
COLLEGE BUSINESS ECONOMICS

DEPARTMENT OF MANAGEMENT INTERNATIONAL BUSINESS

(STRATEGIC INVESTMENT STREAM)

# The Effect of Supply Chain Management Practice on Organizational Performance: A case study in Heineken Breweries S.C.

A thesis Summited to Addis Ababa University College of Business and Economics Department of Management Msc in International Business


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# The Effect of Supply Chain Management Practice on Organizational Performance: A case study in Heineken Breweries S.C.

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By Selamawit Tesfahun

Advisor: Asres A., (PhD)

Addis Ababa

Ethiopia

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**Statement of Declaration**

I, the undersigned, affirm that this thesis is my own work, prepared under Asres A.'s supervision (Ph.D). The researcher furthermore confirms that no part or the entire thesis has been submitted to any other higher learning institution for the purpose of getting a degree.

Selamawit Tesfahun

Signature_____

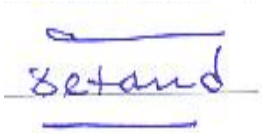
Date_____

**Statement of Certification**

This is to certify that Selamawit Tesfahun The Effect of Supply Chain Management Practice on Organizational Performance: A case study in Heineken Breweries S.C prepared in partial fulfillment of the requirements for the degree of M.Sc. in International Business complies with the university's regulations and meets the accepted standards in terms of origin.

Advisor Asres A. (PhD) Signature_____Date _____

Internal Examiner_____Signature_____Date_____



External Examiner__Dr GetieAndualem _Signature___ _Date____**13/7/21_**

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## Acronyms

ICT----------Information and Communication Technology

JIT----------Just in Time

SC----------Supply Chain

S.C----------share company

SCM ----------Supply Chain Management

CSCM---------- Construction Supply Chain Management

LSC----------Lean Supply Chain

TQM ----------Total Quality Management

SRM----------Supplier Relationship Management

SPSS----------statically package for social science.

Vif----------variance inflation factoer

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## Abstract

*The main focus of the research was to examine the effect of supply chain management practice on organizational performance in Heineken Breweries S.C. explanatory research design is applied. Both Primary and secondary data were collected and analyzed using statistical tool SPSS. The finding of the study revealed that technology, customer responsiveness, strategic supplier relationship, inventory management, lean supply chain management and production management are crucial element in affecting organizational performance but strategic supplier relationship, technology , production management were found a crucial element in the study as compared to customer responsiveness and lean supply chain management. It is also found that the customer relationship management tools are not valuable, is poor Inventory management, poor strategy creation to short term, middle and Long term goals, There is positive association between dependent and independent variables such as technology(r=.493**), customer responsiveness(r=.334**), strategic supplier relationship(r=.348**) inventory management(r=.224**) lean supply chain management(r=.270**) and production management(r=.474**). Technology and production management has a strong association with organizational performance. Heineken brewery company the practice of supply chain management in selected dimensions were good but The company should improve its customer responsiveness in terms of asking customers what they want, perform a survey of existing customers about customer service channels which they prefer, try to manage customer expectations via different measurement.*

*Key terms: technology, customer responsiveness, strategic supplier relationship, inventory management, lean supply chain management and production management.*

# CHAPTER ONE

# 1. INTRODUCTION

## 1.1. Background of the Study

Any firm can get a competitive advantage over its competitors by effective and efficient supply chain management, according to Mesele H., (2017) explanation. Supply chain management is the foundation on which all business organizations compete. It also indicates that supply chain management allows businesses to survive by increasing supply chain effectiveness and efficiency.

In both the industrial and service industries, supply chain management (SCM) is a vital role. From the purchase of raw materials to delivery to the client, every firm must successfully manage its supply chain. Supply Chain Management is a deliberate effort undertaken by many business functions inside a company to improve the organization's long-term performance. In simple terms, SCM refers to the extensive range of functions required for successful product planning, execution, and control. It all starts with the purchase of raw materials and ends with delivery to the customer. All of the functions are completed in a cost-effective and efficient manner (Michael N., 2014).

A supply chain is a network of facilities and distribution choices that fulfills the functions of material procurement, material transformation into intermediate and final products, and final product distribution to clients. Both service and industrial firms have supply chains, however the complexity of the network varies widely from industry to industry and company to company (Dawei Lu 2011).

In Ethiopia Heineken Entered a Public Private Partnership, established in 2013, aimed at improving both quality and quantity of barley grown in Ethiopia as well as improved access to markets for farmers. Heineken Breweries S.C. is located in Addis Ababa, Ethiopia and is part of the Breweries Industry but this newly emerged company is faced a tough competition with the previously existing breweries in the country.

## 1.2 Background of the Organization

Heineken is one of the world's most renowned brewers, dedicated to both expansion and independence. The Heineken brand, which is named after the founder's family, is available in almost every country and is the world's most valuable worldwide premium beer brand. The Company's goal is to be a top brewer in each of its markets and to own the world's most valuable breweries.

On a pro forma basis, the Company operates 140 breweries in more than 70 countries and sold 205 million hectoliters of beer in 2010.Heineken is Europe's largest and the world's third-biggest brewer in terms of quantity. Heineken's more than 200 international premium, regional, local, and specialty beers and ciders are devoted to responsible marketing and consumption.

These include Amstel, Birra Moretti, Cruzcampo, Dos Equis, Foster‘s, Kingfisher, Newcastle Brown Ale, Ochota, Primus, Sagres, Sol, Star, Strongbow, Tecate, Tiger and Zywiec. Most recent information is available on Heineken‘s (website: https://heinekenethiopia.com)

Heineken Ethiopia is taking its production to the next level with a new $150m green field brewery, which will add 1.5 million hectoliters capacity and complement its established facilities at Harar and Bedele. Heineken Brewery SC has introduced two new beers to Ethiopian market called Sufi Buna and Walia. This is the third attempt in almost one year where the company introduced a new beer. It is to be recalled that in June 2017, Heineken introduced Walia Radler which has 2.5 percent alcohol content.

This time around Sofi Buna a nonalcoholic beer mixed with malt has come with a coffee taste. The second one Walia 3.3 came with limited alcohol content: 4.5 percent. Heineken first established itself in the Ethiopian market after acquiring Harar and Bedele brewery factories. At the time, the company bought the two factories from the government.

It first entered the market in August 2011, where it purchased the two factories from the then Privatization & Public Enterprise Supervising Agency (PPESA). The breweries were sold to Heineken for USD 163 million. At the time, the two factories had the capacity to produce 750,000 hecto-liters per year (website: https://heinekenethiopia.com). Currently, there are around

seven breweries operating in Ethiopia with an annual production capacity of 12 million hectoliters and Heineken is among the leaders in the market.

## 1.3 Statement of the Problem

A lot of researchers had conducted a study on the new concept supply chain management. Li et al., (2006) in there study point out that SCM topics such as the role of relationships with suppliers in improving supplier responsiveness focuses only on the upstream or downstream side of SCM. On the other hand Tutuncu et al (2008) studied the consequences of buyer-supplier relationship while Cyrus Ng'Aru Githeru, (2014) have been researched on the supplier side. In addition Abiy L., (2015) focus on the downstream linkages between manufacturers and retailers.

A few recent studies have considered both the upstream and downstream sides of the supply chain simultaneously but they were not independently study the supply chain management practice (customer responsiveness, strategic supplier relationship and lean supply chain management, production and inventory management and technology). Tan et al. (2008) explore the relationships between supplier management practices, customer relations practices and organizational performance. Christopher M (2010) explores the effects of supplier customer integration on organizational performance.

Kim (2016) explained, to remain competitive and to sustain growth, brewery companies would need to watch out for the trends that will shape the industry over the next few years and understand the effects. Therefore, the primary goal of supply chain management is to enhance competitive performance by closely integrating the internal functions within a company & closely linking them with external operations of suppliers and customers

As Mesel H., (2017) point out in case of Ethiopia the brewery industry is extremely competitive and also faces new opportunities and challenges. Changing consumer demands and preferences require new ways of maintaining current customers and attracting new ones. In a majority of beer markets, here has been a steady shift towards premium brands that offers health benefits. As a result there is a focused switch by brewers from mainstream brands to premium brands to enhance their growth prospects. This in turn has resulted in an increasing need to have an efficient supply chain network and to reduce operating expenses.

Form researcher's preliminary reviews in Heineken Brewery, the overall performance activity on seals outlet were measured. The measures were taken for gauging different fixed and operational but not supply chain performance of the factory out let. In Heineken Brewery, the concepts of supply chain management were fund at the infant stage. As far as researcher's knowledge concerned, the supply chain management development on brewery industry is very rare. As a result, there was little work about the performance of supply chain in the brewery industry particularly the younger Heineken operation in Ethiopia.

The existence of knowledge gap in the subject but the prevalence of competitive industry convinced the researcher to conduct a research. From the preliminary observation, there was less insight about the overall business integration, collaboration with the upstream and downstream partners, poor supply chain reliability, weak customer responsiveness, cost effectiveness, inventory management, lean supply chain management, technology usage strategic supplier relationship as well as effectiveness, in Heineken brewery.

Furthermore, as far as researchers knowledge concerned about Heineken Breweries S.C, being a newly emerged company towards the industry specifically to Ethiopia, there is no empirical study that is conducted in the area of SCM practices and its performance particularly from perspectives of customer responsiveness, technology, production and inventory management, strategic suppliers' partnership, Lean supply chain and Strategic supplier Relationship which incorporate upper and down streams SCM.

Therefore, since the effort to achieve generalization of the causal relationship between SCM practices and organizational performance calls for empirical confirmation, especially in emerging economies, this paper is to contribute to the debate by raising the following research questions and testing the relationship between SCM practices(customer responsiveness, strategic supplier relationship, technology, lean supply chain management, production and inventory management) and organizational performance in Heineken Breweries S.C

## 1.4 Research Questions

1. How is the practice of SCM in Heineken Breweries S.C. in Addis Ababa?

2. Does customer responsiveness in Heineken Breweries S.C affect performance in Addis Ababa?
3. Is the practice of Strategic supplier relationship in Heineken Breweries S.C affects performance in Addis Ababa?
4. What is the practice of lean supply chain management in Heineken Breweries S.C.?
5. Does production and inventory management in Heineken Breweries S.C affect performance in Addis Ababa?
6. How is the technology usage of management in Heineken Breweries S.C?

## 1.5 Objectives of the Study

### 1.5.1 General Objective of the Study

The general objective of the study was to assess the SCM practices and its effect on organizational performance in Heineken Breweries S.C

### 1.5.2. Specific Objectives of the Study

The specific objectives of the research are

1. To investigate the SCM Practice in Heineken Breweries S.C
2. To examine customer responsiveness in Heineken Breweries S.C
3. To evaluate supplier relationship in Heineken Breweries S.C
4. To identify the role of lean supply chain management in Heineken Breweries S.C
5. To examine production and inventory management in Heineken Breweries S.C
6. To examine technology usage in Heineken Breweries S.C

## 1.6 Research Hypothesis

To address the suggested questions and objectives the following research hypothesis are formulated

H0: Customer responsiveness does not significantly affects organizational performance in Heineken Breweries S.C

H1: Customer responsiveness significantly affects organizational performance in Heineken Breweries S.C

H0: Supplier relationship does not significantly affects organizational performance in Heineken Breweries S.C

H1: Supplier relationship significantly affects organizational performance in Heineken Breweries S.C

H0: Lean supply chain does not significantly affect organizational performance in Heineken Breweries S.C

H1: Lean supply chain significantly affects organizational performance in Heineken Breweries S.C

H0: Production and inventory management does not significantly affect organizational performance in Heineken Breweries S.C

H1: Production and inventory management significantly affect organizational performance in Heineken Breweries S.C

H0: Technology usage does not significant affects organizational performance in Heineken Breweries S.C

H1: Technology usage significantly affects organizational performance in Heineken Breweries S.C

## 1.7 The Scope of the Study

The main purpose of the study was to investigate the effect of SCM on the organizational performance in Heineken breweries S.C. Heineken has seven brewery factories or plants in Ethiopia which produces different brands such as Heineken (located in Addis Ababa), Walia, Walia Radler, Harar Bedele, Bedele Special, Sofi Malt and Buckler producer Plants but the study is delimited to Addis Ababa head office or Kilinto brewery in Addis Ababa.

