

**THE EFFECT OF LOGISTICS OF TRANSPORTATION AND PROCUREMENT ON
OPERATIONAL PERFORMANCE OF ETHIOPIAN BREWEERY SHARE COMPANY:
A CASE STUDY OF BEDELE BREWEERY SHARE COMPANY**

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Abstract

This study sought to find the effect of logistics activities on the operational performance of Bedele Brewery Share Company. The study used both descriptive and explanatory research design and the population of this study is the employees of Bedele Brewery Share Company. The study adopted purposive sampling techniques. The study used a sample size of 158 respondents. Further, the study used self-administered questionnaire as the main instruments for collecting primary data from respondents. Data collected was first edited, formatted and organized for coding into the Statistical Package for Social Science (SPSS) version 24. Also, multiple regression analysis was used to estimate the relationship between dependant variable and independent variables at the end the study established that procurement and transportation management influenced 65.3% of total variability in the operational performance of Bedele Brewery Share Company. Therefore, study recommended significant variables affecting operational performance should get attention as they are considered the factors affecting the operational performance.

Keywords: Procurement, Transportation, Operational performance

LINTRODUCTION

1.1 Background of the study

Logistics has evolved in span and power in the late 1940s. In the 19th century military alone used term logistics rather than business sector. Beyond military sector, today business sector recognizing logistics as the leading edge for companies and customers value increase (Frazelle, 2002). "Logistics is component of supply chain practices that manage the efficient and effective forward and reverse flow and storage of goods, services and related information between supplier and manufacturer in order to meet customers' requirements" (Council of logistics management, 2003). Factors such as competitive pressure, cost control, information technology, globalization and profit leverage, contributed to the increase of logistics science in the form we know it today (Lambert et al., 1998).

Logistics ensure positioning of the right product with the right quality at the right time in the right place at the right price to the ultimate customer (Farahan et al., 2011). Without logistics, no material move, no operation can be done, no production can be done, no products are delivered, and no customers are served. Not only is logistics essential, but it is also expensive. Organizations may reduce their overheads as much as possible, but they are often left with surprisingly high logistics. Thus, logistics is heart for business success and customer services (Waters, 2003). Logistics is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organization in such a way that current and future profitability are maximized through the cost effective fulfillment of order (Christopher, 2011).

In competitive and dynamic environment, logistics management strategy has powerful role in the area of both asset handling and financial flows of the organizations. In other words, logistics management strategy enable lowering costs and increasing level of customers service, also this increase operational performance of the organizations (Ristovska et al., 2017). The consequence of logistics management had spanned from more a reactive and cost reduction issues for the company competitiveness (Spillin et al., 2013). Therefore an up and coming consent about the necessitate for organizations to manage logistics issues together with cost effective and trade issues (Tuttle & Heap, 2008). Logistics is keys to modern economy. Increasingly competitive markets making imperative to manage logistics system more efficiently and effectively. It is one of the major expenditures for businesses, there by affecting and being affected by other

economic activities. In each country, a huge amount of money is spent annually in logistics activities. For instances in 1993, EU countries, industries spent is 19.1% on transportation, 13.8% on warehousing, 18% on inventory carrying, and 11.1% on administration, the total expenditure on logistics therefore amounting to 62% representing to company's sales (Ghiani et al., 2004). Logistics take part in economy into two means. First, logistics is main expenses for those organizations did not manage logistics activities effectively. Secondly, improvements in logistics activities management increase economy of organizations as a whole (Logistics and Supply Chain module, IGNOU, 2011).

Sub-Saharan African countries were poor in logistics performance compared to other world countries. Particularly poor performances were resulted from lack of investment on infrastructure and lack of road maintenance. As a result transportation constrained well flow of goods in market (Ittman & King, 2010).

Ethiopia is not performing well in logistics because Ethiopia is not exceptional from Africa. The world Bank logistics performance index, which is an overall LPI, score measures of logistics performance. Ethiopia is ranked 131 out of 167 members of countries (World Bank, 2018). This shows that the fact that the logistics system of the country is performing poorly at national level and indeed under developed. Accordingly, the logistics system of the country should be transformed in a way that enhances its trade competitiveness in a hyper competitive global market it should be urgently addressed.

Procurement practices coordinate production with new customer's orders, purchasing with user departments demand, scheduling and shipping with orders received (Kiare, 2015).

Transportation play role of moving goods from one place to another as it enables its means from the starting of a supply chain to customers. Transportation is significant for integration of supply chain participants because goods are rarely produced and used in the same area (Chopra & Meindel, 2007). Transportation cost is largest among logistics activities cost so giving attention for transportation is unquestionable (Ghiani et al., 2004). Ineffective inventory management make production department in the prevalence of over production, under production and lack of spare parts (Munyao et al., 2015).

According to (Debela, 2013) Ethiopian logistics system is characterized by poor logistics management system and lack of coordination of goods transport, low level of developments of infrastructure and inadequate fleets of freight vehicle in number and age, damage and quality

deterioration of goods while handling, transportation and storage .However, his study did not considered other logistics activities rather transportation and not show effect of transportation on operational performance. Hence, this study initiated to consider another logistics activities such as procurement and transportation management and to assess their effect on operational performance.

