

**FACTORS INFLUENCING PERFORMANCE  
OF DISTRIBUTION SYSTEM IN BEVERAGE COMPANIES:  
A CASE OF SELECTED BEVERAGE COMPANIES IN DAR ES  
SALAAM REGION**

**By**

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**A Dissertation Submitted in Fulfillment of the Requirements for the Award of  
Master of Science in Procurement and Supply Chain Management of Mzumbe  
University**

**2019**

**CERTIFICATION**

The undersigned certify that I have read and here by recommend for acceptance by Mzumbe University a report entitled “Factors influencing distribution system in beverage companies. A case study for selected beverage companies in Dar es salaam region” partial in fulfillment of the requirement for the award of Master of Science in Procurement and Supply chain Management of Mzumbe University.

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## **DEDICATION**

I would like to dedicate this dissertation to my parents Mr and Mrs Kakama. Without their support and guidance i wouldn't have made it this far. Their strength and courage inspires me and makes me a better man. Also special dedications goes to my brothers and my sister namely; Francis kakama, Christopher kakama and Beatrice kakama for their daily encouragement and supports.

## **LISTS OF ABBREVIATIONS**

CRM	Customer relationship management
EDI	Electronic data interchange
ICT	Information communication technology
MRP	Manufacturing resources planning
POS	Point of sale
RFI	Radio frequency interchange
SBL	Serengeti breweries limited
TBL	Tanzania breweries limited

## **ABSTRACT**

The key objective of this study was to assess the factors influencing performance of distribution system in beverage companies by focusing on the selected beverage companies as a case study. Particularly, the study aimed to determine the influence of the information and communication technology, staffs competence and management support on the performance of distribution system in beverage companies.

The study was conducted in Dar es Salaam at several beverage companies and used case study research design. And used both primary and secondary data collection methods. Primary data were collected with the use of questionnaires and interview guides while secondary data collection involved the use of documentary reviews. Also the study used snowball and simple randomly as techniques for sampling with the 100 respondents as a sample size.

A correlation and regression analysis were engaged to elucidate the amount of relationship between the variables both dependent and independents and analyze the data. Additional, tables, charts and graphs were used to present the study results.

The study findings indicate that; information and communication technology and management support had a positive significant impact on the performance of the distribution system in beverage companies. Unfortunately staffs competence had less influence on the performance of the distribution system in beverage companies.

The finding of the study implies that information and communication technology and management support must be given due consideration if the companies want to improve and successes in their distribution system performance.

Based on the study results obtained, the researcher recommends that there is need for providing intensive and frequent trainings to the staffs in form of seminars and workshop so as to increase and improve their competence also to increase the uses of ICT tools like EPOS and other digital platform so as create awareness to their customers hence build good distribution system in their companies and also management within the companies must allow self creativity and innovations of their staffs and providing loans so as to motivate staffs to do better in distribution matters.

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# **CHAPTER ONE**

## **PROBLEM SETTING**

### **1.1 Introduction**

In this chapter the researcher provide the background information concern the distribution system in manufacturing industries. Also the researcher provides the statement of the problems and general and specific objectives of the study. Not only that but also the researcher provide the research questions, scope of the study and the significances of the study and organization of the study.

### **1.2 Background of the study**

For many business firms, distribution system is a major key factor for building a successful business (Chen and Lai, 2010). Mostly of the companies have structuring lasting longer competitive advantages over their market rivals by making excellent selection of distribution system, which facilitate easy conducting of their business (Achison, 2010). An outstanding distribution system is very important for any business firm to be very efficient and profitable in performance (Chung, 2001). Apart from that, business firm with the excellent distribution system bring in more profit than the one with the weak distribution system in their businesses. (Chen and Lai, 2010)

Distribution system is the group of people, industries or agencies participate in the movement of a product from the area of production to where they are needed, distribution system involves the flow of information simultaneously with financial, promotional and services that making the product suitable and attractive to the firms customers,(Revzan, 2012 ). On the whole distribution system is an important driver for the profitability of an industry since because it straight affects both the supply chain cost and the customer experience. Excellent distribution system of any firm can lead to the attainment of various logistics goals ranging from low costs to high customer responsive. (Chung, 2001)

According to Chari *et al* (2016) management support plays great roles in any success of the firm's distribution system. Lack of management support in any activities within the organization lead to the fall of many activities, management support plays important roles within since because it is the top management who initiate policies, agenda, and goals also approves finance in the organization, make long term plans and make the allocation of resources. Kemonto & Ngugi (2014) in their study also revealed that management support is very critical in increasing the distribution system and organizational performance at all.

Hagen (2010) noted that for firm's distribution systems to be more effectively and successful there is a need to integrate firms distribution systems with the information communication technology since because information communication technology can be used to by a company to enhance performance, sharing information internal, motivate internal staffs, increase competitiveness, and also Porter (2001) argue that ICT can give dominant strategic and tactical tools for organizations which if it's managed well, properly and used well, and also can create competitive advantage to the company against its competitors in the market and new entry.

Competency of the people involved in the distribution system is very important since distribution systems involve some group of people and agencies who participate in the movement of the products from the production areas to the places where they are needed (Banda, 2010). According to Christopher *et al*, (2010) qualified people with high skills and knowledge of the business enable to the firm's distribution system performances, people with skills, knowledge and experience of the business make it easy to perform better in the distribution system.

According to Chen and Lai, (2010 ) argue that distribution systems are the very important key driver for any business firm to successes due to its critical importance's such as reduces costs such as transportation costs, warehousing costs, and inventory

carrying costs. Not only that but also (Chung, 2001) suggested that firms must make good decision on the selection of the excellent distribution system since because an outstanding distribution system can be used by a firm to be responsive to their customers, this means that firms can improve their customer services also can be used to stabilize the prices of their products, increase of their market share by ensuring customer satisfaction.

Like in any business, distribution systems in companies also faces with some challenges which affecting the whole performances within the company. According to Papavassiliou,(2010) distribution system is faced with the challenges such as high transportation and logistics costs from the production areas to the areas where they are needed by the customers, incompetency of the people involved in the business, lack of proper enmities for storage. Achura *et al*, (2014) noted that the distribution system challenges faces by many firms were poor decision on the selection of system, financial capacity, poor packaging of the products and longer lead time due to the poor infrastructures such roads hence late delivery of customer order. According to Chukwudi, (2013) legal issues, poor management, lack of modern technology and lack of enough capital cause real challenge in many distribution firms to perform well in their business.

### **1.3 Statement of the problem**

Distribution system has become a terrific issue in many companies. Good distribution system of the company enhances its competitive advantage in the market, (Kotler, 2001). An excellent distribution system of the company enhance the competitive performance by closely collaborate the internal cross-functions within a company and efficiently connecting them with the suppliers and their customers and other participant members so as to be more successful. (Hussein & Nassar, 2010). The main function of the distribution system is make effective flow of goods or services from the manufacturer premises to the final consumers. Not only that but also distribution system of the

company aimed to supply necessary materials, protection of them which involves proper storage, proper handling and proper protection so as to ensure the materials are in good condition when they reach to the final customers. Effectiveness in distribution process reduces costs and increase customer satisfaction (Aylott & Williams, 2007)

Despite of the high importance of the distribution system in many manufacturing industries, there are numerous challenges facing distribution system of many manufacturing industries. These challenges make many breweries industries to fail to achieve their goals in timely manner. A lot of distribution system challenges starts with choice of mode of distribution, inexperience personnel with no knowledge of distribution, and lack proper means of communication, high transportation costs, logistics costs, poor packaging (Rushton *et al*, 2006). Also there is challenge of poor road network as a mostly challenges especially in many developing countries hence make difficult for products to be shifted from place of production to consumption area, also there is poor packaging of the goods hence cause bane for effective distribution( Kapoor and Kansal, 2009 ). And least but lastly there is a challenge of poor or insufficient storage amenities like fridges, lack of these amenities make difficult for the distribution of perishable products.

Rolnicki (1998) on his study identified different factors that influence the performance of the distribution system in manufacturing industries such as financial capacity, volume of production, distribution costs, Gacuru and Kabare (2015) conducted a study on the factors affecting distribution system performance only, while chukwudi (2013) and Oladun (2012) all these scholars deal only with the distribution strategies in the large manufacturing firms.

On the literatures it seems that many scholars conducted studies on the factors affecting distribution system performance and distribution system strategies only, therefore it's the desire of the researcher to fill the gap by conducting this study on the factors

influencing the distribution system performance in beverage companies like in Tanzania breweries limited, SBL, MO enterprise, Azam Company limited. The bases of this study aim on how the usage of ICT, staff competence and the management support influence the performance of the beverage industries distribution system.

#### **1.4 Objectives of the study**

##### **1.4.1 Main objective**

To determine the factors that influencing the performance of distribution system in Beverage companies.

##### **1.4.2 Specific objectives**

- i. To determine the ICT influence on the performance of distribution system in beverage companies
- ii. To determine the influence of staff competence on performance of distribution system in beverage companies.
- iii. To determine the influence of management support on performance of distribution system in beverage companies.

#### **1.5 Research questions**

##### **1.5.1 General research question**

What are the factors influencing the performance of distribution system in beverage companies?

##### **1.5.2 Specific research questions.**

- i. What is the influence of ICT usage on performance of distribution system
- ii. What is the influence of staff competence on performance of distribution system
- iii. What is the influence of management support on performance of distribution system

### **1.6 Significances of the study**

This study will help academic/professionals researchers from a wide range of disciplines by providing a reliable source of literature when carrying out their investigation on distribution systems in manufacturing firms. But also the study will identify other researchable areas which can be studied by other scholars concerning with the same field or other disciplines. The findings of the research will contribute existing body of knowledge to the researcher. It will also give a researcher work experience on factors that influencing the performance of distribution system in manufacturing industries. The findings also will provide Mzumbe University and manufacturing industries with relevant data that can guide other researchers to develop new studies, in regard the findings concern the factors influencing the distribution system performance in manufacturing firms. Finally the findings of the study will help large manufacturing organizations to understand the role played by those factors in enhancing competitiveness and how they can implement good competitive strategy for a long term goals.