Conceptually, the scope of this study is delimited to the company's point of reference towards overall Supply chain practices and its effect on performance such as customer responsiveness, supplier relationship, Lean Supply, and Production and inventory management. Regarding performance the study delimited to perceived performance of the factory.

## 1.8 Significance of the Study

The study is beneficial to the government and policy-making organizations since it informs policy makers about current SCM practices in research institutions as well as the problems that come with establishing SCM techniques. Furthermore, the findings of the study can aid the academic community because they serve as a reference point for empirical data on SCM procedures and identify its role

Finally, the study may be valuable to other companies desiring to use SCM because it allow them to identify and avoid obstacles encountered while applying best practices. They can also determine their impact on the company's performance.

## 1.9 Organization of the Study

The study is divided into five chapters, each of which were addressed in depth. The first chapter introduces the numerous significant components of the study, such as the study's background, problem statement, clarification of the general and specific study objectives, scope of the investigation, importance of the study, and study organization. The second chapter defines the most important terms. By focusing on prior research in this field and presenting the literature relevant to the topic, this chapter provides an insight into those principles as well as the Practice and difficulties of Supply Chain management.

The research design is described in the third chapter. Population, sample, and participants, data collection instruments, data analysis method, unit of analysis, and time dimension, preliminary study or pilot test, and questionnaire formulation are all things to consider. The fourth chapter presented study's results in greater detail in the final chapter, Chapter 5, and current literature were integrated into the debate where appropriate. The conclusion of the study, conclusions, and recommendations for Heineken Ethiopia are all included in this chapter.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Theoretical Literature Reviews

### 2.1The Concept of Supply Chain Management

According to Michael (2014), SCM is described as "a network of multiple organizations engaging in various sorts of activities and processes both upstream and downstream through upstream and downstream linkages. The phrase supply chain refers to a series of interconnected activities, including process order and overlap, as well as flows between them, which are supported by infrastructure such as people and equipment.

Supply Chain Management (SCM) is a network of relationships with the goal of delivering superior value, i.e., the management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at a lower cost to the supply chain as a whole (Manrodt & Vitasek, 2008).

Supply chain was defined in depth by Fawcett et al (2008). Some businesses have always been part of a supply chain; nonetheless, the majority of businesses still regard themselves as separate entities. As the author clearly stated full-fledged effective collaboration among supply chain members which includes the whole tiers at this time is rare and most often occurs with a company's most important first tier customers and first tier suppliers.

Supply chain encompasses all organizations and activities related with the flow and transformation of goods from the raw materials stage to the final customer, as well as the associated information flows. Supply chain management, on the other hand, is the integration and management of supply chain organizations and the creation of high-performing value systems that provide actors in organizations with a sustainable competitive advantage through the development of integrated organizational relationships, effective business processes, and high levels of information sharing (Michael, 2014).

The concept of Supply chain management has been defined by several authors. Koh et al., (2007) defines SCM as the simultaneous integration of customer requirements, internal requirements and upstream supplier performance. Council of Logistics Management (CLM) defines SCM as the systemic, strategic coordination of the traditional business functions and tactics across these businesses functions within a particular organization and across businesses within the supply chain for the purposes of improving the long-term performance of the individual organizations and the supply chain as a whole.

SCM, as explained by David (2014), is a concept whose purpose is to seamlessly integrate both information and material flows across the supply chain as a competitive weapon.

SCM, according to Donald (2010), refers to shared and agreed-upon activities executed jointly by two or more firms and are used to highlight the collaborative relationships of members of different echelons of the supply chain.

SCM, as a phrase, initially arose in the early 1980s to define the spectrum of operations coordinated by an organization to acquire and manage, according to Koh et al. (2007). SCM is a concept that originated with Toyota's supply system, which was used to coordinate suppliers and reduce inventory. The notion of SCM has matured as an industrial management theory and an unique area of scientific inquiry since its introduction as part of a production system in the Japanese car industry.

It was indicated that the evolution of SCM theory is driven by rapid changes in global business practice. Scholars argued that the worldwide recession of the late 1980s and early 1990s forced companies to re-examine, at a strategic level, the ways in which they aimed to add value and reduce costs throughout their business. Originally, the word referred to a single organization's internal concentration on how it acquired and acquired suppliers, controlled internal inventories, and transferred goods to its consumers. It was realized that this notion was inadequate, and that the reality of supply chain management meant that supply networks went beyond the purchasing organization and into its subsequent supply networks.

SCM and other similar terms, such as network sourcing, value chain management and value stream management have become the subject of increasing interest after the 1990s (Fawcett et

al., 2009). SCM has been labeled as the single most wide-ranging approach when considering how organizations utilize their suppliers' processes, technology and capability to enhance competitive advantage. The interest in SCM is growing due to the ever-increasing market competition and declining incidence of vertical integration as a result of which efficiency and innovation can no longer be solely an internal management function.

According to Manrodt and Vitasek (2008), business competitiveness is becoming more difficult as a result of the ideal market and ideal competition to supply high-quality goods and services at low prices. As a result, establishing organizational efficiency is no longer sufficient. Because the rivalry is no longer just between enterprises, but also among supplier networks, the entire supply chain must be efficient. Supply chain itself is constructed from upstream and downstream level of supply.

SCM is defined as the chain connecting each aspect of the manufacturing and supply process from raw materials to end customers, spanning various organizational boundaries, according to many definitions. Lean supply chine is the management of upstream and downstream interactions between suppliers and consumers to deliver higher customer value at lower cost to the supply chain as a whole (Koh et al., 2007).

SCM was defined by another scholar (Fawcett et al., 2009) as the process of strategically managing the transportation and storage of materials, parts, and finished products from suppliers, through the production process, and onto clients or end-users, as well as the accompanying information flows.

SCM is defined as the design, maintenance, and operation of supply chain operations for the satisfaction of end user needs, according to the Handbook of Supply Chain Management (Michael, 2014).

The most common definition is that the supply chain includes all operations related to the movement and transformation of goods from the raw materials stage (extraction) through the end consumer, as well as the associated information flows. Up and down the supply chain, materials and information flow. Supply chain management (SCM) is the integration of these activities through improved supply chain relationships, to achieve a sustainable competitive advantage.

In summary, these definitions associate SCM with the integration of systems and processes inside and between businesses, including upstream suppliers and downstream customers, as well as waste reduction and value addition strategies applied throughout the process. It also underlines the significance of good interconnections among the value chain's activities.

## 2.2 Supply Chain Management Practices

### 2.2.1 Inventory Management

Inventory management, according to S. Chand (2006), refers to the products or materials that a corporation sells to its clients in order to generate a profit. Inventory management is a segment of the supply chain that includes things like regulating and managing purchases from suppliers and customers, stock storage, controlling the amount of items for sale, and order fulfillment. There are three core steps of inventory management:

Inventory management, according to Bedworth et al. (2009), is the process of generating, ordering, storing, and using a company's inventory for profit. This begins with the storage and processing of raw materials, components, and completed products, as well as the management of raw materials, components, and completed products. For effective production and inventory management there should be clear visibility into transactions that positively impacts the entire process of ordering, storing and using inventory is essential to companies' long-term growth.

A notable inventory, according to S. Chand (2006), is a core component of the supply chain and is where all sections of the supply chain come together in tandem. In today's corporate world, supply chain digital investigates why inventory management is so important in the supply chain.

Inventory is regarded as a very substantial and significant investment that must be acquired at every stage of the supply chain. The supply chain management system has been set up in such a way that each level of the supply chain functions independently to make it profitable. As a result, it is critical for every level of the supply chain to work together to develop the inventory policy (Fawcett, 2007).

### 2.2.2 Customer Responsiveness

Customer responsiveness, according to Buchanan, Leigh (2011), refers to a company's capacity to respond to service questions and fulfill them in a timely manner. This includes both the time it takes the agents to initiate the interaction and the time it takes them to finish the customer's request. In another word customer responsiveness is failing to meet deadlines or ignoring customer inquiries can increase client dissatisfaction with your company and spur them to investigate your competitors

Despite the importance of customer responsiveness as a major business strategy, according to Manrodt and Vitasek (2008), few people describe how to attain it. The majority of customer response definitions take a customer-centric perspective. At a strategic level, there are two concepts that help to provide a greater understanding of customer responsiveness and market orientation.

Market orientation is defined by Manrodt and Vitasek (2008) as the organizational culture that most effectively and efficiently develops the necessary behaviors for the development of higher value for buyers, and consequently superior performance for firms." A variety of business activities and behavioral characteristics are used to deliver this business strategy.

### 2.2.3 Lean Supply Chain

According to Michael (2014) a lean supply chain (LSC) is a group of firms that are directly linked by upstream and downstream flows of products, services, money, and information and collaborate to decrease costs and waste. An LSC's management is a process aiming at removing waste and non-value-adding activities from the supply chain's overall value stream.

Furthermore, Manrodt and Vitasek (2008) described lean as a systematic strategy to increasing customer value by finding and removing waste (of time, effort, and materials) through continuous improvement by following the product at the customer's pull in the pursuit of perfection.

They also claim that Lean started in the 1920s, when Henry Ford introduced the notion of continuous flow to the assembly line process. The goal of this strategy was to reduce costs by

enhancing quality and throughput. Ford's assembly line remained the most advanced manufacturing technique until Toyota's Toyota Production System was launched by two Japanese executives. As Toyota soon realized, optimizing only a part of the process is not as beneficial as optimizing the whole. If real changes were to take place, they would have to include suppliers and customers. Without all of the key players, the timing and quality of components from the supplier will continue to impede manufacturer performance. This was the birth of the Lean supply chain.

Lean supply chain management is a collection of enterprises interconnected by upstream and downstream flows of products, services, funds, and information that work together to cut costs and waste by efficiently and effectively pulling what is needed to meet the needs of each individual client. Almost every product has a supply network. The end-to-end supply chain could be visualized by looking through a telescope from the point of consumer purchase to all of the upstream entities and activities involved, all the way back to the point of getting raw materials. A person would most likely notice a collection of entities and actions that are utterly unrelated to one another.

These self-contained functions generate garbage, the kind that costs money and effort and, in some situations, threatens the planet's ecology. To provide more value, lean adopting companies collaborate to discover and reduce waste wherever it appears (Manrodt & Vitasek, 2008).

### 2.2.4 Strategies Supplier Relationship

Strategic Supplier Relationship Management is an all-encompassing method to dealing with an organization's supplier relationships. The procurement strategy for establishing strategic and operational procurement processes, as well as the structure of supplier management, is known as supplier relationship management (Appel, 2005).

To yield ownership of the relationship, stimulate active communication, and align strategic objectives, SRM classifies and engrosses the appropriate stakeholders. SRM brings together firms and their suppliers who have diverse business methods and language into a working relationship (La zarevic, 2007).

Supplier relations are managed through strategies such as Supplier segmentation, SRM governance, supplier performance management, and supplier development, according to Zimmermann et al (2015). Supplier segmentation entails categorizing suppliers according to a set of criteria in order to identify the most important suppliers with whom to engage in SRM.

Launching operational SRM governance, particularly for strategic suppliers, is critical to unlocking SRM benefits (Fawcett et al., 2009).

Performance management entails the establishment and continuous implementation of operational measures that are mutually agreed upon with providers (Karen, 2012). Supplier development is defined as two entities working together to plan and outline long-term goals such as market penetration, joint ventures, or strategic alliances.

