these dimensions, Aramyan *et al.* (2007) theorized a conceptual framework for evaluation of logistics performance, which suggests dividing the analysis of logistics chain performance in four categories or clusters of indicators. The first category is, efficiency which, according to Lai *et al.* (2002), seeks to measure how resources are used. This category consists of a group of logistical process indicators, like distribution costs, transaction or possession of stock. The second category, flexibility, supported within the literature by Bowersox and Closs (1996) and Beamon (1998), indicates the ability of the Performance Measurement System to respond to changes in the environment and exceptional customer orders. The third category, called responsiveness, according to Pearson and Olhager (2002), helps to promote what the customer wants within the shortest amount of your time. Finally, quality, which is predicated on the framework by Lunning *et al.* (2002), represents the actual characteristics of the food supply chain, like time period and merchandise safety, among others.

2.2.1.3 Töyli Performance Approach

Another major approach is that of Töyli et al. (2008), who study the logistics performance of Finnish SMEs and analyze the relationship between this performance and company performance in financial terms. These authors concluded that high logistics performance is associated with efficient and consistent operations, involving overall cost efficiency and high productivity of fixed assets. The conceptualization of Töyli et al. (2008) arises due to the fact that, despite logistical performance and financial performance having been studied, their relationship constitutes a research gap, because it has not been subjected to empirical studies, especially within the field of SMEs. For these authors, this area is an exploratory field thanks to the consensus that good logistics performance has an impression on a company's results. It allows the reduction of costs, increased income and efficient use of investments in assets. An interesting argument relating logistics performance with financial performance is given when the authors mention that logistics performance will have a positive effect on share price within the capital market, thanks to the direct effects associated with optimizing costs and gross operating profit, as set by Christopher and Ryals (1999). According to Töyli et al. (2008), logistics performance is understood as a multidimensional construct, including cost efficiency, as outlined within the conclusions of some researchers, such as Beamon (1999) and Chow et al. (1994), service quality, mentioned by Fawcett and Cooper (1998) and operational performance metrics identified within the work of Gunasekaran et al. (2004) and Yusuf et al. (2004). The authors identify the subsequent dimensions of logistics performance:

Figure 2.3. Logistics Performance: Töyli's Approach



Source: Töyli *et al.* (2008)

Another major approach is that of Töyli *et al.* (2008), who study the logistics performance of Finnish SMEs and analyze the relationship between this performance and company performance in financial terms. These authors concluded that high logistics performance is associated with efficient and consistent operations, involving overall cost efficiency and high productivity of fixed assets. The conceptualization of Töyli *et al.* (2008) arises due to the fact that, despite logistical performance and financial performance having been studied, their relationship constitutes a research gap, because it has not been subjected to empirical studies, especially within the field of SMEs. For these authors, this area is an exploratory field thanks to the consensus that good logistics performance has an impression on a company's results. It allows the reduction of costs, increased income and efficient use of investments in assets. An interesting argument relating logistics performance with financial performance is given when the authors mention that logistics performance will have a positive effect on share price within the capital market, thanks to the direct effects associated with optimizing costs and gross operating profit, as set by Christopher and Ryals (1999). According to Töyli *et al.* (2008), logistics performance is understood as a multidimensional construct, including cost efficiency, as outlined within the

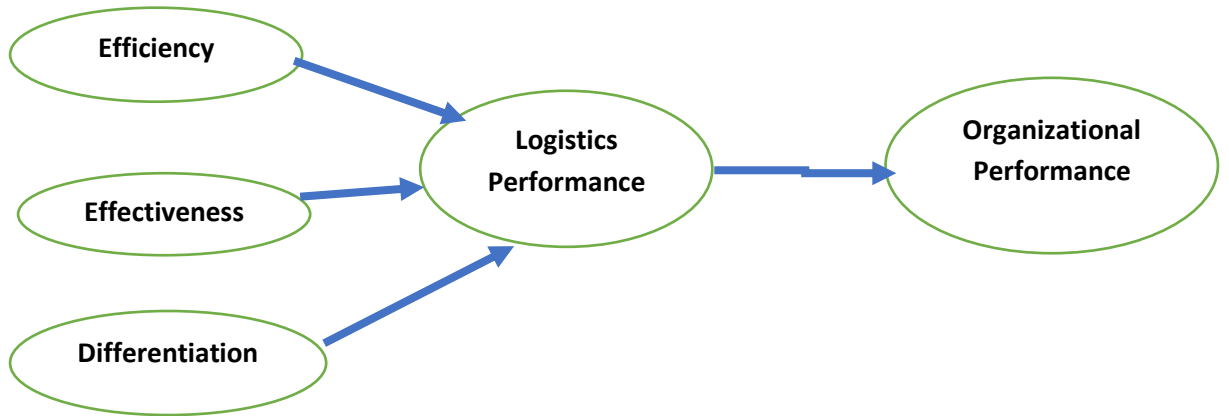
conclusions of some researchers, such as Beamon (1999) and Chow et al. (1994), service quality, mentioned by Fawcett and Cooper (1998) and operational performance metrics identified within the work of Gunasekaran et al. (2004) and Yusuf et al. (2004). The authors identify the subsequent dimensions of logistics performance:

2.3 Literature gaps identified

The logistics function has long been struggling to demonstrate its contribution to organizational performance (Rutner and Langley 2000). Consequently, research in logistics has examined the influence on organizational performance of high-performance logistics practice and capabilities. As an example, previous research has shown that excellence in performing logistics activities and capabilities is related to superior organizational performance (Lambert and Burduroglo 2000, Lynch, Keller, and Ozment 2000). Despite this evidence, doubt remains concerning the strength of the direct link between logistics performance and organizational performance. Further investigation is required, therefore, to know logistics performance and to strengthen the potential value of logistics within the organization. This paper undertakes assessment in Ethiopian breweries to analyze their logistics performance and organizational performance relationships.

2.4 Conceptual Framework

Figure 2.4 . Relation between Logistics Performance and Organizational Performance



CHAPTER THREE

RESEARCH METHODOLOGY

Study design is a plan of gathering and analyzing data in an economic, efficient, and relevant manner. It is a plan of organizing framework for doing the study and collecting the required data. (C.R Kotari, 2004). Different authors suggested the use of descriptive design (Orodho, 2004) argues that, to deliver information that is of interest to marketing professionals even for policy makers descriptive design is beneficial. This engaged collection of information by managing questionnaires and interviewing a sample of individuals.

3.1. Description of the research Area

Brewery industry in Ethiopia origins dated back to 1922 when St. George brewery established. Currently, the country reach a capacity of producing 7 million hectoliters of beer a year.

At present, in Ethiopia there are six breweries having around 12 factories which are namely

Heineken, Diageo, Dashen, BGI Ethiopia and Habesha breweries , United African Beverages producing at least 24 different brands of beers. Internationally well known brewery companies become interested in beer industry and involve by fully owned government brewery companies fully and partnering with Ethiopian investors.

These breweries are exist in different part of the country and major cities in Amhara, two in the capital, Addis Ababa, as well as the regions of Oromia and (SNNPR), and one each Tigray and Harari.

For this study, three breweries called Habesha Breweries S.C., Heinken and BGI was addressed.

3.2 Research Design

The most appropriate research design for this study found descriptive research since the researcher mainly focus on the relation between logistics performance and organizational performance in selected three Breweries in Ethiopia. The researcher collected quantitative data using self-administered questionnaires with five points Likert scale distributed personally to the subjects by the researcher to identify how logistics performance and organizational performance of the companies are related with.

3.3 Population

The total population size of this study were six (6) brewery companies which are operational at the moment in Ethiopia. Namely, brewery companies are: BGI Ethiopia, Heineken Brewery SC, Dashen Brewery S.C, Habesha Brewery S.C, Meta ABO Brewery S.C, and United African Beverages S.C.

In this study, non-random sampling technique was applied to select BGI Ethiopia , HEINEKEN Brewery S.C and Habesha Breweries S.C located in Addis Ababa as the case companies of this study for the reason that BGI Ethiopia and Heineken Breweries encompasses a huge production capacity 5.5 million and 4.2million hectoliter per year respectively. Habesha is an emerging brewery company with a capacity of 1 million hectoliter per year. All these breweries head offices located in Addis Ababa. In non-probability (also known as purposive sampling) sampling technique, the researcher determines as to which subject of the population to be included in the research study.

The target population were managers whose main responsibilities directly related with logistics, supply chain, warehouse, inventory, production, finance, marketing, buying categories, foreign purchase, procurement, brewery operations, technical and packaging. The major reason for using these professionals is the fact that these people are directly or indirectly engaged in their companies' logistics activities which the research uses census.

3.4 Sample Size

The population of this study involve 79 employees who are at managerial position in all three breweries engaged mainly logistics operation.

3.5 Data Sources and Types

The study was conducted using both primary and secondary data sources. The primary data were collected directly from respondents. The questionnaires were designed based on the conceptual framework and research question to analyze how logistics performance related with organizational performance. For quantitative data, respondents were asked on Logistics efficiency (range: Strongly disagree – Strongly agree), Logistics Efficiency (range: Strongly disagree – Strongly agree), organizational performance (range: Strongly disagree – Strongly agree)., Logistics differentiation (range: Strongly disagree – Strongly agree).

3.6 Validity and Reliability

3.6.1 Validity

Validity is the highly important benchmark and shows the extent to which the instrument measures what it is supposed to measure while reliability has something to do with the precision and the accuracy of a measuring procedure. Measuring instrument is reliable if it provides consistent results. As multiple items in all constructs were used, the internal consistency/reliabilities of logistics performance

and organizational performance were assessed with Cronbach's Alpha and the reliability values for all constructs are confirmed as greater than 0.7, which are considered ideal (Pallant 2005). The following table shows the summary of reliabilities of all constructs.

According to Kothari (2004), the respondents, the situations, the interviewer, and the data collection instrument can be sources of error in research. Error may arise because of the defective measuring instrument (E.g. questionnaire in this study). The use of complex words, beyond the comprehension of the respondents, ambiguous meanings, poor printing, inadequate space for replies, response choice omissions, etc. are some of the things that make the measuring instrument defective and may result in research measurement errors.