### **1.7 Organization of the study**

This study compressed six chapters; first chapter described the background information of the study, statement of the study problem, study objectives, study questions and significances of the study. Chapter two explained the overview of distribution, distribution system, theoretical review, empirical review, conceptual framework and research model. While chapter presented the findings and analysis of the field data, chapter five based on the discussion of the field findings while the last chapter involved summaries, conclusion and recommendation based on the study findings.

### **1.8 Scope of the study**

The scope of this study titled factors influencing performance of distribution system performance in beverage companies only covered this area of the study with the three objectives; to determine the ICT influence on the performance of distribution system, to

determine the influence of staff competence on the performance of distribution system and finally to determine the influence of management support on the performance of distribution system in beverage companies. The study was conducted in dare s salaam where mostly of the beverage companies were found and only three districts namely; Ilala, Temeke and kinondoni were involved.

### **1.9 Limitation of the study**

During the data collection period, researcher faced with the challenge of some of respondents hesitated to provide and fill questionnaires which consume a lot of time. The researcher solved the problem by making follow up so as to make sure that the questionnaires were filled in rational time in order to meet university deadline.

## **CHAPTER TWO**

### **LITERATURE REVIEWS**

#### **2.0 Introduction**

In this chapter the researcher provided the overview of the distribution, the theoretical review concern the study, the empirical review of previous studies, conceptual framework of the study, the research model and the hypothesis formulated for the study.

#### **2.1 Definition of key terms**

##### **2.1.1 Distribution**

Distribution is the process of planning, implementing and controlling the physical flow of materials, final goods and related information from the production area to the place where they are needed to meet customers' requirements and for consumption. Kotler, (2001)

In this study distribution was defined as the all activities which involve movement of products from point of origin to the point where they are required.

##### **2.1.2 Distribution system**

According to Achison, (2012) distribution system is the association of people, institutions or agencies involved in the movement of a product to the consumers, together with the informational, financial, promotional and other services associated with making the product convenient and attractive.

This study was only deal with the physical distribution system.

##### **2.1.3 Physical distribution**

According to Aylott & William, (2007) physical distribution is the set of activities concerned with the efficient movement of finished products from the end of the production operation to the final consumer.

#### **2.1.4 Acquisition distribution**

Acquisition distribution system deals with all aspects of controlling distribution routes such as distribution channels. Aylott & William, (2007).

#### **2.1.5 Performance**

Is the act of achieving or fulfillment of purpose or task; example pay rise are now being connected more strongly to performance. Homby,( 2000)

### **2.2 Central purposes of distribution systems**

According to Gultinan & Nwokoye, (1975.) the central purposes of distribution systems are;

- i. To ensure that there is good flow of goods or information from the manufacturer up to the final customer. Another purpose is
- ii. To make goods available as it is important for shipment to different areas where they are required.
- iii. Thirdly, the distribution system is also in charge for the protection of goods such as handling and packaging as well as for the cost reduction. Most recent, distribution system is also affecting customer satisfaction.

#### **2.3.1 Physical distribution system**

Physical distribution involves planning, implementing and controlling the physical flow of materials and final goods from the point of origin of use to meet consumer needs at a profit. Kotler (2001).

Physical distribution is concerned with the physical movement of the goods from the producer to the consumer, Arnold *et al*, (2010). It is an important part of marketing activity and a major component of marketing mix.

It includes all those activities which help in efficient movement of goods from producer to consumer, such as transportation, warehousing, material handling, inventory control, order processing, market forecasting, packaging, plant and warehouse location and customer service. Stern *et al.*, (2006).

In this study Physical distribution is defined as the management of physical flow of products and establishment and operation of flow systems.

According to Arnold, *et al* (2010), physical distribution system has the following components;

**i. Order processing**

Is the first component in physical distribution, order processing involves activities such as receiving the order, managing of the order, composing credit, invoicing, dispatching and collecting bills. Accurately order processing must be done in order to delivery products of the customers according to their specifications and in right time, quantity, quality and place so as create customer satisfaction and loyalty.

**ii. Storage and warehousing**

Storage means retaining of products in a better condition until they are required by the customers, warehousing creates the storage functions. Areas where the products are stored are known as warehouse. Products which are stored in warehouses can be provided only if they are demanded by the customers. Marketing and assembling of the products are also other functions of warehouse warehouses can be divided into two groups such as storage warehouses and distribution warehouses. Warehouses helps in retaining the products for future use so as to harmonizing supply and demand in case of storage warehouse while distribution warehouses helps in assembling of the products and redistributing within a least period of time.

### **iii. Inventory management**

Inventory management refers to the well-organized management of the stored products in the warehouse. Inventories are very important for smooth flow of production, inventories in a production plays a big role since because they acts as link between customer orders and production therefore it needs to be managed and controlled in a better ways.

### **iv. Material handling**

Material handling involves the shifting of the products from the warehouse to the areas of loading in transport modes. Effective control of material handling enhances in elimination of unwanted movement of products, avoiding damage to the goods; facilitate order processing and efficient movement of goods.

In physical distribution material handling enhances in decrease in cost and improves service to customers. Efficient management of material handling system leads to efficiency of whole physical distribution system and thus makes it economical.

### **v. Transportation**

Transportation in physical distribution deals with the shifting of the products from warehouse up to the customers places where they are needed for consumption. Transportation involves loading and unloading of the customer products up to their places thus transportation creates place and time utility. Transportation in physical distribution determines the total distribution costs so it needs to be managed well so as to reduce excess costs so as to create more profits.

### **2.2.2 Goals of Physical distribution system**

Arnold *et al*, (2010) on their book “introduction to material management” identified the main goals of the physical distribution system as following;

- i. To ensure there is right goods in right quantity at right time and right place at lowest cost.
- ii. To attain least amount of inventory level and speed up transportation.
- iii. To set up price of products by efficient management of physical distribution activities.
- iv. To gain competitive advantages over market rivals by performing customer services more effectively.

### **2.3 Theoretical review**

There are various theories that can be used in describing the distribution system but due to the nature of the title the study will use the system theory of management in relation to the study objectives.

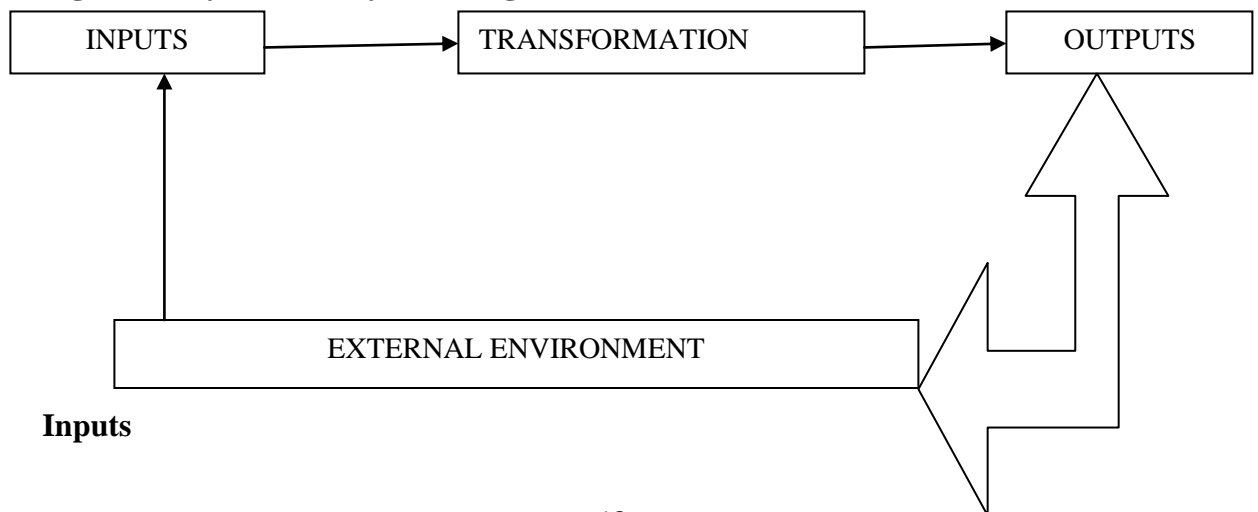
#### **2.2.1 System theory of management**

System theory of management was firstly proposed and developed by classical school of theorists such as Weber, Taylor and Fayol, but in recent years it was highly improved by the modern scholars such as Ludwing, Flood and Jackson to be used in the management (McShane & Glinow, 2003). System theory of management stated that organization success relies on synergy, interdependence and interrelated between different subsystems. Subsystem within an organization involves employees from different department, work groups, business units and facilities. According to Weihrich *et al*, (2008) system theory of management sees as a set of interrelated and interdependent parts that puts the organization like living organisms made up of numerous components, subsystem that must work together in harmony for the larger system to succeed.

The system theory focuses on understanding the organization as an open system that transforms inputs into outputs. McShane & Glinow, (2003). According Checkland, (2010) system theory of management enables the organization to examine its interaction with environment and on how to combat against the changes that can impacts the organization to achieve its predetermined goals. The assumption underlying system theory of management was that communication must be put into place within the system so as to exchange relevant information among the subsystem that work together so as to achieve the single goal within the system. McShane & Glinow, (2003)

The researcher applied this theory since; system theory of management in this study was used to measure the performance and control of the distribution system within the company so as to indentify the real outputs to the management support to the distribution system. This theory is very useful to the distribution system because this function integrate different channel within the company so as the system of the management should well to support distribution system. Also, the management should consider this theory in providing training to their staffs to improve distribution system within the company as well as ICT system to ensure linkage of information within the company from the top to the bottom, and the company with the outside the company so the company should consider this system theory to enjoy the benefit of the distribution system.