Because suppliers can affect the pricing, quality, delivery reliability, and accessibility of its products, Supplier Relationship Management is critical in the procurement function (Donald W., 2010). As a result, a well-organized SRM should be put in place to ensure a successful procurement.

### 2.2.5 Technology

According to Michael Huesemann's (2011) explanation, Moore's law which states that computing power doubles every two years, has had a substantial impact on the sector. The development of sophisticated tools for supply chain management has been substantial, spanning from strategic and tactical design tools for networks and warehouse layouts to warehousing management software.

Mechanical handling equipment advancements, ranging from simple forklift truck technology to completely automated "lights out" warehouses, have been a feature of IT advancements. The expense to implement new technologies and the requirement for technical competence to manage them were having high cost on the management system.

### 2.2.6 Production Management

The planning and control of all actions required to generate a set of products is referred to as production management. Production management thus includes crucial functions for a typical metalworking job shop, such as:

- Technological planning and product development
- Control and planning of production
- Controlling and planning materials
- Assurance of high quality
- Engineering for a lower price.

## 2.3 Supply Chain Performance

Karen M. Spens (2012) claims that supply chain performance can be measured both in terms of customer satisfaction and costs incurred, whereas Chan (2013) claims that customer satisfaction is a sign of a company's required standard service level, which is closely related to the overall performance of its supply chain. Supply chain performance evaluation is a difficult task.

Companies share supply chain information among partners to lessen the lack of demand visibility as it moves from downstream end customers to upstream partners in the chain, in order to improve overall supply chain performance and track supply chain activities work closely with customers and suppliers in order to improve information and product flows, and reduce surprises from demand fluctuations, enhance internal processes integration, work with suppliers to reduce lead times, reduce risk of supply disruption, mitigate the bullwhip effect, reduce supply chain cost of all members through collaboration and trust (Karen, 2012).

To summarize, various aspects influence supply chain performance, including sourcing strategy, distribution strategy, inventory management plan, collaboration with partners, information technology, and so on.

## 2.4 Supply Chain Management Problems

Supply chain management, like any other business practice, has issues that stem from uncertainty or the inability to coordinate several activities and partners, as Koh et al. (2007) points out.

Customers, for example, have gotten more discerning and are seeking higher-quality items, better service, and lower pricing (Sweeney et al, 2011).

According to a study done by Dawei Lu (2011), information sharing is a major issue among most supply chain participants, resulting in the bullwhip effect. The bullwhip effect refers to demand changes in the supply chain, which result in inefficient inventory management.

According to a study done by Cyrus (2014), risk management in supply chains continues to be an issue, owing to the potential of disruptions produced by both internal and external environmental forces.

Natural disasters, political and economic uncertainty are some of the origins of these hazards, which can come from suppliers, customers, or the internal environment.

According to Ballou (2007), fierce competition for market share remains a major issue within supply chains, while Stuart et al (2012) identified a lack of buyer-supplier trust and collaboration, supplier competency, and interpersonal relationships as major impediments to supply chain performance.

Karen (2012) listed insufficient supply chain management skills and qualifications, procurement malpractices, ineffective supply chain integration, poor supply chain connections, and industry structure as some of the issues faced by developing-country supply chains.

The question of whether these issues are common to all companies, industries, and geographic regions remains unanswered. However, as various researchers have pointed out (Karen, 2012), supply chain management concerns should be viewed in context, with current trends serving as the basis for decision-making and problem-solving. This motivates an investigation that is specifically targeted at supply chain management problems facing the food processing industry in South Africa, where existing developments may either validate or differ from trends in other environments.

## 2.5 Organizational Performance

Organizational or business performance can be defined as an organization's ability to achieve its stated objectives (Francis, 2015). In other words, it is a statement of the level of completed tasks

in relation to the business's goals or targets, as measured by the end-of-period outcomes. Every owner or management has the responsibility of ensuring that the business operates as efficiently and effectively as possible in order for it to be successful. However, a good grasp of the most critical drivers of business performance within companies, as well as a desire to use methods to improve these, are required to improve the efficiency and effectiveness of the firm.

Several academics have weighed in. According to Anderse et al., (2014), supply chain management is becoming more closely linked to corporate performance since it improves the movement of information, products or services, and cash. Furthermore, it means that the majority of supply chain management issues will result in business performance issues.

According to Liu (2012) supply chain success is linked to the performance of the different business entities that make up the supply chain. Successful supply chain performance management, for example, improves communication, productivity, operations and strategy monitoring, and problem solutions.

These advantages could have a positive impact on supply chain management systems, resulting in a link between them and business performance. Because there is no single, generally valid approach for measuring company success, it can be measured using either subjective or objective scales. However, in order to compensate for t, subjective and objective methods are sometimes blended.

## 2.6 Challenges in Implementation of SCM Practices

Despite the various advantages of Supply Chain Management, businesses who utilize supply chains continue to face obstacles and hurdles. These barriers can be found at the organizational, intra-organizational, and inter-organizational levels of the organization. Quality control issues, for example, may cause strategic supply chains to confront performance obstacles or the inability to meet consumer demand (La zarev, 2007).

In addition to this, it can be quite costly in terms of higher inventory and lower sales growth. The resisting forces not supply management practices come both from the nature of the organization itself and the people that compose the organization. These barriers can be classified under one of two headings: inter-firm rivalry and managerial complexity (Dawei, 2011).

Within the strategic supply chain, inter firm rivalry is defined as a misalignment of incentives and behaviors among allies. Internal and external turf protection, poor chain partner collaboration, and a lack of partner trust are all challenges in this category. A supply chain will be unable to achieve reduced costs and higher returns on investment without a desire to collaborate. It is observed that irregular collaborative meetings among chain partners hinder managers' opportunities to share with one another concerns, weaknesses, and best practices.

Other roadblocks to SCM include management intricacy or misalignment of a company's procedures, structures, and culture. Information system and technical incompatibilities, insufficient measuring systems, and opposing organizational structures and cultures are all examples of challenges in this area. The transition from controlling both independent operations and integrating operations into key supply chain operations is required for successful supply chain management. Despite the increased interest in SCM and the benefits, barriers, and bridges to its success, there is a need for multi-channel research that tackles all three challenges. Understanding how, when, and why some supply networks fail is essential.

Customers are seeking innovative items at the correct time and at a reasonable price, which is increasing the complexity of current supply chains. Companies face difficulties as a result of this, as establishing both responsive and cost-effective supply chains is extremely challenging.

### 2.6.1 Globalization

One of the most significant difficulties that businesses face is lowering supply chain costs. Companies have chosen to relocate manufacturing to low-cost nations around the world in order to decrease direct and indirect expenses and minimize taxes in order to meet customers' price expectations. However, having worldwide suppliers adds to the complexity that comes with long delivery lead times. Customers desire not only lower pricing, but also for their products to arrive on schedule (Eriksen, 2018).

### 2.6.2 Customer Preferences

Global supply chains, as previously noted, are complicated. When you add in the fact that product features are continually evolving, the challenge becomes considerably larger. Customers

put pressure on corporations to come up with the next big thing after a product is released. Innovation is critical because it allows businesses to remain competitive in the marketplace, but it is also difficult. Companies must redesign their products in order to improve them. (Varian, 2006).

### 2.6.3 Market Growth

The quest of new clients is another issue that poses a problem. From R&D to commercial launch, the cost of developing a product is enormous. As a result, businesses are attempting to expand their distribution into new markets in order to boost revenue and market share. Companies all across the world are projected to expand both domestically and internationally (Varian, 2006).

### 2.6.4 Customers' Expectations

Customers now are more demanding than ever before. Companies have responded with worldwide networks, product innovation, and market expansions, as described here. This means that, in order to remain competitive, organizations now rely on supply chain managers to optimize their value chains. As a result, it's not surprising that these experts are in high demand. Consumers can rest assured that supply chain management specialists, including our own Grainger Center alumni, are working behind the scenes to solve these issues on a daily basis and are ready to satisfy customers (David, 2014).

### 2.6.5 Supply Chain Decisions

According to Ram G. et al. (2018), supply chain management decisions are divided into two categories: strategic and operational. Strategic decisions are often made over a longer time horizon, as the phrase implies. These are intimately tied to the corporate strategy and, from a design standpoint, govern supply chain policies. Operational decisions, on the other hand, are made quickly and are focused on specific activities. Location, production, inventory, and transportation (distribution) are the four primary decision areas in supply chain management, and each of these decision areas has both strategic and operational features.

### 2.6.6 Location Decisions

The obvious first step in establishing a supply chain is to locate production sites, stocking points, and sourcing locations. The location of facilities necessitates a long-term investment of resources. The alternative channels via which the product travels through to the final client are defined once the size, number, and placement of these are identified.

These decisions are of great significance to a firm since they represent the basic strategy for accessing customer markets, and will have a considerable impact on revenue, cost, and level of service. These decisions should be made using an optimization routine that takes into account manufacturing costs, taxes, duties and duty drawback, tariffs, local content, distribution costs, production constraints, and so on. Although location selections are generally strategic in nature, they can have operational repercussions (Karen, 2012).

### 2.6.7 Production Decisions

What items to create and in which plants to create them, as well as the allocation of suppliers to plants, plants to DCs, and DCs to consumer markets, are important strategic decisions. These decisions, as before, have a significant impact on the firm's revenues, costs, and customer service levels. These judgments are based on the assumption that the facilities exist, but they dictate the particular path(s) that a product will take. Operational decisions focus on detailed production scheduling. These decisions include the construction of the master production schedules, scheduling production on machines, and equipment maintenance. Other considerations include workload balancing, and quality control measures at a production facility.

### 2.6.8 Inventory Decisions

These are the methods for managing inventories. Raw materials, semi-finished items, and final items all have inventories at various stages of the supply chain. They could possibly be in the middle of a transfer between locations. Their major goal is to protect the supply chain from any potential unpredictability. Because inventory storage can cost anywhere from 20% to 40% of its value, it's important to keep track of it. Most scholars, on the other hand, have tackled inventory management from an operational standpoint. At each stocking location, these comprise deployment tactics (push versus pull), control rules, determining the appropriate levels of order

amounts and reorder points, and setting safety stock levels. These are crucial levels since they are the major determinants of customer service.

### 2.6.9 Transportation Decisions

The portions of these judgments that deal with mode selection are the most strategic ones.

These are inextricably tied to inventory decisions, because the optimal mode of transport is frequently determined by balancing the cost of employing that means of transportation against the indirect cost of inventory connected with that method. While air shipments are quick, dependable, and require less safety stocks, they are also costly. Meanwhile, while transportation by sea or rail is less expensive, it necessitates the storage of a considerable volume of goods to compensate for the inherent risk involved. As a result, customer service levels and geographic location are important factors to consider while making such judgments. Transportation accounts for more than 30% of logistics costs, so operating effectively makes financial sense.

## 2.7 Empirical Literature Review

Though, there are several studies which conducted by researchers here and there few researches were reviewed based on their relevance to the study.

According to a study by Denisa(2014), Albanian beer manufacturers are aware of the numerous benefits of supply chain management, but the expense of applying supply chain methods is not justified, owing to a lack of consumer education in this subject. They are more concerned with the cost-cutting component of supply chain management, thus they look for dependable and trustworthy supply chain partners.

Supply chain collaboration can only succeed if decision-making rights are inked along with the appropriate information sharing on operations, as seen in the study of the beer sector in Kenya. Members of the supply chain must work harder to provide suitable incentives to stimulate and support supply chain performance. It's critical to devise a method for determining the amount of supply chain collaboration. This viewpoint will help practitioners and researchers think about assets like information systems, corporate processes, performance systems, and incentive programs in new ways.