Validity is concerned with two main issues: whether the instruments used for measurement are accurate and whether they are measuring what they want to measure. The two different dimensions to the concept of validity (Winter, 2000) are: internal and external validity. Internal validity ensures that the researcher investigates what s/he claims to be investigating. Internal validity is the extent to which the measurements of the questionnaire provides the data needed to meet the purpose of the study or validity refers to the extent to which the questionnaire measures what the researcher intends to measure to ensure internal validity. External validity concerned with the extent to which the research findings can be generalized to wider population.

Therefore, the researcher believes that the data collection tool measured what as it is planned to measure. This means, internal validity is achieved. As this study is a multiple case study whose findings cannot be inferred for the total population. Therefore, external validity is the common gap in case studies.

3.6.2 Reliability

Reliability test is another important test of measurement tool in research. A measuring instrument (questionnaire) is reliable if it provides consistent results. A reliable data collection questionnaire provides consistent result with repeated measurements of the same subject of the study and with the same instrument. This reliability can be tested by comparing the results of repeated measurements. Reliability is the degree of consistency with which an instrument measures the constructs it is designed to measure. Reliability is known as to what extent the research findings can be replicated, if another study is undertaken using the same research methods (Ritchie and Lewis, 2003). This means the measure (data collection tools) should provide the same answer on another occasion or similar result should be obtained by another researcher using the same measuring instrument (Saunders et. al., 2007). There are four treats for reliability including participant error, participant bias (may not tell the truth for fear of top managements), interviewer error (when different people undertake the interview), and researcher's bias during interpretation (Robson, 2002).

During data collection for this study, the researcher officially requested with support letters from the Addis Ababa University School of Commerce to the aforementioned case companies for data collection for the respondents to have convenient condition and 20 minutes to respond to the questionnaires. Therefore, the researcher believed that the respondents' error and bias is minimal to affect the reliability of the findings. The researcher's error and bias did not affect the reliability of the study due to the fact that the data collection instrument is a well-structured and self-administrated questionnaire and the data was analyzed objectively using statistical tools (SPSS). Besides, the researcher conducted a pilot test by collecting data from sample four respondents from the case brewery companies and reliability

test has been done using SPSS. Cronbach's alpha coefficient is a measure of internal consistency. It is considered to be a measure of scale reliability. Technically speaking, Cronbach's alpha is not a statistical test - it is a coefficient of reliability (or consistency).

According to George and Mallery (2003), Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer Cronbach's alpha coefficient to 1.0 the greater the internal consistency of the items in the scale. George and Mallery (2003) suggested that Cronbach's alpha coefficient greater than 0.70 is acceptable. Accordingly, a pilot test of the internal consistency (reliability) of the data collection instrument for all the variables was conducted on four respondents that did not participated in the case study research and the test results are depicted below.

Table 3.1 Reliability Statistics

Cronbach's Alpha	N of Items
.851	29

3.7 Data Collection Procedures

Questionnaires and structured formal interview was designed and used along with the course of field visits.

3.8 Ethical Consideration

Ethical clearance is obtained from Research Ethical Review Board of Addis Ababa University, School of Commerce, Department of Logistics and Supply Chain Management to conduct this research study. In undertaking any research, there is an ethical responsibility to do the work honestly and with integrity (Adams et al, 2007:35). In light of this view, all participants and Primary stakeholders of the

research was informed and the researcher treated any information from any individual confidentially without disclosing the respondent's identity.

Data from potential respondents was collected after their consent was obtained. Also the researcher have been open mind as possible and express opinions as they are given. The literatures consult in this study has acknowledged appropriately. Furthermore, data collectors were given due attention for requesting the will of each actors to be treated as respondents of the study. The survey questionnaire instrument were reduced the researcher's bias and avoided sensitive and leading questions while at the same time circumvents issues that may offend the research participants.

3.9 Data Analysis

In the process of analyzing the data, the key variables for analysis was identified. The quantitative data were scrutinized, summarized, verified, edited and arranged properly. The data were summarized on the data summary sheet and followed by data editing, coding, verification and encoding into the computer. The overall levels of respond was examined from various angles. The data analyzed with the appropriate statistical tools SPSS (Statistical Package for Social Sciences) version 20 to understand and summarize the data collected on logistics performance in terms of logistics effectiveness, logistics efficiency and logistics differentiation in relation with organizational performance in terms of market share and profitability and further compute their descriptive statistics like frequencies, percentage, mean and standard deviation. Therefore, the summary statistics were represented by tabular form or graphically. In addition, correlation analysis was conducted to measure the strength of the association between independent and dependent variables. Also, content analysis was conducted on information collected through structured interview with

respondents of managers in logistics, supply chain, import, finance and sales departments.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

As explained in the preceding chapter, this research tried to assess the relation between logistics performance and organizational performance in the case of three Breweries in Ethiopia. Hence, the discoveries of the research are being introduced and discussed in this chapter. The questionnaire were established in five Likert scale ranging from one to five; where 5 represents Strongly agree, 4 agree, 3 Undecided, 2 disagree, and 1 strongly disagrees. In order to evaluate the relationship between logistics performance and organizational performance, Correlation analysis was carried out for scale typed questionnaire. A total of 85 questionnaires were distributed to employees and 79 (92.9%) questionnaire were received valid and used for analysis. The collected data were presented and analyzed using SPSS (version 20) statistical software. The research used correlation analysis, specifically Spearman Rank correlation to measure the degree of association between different variables under consideration.