**Figure 2.1 System theory of management**



In this study the inputs are recognized as the factors which will facilitate the performances of the distribution system such factors includes the information communication technology, staffs competence and management support. The study wanted to understand on how these factors facilitate the performance of the distribution system.

### **Transformation process**

In this stage those inputs such as ICT, staff competence and management support will be transformed in effective and efficient ways that can produce great outputs in an organization. (Wehrich, *et al*, 2008)

Transformation process involves things like the training to the internal employees so as to improve their skills and acquire new knowledge so as to execute their tasks, staffs experience, policies and coordination of the tasks within the organization and the budget of the organization on handling distribution tasks like transportation.

### **Outputs**

Finally this is the last stage in this model where the finally results will be seen. Impressive outputs depends on the quality of inputs and their transformation process, quality inputs and transformation process will lead to achievement of better outputs. (Wehrich, *et al*, 2008)

In this study the outputs expected from the distribution system of several beverage companies can be like good services that will be provided by the employees, good products, profits to the organization due to the increase of sales, satisfaction of the customers due the services that provided by the organization like on time delivery, proper inventory management and increases of market shares.

### **2.3 Empirical review**

George, (2014) conducted a study on the “factors affecting the performance of distribution logistics among production firms in Kenya”. The study employed a case study research design. The findings of the study revealed that customers factors such location, quantities and orders. Product factors such as weight, shape, size and unitization all these affecting the performance of distribution logistics among the production firms.

Yeboah *et al*, (2014) conducted a study on “effective management in distribution strategies, a pre-requisite for retail operations”. The main objective of the study was to examine the best distribution strategy and factors that help the organization meet customer expectations. It was a case research design study which used a total of 105 respondents. The study findings indicated that the best distribution strategy depends on the target market and operational environment, also the study indicated that the explosion of the internet has greatly affect distribution.

Chukwudi, (2013) conducted a study to analyze the effectiveness of distribution strategies in the companies. The study findings indicated that high cost of transportation has affect the distribution activities of the company, also the study revealed that poor road network has affect the distribution of the company’s products hence late delivery due to the poor road network and finally government policy adversely affect the company distribution activities. The researcher recommended that the company must choose the routines of distribution with low costs so as lower the distribution costs and to be more effective in distribution of the products to their customers.

According to Ndung’u and Were (2016) conducted a study which focused on the factors affecting effective logistics management in the manufacturing firm. The study objectives were to find out how technology, employees and inventory management affects logistics management. The findings of the study revealed that technology was the likely factor

that affecting the effective logistics management compared to the other factors. Finally the study recommended that there is a need for a company to replace the outdated technology so as to boost the proper and effective logistics management within the company like to be more responsive to customer orders, also improvement in the inventory management so as to reduce unwanted costs and lastly employees should be motivated so as to have the effective logistics management within the company.

Oladun, (2012) conducted a study on “the impact of innovative distribution strategies on performance of the firms”. The findings of the study showed that size and sophisticated distribution strategies and channels big firms have achieved better performance than small firms. The study recommended that small both small and big firms must have good and excellent distribution strategies so as to perform better in creating better customer services.

According to Gacuru and Kabere, (2015), conducted a study on “factors affecting efficiency in logistics performance of trading and distribution firms” The study wanted to determine the factors affecting efficiency of logistics performance by checking on the competence and business to business relationship. The study findings indicated that the level of competence, business to business relationship affects the efficiency of logistics performance in trade and distribution firms. The study recommended that job training to the employees should be given due attention in order to improve employees skills and capabilities so as to enhance efficiency of logistics performance.

Nyalita (2009) conducted a study on the factors influencing the distribution channel performance within the firm. The findings of the study revealed that economic factors, managerial factors and technological factors have highly influencing the distribution channel performance. The study recommended that the company should make market segmentation so as to facilitate and make easily its distribution channel in the market.

According to Saraja (2013) conducted a study on the factors affecting supply chain management in manufacturing companies in Tanzania. The study aimed at assessing the effectiveness of supply chain management practices and to determine factors affecting supply chain management in manufacturing companies. The study revealed that the main factors affecting supply chain management practices were; employee's incompetence, technology incapability, improper distribution time management and high management cost with improper policies and regulations.

Tang (2013) conducted a study titled "assessment of factors affecting logistics performance in manufacturing firms". The study meant to determine six factors namely inventory, facilities, warehouses, transportation, purchasing and sourcing, information and communication technology. The results of the study indicated that transportation was the main critical factors that influencing logistics performance in the manufacturing firms. Tang (2013) recommended that manufacturing firms needs to have proper transportation management so as successes more in the logistics activities.

According to Mapunda, (2014) conducted a study on "performance of physical distribution of coca-cola supplies and its impacts on the profitability". The study employed case study research design. Purposive sampling was used to select the sample of 54 respondents out of population of 200 staffs. The main objective of the study was to determine the influence of material handling in physical distribution of bank supplies and on profitability also to explore the effects of order processing in physical distribution of bank supplies and on the profitability. Questionnaires, interviews and documentary review were the methods employed to collect data. The study findings indicated that there was higher transportation costs, delays of delivery of items to final users, wrong specification of ordered items due to lack of considering users requirements, damage of items due to the lack of material handling equipments, short of storage space hence results into poor performance of physical distribution which in turn increasing operational costs.

Sainchon (2016) conducted a study titled logistics integration for improving distribution performance in manufacturing firms. The study meant to examine how information integration, logistics coordination's, organizational relationship and institutional supports can improve the logistics performance in the firms. The findings revealed that information integration, organizational relationship and institutional support had positive significant role in improving the performance of the manufacturing firms as they both facilitate perfect order fulfillment and lead time.

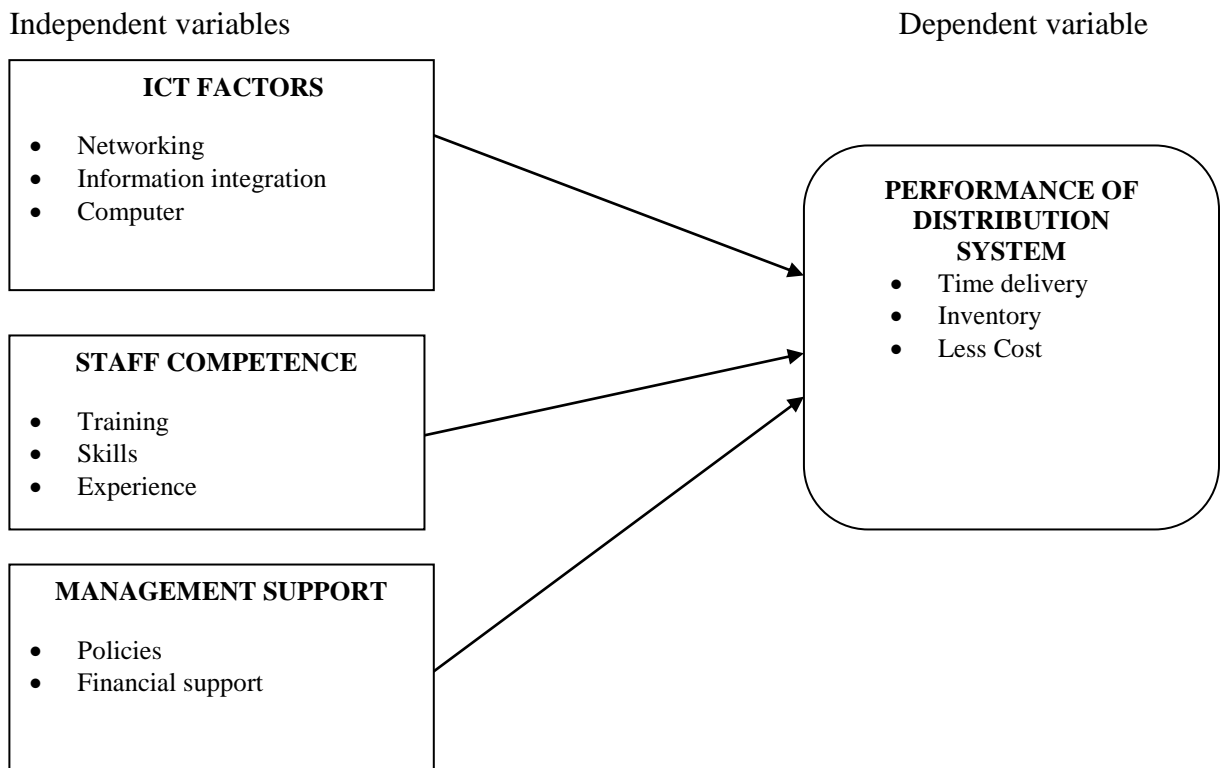
Uzel (2018) conducted a study investigating on the effect of physical distribution on the performance of the firm. The study aimed at the assessment of the effect of customer services, material handling and order processing on the performance of the firm. The study findings revealed that those have greatly effects on the firm performance hence the researcher recommended that there is a need to improve more customer services in the firm also improvement in material handling so as to enable smooth and efficiency operation. And finally order processing should be automated so as to enhance competitive edge and retain customers.

## **2.5 Conceptual framework**

According to Kombo and Tromp (2006), the conceptual framework can be defined as a set of broad ideas and principles taken from relevant field of enquiry used to structure a subsequent presentation. The conceptual framework is useful in directing, helping in organizing and collecting data. According to the specific objectives, the questions and literature review the following conceptual framework has been developed which was summarized below.

In this study dependent variable was performance of distribution system and independent variables were ICT factors, staffs competency and management supports.