Abiy (2015) studied the Implication of Supply Chain Management to Competitiveness: a case in BGI Ethiopia Plc. The findings of his research show that there is a relationship between SCM and company's performance, growth and competitive advantage. And the company faces some problems in the implementation of successful and quality management of supply chain.

Solomon(2014) An Assessment of Physical Distribution Practices in the Case of BGI Ethiopia Beer Factory the company problems in delivering products at the right time, available products with customers' desired level, distributing products wherever customers need it, handling materials safely, processing orders, executing orders, and handling complaints from customers satisfactorily, which indicate that the company isn't in a good position with regard to its physical distribution practices.

Sintayehu (2016) In his study Assessing the Perceived Performance of Supply Chain Management- the case of two brewery companies in Addis Ababa tried to show the gap related to joint planning, forecasting and sharing of supply chain information of BGI Ethiopia and Heineken Brewery Companies with their suppliers and customers.

A Study Done By Aswini Priya(2019) determine the impact of supply chain management practices (i.e., strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, postponement, and risk and reward sharing on organizational performance, that is, marketing performance and financial performance). The findings indicated that supply chain management practices (i.e., strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, postponement, and risk and reward sharing) have significant and positive impact on organizational performance (i.e., marketing and financial performance).

Habtamu Aboneh(2017) Supply chain is system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer. The purpose of this research is to study the effect of supply chain management practices (supplier relationship management, customer relationship management, level of information sharing and quality of information sharing) on organizational performance of Medtech pharmaceuticals, Zaf

pharmaceuticals, Amba pharmaceuticals, Cadila pharmaceuticals and Beker Pharmaceuticals. The study was employed through descriptive research design in which selection of respondents were done using stratified sampling technique which is a mixture of deliberate (purposive) and simple random sampling technique. The analysis was made using descriptive statistics and the significant relationship of the independent variables with the dependent variable was made using inferential statistics (correlation and regression analysis). From the descriptive analysis result, SRM has mean of 4.06 , CRM has mean of 3.77, LIS has mean of 3.89, QIS has mean of 4.14 and OP has mean of 3.94. From the correlation analysis result there were significant positive correlation between the two variables (quality of information sharing and customer relationship management) and organizational performance at ($p<0.01$) and ($p<0.05$) respectively. The other two variables (SRM and level of information sharing) have no significant correlation with organizational performance. Finally, according to the regression analysis result, only the two hypotheses (Ha2 &Ha4) which are customer relationship management and quality of information sharing has positive and significant influence on organizational performance is accepted. This implies that quality of information sharing and customer relationship management must be in the best attention of business organizations to take a proactive role in the management of their supply chain in establishing a strong position over its competitors and achieving its goals.

Ayalew, Birhanemeskel (2018) explores the interest in managing supply chains had grown rapidly among companies around the world. Many companies had moved aggressively to implement and improve on supply chain management practices with the hope of enhancing revenue, profitability, control costs and asset utilization, as well as lead to market share growth. However, these companies had not been able to formulate the right strategies required to achieve this task and this had affected negatively the performance of most organizations, therefore, the study investigated the effect of supply chain management practices on performance with reference to Awash wine. The objectives of the study were to establish the effects of strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing and internal lean practices on performance at awash wine s.c. the researcher concludes that four supply chain management practice constructs (customer relationship, level of information sharing, quality of information sharing and internal lean practices) have positive and

significant influence on organizational performance whereas, strategic supplier partnership has not statistically significant to influence organizational performance.

A Study Done by Muhammad Khuram Khalil et al., (2019) investigates the relationship between supply chain management practices and organizational performance with the mediating role of innovation. Findings reveal that strategic partnership with supplier and level of information sharing had no influence on organizational performance. In addition, quality of information sharing, internal supply chain process, and lean practices had significant influence on organizational performance. Moreover, all five practices of supply chain management had significant and positive influence on innovation. Meanwhile, innovation significantly and positively mediated the relationship between supply chain management five practices and organizational performance. The findings of this study will help managers of SMEs enhance their performance.

## 2.8 Research Gap

In general, a review of empirical studies reveals that the majority of the studies were conducted outside of Ethiopia, with few studies focusing on the practice and challenges of supply chain management. However, many scholars agree that supply chain function is critical to any organization; supply chain management strategy has become a business success, and developed and developing countries alike invest heavily in it.

The success of a supply chain depends on the correct application of supply chain principles, procedures, and a thorough grasp of them by supply chain management practitioners. They did not, however, attempt to demonstrate the company's SCM issues and their impact on business performance.

As a result, this study attempted to evaluate the smooth supply of raw materials utilized by the Heineken Brewery as well as the supply of items created by the company; excellent supply chain management is required. Any flaws in supply chain management can have a significant impact on product manufacturing and delivery to customers. This could have a negative influence on the manufacturing industry's profitability.

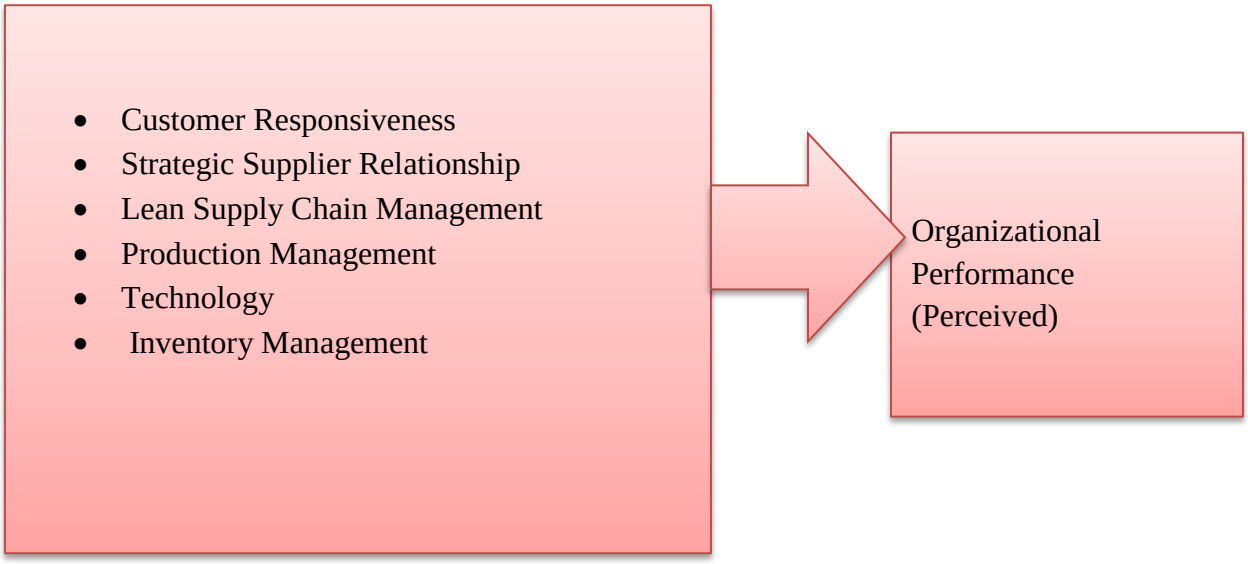
Whether you're beginning a new brewery or expanding an existing one, you'll need an efficient and effective supply chain that runs from the raw materials source to the consumer. Every brewer faced increased competition for materials, supplies, distribution, and consumer access. Those with the finest supply chain practices and execution will win.

However, none of the studies have identified the challenges faced in the field of supply chain in the brewing industry, as well as the implementation/practices of supply chain practices and challenges, and their impact on organizational performance, including customer responsiveness, Strategic Supplier Relationships, technology use, Lean Supply, production and inventory of SCM, and Supply Chain Performance

## 2.9 Conceptual Framework

Based on the above explained theoretical and empirical literature review, the following conceptual framework is developed. In the conceptual framework SCM practices such as customer responsiveness, strategic supplier relationship and lean supply chain management, production and inventory management are dependent variable while organizational performance is dependent variable.

Fig 2.1 Conceptual Framework




Source: Developed by the researcher (2021)

# CHAPTER THREE

# 3. RESEARCH METHODOLOGY

This section covers research methodology or the general method of the study, as well as the study's subject nature and type, research design, sources and types of data, target population, sampling procedure and sample size, data gathering tools, data collection procedures, data analysis methods, validity and reliability, and ethical considerations.

## 3.1. Research Design

Explanatory research design is used in this study. Because the study was designed to look at SCM methods based on fundamental theories, principles, and management philosophies that are intended to be useful metrics for evaluating Heineken Breweries' major business activities in Addis Ababa.

Accordingly, Heineken Breweries in Addis Ababa existing SCM practices and the challenges that prohibit its performance were evaluated. That means the purpose of the research is to find out the underlying facts and /or actual circumstances existing within the Heineken Breweries with regard to SCM practices and describing the facts. Therefore, researcher designed explanatory research type.

## 3.2 Research Approach

The researcher employed a mixed method to complete the investigation. Quantitative and qualitative data are used, with quantitative data taking precedence. It entailed the collection of quantitative data that was then subjected to a formal quantitative analysis. In order to examine and investigate the study issue, participatory qualitative approaches were used. The goal is of qualitative is to elaborate interview questions and help in explaining and interpreting the finding of quantitative study.

## 3.3 Population and Sampling Techniques

The target populations of the research paper were divided in to two parts, which were employees of the company and Distribution Agents of Heineken Breweries. For the purpose of this study, the researcher used probability sampling particularly stratified sampling technique. The target population for the study was classified into two strata. Thus are the employees of the company and distribution agents. Then the samples are selected from each stratum according to their proportion to the total population.

Since the information required for the study needs different people who have knowledge and awareness about different supply chain management practices/dimensions, operational performance and organizational performance of the firm, purposive sampling technique is used and most SCM employees were included but for other employee's probability sampling is applied.

## 3.4 Sample Size Determination

The total numbers of employees Heineken breweries are 280. This means that the total number of employee are the population of the study. By using Yamane (1967) formula the researcher calculates sample sizes as follows. In the formula a 95% confidence level and P=.5 are assumed for equation.

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

Where n is the sample size,

N is the population size

e is the level of precision

By using the above formula

$$\frac{280}{1+280(.05^{2)}} = 165 \text{ employees}$$

Regarding the distribution agents the researcher used convenient sampling techniques. Out of 135 distribution agents in Addis Ababa 40 of them are a part of the study.

## 3.5 Nature and Sources of Data

The research's validity is ultimately determined by the data source. It is why the study encompasses all Heineken Breweries employees. These necessitate the use of both primary and secondary data. All related books, academic journals, proceedings, books, articles contributed by various authors, supply chain management practice, and supply chain chai are taken in to account in analysis part.

## 3.6 Data Collection Tools and Data Collection Procedures

In general, there are two types of data sources: primary and secondary. Questionnaires, interviews, and document analysis were used to collect data from both primary and secondary sources for this study.

Throughout the project, questionnaires, interviews, and document analysis were employed extensively. Closed-ended questionnaires with a 5-point Likert scale were used. Questionnaires were used to collect data, which then is analyzed and allowing for tabulation of responses and quantitative analysis of specific parameters. Furthermore, it saves both the respondents and the respondents' time.

The purpose for using such a diverse set of data collection technologies could be to consolidate information dependability and triangulate dates. To arrive at definite findings and certain and applicable conclusion, the first step is to gather the essential information on the subject under research. As a result, several data collection equipment was developed.

Pilot testing were conducted in Heineken Breweries, Supply Chain Dept. In addition, comments on validity and clarity of the proposed data collection tools were revised by from the academic advisor. And then efforts were undertaken to improve the data collection instrument based on the comment suggest by the academic advisor.

Moreover, during the survey time, various documents relevant to the concerns under inquiry were thoroughly researched and debated. Following the completion of all of these actions, data collecting and analysis were carried out in accordance with conventional research methods.