1.2 Statement of the Problem

The efficient logistics activities management together with the competent workforce enables the company to bring response for expectation of the customers with lowest cost at the shortest possible time without compromising expected level of quality and increase competitive advantages situation against their rivals (Nyaberi &Mwangangi, 2014).

Success in the performance of a company's supply chain is high quality situation of efficient logistics activities result in competitive gain and can against malfunction of an organization (Ntayi &Eyaa, 2010).The most competitive organization applies logistics activities management strategy to reduce costs, enhance sales turnover and operation efficiency. The logistics integrate and coordinate flows of information, money and goods inside and outside of organization (Ristovska et al., 2017).

The mission of logistics activities management is to provide the right goods with the right quantities and qualities at the needed time in the right place at the right price to the end customer (Mentzer et al., 2004).

Procurement is an expensive business activity for organizations. This is because organizations usually spend a large portion (even up to 70%) of their revenue and operational budget on purchasing goods and services. The organization has benefited from adopting procurement controls practices in a number of ways; among them is the attainment of value for money, proper use of funds, and prevention of unnecessary losses and stocking of items, improved service provision, quality supplies, correction of supplier compliance errors and improved efficiency and resource allocation (D.K.Makabira &Waiganjo, 2014). Transportation enables logistics strategy into the full capacity play and determines operation of products movement. Effective transportation management makes organization's deliver products in the right quantities and at the required time (Tseng et al., 2005, Onyango et al. ,2017).

Performing business function like manufacturing is difficult in the absence of logistics activities (Bowersox &Closs, 1996, Chirstopher, 1992). This shows that logistics activities highly

performed in manufacturing company like Bedele Brewery Share Company. Thus, knowing effect of logistics activities on operational performance is mandatory for the manufacturing companies. However, study undertaken in Ethiopia focused on sugar manufacturing company. For instance, Study undertaken by (CHALA & KUMAR, 2021) effect of logistics activities on organizational performance of Wonji sugar factory. Their findings concluded that logistics activities significantly affect organizational performance of sugar factory. As knowledge of researcher, there is no study undertaken on effects of logistics of procurement and transportation on operational performance of brewery Share Company of Ethiopia. This shows that, there has been knowledge gap as to whether these logistics activities can affect operational performance of Bedele Brewery Share Company. This study therefore opted to fill this gap by assessing how logistics activities influence the operational performance of Bedele Brewery Share Company. Based on this and mentioned gaps of pervious study in related area, the current study has filled the existing gap by assessing the effects of logistics of procurement and transportation on the operational performance of Bedele Brewery Share Company.

1.3. Basic Research Question

1. What is effect of logistics of procurement on operational performance of Bedele Brewery Share Company?
2. What is effect of logistics of transportation on operational performance of Bedele Brewery Share Company?

1.4. General Objectives of the Study

To examine effect of logistics of procurement and transportation on operational performance of Ethiopian brewery share company

1.4.1 Specific Objectives of the study

1. To examine effect of logistics of procurement on operational performance of Bedele brewery share company
2. To examine effect of logistics of transportation on operational performance of Bedele brewery share company

1.5. Significance of the Study

Academicians and researchers can be used the findings of the study for further research in the field of logistics activities. The policy makers within the government can also use the findings of the study to set policies that encourage attention of companies to manage logistics activities.

1.6. Scope of the Study

Geographically, the study is delimited to specific area, which is effect of logistics activities on operational performance of Bedele Brewery Share Company. Among logistics activities study focused on procurement and transportation only. Methodologically, both explanatory and descriptive research design were used for the study.

1.7. Limitation of the Study

This study undertaken only on Bedele Brewery Share due to constraint of time

2. REVIEW OF RELATED LITERATURE

2.1 Logistics of Procurement

Procurement is acquisition of goods, services, capabilities and knowledge required by businesses, from the right source, the right quality, in the right quantity, at the right price and at the right time to maintain and manage both primary and supportive activities of company (Giunipero et al. 2006; Hines, 2006; Porter 1998; Triantafillou (2007), Van, 2000). It begins when agency has identified a need and decided on its procurement requirement. Procurement continues through the processes of risk assessment, seeking and evaluating alternative solutions, contract award, delivery of and payment for the property and/or services and, where relevant, the on-going management of a contract and consideration of options related to the contract (Waters, 2004) cited in (D.K makabira & waiganjo,2014).

The procurement function represents the largest total sum of organizational expenditure (Eldin etal. 2019; D.K makaira& waiganjo,2014).An effective and efficient procurement system is crucial to the success of a business. The primary goals of procurement are to ensure uninterrupted flows of raw materials at the lowest total cost, to improve quality of the finished goods produced and to maximize customer satisfaction. Procurement can contribute to these objectives by actively seeking better materials and reliable suppliers, working closely with and exploiting the expertise of strategic suppliers to improve the quality of raw materials, and

involving suppliers and purchasing personnel in product design and development efforts (Wisner et al., 2012).