**Figure 2.2 Conceptual framework**



### 2.5.1 Operationalization of variables

The conceptual framework reveals the relationship between variables such as independent variables and dependents variable. In this research study, independent variables were the ICT with sub variables of networking, information integration, also independent variable of staff competence has sub variables such as trainings, skills and experience while independent variable management support has sub variables such as policies and financial supports. The links between these variables were elaborated below;

### **2.5.2 The link between ICT and performance of distribution system.**

For the better performance in distribution system information communication technology is very important, Kim and Mahoney (2006) argue that information communication technology within the company act as a tool for cost reduction, time saving for supporting accurate information sharing between the two parties; also in return reduce errors in the delivery of the customer's orders for example the use of EDI. Not only that information communication technology reduce costs of carrying inventory, obsolescence and transportation through more accurate and timely information sharing between the two parties, industries and their customers. Mukhopadhyay & Kekre (2002). According to Hagen, (2010) information communication technology can be used to by a company to enhance performance, sharing information internal, motivate internal staffs, increase competitiveness, enhance market uncertainty and create competitive advantage to the company against its competitors in the market and new entry.

*H<sub>1</sub>: There is a significant relationship between ICT usage and the performance of physical distribution system.*

### **2.5.3 The link between staffs competence and performance of distribution system**

Effective training and development program to the internal staffs is the very significant factor for the hectic distribution system of the organization, if the organization provides different training and development programs to their internal staffs will results into higher productivity (performance) in the distribution system, staffs should have the opportunity to increase their skills hence resulting into an improvement in their performance. Macey (2006).

A better training and development program can lead to a significant cost reduction, in terms of managing transportation and storage costs. Seiler (2010). Training to the staffs should be a main focus for proper and better performance in distribution system in order to eliminate poorly management so as to avoid excessive costs in transportation, procurement, inventory and storage. Training modifies employee's behavior, attitudes

and values about their job and the organization as a whole. Employee's further gain requisite skills and this contributes to the better performance of the organization in its business. Brown & Sitzman, (2011).

*H<sub>2</sub>: There is a significant relationship between Staffs competence and the performance of physical distribution system.*

#### **2.5.4 The link between Management support and performance of distribution system.**

According to Chari et al (2016) management support plays great roles in any success of the company. Lack of management support in any activities within the organization lead to the fall of many activities, management support plays important roles within since because it is the top management who approves finance for any activities in the organization, make long term plans for the organization and make the allocation of resources. Kemonto & Ngugi (2014) in their study also revealed that management support is very critical in increasing the distribution system and organizational performance at all.

In particular management support ensures there is proper flow of goods across the distribution system from the organization premises to the areas needed for consumption. The achievement of a company's distribution system is consequently depending more on the company's capacity and management support. Oyuke & Shale (2014). Kemontu & Ngugi (2014) also considered that top leadership and management supports are very critical in guaranteeing the great performance in the company's distribution system. The role of management is to set up different policies that direct those within staff's practices. Hence distribution system in any company requires more management support so as to ensure that policies generated regarding the distribution system are enhanced so as to perform great.

*H<sub>3</sub>: There is a significant relationship between Management support and the performance of physical distribution system.*

## **CHAPTER THREE**

### **RESEACH METHODOLOGY**

#### **3.1 Introduction**

This chapter in this study was entailed research design of the study, area of the study area, study population and sample size and sampling procedure, research approach, methods of data collection, data analysis techniques and presentation.

#### **3.2 Research design**

This study was adopted survey research design, Kothari (2013) argued that, a survey research design method help the researcher to be more flexible in administer since because had many options like through online, email, mobile, and telephone. Also this research design can enables the researcher to describe the characteristics of large population which ensure a more accurate sample to gather targeted results in which make easy to draw conclusion and make decisions Saunders *et al.* (2007).

#### **3.3 Area of the study**

The study was conducted at Dare s salaam region where many beverage companies are found. The main reason for chosen beverage companies because were one deals with production, distribution and sale of malt beer, non alcoholic malt beverage and alcoholic fruit beverage TBL annual report (2009).

So it was good enough to got reliable data and information on the factors that influencing the performance of distribution system in beverage companies.

#### **3.4 Targeted population**

According to Wallen, (2002) study population shows the researcher group interest to the research from which the results were generalized. Population of the study also included

people or things the researcher tried to describe, observed or explained. So the targeted populations of this study were beverage companies' deal with distribution activities.

### 3.5 Sample size

The selected sample size was 100 respondents who were selected from different beverage companies. The sample size helped the researcher to get reliable data relating to the study topic. Sample size refers to the number of elements to be chosen from the universe to compose a sample Saunders *et al.* (2007).

The sample size should be ideal, neither too large nor small. The most and best favorable sample should be very efficiency, representative, reliable and flexible. Kothari (2013).

**Table 3.1 sample size**

Department	Target population	Sample size	Percentage
Finance	20	3	2.5
ICT	20	9	7.5
PMU	20	24	20
Marketing sales & distribution	30	40	33.3
Human resources	20	13	10.8
Other departments	10	11	9.2
Total	120	100	83.3

### 3.5 Sampling technique

In this study two sampling techniques were used namely; probability sampling and non-probability sampling. Non probability techniques involved both purposive sampling and snowball sampling while probability technique involved simple random technique. These methods were explained below;

### **3.5.1 Simple Random technique**

In this study, the researcher decided to use this technique to choose samples who were employees of the beverage companies to participate in this study. Through this technique every an individual had a chance of being participated. In the field a researcher obtained a list of various respondents involved in distribution from their managers. The researcher selected respondents in order to meet the study objectives. The important criteria to be selected were to be the employee of the company and experience of at least 3 years and above. Then after obtaining the names lists, each name was written on the piece of paper, folded and then shuffled in the box, then after 100 names of respondents were singled out and involved as samples.

### **3.5.2 Snowball sampling technique**

The technique was used to get respondents especially who were difficult to identified by a researcher. It was very tough task for the researcher to point out respondents who deal with distribution matters. Then with the assistance from leaders, the researcher indentified respondents like drivers after recommended by their leader. Magigi (2015) recommends the use of snowball sampling techniques using the previous informers who refer the researcher who would be the next appropriate informer.

### **3.6 Data collection method**

The researcher used several methods of data collection from two sources such as primary and secondary so as to get the best information which enabled the researcher to analyze the data. As sensitized by Kothari (2013) that the data collection techniques entails how data were collected from the field. In this study the researcher used questionnaires, interview as the data collection methods for primary data while documentary review for secondary data. The researcher employed these methods in order to get understanding of the study area and to avoid the weaknesses of one method give strengths the other methods.

### **3.6.1 Primary data**

For the purpose of this study primary data was collected from different methods of data collection such as follows;

#### **3.6.1.1 Questionnaire**

According to Goddard and Melville, (2010) a questionnaire a list of questions printed asked to the respondents to answer. In this study the researcher used closed and to obtain both quantitative and qualitative information, this method is practical approach of dealing with many respondents and it's easy to be employed. Before the researcher administered questionnaire to the respondents sampled randomly, the researcher formed friendly relationship with the respondents. The questionnaires contained the background of the respondents, the information and communication technology, staff competence and management support. All questionnaire provided were intended to meet the objectives of the study.

#### **3.6.1.2 Interview**

The researcher conducted direct interview to get qualitative information from the study key participants through the use of interview guide. Babbie (2009) argues that interview conducted for the purposes of gaining relevant information from the study respondents. In this study the researcher conducted direct interview with the members from the department of marketing sales & distribution transport, drivers and human resources since because they had much deals with the distribution issues in the company.

### **3.6.2 Secondary data**

Secondary data is the data from existing information such as published books, articles, internet search engines. One of the benefits of collecting secondary data is that it saves time and cost for the researcher since the researcher uses existing information. Another major advantage of this process is that it will serve as guide and aid on how to conduct the research (Saunders *et al.*, 2007). Secondary data may either be published data or

unpublished data. Relevant Source used for the purpose of this study, such as articles in academic journals, published books, search engines, internet with search tools like Google Scholar.

### **3.6.2.1 Documentary review**

The researchers reviewed different papers in order to access correct and consistent data. The documents reviewed were including; policies and regulations, statistical reports, unpublished and published reports about distribution issues. Descombe (2013) stated that advantages of reviewing documents that they are cost effective method and easy to access also this method was very useful since because in some situation respondents may fail to respond to all questions due to lack of correct memories and shortage of time.

### **3.7 Data analysis techniques**

Data analysis refers to investigative what were collected in a study and making deductions and inferences (Kombo & Tromp, 2006). Kothari (2009) defines data analysis as the computation of certain measures along with searching for patterns of relationship that exist among the data group. For data analysis the researcher used both correlation and regression analysis as the data analysis techniques to gather required information tables, percentages for manipulated. The researcher also processed the collected data through editing, coding, classifying, tabulating and charts. The data from the field were coded according to the theme researched on the study; the researcher used both qualitative and quantitative data in nature. This employed both descriptive statistics and multiple regression analysis by use of statistical package for science (SPSS). The researcher opted to use multiple regression analysis due to the nature of data to be continues with more than two variables.