## 3.7 Methods of Data Analysis

With the help of the Statistical Package for Social Sciences, descriptive analytical approaches were applied (SPSS version 23).Cronbach alpha is used to assess the variables' consistency. A five-point Likert-type response scale were used on the surveys (1 = strongly disagree, 2 =disagree, 3 = neutral, 4 = agree, 5 = highly agree). In addition, the information gathered were examined carefully.

## 3.8 Model Specification

An ordinary least square (OLS) or regression model is created to investigate the impact of supply chain management practices on organizational performance. Variables are carefully chosen after a thorough assessment of the literature. To investigate the straight-line associations between two or more variables and estimate the β's in the equation, multiple regression techniques were used.

Specified regression model equation for linear relationship among variables is;

$yj = \beta\ 0 + \beta 1x1\ j + \beta 2x2\ j + \ldots.. + \beta p\ xpj + \varepsilon$

Where:

Yj is represents dependent variable for observation j.

Xj is represents the independent variables (IV‟s)

β0 is the intercept

β is the unknown regression coefficients.

εj is the error (residual) of observation j.

On the basis of the foregoing, the model is adjusted based on the study variables given in chapter two's conceptual framework. The researcher develops a model to investigate the effect of supply chain management practices on organizational performance.

$Op = \beta\ 0 + \beta 1cr + \beta 2\ ssr + \beta 3lsc + \beta 4pim + B5t + \varepsilon$

Op= organizational performance

cr= customer responsiveness

ssr= supplier relationship

lsc= lean supply chain management

pim= production and inventory management

t= technology

B0, B1, B2, B3, B4, B5, = All are unknown Intercepts

ε=error term or the residual

## 3.9 Definition of Variables

**Strategic supplier partnership:** The organization's and its suppliers' long-term connection. It is aimed to assist participating firms generate significant long-term benefits by leveraging their strategic and operational skills.

**Strategic Supplier Relationship:** is a procurement strategy that includes the creation of strategic and operational procurement processes as well as the setup of supplier management (Appelfeller & Buchholz, 2005).

**Lean Supply Chain**: A collection of organizations that are directly interconnected through upstream and downstream flows of products, services, funds, and information and work together to cut costs and waste (Vitasek et al., 2005).

**Customer responsiveness**: it is customer-centrism perspective (Christopher, 1999 and Pine, 1993).

**Supply Chain Performance**:it is a customer satisfaction which is an indicator of a company's necessary standard service level, which is strongly linked to the overall performance of its supply chain (Chan, 2003).

**Supply Chain Practice**: A set of operations carried out by an organization to promote effective supply chain management. It covers the most recent developments in SCM, such as supplier collaboration, outsourcing, cycle time compression, continuous process flow, and information technology exchange.

**Supply Chain Management**: is a collection of facilities that create raw materials, turn them into intermediate items, and then transport finished products to clients via a distribution system. Procurement, manufacturing, and distribution are all covered.

**Technology**: Any digital equipment used to streamline supply chain activities for shippers and carriers is referred to as supply chain technology. Technology's Importance in Supply Chain Management

## 3.10 Ethical Considerations

Certain difficulties are addressed in the study, which uses human participants and investigates SCM procedures in Heineken Breweries. These considerations must be taken into account in order to protect the participants' privacy and security. These difficulties must be identified ahead of time in order to avoid future concerns that may arise during the study process. One of the most important is consent, confidentiality and data protection. People who are participating in the research are given an ample time to response to the questions pose on them to avoid errors and inaccuracies in their answers. The respondents also had given an abandonment regarding the confidentiality of their identity and the information that they are not wishes to disclose.

# CHAPTER FOUR

## 4. DATA PRESENTATIONS, DISCUSSION AND INTERPRETATION

In this chapter the collected data were presented, discussed and interpreted in relation to supply chain management in Heineken Company. This chapter covers three parts thus are demographic analysis, descriptive analysis and inferential analysis.

More specifically, this chapter covers the analysis and interpretation of the various data collected through the use of questionnaires and interview as per objectives of the study. The central emphasis of the research was to examine the effect of supply chain management practice on organizational performance: a case study in Heineken Breweries S.C. Primary data was collected from the employees and external customers of the company using questionnaire and secondary data was collected through reviewing journals, articles, and books and from the company policy, procedure, annual reports and loyalty indicators.

The collected data were described and analyzed using statistical tool SPSS. Out of the 205 participants 180 questionnaires were collected back and the responses of the distributi0on agents or customers as well as employees were analyzed together. The response rate of the data is 88% which is acceptable to continue the analysis and presentation.

### 4.1 Demographic Characteristics of Participants

In the demographic presentation the issue of gender, age, work experience and educational qualification of participants were explained as follows. The following table showed the demographic analysis.

Table 4.1 Summary of Demographic Variables

| No | Demographic variables | | Frequency | Percent |
|---|---|---|---|---|
| | Gender | Male | 100 | 55% |
| | | Female | 80 | 45% |
| | Age | 18 up to 25 years | 5 | 2.7% |

| | | | | |
|---|---|---|---|---|
| | | 25-30 years | 58 | 32.2% |
| | | 31-36 years | 52 | 28.8% |
| | | 37-42 years | 41 | 22.7% |
| | | Above 43 | 24 | 13.3% |
| | Education Qualification | Certificate | 13 | 7.2 |
| | | Diploma | 25 | 13.8 |
| | | First Degree | 112 | 62.2 |
| | | Master and Above | 30 | 16.6 |
| | Experience | under years | 13 | 7.2% |
| | | 3-6 years | 97 | 53.85 |
| | | 7-10 years | 58 | 32.2% |
| | | Over 10 years | 12 | 6.6% |

Source: Survey Result, 2021

The study involved gender distribution of respondents in order to answer the questionnaires provided as shown on the above table. The above table portrays that respondents of male and female answered the questionnaires distributed. Out of 180 respondents 55% were male while 45% were females. This indicates that in Heineken Breweries S.C. gender distribution were proportional. This implies that the both sex proportions of the company have the chance to be represented equally in every matter. In addition to this, in this study, age of the respondents was considered as demographic factor of the study. The study explains the effect of supply chain management practice on organizational performance in Heineken breweries S.C and the age distributions were taken as demographic factor of the study.

As the above table showed that the age group of respondents who are below 25 years are only five respondents, the number of employees is between 25 and 36 year becomes 58 respondents while below from 30 up to 35 becomes 52 respondents and above47 years become 68 respondents. Lastly all the age groups were involved in the study. From this we can infer that all age groups were represented and all interests and knowledge's of participates is expected to be included regarding supply cha9n management.

From the above table, we can observe that the majority of Heineken Breweries S.C. employees were first degree holder and master holders. Though most participants are degree holders, there are also diploma and certificate holders. From this it is possible to conclude that all level of understands regarding the effect of supply chain management were represented and majority of the respondents were degree and above which gives opportunity to reveal the experts comment on the study topic.

Regarding work experience most participants 53.85% were experience from 3 up to six and 32.2% were served in the company from seven up to ten. Even there are significant numbers of participants who are well experience in Heineken Company. This rich experience indicated that the subject matter of supply chain management were easily identified and reacted over the given questions.

## 4.2 The Current Practice of Supply Chain Management in Heineken Company

In many business supply chain management is the optimization of a product creation and flow from raw material sourcing to production, logistics and delivery to the final customer. In this case supply chain management is the overall management of from raw material accesses up to product deliverance in Heineken Company. The researcher identifies six crucial variables which has crucial impact on organizational performance.

### 4.2.1 Customer Responsiveness

In today's business world markets are changing due to customers dynamic interest and with the demand for verity of products and services becoming increasingly unpredictable in terms of quality, amount, and time required. The following table depicts the practice of customer responsiveness in Heineken Company.

Table 4.2 Mean and Standard Deviation of Customer Responsive

| | N | | Mean | Std. Deviation |
|---|---|---|---|---|
| | Valid | Missing | | |
| **Your organization shares a sense of fair play** | 180 | 0 | 3.8056 | .70193 |

| | | | | |
|---|---|---|---|---|
| **with its customers** | | | | |
| **Your organization frequently interacts with customers to set its reliability, responsiveness, and other standards** | 180 | 0 | 4.0222 | .75454 |
| **Your organization has frequent follow-up with its customers for quality/service feedback** | 180 | 0 | 3.5444 | .88009 |
| **Your organization measures and evaluate satisfaction** | 180 | 0 | 3.9000 | .93414 |
| **Your Organization frequently determine future customer expectations** | 180 | 0 | 3.5000 | 1.00000 |
| | 180 | 0 | 3.75444 | 0.85414 |

Source: Survey Result, 2021

The grand mean of customer responsiveness comes up with 3.7 with standard deviation .85. This relatively high mean indicted that the existence of good customer responsiveness in Heineken company. More specifically, Heineken Company tried to shares a sense of fair play with its customers and frequently interacts with customers to set its reliability, responsiveness, and other standards in the beer industry. In addition the company has frequent follow-up with its customers to get information about quality/service feedback of about the product. Furthermore the company frequently measures and evaluates customer satisfaction and determines future customer expectations.

In the open ended participants revealed that when customers come to the company for different type of service, the employees were greeting them by name. Any employee tries his best to have comprehensive information about internal or external customers. The participants reveled that most customers ends their service interaction fully satisfied.

In the interview the supply chain department manager revealed that the company is trying to empower every employee because the customer service is, expected to be the brand of the company. To achieve this goal, the company attracts the best talent with competitive pay and benefits and gives a clearly defined path of training and promotion. The human resource

department, show appreciation for hard work, and find ways to reward a job well done to increase employee satisfaction. In addition to this, the marketing department tries to manage customer expectations because customers expect to be transparent in any business transaction.

But in the open ended, few participants also point out that the customer relationship management tools are invaluable to personalize customer interactions but there is clearly stated customer relationship management strategy in the company. Due to this there is a difficulty of tracking customer preferences. Though the customer service agents are capable of working with a customer in person or cloud-based systems and mobile-friendly tools, most employees were not interested in this techniques due to privacy issue and work life balance issue.

### 4.2.2 Strategic Supplier Relationship

In today business environment, supply chain invention is an instrument that companies use to ensure well-organized supply chain management through partnership with outside supply chain partners. The contact between suppliers and buyers is especially vital in development of innovation resulting in improvements, modifications and development of new services, processes and products. Here under is the current practice of strategic supplier relationship in Heineken Company.

Table 4.3: The Mean and Standard Deviation of Strategic Supplier Relationship

| | N | | Mean | Std. Deviation |
|---|---|---|---|---|
| | Valid | Missing | | |
| **Firms in our supply chain establish more frequent contact with each other** | 180 | 0 | 4.0722 | .26416 |
| **Firms in our supply chain create a compatible communication and information system** | 180 | 0 | 4.4167 | .82472 |
| **Our firm extends its supply chain beyond its customers/suppliers** | 180 | 0 | 4.0389 | .74267 |
| **Our firm participates in the marketing efforts of its customers** | 180 | 0 | 4.7500 | .76083 |

| | | | | |
|---|---|---|---|---|
| **Our firm participates in the sourcing decisions of its suppliers** | 180 | 0 | 4.0056 | .69714 |
| **Grand mean** | | | 4.25668 | .457904 |

Source: survey result, 2021

The grand mean of strategic supplier relationship come up with 4.26 with standard deviation .45. This means that Heineken Brewery Company has a good practice of strategic supplier relationship. More specifically the company establishes more frequent contact with strategic partners and creates a compatible communication and information system to upper and lower customers. The company extends its supply chain beyond its customers/suppliers and trie to participates in the marketing efforts of its customers.

In the open ended participants revealed that the practice of supplier segmentation in Heineken which focuses on searching main suppliers that cannot be neglected in day to day activities of the company since they are all important. Generally the company works with numerous types of suppliers such as distributors, manufacturers, wholesalers and import sources. Each of these plays a vital role in the company's business and segmentation ensures they all receive the proper attention.