4.2 Profile of respondents in Breweries

Table 4.1 Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B.A/B.SC	50	63.3	63.3	63.3
	MA/MBA/MSc&above	29	36.7	36.7	100.0
	Total	79	100.0	100.0	

Source: SPSS

Table 4.2 Respondents Position

Respondent position			
		Frequency	Percent
Valid	Brewery Manager	5	6.3
	Category Manager	20	25.3
	Deputy Production Manager	2	2.5
	Finance Manager	4	5.1
	Foreign purchase Manager	2	2.5
	Inventory Manager	4	5.1
	Logistics Manager	5	6.3
	Marketing Manager	4	5.1
	Operation Manager	2	2.5
	Packaging Manager	4	5.1
	Procurement & Logistics M	4	5.1
	Quality assurance Manager	4	5.1
	Technical Manager	12	15.2
	Warehouse Manager	7	8.9
	Total	79	100.0

Source: SPSS

Table 4.3 Respondents' Work Experience

Work experience			
		Frequency	Percent
Valid	5-10 years	28	35.4
	Above 10 years	51	64.6
	Total	79	100.0

Source: SPSS

The analysis of respondents' profile based on Education level, position, and work experience of above table 4.1, 4.2, 4.3 shown below:

Education Level: the total number of respondents is 79. These tables illustrate that there are 50 (63.3%) of the respondents have B.A/B. SC Degree and 29 (36.7%) have second degree holders. The educational background of respondents shows that expertise knowledge required to collect relevant information suited with the questionnaires distributed purposely.

Position: from the total number of respondents, all are on managerial position engaged in 14 different positions which are relevant to provide required information fit with the questionnaires.

Work experience: from the total number of respondents, 51(64.6%) of them have more than 10 years' experience and 28 (35.4%) of them have 5-10 year's work experience that shows the majority of respondents at managerial position have ample experience engaged in companies' various responsibilities that provide reliable information to the subject matter.

Table 4.4 Breweries Operation in Ethiopia

Operation in Ethiopia			
		Frequency	Percent
Valid	1-5 years	17	21.5
	15-20 years	23	29.1
	More than 20 years	39	49.4
	Total	79	100.0

Source: SPSS

Table 4.4 illustrates that one brewery company operating in Ethiopia engaged in beer industry more than 20 years, another one operated 15-20 years, and the last but the least operated 1-5 years. According to the data, these companies operating in Ethiopia and engaged in logistics for long period of time that shows, information received from these companies become more reliable.

Table 4.5 Number of Employee

Numbers of Employee			
		Frequency	Percent
Valid	250-500	17	21.5
	morethan 500	62	78.5
	Total	79	100.0

Source: SPSS

Table 4.5 explains that brewery companies are part of industries which hired employee at from 250 people at least and more than 500 employees as well.

4.3 Quantitative Data Analysis

Table 4.6 Summary of results logistics performance

Item. 1. Our overall logistics performance is well above industry average			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	56	70.9
	Strongly Agree	18	22.8
	Total	79	100.0
Item. 2. In general, our logistics performance is excellent			
		Frequency	Percent
Valid	Undecided	1	1.3
	Agree	59	74.7
	Strongly Agree	19	24.1
	Total	79	100.0
Item. 3. We are outstanding at performing our logistics activities			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	53	67.1
	Strongly Agree	21	26.6
	Total	79	100.0

Source: SPSS

On item 1, respondents were requested their level of agreement on their companies' overall logistics performance whether it is above industry average. Out of 79 respondents, 56 (70.9%) of them agree that overall logistics performance is well above industry average, 18(22.8%) strongly agree that overall logistics performance is well above industry average, 5(6.3%) undecided that overall logistics performance is well above industry average.

On item 2, respondents were asked their level of agreement on their companies' logistics performance whether it is excellent. Out of 79 respondents, 59 (74.7%) agree, 19 (24.1%) strongly agree, 1 (1.3%) undecided.

On item 3, respondents requested about their company's logistics activities whether they are performing outstanding. 53 (67.1%) agree, 21(26.6%) strongly agree,5(6.3%) undecided.