The regression equation;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where; Y = performance of distribution system

$\beta_0$  = constant term

$\beta_1, \beta_2, \beta_3$  = Beta coefficients

$X_1$  = ICT factors (networking, information integration, computers)

$X_2$  = Staff competence (training, skills, experience)

$X_3$  = Management support (policies, financial)

$\varepsilon$  = error term

Through the research model lead to the researcher to formulate the following hypotheses below:

**H<sub>1</sub>**: ICT factors significantly influences distribution system performance

**H<sub>2</sub>**: Staff competence significantly influences distribution system performance

**H<sub>3</sub>**: Management support significantly influences distribution system performance

### **3.8 Data presentation**

In this study the data were presented in tables as according to Ojo, (2010) this method was used to summarize and make data in a good order. Tables were used to arrange facts and figures in columns and rows; hence they can be easily being examined in a good manner. Also through graphs in percentages and frequency whereby percentages was used to depict the distribution of respondents according to their responses, (Ojo, 2010)

### **3.9 Reliability and Validity**

#### **3.9.1 Reliability**

According to Goddard and Melville, (2006) reliability “means that measurements made are consistent such as if the same experiment is performed under the same conditions, the same measurements will be obtained”. Data reliability is a foundation of building a doing well and significant study. In this study the researcher had ensure the reliability of

the research findings by collecting data and information which facilitate the analysis and the discussion of the research findings. Researcher applied interviews, questionnaires and documentary review as the methods of data collection all these procedures were used to ensure reliability of data.

### **3.9.2 Validity of data**

According to Goddard and Melville, (2006) validity “means that the measurements are correct, such that; the instrument measures what it is intended to measure, and that it measures correctly”. The researcher ensured that the data and information obtained through interview, questionnaires, and documentary review were analyzed, presented, interpreted and discussed in a correct way and had standard results.

### **3.10 Ethical consideration**

Ethical consideration is the means taken by the researcher for the purpose of alerting the respondents on the issues to be done regarding the study. Full explanation was given to respondents on the purpose and use of the study in advance. Then, the researcher obtained consent from employees before involving them in the study. In order to ensure ethical conduct in the study all respondents, the researcher informed respondents about the study in order to have willingness to participate

## **CHAPTER FOUR**

### **PRESENTATION OF FINDINGS AND ANALYSIS**

#### **4.0 Introduction**

This chapter is premised on presenting the findings of the analysis performed on the data as described in the methodology in Chapter three of this study. In this chapter SPSS version 20 was used to present collected data from the fieldwork which were based on the research objectives of the study included;

- i. To determine how ICT usage influence the performance of distribution system in beverage companies
- ii. To determine how staff competenc influence the performance of distribution system in beverage companies
- iii. To determine how management support influence the performance of distribution system in beverage companies.

Also several method of data collection involves questionnaires, documentary review and interview were used to present data and then this chapter included data editing, cleaning and finally data coding.

#### **4.1 Responsive rate**

The researcher distributed 100 questionnaires to the respondents. However, not all respondents managed to return the questionnaires provided. Upon follow-up, the total number of duly filled and returned questionnaire was 100. This number implies that 100% of the total distributed questionnaires were returned. The researcher distributed a questionnaire regarding their department to enhance the reliability of information was provided in this study.

**Table 4.1 Responsive rate**

	<b>Sample size</b>	<b>Actual respondents</b>
Finance	3	3.0
ICT	9	9.0
PMU	24	24.0
Marketing sales & distribution	40	40.0
Human resources	13	13.0
Other departments	11	11.0
Total	100	100.0

## **4.2 Groundwork of Data analysis**

### **4.2.1 Data editing**

Data editing was a practice of determining the collected unrefined data to identify errors and omission and to approve when possible. The action involved careful inspection of the completed questionnaires. Data editing was taken place to guarantee the accurate, consistent of data with other information gathered, uniformly entered as finished as possible and had been well approved so as to make possible coding and tabulation Saunders *et al.*(2007). The data editing method was done to collected data by creating correction to the mistake that had been done, few of the respondents had missed to answer the questions by inaccuracy, so unwise method were used. Howel (2007)

### **4.2.2 Data coding**

Data coding referred to the process of assigning or driving codes from the collected data. Codes involve numbers or other symbols to the answers. The mains purpose of data coding was to make analysis of data more efficient, Kothari (2004). The questionnaires assigned to respondents were coded in number form and packed in SPSS program. SPSS facilitated coding by assigning variables names like V100, V200, V300 to represent variables and data set was filled in number form.

### **4.3 Information and communication technology on the performance of distribution system.**

The foremost research objective was to determine the influence of ICT usage on the performance of distribution system in beverage companies. It was hypothesized that there is a significant relationship between ICT usage and the performance of distribution system in many beverage companies. To accomplish this objective the researcher formulated different questions that intended to know how respondents were agreed or disagreed to the different statement. The following below were the questions asked;

#### **4.3.1 Internet services availability and uses and its influence on distribution**

The researcher aimed to find out how information and communication technology influencing decision making in beverage companies.

The table below indicates that 41 respondents agreed that there was availability of internet services and uses that influence distribution operations in beverage companies which is equivalent to 41% of the whole study population, while 21 respondents were neutral to this statement which made 21% also 20 respondents were strongly agreed which is equal to 20% and also 12 respondents were disagreed to this statement which made 12% and finally 6 respondents which is equal to 6% were strongly disagreed.

**Table 4.2 Internet services availability and uses and its influence on distribution**

<b>ICT</b>	<b>Frequency</b>	<b>Percent</b>
Strong disagree	6	6.0
Disagree	12	12.0
Neutral	21	21.0
Agree	41	41.0
Strongly agree	20	20.0
Total	100	100.0

#### **4.3.2 Presence of network cables wire in the company to support networking in distribution**

The research aimed to find out on how beverage companies acquires and get important information through the uses of network cables within the company to improve good relationship with their customers. Since because the researcher thought that good relationship between companies and customers makes customers to be loyal to the company.

The table below shows that 31 respondents were agreed, those respondents made 31% of the whole population study while 29 respondents were neutral to this statement which made 29% of the whole population study. Also 23 respondents which is equivalent to 23% were disagreed to this statement and 10 respondents were strongly disagree which is equivalent to 10% while 7 respondents equivalent to 7% were strongly agreed that information and communication technology enable to improve good relationship between companies and their customers through networking.

**Table 4.3 Presence of network cables wire in the company to support networking in distribution**

<b>ICT</b>	<b>Frequency</b>	<b>Percent</b>
Strong disagree	10	10.0
Disagree	23	23.0
Neutral	29	29.0
Agree	31	31.0
Strongly agree	7	7.0
Total	100	100.0

### **4.3.3 ERP/ SAP uses for effectively resources planning and improvement in distribution.**

The researcher intended to observe on how usages of Electronic resources planning/ system application and products in beverage companies enable to improve resources management. The researcher thought resources like inventory and other products hold by companies.

The table below indicated that 32 respondents which is equivalent to 32% of the total study population agreed that information and communication technology enable to improve the resource management in beverage companies while 27 respondents equivalent to 27% were neutral to this statement also 23 respondents were strongly agreed that information and communication technology enable to improve resource management while 14 respondents were disagreed equivalent to 14% of total study population and finally 4 respondents were strongly disagreed to this statement equivalent to 4% of the whole study population.

**Table 4.4 ERP/ SAP uses for effectively resources planning and improvement in distribution.**

<b>ICT</b>	<b>Frequency</b>	<b>Percent</b>
Strong disagree	4	4.0
Disagree	14	14.0
Neutral	27	27.0
Agree	32	32.0
Strongly agree	23	23.0
Total	100	100.0

### **4.3.4 EDI uses in improving company distribution operations**

The below indicated that 39 respondents were agreed to this statement equivalent to 39% while 23 respondents were neutral equivalent to 23% also 17 respondents were strongly agreed that Electronic data interchange enable to improve the company's

distribution operations which is equal to 17% while 15 respondents were disagreed equivalent to 15% and finally 6 respondents equivalent to 6% were strongly disagreed to this statement.

**Table 4.5 EDI uses in improving company distribution operations**

<b>ICT</b>	<b>Frequency</b>	<b>Percent</b>
Strong disagree	6	6.0
Disagree	15	15.0
Neutral	23	23.0
Agree	39	39.0
Strongly agree	17	17.0
Total	100	100.0

**4.3.5 EPOS uses in sales volume and data accumulations in distribution.**

The researcher wanted to know how beverage companies increase their profits by preventing loss of sales in distribution through the uses of electronic point of sales. The findings indicates that 6 respondents were agreed this is equivalent to 6% while 21 respondents were neutral equivalent to 21% and also 20 respondents were disagreed equivalent to 20% while 19 respondents equivalent to 19% were strongly agreed to this statement also 34 respondents were strongly disagreed equivalent to 34% of the total study population.

**Table 4.6 EPOS uses in sales volume and data accumulations in distribution.**

<b>ICT</b>	<b>Frequency</b>	<b>Percent</b>
Strong disagree	34	34.0
Disagree	20	20.0
Neutral	21	21.0
Agree	06	6.0
Strongly agree	19	19.0
Total	100	100.0

#### **4.3.6 Information and communication technology in increasing productivity**

The table below shown that 45 respondents equivalent to 45% of the total study population agreed that information and communication technology enable to increase the productivity in beverage companies also 24 respondents equivalent to 24% were neutral to this statement while 20 respondents equivalent to 20% were strongly agreed to this statement while 7 respondents were strongly disagreed equivalent to 7% of the whole study population while 4 respondents equivalent to 4% were disagreed to this statement.

**Table 4.7 Information and communication technology in increasing productivity**

	Frequency	Percent
Strong disagree	7	7.0
Disagree	4	4.0
Neutral	24	24.0
Agree	45	45.0
Strongly agree	20	20.0
Total	100	100.0

#### **4.3.7 Information and communication technology in reducing errors and paper works**

The researcher wanted to know how far information and communication technology reduce errors and paper works in beverage companies since because the information and communication technology system tend to reduce manual works which tend to cause errors. The study findings indicates that 33 respondents equivalent to 33% agreed that information and communication technology enable to reduce errors and paper works while 28 respondents equivalent to 28% were not sure, 23% of respondents were disagreed while 12% of the respondents were strongly agreed while 4% of the respondents were strongly disagreed.