In the interview the interviewed revealed that diverse suppliers have a diverse effect on the business and to handle such case the company established the service level agreement with lower and upper customers, deliver the right information for the supplier, forecast things based on accurate ideas, follow a certain procedure, develop competitive requirement planning, appropriate cost assessment, supplier identification, addressing supplier concerns were the common practices that performed by Heineken brewery company.

On the other hand in the open ended participants list out the following crucial pointes such as the existence of poor Inventory management in the company or poor strategy creation to short term, middle and Long term goals, this caused poor overcoming supply chain risk at the supply chain lean. They point outs that the existence of poor just in time for the product distributer at the right amount and time. This leads to poor Buyer-seller communication.

### 4.2.3 Lean Supply Chain Management

As we know that Lean management is board concept especially for organizations that fabricate different items at different place and time. Heineken Brewery Company is a giant company and here under is the summer of its lean supply chain management.

Table 4.4 The Mean of Lean Supply Chain Management.

| | N | | Mean | Std. Deviation |
|---|---|---|---|---|
| | Valid | Missing | | |
| Our organization has continuous quality improvement program | 180 | 0 | 4.0111 | 1.12359 |
| Our organization produces only what has been ordered by customers (pull production system) | 180 | 0 | 3.377 | .86622 |
| Our organization pushes suppliers for shorter lead times | 180 | 0 | 3.483 | .87469 |
| Our organization streamlines ordering, receiving and other paper work from its suppliers | 180 | 0 | 4.1167 | .60051 |
| Our organization products are designed for modular assembly | 180 | 0 | 4.3667 | .85155 |
| **Grand mean** | | | 3.8711 | 0.86331 |

Source: survey result, 2021

The grand mean of lean supply chain management in Heineken Company is come up with 3.8 with it deviation .86. This mean showed the existence of good lean supply chain management implementation in the company. More specifically the organization has continuous quality improvement program and produces only what has been ordered by customers. In addition the company pushes suppliers for shorter lead times and streamlines ordering, receiving and other paper work from its suppliers. Generally the company products are designed for modular assembly

In the open ended participants revealed the practice of lean supply chain in Heineken brewery and the most common practices are the establishment of a governing supply chain council in the company. The council is governed by the general managers and meets every weakened to evaluate the

business performance. to do so the company establish alliances with key suppliers at lower and higher chain and develops in engaging collaborative strategic issues regarding the raw material quality and availability and the products distribution speed, inventory aspect and competitors pressure in raw material as well as product distribution. In addition to this, the company properly aligns and staffs the supply chain organization by establishing contracts under the supply chain function.

In the interview regarding the lean supply chain the interviewed revealed that the major rational of supply chain management in the company. He point outs the issue of, inventory, services or connivance to internal and external customer, quality and timely information to the conserved customer, sourcing raw materials and new markets, for effective distribution transportation and pricing were the common practice of the company.

### 4.2.4 Inventory Management

Inventory management is all about the process of ordering, storing and using a company's inventory. Inventory management is all about the administration of raw materials, machineries and ended products, as well as storing such items. Here under is the inventory management practice of Heineken company is depicted.

Table 4.4 mean of Inventory Management

| | N | | Mean | Std. Deviation |
|---|---|---|---|---|
| | Valid | Missing | | |
| Heineken brewery implement Collaborative Planning, Forecasting and Replenishment (CPFR) approach with its partners | 180 | 0 | 4.0056 | .69714 |
| Heineken brewery coordinates and manages inventories with all the supply chain partners. | 180 | 0 | 4.1056 | .91845 |
| We order a fixed quantity of inventory periodically | 180 | 0 | 3.9111 | 1.04261 |
| We order inventory in bulk to take advantage of trade discounts | 180 | 0 | 3.6500 | .84215 |
| We order inventory when we receive an inquiry from our customer | 180 | 0 | 3.6500 | .84215 |

| | | |
|---|---|---|
| Grand mean | 3.8644 | .86850 |

Source: survey result, 2021

The mean score of lean supply chain management is come up with3.8644 and its standard deviation is .86. This indicted that. Heineken brewery implements collaborative planning, forecasting and replenishment approach with its partners. The company coordinates and manages inventories with all the supply chain partners. In addition the company orders a fixed quantity of inventory periodically and only orders inventory in bulk to take advantage of trade discounts. In otherworld the company order inventory when it receive an inquiry from our customer.

In the open ended question participates revealed that the company were used clear labels and signage because relevant labeling provides quicker and more efficient fulfillment. In addition the company implements cycle counting and create an organized floor plan. The company believes in the importance of arranged warehousing but very few respondents additionally point out the prevalence of poor rate of inventory turnover and there are high amount of obsolete inventory in the company. Due to the obsolete nature, there is a high cost of inventory, because there are no consistent stocks out which lead to the prevalence of high amount of working capital and high cost of storage in the company. Lastly they point out the presence of spreadsheet data entry errors in the company which affects the inventory management in particular and the whole supply chain in general.

In the interview the interviewed revealed that due too many factors there were delayed delivery of orders from suppliers, due to this sometimes fulfilling the orders on time becomes impossible in the absence of proper stock information and leads to imbalanced inventory. If the inventory is not managed well, then it becomes hard to maintain a balanced stock and creates unsatisfied customers and waste of time and increment of costs for all firms whether they are distributer of suppliers but to hand such scenario we as company we are performing or spend money on specialized training for mission-critical achievement for different stakeholder and rearrange the warehouse to set up for picking efficiencies.

### 4.2.5 Production management

Production management is all about the control of manufacturing processes to ensure the production goes on efficiently at the required standard. Methods of production management are working in manufacturing as well as in service industries. Here under is the production management practice of Heineken Company. The following table showed in the form of mean and standard deviation.

Table 4.5 Mean and Standard Deviation of Production Management

| | N | | Mean | Std. Deviation |
|---|---|---|---|---|
| | Valid | Missing | | |
| The overall beer production is interlinked to the supply chain system | 180 | 0 | 4.0056 | .72078 |
| The production phase has strong relation with the inputs supplier and consumers need | 180 | 0 | 4.1333 | .79383 |
| The brewing process is interlinked with other systems in the company | 180 | 0 | 3.9833 | .94824 |
| The malting, milling, mashing, boiling, fermenting, conditioning, filtering, and packaging process is supported by the technologies | 180 | 0 | 4.0833 | 1.06165 |
| **Grand mean** | | | 4.051 | .88112 |

Source: survey result, 2021

The mean score of production management is 4.0 and its standard deviation is.88. This high mean value indicated that in Heineken the overall beer production is interlinked to the supply chain system and the production phase has strong relation with the inputs supplier and consumers need. In addition, the brewing process is interlinked with other systems in the company such as the malting, milling, mashing, boiling, fermenting, conditioning, filtering, and packaging process is supported by the technologies.

In the open ended, participants point out the common practice of the company regarding the production management. Most frequently mentioned pointes are issue of work flow that involves

the procedure of manufacturing a product according to a specific customer order and bunch production and mass or flow production. They point out the wise of resources such as human resources, financial resources raw material/inputs and inventors were managed properly whether it provides for the market or to the stock.

in the interview the interviewed point outs most common practice of handling production management in the company such as mass production or stream production, piece type of production, batch type of production and continuous production or process production while mass production is the dominant one in Heineken

### 4.2.6 Technology

Due to globalization companies were faced increased product complexity and service quality, and heightened customer demands in relation to speed, quality, and quantity. Businesses are taking up innovative technologies to renovate their supply chain from a mare operations hub into the all over business innovation. Here under is the technology usage of Heineken Company.

Table 4.6 Mean and Standard Deviation of technology

| | N | | Mean | Std. Deviation |
|---|---|---|---|---|
| | Valid | Missing | | |
| The company uses updated technology of the industry | 180 | 0 | 3.927 | .99737 |
| The company uses technology to enhance the SCM | 180 | 0 | 3.966 | .88375 |
| The firm uses technology to share timely and quality information to customers | 180 | 0 | 3.733 | .84298 |
| The upper and lower stream of customers are connected via technology | 180 | 0 | 4.088 | .99321 |
| Customers are aware of the company's technology in accessibility and usage. | 180 | 0 | 4.122 | .93746 |
| Grand mean | | | 3.967 | .93095 |

Source: survey result, 2021

The mean score of technology in Heineken Company is 3.96 and its standard deviation is .93. This indicated that the Company uses updated technology of the industry to enhance the SCM. The main reason for using technology to share timely and quality information to customers and the upper and lower stream of customers are connected via technology due to this, customers are aware of the company's technology in accessibility and usage.

In the open ended the participants revealed that the Heineken company follows a traditional beer production processes because the company is afraid that the change of technology would change or either harm the quality or the image of their beer.

## 4.3 Inferential Analysis

Scholars advise that before conducting inferential analysis, it is best to perform different tests or diagnosis of data such as the Skewness and Kurtosis, normality, Linearity, multicollinearity, Homoscedasticity and autocorrelation because regression analysis demands the validity of the above testes.

### 4.3.1 The Skewness and Kurtosis

Table 4.7: The Skewness and Kurtosis

| | | customer responsiveness | SSR | lSC | inventory management | Production management | Technology |
|---|---|---|---|---|---|---|---|
| **N** | Valid | 180 | 180 | 180 | 180 | 180 | 180 |
| | Missing | 0 | 0 | 0 | 0 | 0 | 0 |
| **Skewness** | | -.081 | 3.178 | .282 | -.398 | -.597 | -2.018 |
| **Std. Error of Skewness** | | .181 | .181 | .181 | .181 | .181 | .181 |
| **Kurtosis** | | .047 | 18.086 | -1.007 | -1.099 | -.548 | 2.309 |
| **Std. Error of Kurtosis** | | .360 | .360 | .360 | .360 | .360 | .360 |

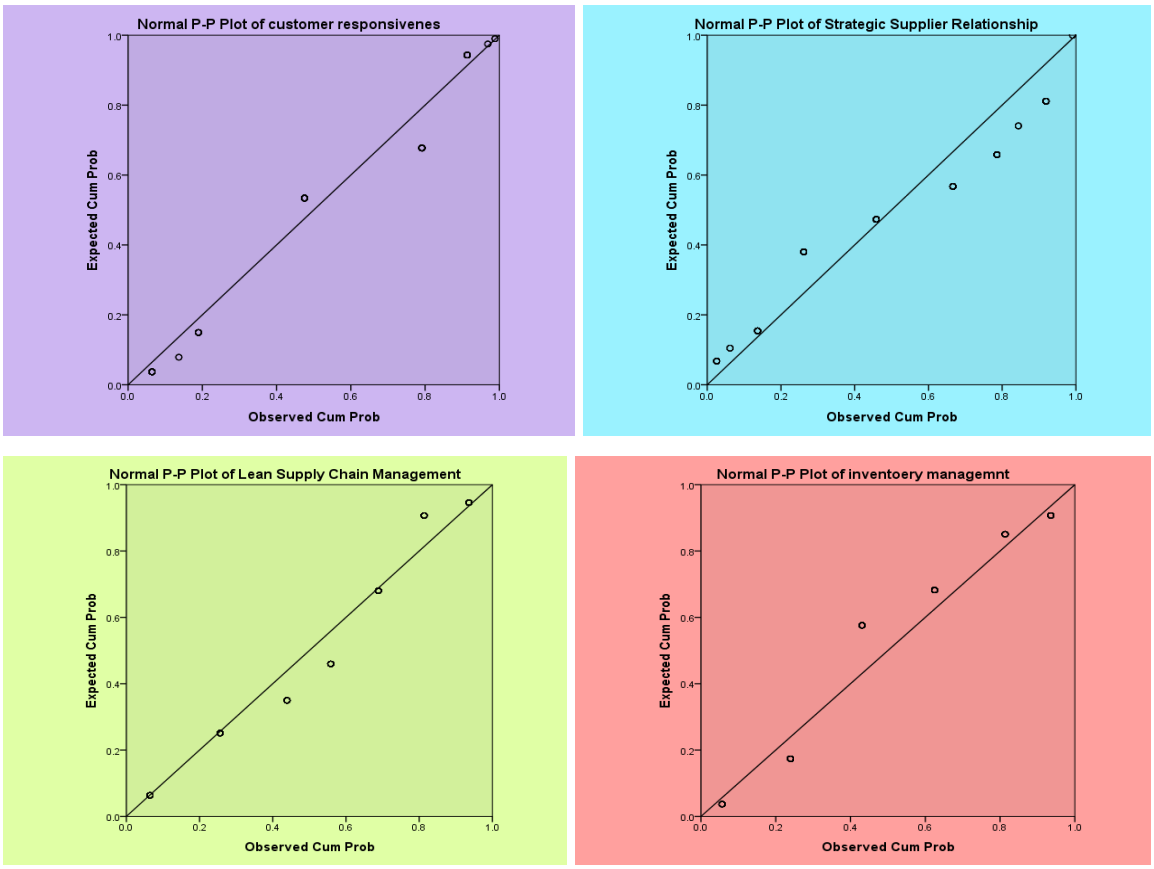
Source: Survey Result, 2021

The values of Skewness and Kurtosis within the range of +1.96 and -1.96 are the said to be acceptable but beyond these limits can be called skewed data. As we can see from the above table the data is not skewed or Kurtosis. It is normally distributed.