Table 4.7 Summary of results Logistics differentiation

Item. 1. Damage Free Deliveries			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	55	69.6
	Strongly Agree	19	24.1
	Total	79	100.0
Item.2. Finished Goods Inventory			
		Frequency	Percent
Valid	Undecided	1	1.3
	Agree	60	75.9
	Strongly Agree	18	22.8
	Total	79	100.0
Item.3. Forecasting Accuracy			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	52	65.8
	Strongly Agree	22	27.8
	Total	79	100.0
Item.4. Line item fill rate			
		Frequency	Percent
Valid	Disagree	2	2.5
	Undecided	5	6.3
	Agree	50	63.3
	Strongly Agree	22	27.8
	Total	79	100.0
Item. 5. Time between Order Receipt and Delivery			
		Frequency	Percent
Valid	Disagree	2	2.5
	Undecided	2	2.5
	Agree	53	67.1
	Strongly Agree	22	27.8
	Total	79	100.0
Item. 6. Time on Backorder			
		Frequency	Percent
Valid	Disagree	1	1.3
	Undecided	3	3.8
	Agree	55	69.6
	Strongly Agree	20	25.3
	Total	79	100.0
Item. 7. Total Inventory Turns			
		Frequency	Percent
Valid	Undecided	2	2.5
	Agree	53	67.1
	Strongly Agree	24	30.4
	Total	79	100.0
Item. 8 . On-time delivery			
		Frequency	Percent
Valid	Undecided	4	5.1
	Agree	48	60.8
	Strongly Agree	27	34.2
	Total	79	100.0

Source: SPSS

This suggests that majority of respondents agree that their company's logistics performance shows excellent.

On item 1, respondents were requested whether there is damage free deliveries in comparison to their major competitors is much better. 55(69.6%) agree, 19 (24.1%) strongly agree, 5(6.3%) undecided.

On item 2, respondents were asked their companies' finished goods inventory in comparison to their major competitors is much better. 60 (75.9%) agree, 18 (22.8%) strongly agree and 1 (1.3%) undecided.

On item 3, respondents were asked their companies forecasting accuracy in comparison to their major competitors is much better. 52 (65.8%) agree, 22(27.8%) strongly agree, 5 (6.3%) undecided.

On item 4, respondents were asked about their companies line item fill rate much better than their major competitors. 50 (63.3%) agree, 22(27.8%) strongly agree, 5 (6.3%) undecided and 2 (2.5%) disagree.

On item 5, respondents were asked about their companies' order receipt and delivery time much better in comparison to their major competitors. 53(67.1%) agree, 22(27.8%) strongly agree, 2 (2.5%) undecided and 2 (2.5%) disagree.

On item 6, respondents asked about their companies' backorder time much better than their major competitors. 55 (69.6%) agree, 20 (25.3%) strongly agree, 3 (3.8%) undecided, 1 (1.3%) disagree.

On item 7, respondents asked about their companies' total inventory turns much better than their competitors. 53(67.1%) agree, 24 (30.4%) strongly agree, 2 (2.5%) undecided.

On item 8, respondents were requested whether their companies are in a position of on – time delivery in comparison to their major competitors. 48 (60.8%) agree, 27 (34.2%) strongly agree, 4 (5.1%) undecided.

This indicates that majority of respondents believe that their companies’ logistics differentiation is excellent in comparison to their major competitors.

Table 4.8 Summary of results Logistics Efficiency

Item. 1. Percent of Orders Shipped to Customers from the Primary Location Designated to Serve Those Customers			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	55	69.6
	Strongly Agree	19	24.1
	Total	79	100.0
Item. 2. Line Item Fill Rate (Percentage of order items the picking operation actually found)			
		Frequency	Percent
Valid	Undecided	1	1.3
	Agree	60	75.9
	Strongly Agree	18	22.8
	Total	79	100.0
Item. 3. Percent of Orders Shipped on Time			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	52	65.8
	Strongly Agree	22	27.8
	Total	79	100.0
Item. 4. Percent of Shipments Requiring Expediting			
		Frequency	Percent
Valid	Disagree	2	2.5
	Undecided	5	6.3
	Agree	50	63.3
	Strongly Agree	22	27.8
	Total	79	100.0
Item. 5. Inventory Turns per Year			
		Frequency	Percent
Valid	Disagree	2	2.5
	Undecided	2	2.5
	Agree	53	67.1
	Strongly Agree	22	27.8
	Total	79	100.0
Item. 6. Average Order Cycle Time (Time in days between order receipt and Order Delivery)			
		Frequency	Percent
Valid	Disagree	1	1.3
	Undecided	3	3.8
	Agree	55	69.6
	Strongly Agree	20	25.3
	Total	79	100.0

Source: SPSS

On item 1, respondents were asked about percent of orders shipped to customers from the primary location designated to serve those customers for the previous fiscal year was excellent. 55 (69.6%) agree, 19 (24.1%) strongly agree, 5 (6.3%) disagree.

On item 2, respondents were requested line item fill rate for the previous fiscal year of their companies were excellent. 60(75.9%) agree, 18 (22.8%) strongly agree, 1 (1.3%) undecided.

On item 3, respondents were asked about their companies' percent of orders shipped on time for the previous fiscal year were excellent. 52 (65.8%) agree, 22 (27.8%) strongly agree, 5 (6.3%) undecided.

On item 4, respondents were asked about their companies' percent of shipments requiring expediting were excellent for the previous fiscal year. 50(63.3%) agree, 22 (27.8%) strongly agree, 5(6.3%) undecided and 2 (2.5%) disagree.