**Table 4.8 Information and communication technology in reducing errors and paper works**

	Frequency	Percent
Strong disagree	4	4.0
Disagree	23	23.0
Neutral	28	28.0
Agree	33	33.0
Strongly agree	12	12.0
Total	100	100.0

#### **4.3.8 Information and communication technology in reducing lead time**

The table shown that 35% of the respondents were not sure if the information and communication technology reduce lead time, 32% of the respondents were agreed while 15% of the respondents were strongly agreed that information and communication technology reduce lead time while 14% of the respondents were disagreed and 4% of the respondents were strongly disagreed that information and communication technology reduce lead time.

**Table 4.9 Information and communication technology in reducing lead time**

	Frequency	Percent
Strong disagree	4	4.0
Disagree	14	14.0
Neutral	35	35.0
Agree	32	32.0
Strongly agree	15	15.0
Total	100	100.0

#### **4.5 Staff competence on the performance of distribution system**

Here the researcher interested to know if the employees of the beverage companies had enough competence in distribution system matter. The researcher measured competency through trainings, skills and experience of the employees.

#### 4.5.1 Trainings, seminars, workshop and knowledge sharing

The table below indicated that 39 respondents (39%) had agreed that there is trainings, seminars, workshop and knowledge sharing concern distribution matters, 23 respondents were not sure equivalent to 23% while 17 respondents (17%) were strongly agreed, 15 respondents were disagreed equivalent to 15%, 6 respondents equivalent to 6% were strongly disagreed.

**Table 4.10 Trainings, seminars, workshop and knowledge sharing**

	Frequency	Percent
Strong disagree	6	6.0
Disagree	15	15.0
Neutral	23	23.0
Agree	39	39.0
Strongly agree	17	17.0
Total	100	100.0

#### 4.5.2 Skills of the employees in maintain good relationship with customers

The table revealed that 33 respondents equivalent to 33% of the total respondents were agreed, 31 respondents equivalent to 31% were strongly agreed, 18 respondents (18%) were neutral while 14 respondents equivalent to 14% were disagreed and 4 respondents were strongly disagreed equivalent to 4% of the whole study population.

**Table 4.11 Skills of the employees in maintain good relationship with customers**

	Frequency	Percent
Strongly disagree	4	4.0
Disagree	14	14.0
Neutral	18	18.0
Agree	33	33.0
Strongly agree	31	31.0
Total	100	100.0

#### 4.5.3 Employee creativity and innovation in solving problems

Here indicated that 30 respondents both who were agreed and strongly agreed respectively equivalent to 60% in total of the whole study population had agreed that skills of the employees enable to be creativity and innovative in solving problems in distribution system, 23 respondents (23%) were disagreed while 10 respondents (10%) were strongly disagreed, and 7 respondents were not sure.

**Table 4.12 Employees skills in solving problems**

	Frequency	Percent
Strong disagree	10	10.0
Disagree	23	23.0
Neutral	7	7.0
Agree	30	30.0
Strongly agree	30	30.0
Total	100	100.0

#### 4.5.4 Employee experience in relation to decision making

The table below revealed that 42 respondents (42%) were agreed employees experience enable to make good decisions, 34 respondents (34%) were strongly agreed while 15 (15%) respondents were disagreed, and 6 respondents (6%) were strongly disagreed.

**Table 4.13 Employee experience in relation to decision making**

	Frequency	Percent
Strong disagree	6	6.0
Disagree	15	15.0
Neutral	3	3.0
Agree	42	42.0
Strongly agree	34	34.0
Total	100	100.0

#### **4.5.5 Employee experience in relation to working roles**

The table indicated that 39 respondents were agreed that experienced employee has known much of the working roles which are equivalent to 39%, while 24 respondents were not sure, 16 respondents (16%) were strongly agreed, 15 respondents (15%) were disagreed while 6 respondents equivalent to 6% were strongly disagreed.

**Table 4.14 Employee experience in relation to working roles**

	<b>Frequency</b>	<b>Percent</b>
Strong disagree	6	6.0
Disagree	15	15.0
Neutral	24	24.0
Agree	39	39.0
Strongly agree	16	16.0
Total	100	100.0

#### **4.6 Top management support in relation to distribution system performance**

The third objective sought to determine the roles of the management in facilitating the performance of the distribution system. The researcher provided questionnaires to respondents filled with the questions pertaining to their management roles;

##### **4.6.1 Management support in allocation of the resources**

The findings indicated that 40 respondents (40%) were agreed that there good allocation of the resources to facilitate distribution, 25 respondents (25%) were strongly agreed, 15 respondents equivalent to 15% were disagreed while 6 respondents were strongly disagreed equivalent to 6% of the total number of population study.

**Table 4.15 Management support in allocation of the resources**

	Frequency	Percent
Strong disagree	6	6.0
Disagree	15	15.0
Neutral	14	14.0
Agree	40	40.0
Strongly agree	25	25.0
<b>Total</b>	<b>100</b>	<b>100.0</b>

**4.6.2 Management support in budget approval**

From the table below, 33 respondents were strongly agreed that management provided full support by approving enough budgets for the distribution, 27 respondents equivalent to 27% were agreed, 23 respondents (23%) were disagreed, 10 respondents (10%) were strongly disagreed while 7 respondents (7%) were not sure.

**Table 4.16 Management support in budget approval**

	Frequency	Percent
Strong disagree	10	10.0
Disagree	23	23.0
Neutral	7	7.0
Agree	27	27.0
Strongly agree	33	33.0
Total	100	100.0

**4.6.3 Management support on formulating distribution policies and regulations**

From the table below indicated that, 35 respondents equivalent to 35% were agreed that management formulated different distribution policies and regulation, 32 respondents equivalent to 32% were strongly agreed, 20 respondents (20%) were disagreed, and 7 respondents equivalent to 7% were not sure, 6 respondents (6%) were strongly disagreed.

**Table 4.17 Management support on formulating policies and regulations**

	Frequency	Percent
Strong disagree	6	6.0
Disagree	20	20.0
Neutral	7	7.0
Agree	35	35.0
Strongly agree	32	32.0
Total	100	100.0

**4.6.4 Management support on attractive compensation packages and innovation**

From the table below, 34 respondents were agreed that their management provide attractive compensation package and innovation, 24 respondents were strongly agreed, 21 respondents were disagreed, and 11 respondents were not sure while 10 respondents were strongly disagreed.

**Table 4.18 Management support on attractive compensation packages and innovation**

	Frequency	Percent
Strong disagree	10	10.0
Disagree	21	21.0
Neutral	11	11.0
Agree	34	34.0
Strongly agree	24	24.0
Total	100	100.0

**4.6.5 Management on ensuring right recruitment of the employees.**

The findings indicated that 54 respondents equivalent to 54% were agreed, 25 respondents (25%) were strongly agreed, 9 respondents were not sure while 6 respondents were disagreed and 6 respondents were strongly disagreed who both made 12% respectively.

**Table 4.19 Management on ensuring right recruitment of the employees**

	<b>Frequency</b>	<b>Percent</b>
Strong disagree	6	6.0
Disagree	6	6.0
Neutral	9	9.0
Agree	54	54.0
Strongly agree	25	25.0
Total	100	100.0

#### **4.7 Correlation analysis**

The researcher decided to apply correlation analysis in this study to test the relationship between independent variables and dependent variable. This study involved hypothesis which the relationship of the variables applied which included: ICT factors, Staffs competence factors, and management support as independent variables as well as performance of the distribution system as dependent variable as follows:

##### **4.7.1 Correlation for ICT and performance**

The researcher tested the relationship between independent variables which included in conceptual model which was: Information and communication technology factors with dependent variable which was performance of the physical distribution system. The researcher found there was a correlation significant of 0.01 between these two variables, as well as positive relationship of 0.763 between information and communication technology and performance. This implies that this factor has stronger influence in performance of physical distribution system. This hypothesis was accepted due to the positive relationship.

**Table 4.20 Correlation of ICT factors and performance**

		ICT	PERFORMANCE
ICT	Pearson Correlation	1	.763**
	Sig. (2-tailed)		0.000
PERFORMANCE	Pearson Correlation	0.763**	1
	Sig. (2-tailed)	0.000	

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

#### 4.7.2 Correlation for Staffs competence

The researcher tested the relationship between independents variables which included in conceptual model which was: staffs competence factors with dependent variable which was performance of the physical distribution system. The researcher found there was a correlation significant of 0.01 between these two variables, as well as positive relationship of 0.804 between staffs competence and performance. This implies that this factor has stronger influence in performance of physical distribution system. This hypothesis was accepted due to the positive relationship.

**Table 4.21 Correlation for staffs competence and performance**

		PERFORMANCE	Staffs competence
PERFORMANCE	Pearson Correlation	1	0.804**
	Sig. (2-tailed)		0.000
Staffs competence	Pearson Correlation	0.804**	1
	Sig. (2-tailed)	0.000	

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

#### 4.7.3 Correlation for management support

The researcher tested the relationship between independents variables which included in conceptual model which was: management support factors with dependent variable which was performance of the physical distribution system. The researcher found there

was a correlation significant of 0.01 between these two variables, as well as positive relationship of 0.827 between management support and performance. This implies that this factor has stronger influence in performance of physical distribution system. This hypothesis was accepted due to the positive relationship.

**Table 4.22 Correlation for management support and performance**

		Management support	PERFORMANCE
Management support	Pearson Correlation	1	0.827**
	Sig. (2-tailed)		0.000
PERFORMANCE	Pearson Correlation	0.827**	1
	Sig. (2-tailed)	0.000	

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

#### **4.8 Multiple Regression Analysis**

The study show the relationship between the two variables by using inferential statistics to indicate the existing relationship between the variables both independents and dependent. The analysis used multiple regression analysis. The analysis consisted of three independent variables namely; information and communication technology, employee's competence and management support with dependent variable of performance in terms of sales volume, market share, delivery time, less costs. Multiple regression model was used to predict the relationship exist and the influence of independents variables in distribution system performance.