### 4.3.2 Normality and Linearity

The normality and the Linearity test can be detected from the following figure.

Figure 4.1: Normality and Linearity




Source: Survey Result, 2021

As can be observed from the above diagram the data were linear and normality distributed. The following histogram showed the distribution of upper bound and lower bound or distribution of data around the mean.

### 4.3.3 Multicollinearity

Strong relationship between explanatory variables is a problem of multicollinearity and not acceptable for ordinary list square regression analyses.

VIF has also been checked and values are found smaller, which supports that multicollinearity is not a problem. The following table shows the level of tolerance and the Variance inflation factor.

Table 4.8 Multicollinearity

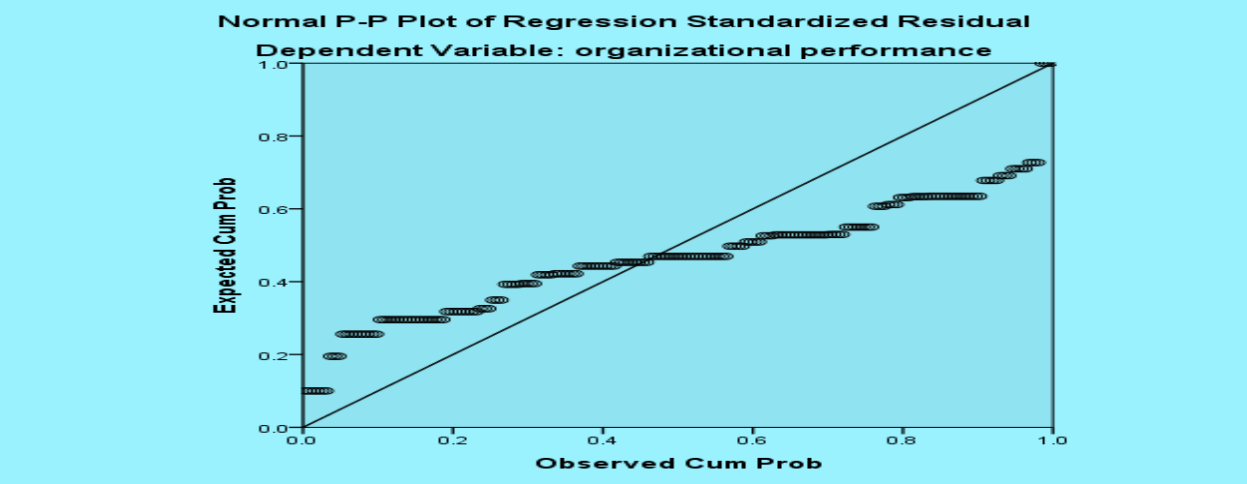
| Coefficients[a] | | | |
|---|---|---|---|
| Model | | Collinearity Statistics | |
| | | Tolerance | VIF |
| 1 | customer responsiveness | .720 | 1.389 |
| | Strategic Supplier Relationship | .818 | 1.222 |
| | Lean Supply Chain Management | .220 | 4.544 |
| | inventory management | .253 | 3.946 |
| | Technology | .552 | 1.811 |
| a. Dependent Variable: organizational performance | | | |

Source: Survey Result, 2021

### 4.3.4 Homoscedasticity

Homoscedasticity requires even distribution of residual terms or homogeneity of error terms throughout the data. Homoscedasticity can be checked by visual examination of a plot of the standardized residuals by the regression standardized predicted value. The following figure depicted heteroscedasticity is not a grave problematic for the study.

Fig 4.3 Homoscedasticity Figure




Source: Survey Result, 2021

### 4.3.5 Autocorrelation

This test or independence of errors refers to the assumption that errors are independent of one another, implying that subjects are responding independently Durbin-Watson statistic can be used to test the assumption. The following table showed the result which is not a serious problem.

Table 4.9 Autocorrelation Test

| **Model Summary**[b] | |
|---|---|
| Model | Durbin-Watson |
| 1 | 1.894[a] |
| a. predictors: (constant), technology, customer responsiveness, strategic supplier relationship, inventory management, lean supply chain management | |
| b. dependent variable: organizational performance | |

Source: Researchers Survey, 2021

## 4.4. Correlation Analysis

The value of coefficient of correlation (r) indicates both the strength and direction of the relationship. If r = -1 there is perfectly negative correlation between the variables. If r = 0 there is

no relationship between the variables and if r = +1 there is perfectly positive relationship between the variables.

The spear man Correlation Coefficient was computed to determine the relationships between, technology, customer responsiveness, strategic supplier relationship, inventory management, lean supply chain management and organizational performance. The value of the coefficient (r) ranges from -1 to +1.

Table 4.10 Correlation Result

| | | | CR | SSR | LSCM | IM | PM | Tech | OP |
|---|---|---|---|---|---|---|---|---|---|
| Spearman's rho | CR | Correlation Coefficient | 1.000 | .191* | .333** | .259** | .434** | .265** | .334** |
| | | Sig. (2-tailed) | | .010 | .000 | .000 | .000 | .000 | .000 |
| | SSR | Correlation Coefficient | .191* | 1.000 | .494** | .588** | .088 | .431** | .348** |
| | | Sig. (2-tailed) | .010 | | .000 | .000 | .238 | .000 | .000 |
| | LSCM | Correlation Coefficient | .333** | .494** | 1.000 | .749** | .069 | .816** | .270** |
| | | Sig. (2-tailed) | .000 | .000 | | .000 | .355 | .000 | .000 |
| | IM | Correlation Coefficient | .259** | .588** | .749** | 1.000 | -.356** | .570** | .224** |
| | | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 | .003 |
| | PM | Correlation Coefficient | .434** | .088 | .069 | -.356** | 1.000 | .249** | .474** |
| | | Sig. (2-tailed) | .000 | .238 | .355 | .000 | | .001 | .000 |
| | Tec | Correlation Coefficient | .265** | .431** | .816** | .570** | .249** | 1.000 | .493** |
| | | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .001 | | .000 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | OP | Correlation Coefficient | .334** | .348** | .270** | .224** | .474** | .493** | 1.000 |
| | | Sig. (2-tailed) | .000 | .000 | .000 | .003 | .000 | .000 | |

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

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

Source: Researchers Survey, 2021

As the above table showed that there are Significant correlation existed between technology, customer responsiveness, strategic supplier relationship, inventory management, lean supply chain management and organizational performance. More specifically, technology(r=.493**), customer responsiveness(r=.334**), strategic supplier relationship(r=.348**) inventory management(r=.224**) lean supply chain management(r=.270**) and production management(r=.474**).This implies that increase or decrease in independent variables is associated with similar change in organizational performance Heineken company in Ethiopia.

Though all variables have positive e association with dependent variable from the variables technology and production management has a strong association with organizational performance.

## 4.5 Regression Analysis

The model analysis includes the organizational performance as dependent variables and technology, customer responsiveness, strategic supplier relationship, inventory management, lean supply chain management as independent variable.

Table 4.11 Model Summaryb, Anovaa and Coefficientsa

| **Model Summary[b]** | | | | |
|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .380[a] | .144 | .115 | 1.20595 |
| a. Predictors: (Constant), Production management , Lean Supply Chain Management, Strategic Supplier Relationship, customer responsiveness, inventory management, | | | | |

| |
|---|
| Technology |
| b. Dependent Variable: organizational performance |

| ANOVA[a] | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 42.464 | 6 | 7.077 | 4.866 | .000[b] |
| | Residual | 251.597 | 173 | 1.454 | | |
| | Total | 294.061 | 179 | | | |
| a. Dependent Variable: organizational performance | | | | | | |
| b. Predictors: (Constant), Production management , Lean Supply Chain Management, Strategic Supplier Relationship, customer responsiveness, inventory management, Technology | | | | | | |

| Coefficients[a] | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | .209 | .925 | | .226 | .822 |
| | customer responsiveness | .407 | .251 | .170 | 1.624 | .106 |
| | Strategic Supplier Relationship | .118 | .119 | .078 | .995 | .321 |
| | Lean Supply Chain Management | .474 | .290 | .260 | 1.633 | .104 |
| | inventory management | .338 | .258 | .187 | 1.311 | .192 |
| | Technology | .337 | .235 | .206 | 1.431 | .154 |
| | Production | .802 | .251 | .428 | 3.196 | .002 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | management | | | | | |
| a. Dependent Variable: organizational performance | | | | | | |

Source survey result, 2021

As above table in model summary and ANOVA indicated that the combination of the organizational performance and independent variables are R=.380a, R square=.144 Adjusted R Square=.115. An estimated 11% of total variation in the dependent variable is jointly explained by the predictors, whereas the remaining is explained by other factors. Regarding the ANOVA table f=4.6 which is 46% is explained in the model or the model fits this amount.

Regarding the regression coefficient the above table showed the movement of dependent and independent variables. More specifically customer responsiveness with r=.170, Strategic Supplier Relationship r=.078, Lean Supply Chain Management=.260, inventory management r=.187, Technology r=.206 and Production management=.428. Implies that

- ✓ For ever unit an increment in Production management the organizational performance will be increased by 42.8% in Heineken company

The regression coefficient indicated that the company should work with production management. Technology and leans supply chain management because those variables were can impact the performance in strong manner as compared to other variables.

## 4.6 Hypothesis Testing

Based on the above regression coefficient table, the following hypotheses were established. In the sig value all hypothesis were rejected except production management but in there B coefficient they have the following conclusion

- ✓ ***H0: Customer responsiveness has not significantly affects organizational performance in Heineken Breweries S.C.*** This hypothesis is accepted because its B coefficient is insignificant.
- ✓ ***H0: Supplier relationship do not significantly affects organizational performance in Heineken Breweries S.C***

  This hypothesis is accepted because its B coefficient is insignificant. Therefore the alternative hypothesis is rejected but the null hypothesis is accepted.

- ✓ ***H0: Lean supply chain does not significantly affects organizational performance in Heineken Breweries S.C***

This hypothesis is accepted because its B coefficient is insignificant. Therefore the the null hypothesis is accepted.

- ✓ ***H0: Production management does not significantly affects organizational performance in Heineken Breweries S.C***

The null hypothesis is rejected because its B coefficient is significant. Therefore the alternative hypothesis is accepted.