On item 5, respondents were requested their companies inventory turns whether in an excellent position for the previous fiscal year. 53(67.1%) agree, 22 (27.8%) strongly agree, 2(2.5%) undecided and 2 (2.5%) disagree.

On item 6, respondents were asked about their companies' average order cycle time for the previous fiscal year whether its in excellent position. 55(69.6%) agree, 20 (25.3%) strongly agree, 3 (3.8%) undecided and 1(1.3%) disagree.

The above results about logistics efficiency shows that majority of respondents agree on their companies' logistics efficiency for the previous fiscal year was excellent.

Table 4.9 Summary of results Logistics Effectiveness

Item. 1. Sales (ETB)			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	55	69.6
	Strongly Agree	19	24.1
	Total	79	100.0
Item. 2. Transportation Cost			
		Frequency	Percent
Valid	Strongly Disagree	1	1.3
	Disagree	44	55.7
	Undecided	3	3.8
	Agree	31	39.2
	Total	79	100.0
Item. 4. Warehousing Cost			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	52	65.8
	Strongly Agree	22	27.8
	Total	79	100.0
Item. 5. Inventory Cost			
		Frequency	Percent
Valid	Disagree	24	30.4
	Undecided	6	7.6
	Agree	38	48.1
	Strongly Agree	11	13.9
	Total	79	100.0
Item. 6. Total Logistics Cost			
		Frequency	Percent
Valid	Disagree	48	60.8
	Undecided	3	3.8
	Agree	28	35.4
	Total	79	100.0

Source: SPSS

On item 1, respondents were requested their level of agreement of their business unit's sales as much better for actual performance compared to budgeted performance based on previous fiscal year results. 55(69.6%) agree, 19 (24.1%) strongly agree, 5(6.3%) undecided.

On item 2, respondents were requested their level of agreement of their business units transportation cost much better for the actual performance compared to budgeted performance based on fiscal year results. 44(55.7%) disagree, 31(39.2%) agree, 3(3.8%) undecided and 1(1.3%).

On item 3, respondents were asked their level of agreement of their business warehousing cost much better for the actual performance compared to budgeted performance based on fiscal year results. 52(65.8) agree, 22(27.8%) strongly agree, 5(6.3%) undecided.

On item 4, respondents were asked their level of agreement of their business inventory cost much better for the actual performance compared to budget performance based on fiscal year results. 38 (48%) agree, 24(30.4%) disagree, 6 (7.6%) undecided.

On item 5, respondents were asked their level of agreement of their business total logistics cost much better for the actual performance compared to budgeted performance based on fiscal year results. 48 (60.8.%) disagree, 28 (35.4%) agree, 3 (3.8%) undecided

These results show majority of respondents disagree on their companies' logistics effectiveness in line with transportation costs and total logistics cost some what worse for the actual performance compared to budgeted performance based on fiscal year results.

Table 4.10 Summary results Organizational Performance

Item 1 . Overall Performance			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	55	69.6
	Strongly Agree	19	24.1
	Total	79	100.0
Item 2. Market Share Growth in our primary market			
		Frequency	Percent
Valid	Undecided	1	1.3
	Agree	60	75.9
	Strongly Agree	18	22.8
	Total	79	100.0
Item 3. Sales Growth			
		Frequency	Percent
Valid	Undecided	5	6.3
	Agree	51	64.6
	Strongly Agree	23	29.1
	Total	79	100.0
Item 4. Percentage of New Product Sales Generated by New Products			
		Frequency	Percent
Valid	Disagree	2	2.5
	Undecided	5	6.3
	Agree	50	63.3
	Strongly Agree	22	27.8
	Total	79	100.0
Item 5. Return on Sales			
		Frequency	Percent
Valid	Disagree	1	1.3
	Undecided	2	2.5
	Agree	52	65.8
	Strongly Agree	24	30.4
	Total	79	100.0
Item 6. Return on Assets			
		Frequency	Percent
Valid	Disagree	1	1.3
	Undecided	3	3.8
	Agree	55	69.6
	Strongly Agree	20	25.3
	Total	79	100.0
Item 7. Return on Investments			
		Frequency	Percent
Valid	Disagree	1	1.3
	Undecided	6	7.6
	Agree	47	59.5
	Strongly Agree	25	31.6
	Total	79	100.0

Source: SPSS

On item 1, respondents were requested about their organization performance much better relative to their major competitors in the previous year with respect to overall performance criteria 55 (69.9%) agree, 19 (24.1%) strongly agree, 5 (6.3%) undecided.

On item 2, respondents were asked about their organization performance much better relative to their major competitors in previous year with respect to market share growth in their primary market. 60 (75.9%) agree, 18 (22.8%) strongly agree, 1 (1.3%) undecided.

On item 3, respondents were requested about their organization performance much better relative to their major competitors in previous year with respect to their company sales growth. 51 (64.6 %) agree, 23 (29.1%) strongly agree, 5(6.3%) undecided.