##### **4.8.1 Checking for Multiple Regression Assumptions**

Prior to running multiple regression models, it was crucial to examine the main assumptions of the multiple regression analysis. According to Pallant (2006), there are four assumptions of this model. Normality and outlier is the first assumption while Multicollinearity is the second one and lastly is homoscedacity. In Multicollinearity the researcher has to make sure that the variables are not too correlated, or badly correlated.

#### 4.8.2 Sample size

The initial assumption of the multiple regression analysis is sample size which is refer to the total number of the respondents participate in the study, Saunders *et al.* (2007). In multiple regression analysis, the sample size needs to be at least 100 respondents. Hence this study satisfies this assumption by including 100 respondents.

#### 4.8.3 Normality

To make sure that there is significant relationship and tests across variables multiple tests assume that the variables are normally distributed around the sloping line. Osborne (2001). In order to testing normality the researcher looked at P-plot of the model but, if the dots are very close to the sloping line it indicated that they are nearer to normal and normality exists while if dots are widen away from the sloping line it shows that the there is no normality as residuals are not well distributed.

#### 4.8.4 Multicollinearity

This assumption stand on the reality that the independent variables used in the study should be independent from each other. George &Mallery (2003). The Multicollinearity assumption tested by using tolerance and variance inflator factor (VIF) as it is stated the maximum acceptable value for VIF value is 10 anything higher would indicate Multicollinearity problem while the minimum cutoff of point for tolerance is 0.20 anything smaller than that will indicate Multicollinearity problem.

**Table 4.23 Multicollinearity**

Variables	Tolerance	VIF
ICT	0.191	5.237
Staff competence	0.110	9.129
Management support	0.138	7.260

#### 4.9 Evaluating the model

Following the preface evaluation were made to examine if the multiple regression assumptions were met, Statistical Package for Social Science (SPSS) version 20 was used to run the regression analysis. The outcomes of the analysis indicated that the overall contribution of the model to dependent variable was 81% with the respect of  $R^2$ . The results as summarized in the table below entail that 81% of the variations in the dependent variable are subjective by independents variables.

**Table 4.24 Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.900 <sup>a</sup>	0.810	0.804	0.428

Predictors: (Constant), Management support, ICT, Staff competence  
Dependent Variable: PERFORMANCE

#### 4.11 ANOVA on the performance influence of distribution system

**Table 4.25 ANOVAs**

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	75.095	3	25.032	136.385	0.000 <sup>b</sup>
1	Residual	17.620	96	0.184		
	Total	92.715	99			

a. Dependent Variable: PERFORMANCE

b. Predictors: (Constant), Management support, ICT, Staff competence

The model is significant at  $F= 136.385$  and  $P= 0.000$  shown that performance of distribution system can be predicted by information and communication technology, staff competence and management support and this signifying that there is a significant relationship between the studied variables.

The following below is the outcomes of the multiple regression analysis. The table mainly shows all the variables both independents and dependent and how the independents variables influence the dependent variable.

#### 4.12 Coefficient of regression

**Table 4.26 Coefficient**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error				
	(Constant)	0.271	0.208		1.301	0.196
1	ICT	0.536	0.133	0.410	4.027	0.000
	Staff competence	-0.314	0.152	-0.279	-2.073	0.041
	Management support	0.827	0.126	0.785	6.549	0.000

a. Dependent Variable: PERFORMANCE

Information and communication technology was found significantly influence the performance of the distribution system where beta value was positive 0.410 and significant at p value less than 5% ( $p < 0.000$ ), this indicates that the performance of distribution system will increase by 41% through the increase usage of information and communication technology. The multiple regression analysis indicated that staff competence is not significant related to the performance of the distribution system. The significant level exceeded 5% of tolerable margin of confidence; hence this variable does not have influence on the distribution system performance. Furthermore Management support was found to be significantly influence the performance of the distribution system where beta value was positive 0.785 and significant at p value less than 5% ( $p < 0.000$ ), this show that the performance of distribution system will increase by 78.5% when there is strong management support on the distribution.

**Table 4.27 Coefficients of sub variables**

<b>Variable</b>	<b>Std.(beta)</b>	<b>S.E</b>	<b>t-value</b>	<b>Sig</b>
Networking	0.879	0.051	18.265	0.000
Information integration	0.767	0.078	11.832	0.000
Experience	0.663	0.077	8.765	0.000
Policies	0.637	0.087	8.179	0.000
Skills	0.654	0.076	8.551	0.000
Financial support	0.817	0.043	14.041	0.000

The table above had shown the relationship between the sub variables of ICT, Staffs competence and management support and the performance of the distribution systems in beverage companies.

#### **Networking and the distribution system performance**

Networking as the sub variable of ICT found significantly influence the performance of distribution system in beverage companies because the p-value is less than 5% ( $p < 0.001$ ). Also it shows that a unit increase of networking in the company will increase the performance of distribution system by 87.9%.

#### **Information integration and the distribution system performance**

There is significant relationship between information integration and the distribution system performance whereby beta value was 0.767 and significant at p-value 0.000. The result indicated that the increase of company information integration will results in 76.7% increase in distribution system performance.

#### **Staffs experience and the performance of distribution system performance**

Also there is positive significant relationship between staffs experience and the performance of the distribution system because the beta value was positively 0.663 and

significant at p-value less than 5%. This reveals that performance of distribution system will increase by 66.3% in the course of the increase of staff experience.

#### **Staffs skills and the performance of the distribution system performance**

Staffs skills was found associated influence the performance of distribution system where beta value was 0.654 and p-value was 0.000. This indicates that the increase of skills will increase 65.4% of performance of distribution system.

#### **Policies and the performance of the distribution system performance**

There was significant relationship between policies and the performance of the distribution system. Whereby beta values found to be 0.637 and significant at 0.000, this implies that existence of strong policies in distribution system will increase performance in distribution system by 63.7%.

#### **Financial support and the performance of distribution system performance**

The coefficient of the financial support was positively significant whereby beta value was 0.817 and was significant where p-value was 0.000. This implies that the increase of financial support will increase distribution system performance by 81.7%.

## **CHAPTER FIVE**

### **DISCUSION OF THE FINDINGS**

#### **5.1 Introduction**

In this chapter the findings from the study were discussed. The main objective of the study was to assess factors that influencing the performance of distribution system in beverage companies and the specific objectives of this study were;

- i. To determine the ICT influence on the performance of distribution system in beverage companies
- ii. To determine the influence of staff competence on the performance of distribution system in beverage companies
- iii. To determine the management support influence on the performance of distribution system in beverage companies.

#### **5.2 Information and communication technology on the performance of distribution system**

This was a first objective of the study which assessed the influence of ICT usage on the performance of the distribution system. The research findings indicated that there was positive relationship between ICT usage and the performance of the distribution in beverage companies. The findings indicated that ICT usage explains 41% of the performance of the beverage companies and there is significant relationship between ICT usage and distribution system performance at p-value less than 5%.

The research findings are in line with the several studies of scholars. Hagen (2010) found that the usage of information and communication technology has revealed positive relationship on the productivity and competitive advantage of the company. This agreed with Porter (2001) argue that ICT can give dominant strategic and tactical tools for organizations which if it's managed well, properly and used well, and also can create

competitive advantage to the company against its competitors in the market and new entry also on time delivery of the orders and reduce operation costs.

Information and communication technology meant at examining the influence of networking and information integration and their influence on the performance of the distribution system. Networking is one among of the information and communication technology variables which its coefficient was positively 0.879 related to the performance of distribution system and it as significantly since because the p-value was less than 5% ( $p < 0.000$ ).

This implies that the networking of the company will increase 87.9% of the performance of distribution system. These results supported by the study of Diem, (2007) that “networking enables the company to advertise its products and provide majority awareness on the products its produce; this in turn the company can distribute its products properly”.

On the other hand, the findings revealed information integration had significant relationship to the performance of distribution system whereby beta value was positively 0.767 and significant at p-value less than 0.05 ( $p < 0.000$ ), this indicated that the performance of distribution system will increase by 76.7% in course of increase in information integration. This furthermore shows that the company with more information integration will perform more than the company with less information integration. This affirmation is supported by the study of Rai *et al* (2012) which entailed that “the company with the uses of information integration system will perform better compare to one which do not uses”. The uses of Electronic data interchange, enterprise resource planning, radio frequency identification and Electronic point of sales enable many companies in reducing costs, human errors, increases efficiency, accumulation of sales data and improvement in cash flow, security, data sharing and tracking of goods

and cargos in transit all these facilitate smooth operations in distribution activities of the company. Rai *et al* (2012).

The study of Scott (2001 ) argue the usage of electronic point of sale (EPOS) enable a company to avoid stock out, loss of sales, accumulation of sales data and delivery the customer's order on time.

Despite of the most of the respondents were shown to know the real importance of the information and communication technology in increase their performance in distribution. The researcher interview several respondents in order to know their knowledge on the information and communication technology in their company. The researcher went more to interview the one of employee and pointed out that;

*“Information and communication technology is the technology mostly used in communication and broadcasting information and one among of the tools is computer and I know how to use but not much better”*

This shown that several respondents understood the information and communication technology and little knowledge of how to use its tool like computer. This supported by the study of William & sawyer, (2005) defined information communication technology as a technology the enable to generate, manipulate process, store, communicate and broadcast information. Majority of companies recognize information communication technology as a significant tool that can be used to increase operations and conduct information exchanges. William & Sawyer, (2005) insisted that in order to get many advantages from the users of the information and communication technology there is need to have better knowledge on how to use its tools.