- ✓ ***H0: Technology usage has not significant and positive effects organizational performance in Heineken Breweries S.C***

This hypothesis is accepted because its B coefficient is insignificant. Therefore the alternative hypothesis is rejected but the null hypothesis is accepted.

# CHAPTER FIVE

# 5. SUMMARY OF FINDING CONCLUSION AND RECOMMENDATION

## 5.1 Summary of Finding

The main focus of the research was to examine the effect of supply chain management practice on organizational performance in Heineken Breweries S.C. to accomplish this Primary and secondary data were collected and analyzed using statistical tool SPSS. Out of the 205 participants 180 questionnaires were collected back and the responses of the distribution agents or customers as well as employees were analyzed together. The paper covers demographic analysis, descriptive and inferential analysis.

In the demographic presentation the issue of gender, age, work experience and educational qualification of participants were explained. Out of 180 respondents 55% were male while 45% were females. Regarding the age group of respondents who are below 25 years are only five respondents while between 25 and 36 year becomes 58 respondents and below from 30 up to 35 becomes 52 respondents and above 47 years are 68 respondents. The majority of Heineken Breweries S.C. employees were first degree holder and master holders.

Regarding descriptive analysis, the mean of customer responsiveness is 3.7. This relatively high mean indicted that the existence of good customer responsiveness or the existence of sense of fair play with customers and the company has frequent follow-up with its customers to get information about quality/service feedback of about the product that helps to measures and evaluates customer satisfaction and determines future customer expectations. Lastly few participants also point out that the customer relationship management tools are invaluable to personalize customer interactions but there is no clearly stated customer relationship management strategy in the company.

The mean of strategic supplier relationship is 4.26 with standard deviation .45. This means that Heineken Brewery Company has a good practice of strategic supplier relationship. More specifically the company establishes more frequent contact with strategic partners and creates a compatible communication and information system to upper and lower customers. the practice of

supplier segmentation in Heineken which focuses on searching main suppliers that cannot be neglected in day to day activities of the company since they are all important. On the other hand there is poor Inventory management in the company or poor strategy creation to short term, middle and Long term goals, this caused poor overcoming supply chain risk at the supply chain lean which caused the existence of poor just in time for the product delivery.

The grand mean of lean supply chain management in Heineken Company is come up with 3.8 with it deviation .86. This mean showed the existence of good lean supply chain management implementation in the company. More specifically the organization has continuous quality improvement program and produces only what has been ordered by customers. There is also a practice establishing supply chain council. to do so the company establish alliances with key suppliers at lower and higher chain and develops in engaging collaborative strategic issues regarding the raw material quality and availability and the products distribution speed, inventory aspect and competitors pressure in raw material as well as product distribution.

The mean score of production management is 4.0 and its standard deviation is.88. This high mean value indicated that in Heineken the overall beer production is interlinked to the supply chain system and the production phase has strong relation with the inputs supplier and consumers need. In addition, the brewing process is interlinked with other systems in the company such as the malting, milling, mashing, boiling, fermenting, conditioning, filtering, and packaging process is supported by the technologies.

The mean score of technology in Heineken Company is 3.96 and its standard deviation is .93. This indicated that the Company uses updated technology of the industry to enhance the SCM. The main reason for using technology to share timely and quality information to customers and the upper and lower stream of customers are connected via technology due to this, customers are aware of the company's technology in accessibility and usage.

There is positive association between dependent and independent variables such as technology(r=.493**), customer responsiveness(r=.334**), strategic supplier relationship(r=.348**) inventory management(r=.224**) lean supply chain management(r=.270**) and production management(r=.474**). Though all variables have

positive association with dependent variable from the variables technology and production management has a strong association with organizational performance.

The combination of the organizational performance and independent variables are R=.380a, R square=.144 Adjusted R Square=.115. An estimated 11.5% of total variation in the dependent variable is jointly explained by the predictors, whereas the remaining is explained by other factors.

## 5.2 Conclusion

Supply Chain Management (SCM) is an important part of every organization, whether small or large. SCM is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage. SCM deals with the movement and storing of materials needed to create a product, as well as inventory management, and keeping track of finished goods from where they were created to who they go to. SCM is all about design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally. In Heineken Brewery Company the practices of supply chain management in selected dimensions were good and those variables have significant impact on organizational performance.

## 5.2 Recommendation

Based on the above conclusion the following recommendations were forwarded to Heineken Brewery Company.

- The company should improve its customer responsiveness in terms of asking customers what they want, perform a survey of existing customers about customer service channels which they prefer, try to manage customer expectations via different measurement, develop procedures than can handle the customers interest in the down as well as upper stream, train employees, and provide self-service options for customers.
- The company should improve be proactive, communicate regularly and effectively with customers and establish roles and responsibilities and remember them. Furthermore the

company should understand the contractual obligations with customers and behave ethically and honestly at all times

- The company should improve production and inventory management by the coordination of activities and applying accurate inventory management and should increase a manufacturer's overall competence.
- The company should improve the usage of technology by education and training use online resources.

## 5.3 Future Research Consideration

Anyone who is in trusted in supply chain management can perform a research by including other supply chain concepts such as trade management, Information quality and IT system, uncertainties, manufacturing capacity and Customer Satisfaction level because this study is covered only six variables. In addition to this, using panel or time serious data may create different outcome because the researcher used cross sectional data or capturing the filling at time.

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## Appendixes


COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

**Dear Respondents!**

The main objective of this questionnaire is to gather your opinion regarding the Effect of Supply Chain Management Practice on Organizational Performance: A case study in Heineken Breweries S.C. The data and opinion gathered will be used for partial fulfillment of the requirement for master's degree in international business at Addis Ababa University. Your faithful and quick response will make the research fruitful. The information you provide will be kept confidential. Thank you in advance for your collaboration. If you face problem in completing this form, please do not hesitate to contact in the following address.

Selamawit Tesfahun

Mobile= (+) 251930329217

## Part One: General Information of Respondents

Note:

- ✓ No Need of Writing your Name
- ✓ Circle your Answer

1) Gender: A. Male B. Female

2) Age: A. 18 up to 25 years B.25-30 years C.31-36 years

D.37-42 years E.43- 48 years F. above 48 years

3) Educational Qualification:

A. Certificate B. Diploma

C. First Degree D. Second Degree and above

4) Work Experience

A. under 3 years B.3-6 years

C.7-10 Years D. Over 10 years

Part II: Specific Questions about the Effect of Supply Chain Management Practice on Organizational Performance in Heineken Breweries S.C

- ***Note:*** Questions are designed to ask your level of agreement on the raised point. You chose from the given alternatives where

  SDA =strongly disagree DA = disagree

  N = Neutral A = Agree SA = Strongly Agree

| No | Items of questioner | SDA | DA | M | A | SA |
|---|---|---|---|---|---|---|
| | **Customer Responsiveness** | | | | | |
| 1 | Your organization shares a sense of fair play with its customers | | | | | |
| 2 | Your organization frequently interacts with customers to set its reliability, responsiveness, and other standards | | | | | |
| 3 | Your organization has frequent follow-up with its customers for quality/service feedback | | | | | |
| 4 | Your organization measures and evaluate satisfaction | | | | | |
| 5 | Your Organization frequently determine future customer expectations | | | | | |
| | **Strategic Supplier Relationship** | | | | | |
| 1 | Firms in our supply chain establish more frequent contact with each other | | | | | |
| 2 | Firms in our supply chain create a compatible communication and information system | | | | | |
| 3 | Our firm extends its supply chain beyond its customers/suppliers | | | | | |
| 4 | Our firm participates in the marketing efforts of its customers | | | | | |
| 5 | Our firm participates in the sourcing decisions of its suppliers | | | | | |
| | **Lean Supply Chain Management** | | | | | |
| 1 | Our organization has continuous quality improvement program | | | | | |
| 2 | Our organization produces only what has been ordered | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | by customers (pull production system) | | | | | |
| 3 | Our organization pushes suppliers for shorter lead times | | | | | |
| 4 | Our organization streamlines ordering, receiving and other paper work from its suppliers | | | | | |
| 5 | Our organization products are designed for modular assembly | | | | | |
| | **Inventory Management** | | | | | |
| 1 | Heineken brewery implement Collaborative Planning, Forecasting and Replenishment (CPFR) approach with its partners | | | | | |
| 2 | Heineken brewery coordinates and manages inventories with all the supply chain partners. | | | | | |
| 3 | We order a fixed quantity of inventory periodically | | | | | |
| 4 | We order inventory in bulk to take advantage of trade discounts | | | | | |
| 5 | We order inventory when we receive an inquiry from our customer | | | | | |
| | **Production management** | | | | | |
| 1 | The overall beer production is interlinked to the supply chain system | | | | | |
| 2 | The production phase has strong relation with the inputs supplier and consumers need | | | | | |
| 3 | The brewing process is interlinked with other systems in the company | | | | | |
| 4 | The malting, milling, mashing, boiling, fermenting, conditioning, filtering, and packaging process is supported by the technologies | | | | | |
| | **Technology** | | | | | |
| 1 | The company uses updated technology of the industry | | | | | |
| 2 | The company uses technology to enhance the SCM | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | The firm uses technology to share timely and quality information to customers | | | | | |
| 4 | The upper and lower stream of customers are connected via technology | | | | | |
| 5 | Customers are aware of the company's technology in accessibility and usage. | | | | | |
| | **Organizational Performance** | | | | | |
| 1 | Ability to respond to and accommodate demand variations, such as seasonality. | | | | | |
| 2 | Ability to respond to and accommodate the periods of poor supplier performance | | | | | |
| 3 | Ability to respond to and accommodate new products, new markets or new competitors | | | | | |
| | **Overall SCM in Heineken Breweries S.C.** | | | | | |
| 1 | Our organization rely on few dependable suppliers | | | | | |
| 2 | Our organization rely on few high-quality suppliers | | | | | |
| 3 | Our organization consider quality as number one criterion in selecting suppliers | | | | | |
| 4 | Our organization strive to establish long term relationship with its suppliers | | | | | |
| 5 | Our organization helps its suppliers to improve their product quality | | | | | |

Part Three: Open Ended Questions about Supply Chain Management Practice in Heineken Brewery Company

1. How do you see the supply chain management practice of the company (low, Medium, High) why and how?

_____

_____

2. How is the practice of Customer Responsiveness, Strategic Supplier Relationship, Lean Supply Chain Management and Production Management and Inventory Management in Heineken Brewery Company? Which dimension practiced more? Which dimension of supply chain is not practiced? How and why?


COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF MANAGEMENT

**Interview Guideline :** Checklist for key informant interview for Heineken Breweries S.C. Supply Chain Department Directors and senior experts

Place _____

Key informant interview Identification number _____

The Researcher signature _____

Name of Advisor _____signature_____

Date of Interview _____

Interview started at ____: ____hrs Interview finished at ___: ____hrs (fill at the end)

## Interview Question

1. How do you see the supply chain practice of the company( low. Medium or High) Please explain?
2. What is the best practice in relation to supply chain in the company?
3. How do you see the role of supply chain for the company profitability
4. How do you see the collaboration among Heineken Breweries S.C customers?

5. How do you evaluate the extent of information sharing practice between Heineken Breweries S.C and other stake holders?
6. Do you think that Heineken Breweries S.C has already established strategic or long term relationship with suppliers and customers?
7. What are the practices of strategic supplier partnership and their effect on operational performance of HBSC?
8. What are practices of customer relationship management and effect on operational performance of HBSC?
9. What is the level of information sharing with Supply chain partners and its effect on operational performance of HBSC?
10. How do you rate the quality of information with regard to accuracy, completeness, adequacy, timeliness and reliability and what are its effects on operational performance of HBSC?
11. What are the internal lean practices and their effect on operational performance of HBSC?
12. 6. Is (are) there any supply chain practice(s) which is (are) unique or special for your company