On item 4, respondents were asked about their organization performance much better relative to their major competitors in previous year with respect to their company percentage of new product sales generated by new products. 50(63.3%) agree, 22 (27.8%) strongly agree, 5(6.3%) undecided, 2 (2.5%) disagree.

On item 5, respondents were asked about their organization performance much better relative to their major competitors in previous year with respect to return on sales. 52 (65.8%) agree, 24 (30.4%) strongly agree, 2 (2.5%) undecided, 1 (1.3%) disagree.

On item 6, respondents were asked about their organization performance much better relative to their major competitors in previous year with respect to return on assets. 55(69.6%) agree, 20(25.3%) strongly agree, 3(3.8%) undecided, 1(1.3%) disagree.

On item 7, respondents were asked about their organization performance much better relative to their major competitors in previous year with respect to return on investment.

47(59.5%), 25 (31.6%) strongly agree, 6(7.6%) undecided, 1(1.3%) disagree.

The above results of organizational performance shows that majority of respondents agree on their companies position as excellent.

Table 4.11 Correlation between variables (Spearman’s Correlation)

Correlations				
		Logistics Differentiation	Logistics Effectiveness	Logistics Efficiency
Logistics Differentiation	Pearson Correlation	1	.943**	.290**
	Sig. (2-tailed)		.000	.010
	N	79	79	79
Logistics Effectiveness	Pearson Correlation	.943**	1	.203
	Sig. (2-tailed)	.000		.072
	N	79	79	79
Logistics Efficiency	Pearson Correlation	.290**	.203	1
	Sig. (2-tailed)	.010	.072	
	N	79	79	79

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

Source: SPSS

Correlations			
		Logistics Performance	Organazational Performance
Logistics Performance	Pearson Correlation	1	.784**
	Sig. (2-tailed)		.000
	N	79	79
Organazational Performance	Pearson Correlation	.784**	1
	Sig. (2-tailed)	.000	
	N	79	79

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

Source: SPSS

In the logistics discipline, Langley and Holcomb (1992) term this dimension of comparing results of logistics activities to competitors as “logistics differentiation”, evidence collectively reveals that the logistics function as a whole should strive to minimize the ratio of resources utilized against derived results (efficiency), accomplish pre-defined objectives (effectiveness), and gain superiority when compared to competitors (differentiation) (Robbitt 2004). Extending previous research (Ostroff and Schmitt 1993), the following hypotheses are offered:

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of Major Findings

According to the data analysis in the earlier section, summary of the results presented as shown in the following.

- Majority of the respondents agree to the logistics performance of how their organization's logistics performance in general looks like indicates that their companies' logistics performance well above industry average, excellent and outstanding at performing their logistics activities.
- Majority of the respondents agree on their companies' logistics activities in comparison to their major competitors are much better.
- Majority of the respondents agree on their companies' logistics efficiency for the previous fiscal year was excellent
- Majority of the respondents shows their disagreement on their companies' logistics effectiveness in terms of transportation cost and logistics costs when they rate their business unit actual performance compared to budgeted performance based on previous fiscal year results.
- There was a statistically small positive correlation between the two variables, $r = 0.203$, $n = 79$, $p < 0.01$, which indicates that the more logistics effectiveness the more logistics efficiency they had.
- There was a statistically significant strong positive correlation between the two variables, $r = 0.943$, $n = 79$, $p < 0.01$, which indicates that the more logistics effectiveness the more logistics differentiation they had

- There was a statistically significant small positive correlation between the two variables, $r = 0.290$, $n = 79$, $p < 0.01$, which indicates that the more logistics differentiation, the more logistics efficiency they had
- There was a statistically significant and strong positive correlation between the two variables, $r = 0.784$, $n = 79$, $p < 0.01$, which indicates that the more logistics performance, the more organizational performance

5.2. Conclusions

The major objective of the study is to identify the relation between logistics performance and organizational performance selected three breweries in Ethiopia. Majority of the respondents agreed that their companies logistics performance, differentiation and effectiveness are excellent whereas, coming to logistics effectiveness in the context of transportation cost and logistics cost shows ineffective. Moreover, There was a statistically small positive correlation between the two variables, $r = 0.203$, $n = 79$, $p < 0.01$, which indicates that the more logistics effectiveness the more logistics efficiency they had. There was a statistically significant strong positive correlation between the two variables, $r = 0.943$, $n = 79$, $p < 0.01$, which indicates that the more logistics effectiveness the more logistics differentiation they had There was a statistically significant small positive correlation between the two variables, $r = 0.290$, $n = 79$, $p < 0.01$, which indicates that the more logistics differentiation, the more logistics efficiency they had There was a statistically significant and strong positive correlation between the two variables, $r = 0.784$, $n = 79$, $p < 0.01$, which indicates that the more logistics performance, the more organizational performance

5.3. Recommendations

Based on the research findings and conclusions drawn above, some recommendations are suggested as a means of improving the problems that have been found.

- As the research clearly show the effect of logistics performance on organization performance, the company should give due consideration on time and cost effects on logistics activities so as to have better market share, growth on sales and return on investment.
- The case companies of Ethiopian breweries should focus more on how to minimize transportation cost , total logistics cost in their logistics activities.