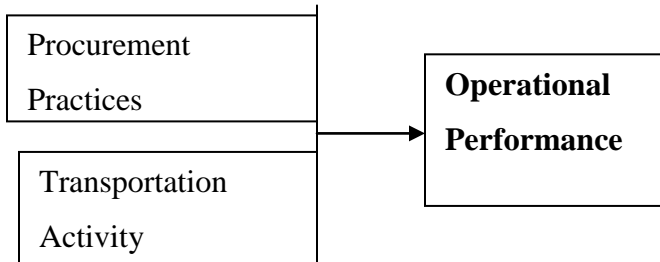
Procurement practices are a set of activities undertaken by an organization to promote effective management of its supply chain (Coggburn, 2017). This study addresses the effect of three procurement practices on operational performance such as procurement planning, staff competency and Buyer-supplier relationships management.

2.2 Logistics of Transportation

Transportation refers to the movement of product from one location to another as it makes its way from the beginning of a supply chain to the customer (Chopra & Meindl, 2007). Various means for moving products from one place to another are called transportation modes. Road, rail, air, water, and pipelines are considered the five basic modes of transportation. In addition, digital or electronic transport is referred to as the sixth mode of transportation (Hugos, 2003). Frazelle (2002) states, the objective of transportation is to link all pick-up and delivery-to points within the response time requirements of the customer service policy and the limitations of the transportation infrastructure at the lowest possible cost. Transportation has been found to be a main aspect in logistics course of action as it was the one which joined the separated activities (Atos, 2012; Kenyon 2011; Xiande, 2008; Hausman, 2005; Gunasekaran, 2003). Transportation is essential for moving any shipment in a logistics system such as raw materials from sources to manufacturer, semi finished products between plants, and final goods to retailers and customers (Hoff et al., 2010).

Transportation is a very visible element of logistics. Consumers are accustomed to seeing trucks and trains transporting product or parked at business facilities. There are two fundamental economic principles that impact transportation efficiency: economy of scale and economy of distance. Economy of scale in transportation is the cost per unit of weight decrease as the size of a shipment increases. Transportation economies of scale exist because fixed cost associated with moving a load is allocated over the increased weight. Economy of distance refers to decreased transportation cost per unit of weight as distance increases. Specifically, longer distances allow fixed cost to be spread over more miles, resulting in lower per mile charges (Bowersox et al., 2002).

2.3 Conceptual Framework



3. METHODOLOGY OF THE STUDY

Research Design

The study used both descriptive and explanatory type research designs consider the purpose of the study and the natures of the phenomena.

Target Population

The sample frame for the study included permanent employees who were working in departments of procurement, transportation, inventory management, warehousing and planning and sales and marketing only because those departments is more concerned with topic of the study

Sampling Technique

The sample selected from the target population by using both probability sampling and non probability sampling method. From non probability sampling purposive sampling used to select the key informants and then stratified sampling technique would be used.

Sample Size

A sample size of 158 employees was procurement, Transportation, inventory management, warehousing and planning and sales and marketing .To arrive at the desired sample, and the researcher used the formula developed by (Yamane, 1967).

Source of Data

Both primary and secondary sources were used as a source of data.

Data Collection Methods

This study basically focused on primary data which collected through use of questionnaire.

Method of Data Analysis

Data were analyzed using descriptive and inferential statistics.

4. RESULT AND DISCUSSION

4.1 Reliability

Alpha values for the all items used in the questionnaire. Reliability test for procurement (.668), transportation (.777) and operational performance (0.883). So for its permitted next level analysis

4.1 Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.808 ^a	.653	.649	.55453

65.3% of the variation in the dependent variable was explained by the set of mentioned independent variables. However, R-squared measures the proportion of the variation in the dependent variable explained by independent variables.

5. Conclusion and Recommendation

Conclusion

The study also confirmed that procurement practice have impacts on the performance of manufacturing companies. An improvement on management of procurement practice within the logistics practice results on a positive significant increase in operational performance and enable efficient management of procurement procedures, save firms from budget deficit and shutdown of factory. Thus, study concludes procurement influence operational performance of the company. Transportation management has effect on operational performance of profit oriented company like Bedele Brewery Share Company. An improvement of transportation management practices make customer order processing time short and high contribution for addressing of customers. Generally, logistics of procurement and transportation significantly affect operational performance of Brewery Company.

Recommendations

The study established that procurement practices have significant positive effect on the operational performance of Bedele Brewery Share Company. The study recommended that

Bedele Brewery Share Company should strengthen the supplier relation to the level of partnership. In order to be effective in the management of the procurement practice, it is advisable improving of procurement planning, provide training for employees of procurement staff regarding managing procurement procedures is recommend to be done by top management of Bedele Brewery Share Company.

This study established relationship between transportation management practices and operational performance; $p < 0.05$ ($P=0.000$). The study recommended that manufacturing company, Bedele Brewery Share Company recommended to have enough transportation units for wide address of market and improving transportation management practices .Transportation management practices such vehicle scheduling, maintenance, inspection and others should get emphasized attention by both top management and transportation management section to improve operational performance.

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