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Appendix I

Addis Ababa University

Faculty of Business and Economics

School of commerce

Name of student: Dawit Berhane

Dear Respondents

The purpose of this questionnaire is to collect primary data for conducting a study on the topic, “Assessing the relation between Logistics Performance and Organizational Performance: Ethiopian Breweries Perspective” as partial fulfillment to the completion of the masters of Art in Logistics and Supply Chain Management at Addis Ababa University School of Commerce. In this regard I kindly request your time to provide me with reliable information so that the findings of this study will meet the intended outcome. I strongly assure you for the confidential treatment of your answers. I would like to thank your voluntary participation for the success of my research study.

Name of enumerator: _____

Signature_____ Questionnaire number: _____ Date of data collection:
_____/_____/_____

PART – 1: COMPANY PROFILE

The following questions are about demographic profile of your organization. Kindly indicate the appropriate characteristics of your organization using (✓).

1.1. Numbers of Employees:

- Less than 50
- 50 - 100
- 100 -250
- 250 – 500
- More than 500

1.2. Operation in Ethiopia

- Less than 1 year
- 1 – 5 years
- 5 – 10 years

- 10 – 15 years
- 15 – 20 years
- More than 20 years

PART – 2: RESPONDENT’S PROFILE

The following questions are about the respondents’ profile in the organization. Kindly indicate the appropriate characteristics of your profile using (✓)

2.1. Respondent’s current position in the company

- Logistics Manager
- Supply Chain Manager
- Warehouse Manager
- Inventory Manager
- Production Manager
- Finance Manager
- Marketing Manager
- Category Manager
- Foreign Purchase Manager
- Import Manager
- If other Please Specify _____
- Logistics Officer
- Supply Chain Officer
- Warehouse Officer
- Inventory Officer
- Deputy Production Manager
-

2.2. Respondent’s Education Profile

- College diploma
- B.A / B.Sc
- MA/MBA/MSc & above

2.3. Respondent’s Work Experience

- Below 2 years
- 2 – 5 Years
- 5 – 10 Years
- Above 10 years

PART – 3

3.1. Logistics Performance

The following questions are about how your organization’s logistics performance in general looks like:

Please read through the following statements and decide how much you either agree or disagree with each. Using the scale provided write the number that best indicates how you feel on the line next to each statement (1) Strongly Disagree (2), Disagree (3), Undecided (4), Agree (5), Strongly Agree

Item	Descriptions	1	2	3	4	5
Q1	Our overall logistics performance is well above industry average					
Q2	In general, our logistics performance is excellent					
Q3	We are outstanding at performing our logistics activities					

3.2. Logistics Differentiation

For the following items, please rate your business unit performance on logistics activities **in comparison to your major competitors much better**. If you are associated with a company that does not consist of business unit or divisions, please answer the following based on your company. (1) Strongly Disagree (2), Disagree (3), Undecided (4), Agree (5), Strongly Agree

Items	Descriptions	1	2	3	4	5
Q4	Damage Free Deliveries					
Q5	Finished Goods Inventory					
Q6	Forecasting Accuracy					
Q7	Line item fill rate					
Q8	Time between Order Receipt and Delivery					
Q9	Time on Backorder					
Q10	Total Inventory Turns					
Q11	On-time delivery					

3.3. Logistics Efficiency

For the following items, please rate your business unit's performance on logistics activities **for the previous fiscal year is excellent.** (1) Strongly Disagree (2), Disagree (3), Undecided (4), Agree (5), Strongly Agree

Items	Descriptions	1	2	3	4	5
Q12	Percent of Orders Shipped to Customers from the Primary Location Designated to Serve Those Customers					
Q13	Line Item Fill Rate (Percentage of order items the picking operation actually found)					
Q14	Percent of Orders Shipped on Time					
Q15	Percent of Shipments Requiring Expediting					
Q16	Inventory Turns per Year					
Q17	Average Order Cycle Time (Time in days between order receipt and Order Delivery)					

3.4. Logistics Effectiveness

For the following items, please rate your business unit's **actual performance compared to budgeted performance**, based on the **previous fiscal year results is much better** (1) Strongly Disagree (2), Disagree (3), Undecided (4), Agree (5), Strongly Agree

Items	Descriptions	1	2	3	4	5
Q18	Sales (ETB)					
Q19	Transportation Cost					
Q20	Warehousing Cost					
Q21	Inventory Cost					
Q22	Total Logistics Cost					

3.5. Organizational Performance

In your judgment, how did your business unit perform relative to its major competitor in the previous year with respect to each criterion much better? If you are associated with a company that does not consist of business unit or division, please answer the following based on your company. (1) Strongly Disagree (2), Disagree (3), Undecided (4), Agree (5), Strongly Agree

Items	Descriptions	1	2	3	4	5
Q23	Overall Performance					
Q24	Market Share Growth in our primary market					
Q25	Sales Growth					
Q26	Percentage of New Product Sales Generated by New Products					
Q27	Return on Sales					
Q28	Return on Assets					
Q29	Return on Investments					

THANK YOU!!!