Also the researcher interviewed several respondents in order to know which other information and communication technology system is mostly used by beverage companies. Several employees shown that;

*“Ahaa in our company we mostly used bar code on our products and this help our customers to know in detail about the product and to identify fake products and it’s because of government regulatory authority like TRA”*

Also the researcher interviewed several respondents in order to know if there is any challenge in the uses of information and communication technology system especially information integration systems in their company. Several employees indicated that;  
*“The main challenge of these information integration systems is the costs to install and run the systems especially system like SAP costs a lot of money also system like EPOS is not much used in our company because of less adoption of that system”*

### **5.3 Staffs competency on the performance of the distribution system**

This was a second objective of the study which aimed at determine the staffs competency influence on the distribution system of the beverage companies. The research findings indicated that there was no significant relationship between staff competency and the performance of the distribution system in beverage companies whereby beta value was -0.279, t-value was -2.073 and p-value was 0.041.

This implies that the decrease of staff’s competency will decrease 27.9% of the performance of the beverage distribution system. Probably this is due to the decrease and lack of the trainings; knowledge sharing and seminars to the staffs concern their duties in the distribution.

The findings are not supported by that of Macey (2006) who argued that there is positive relationship between staff competency and the performance of the distribution system of the company.

Staffs competence was meant at determining the influence of trainings, skills and experience of the staffs and their influence on the performance of the distribution

system. Skills is one among of the staff competence sub variables which its coefficient was positively 0.654 related to the performance of distribution system and it as significantly since because the p-value was less than 5% ( $p < 0.000$ ).

Seiler, (2010) argued that “employee acquire skills through better training and development program can lead to a significant cost reduction, in terms of managing transportation and storage costs”. Training to the staffs should be a main focus for proper and better performance in distribution system in order to eliminate poorly management so as to avoid excessive costs in transportation, procurement, inventory and storage. Training modifies employee’s behavior, attitudes and values about their job and the organization as a whole. Employee’s further gain requisite skills and this contributes to the performance of the organization Brown & Sitzman (2011).

The researcher went more and interviewed the one of the employee and he pointed out that;

*“Our company provides trainings to us employees but are not much enough to us to performance at our level best since because those trainings are provided only when there is new tasks to do and went though for few days only.”*

Guskey & Sparks (1991) argued that effective training to the staffs should be provided to the employees so that to increase their skills. Effective trainings enable company to avoid unwanted costs and risks and through trainings to the employees the company can improve and maintain their customers by providing good customer services.

On other hand, the study findings indicate that experience of the staff had significantly relationship to the performance of distribution system whereby beta value was positively 0.663 and significant at p-value less than 0.05 ( $p < 0.000$ ), this indicated that the performance of distribution system will increase by 66.3% in course of increase in staff experience.

Forkouh *et al*, (2012) argued that “Insofar experience and incentives to the internal staffs plays a great role in an companies distribution system, this is true due to fact that experience to the internal staffs make them to solve different problems occur in distribution system”. The researcher went more and interviews the one of the employee and he pointed out that;

*“In my experience of distribution there are some many problems but the mainly problem is poor road especially in rural areas, high price of the fuel which in turn increase distribution costs of the company also lack of storage space especially in rural where there is no warehouses”*

This supports the study of Paul, (2012) argued that there is a lot of distribution system challenge starts with choice of mode of distribution, inexperience personnel with no knowledge of distribution, and lack proper means of communication. Also there is challenge of poor road network as a mostly challenges especially in many developing countries hence make difficult for products to be shifted from place of production to consumption area, also there is poor packaging of the goods hence cause bane for effective distribution.

According to Seiler, (2010) suggested that internal staffs competence give hugely to the performances of the whole company distribution system hence company needed to make sure that there is a chance to have progressive trainings so as to improve the skills and attitudes of their employees towards their tasks, also incentives to the employees so as to be able to attain high performances in their distribution system.

#### **5.4 Management support influence on the performance of distribution system**

This was a third objective of the study which examined how management supports in beverage companies influence the performance of distribution system. The findings indicated that management support there was a positive significant relationship between management support and the performance of the distribution system whereby the beta

value was 0.785; t-value was 6.549 and p-value 0.000. This implies that the increase of the management support in distribution system will increase its performance by 78.5%.

The study findings are supported by Kemonto & Ngugi (2014) argued that there is positive significant relationship between management support and the distribution performance of the company. Management within the company supports the performance of the distribution through proper allocation of the resources and approving enough budgets for distribution. Chari *et al* (2016).

Policies as one among of the sub variables which its coefficient was positively 0.637 related to the performance of distribution system and it as significantly since because the p-value was less than 5% ( $p < 0.000$ ).

Oyuke and Shake, (2014) indicated that management formulate different policies as a guidelines for supporting the distribution operations, recruitment policies should be enacted so as to get right employees for the job, distribution operation policies on how the company conduct its distribution activities.

Chari *et al* (2016) argued that management must formulate goals, rules, vision, mission as well as commitment so as the whole company to understand the direction of the company towards distribution activities.

On further more the findings revealed that financial support had significant relationship to the performance of distribution system whereby beta value was positively 0.817 and significant at p-value less than 0.05 ( $p < 0.000$ ), this indicated that the performance of distribution system will increase by 81.7% in course of increase in financial support.

The researcher interviewed several employees by asked if their management provided anything in order to increase their performance. One of the interviewee pointed out; *“Our company management provides incentives to the good performer so as to influence other employees to perform better. Those incentives are in monetary and recognition form only for the hardworking of the employee”*

This finding supported by the study of Seiler (2010) who argued that in order to increase the performance of the company employees in distribution there is need for the company management to provide different incentives to the employees like money rewards and recognition to the best performers so as to influence and increase their performance in distribution.

Generally Chari *et al* (2016) argued that management must pay more attention on the distribution matters since because distribution is the very critical issue. Chari *et al* (2016) argued that the good distribution system ensure that the company has greater possibility of selling its goods more than its competitors in the market. So for existence the beverage company, the company management must take strong measures so as to ensure there is good flow of the products to the final consumers, this will make the company stronger in the market.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSION AND RECOMMENDETION**

#### **6.1 Introduction**

The present chapter explains the summary of the study findings, conclusion, the policy implications and the recommendation of the findings and the areas of the future study.

#### **6.2 Summary of the findings**

The main objective of the study was to determine the factors that influencing the performance of the distribution system especially in beverage companies. Specifically, the study based at examined three factors which influence the performance of the distribution system in beverage companies. First objective was to determine the influence of information and communication technology usage on the performance of distribution system. Secondly was to determine the influence of staff competence on the performance of the distribution system and lastly to determine the influence of management support on the performance of distribution system.

Based on the study findings, it was indicated that there was significant relationship between the usage of information and communication technology and the performance of the distribution system in the beverage companies. Whereby majority of the respondents had agreed the usage of information and communication technology had positive effects on the performance of the distribution system by facilitating the proper decision making to the managers, increase of the companies competitive advantage against competitors in the market, reduce some costs and human errors, increase of relationship between company and customers. All these provide good distribution system of the beverage companies which in return ensure great performance in distribution in term of the companies to have great chance of selling products in the market.

Moreover, it was revealed that there was no significant relationship between staff competence and the performance of the beverage distribution system. As one of the respondents pointed out that sometimes they are not perform at their best level due to the lack of some important and critical trainings to them hence this affect negative the whole performance not only themselves but also to their company too in distribution system.

Lastly, the findings indicated that there was positive significant relationship between management support and the performance of the distribution system. Where by majority of the respondents had agreed that their company management shows several supports in order to have good distribution system in their company. Management supports shown on the approval of the enough budget for distribution, proper allocation of the resources, attractive compensation packages and innovation. And on the interview on the respondent pointed out that sometimes their management provides rewards in term of monetary to the good performers so as to influence others to do better in distribution system.

Generally, despite of the influence of these two factors on the performance of the distribution system. Majority of the respondents shown some of the challenges they faced in distribution mainly; bad roads condition especially in rural areas, increase of the price of the fuel in return increases distribution costs to the company also lack of storage space/ warehouses all these affect negatively the distribution activities of the beverage companies.

### **6.3 Conclusion**

The researcher after all, concluded the study as per objectives of this study as follows:

### **6.3.1 Based on the influence of information and communication technology on the performance of distribution system in Beverage Company**

Based on the study findings, the study concluded that information and communication technology had significant influence of the performance of the beverage company's distribution system. The beverage companies must invest more on information and communication technology in order to create a good distribution system so as to have a great chance of selling more of their products in the market. All these can be successful through the grace from the management by providing strong supports.

### **6.3.2 Based on the influence of staffs competence on the performance distribution system of the beverage company**

Based on the study findings, the study concluded that staffs competence had significant influence of the performance of the beverage company's distribution system. The beverage companies must invest on providing training to their staffs in order to create a good distribution system so as to have a great chance of selling more of their products in the market which will keep them better in global competition.

### **6.3.3 Based on the influence of management support on the performance of distribution system of the beverage company**

Based on the study findings, the study concluded that management support had significant influence of the performance of the beverage company's distribution system. The management of beverage companies provides big support in all operations especially in distribution system in order to create a good distribution system so as to have a great chance of selling more of their products in the market which will keep them better in global competition, as well as gain value for money.

#### **6.4 Policy Implication**

The study findings created by this study seize useful implications for the both beverage companies and government. As the study finding could be used to create favorable environment to create good distribution system taking measures so as to reducing the challenges in distribution. The beverage companies must formulate active policies that will facilitate to create competitive advantage to the company. Policies based on the provision of important trainings to employees so as to create good distribution system also for government can formulate policies pertaining in construction of road especially in rural so as to create favorable environment of doing business not only for these but also for other shareholders too.

#### **6.5 Recommendations based on the study findings**

From the study findings, the researcher comes out with the following recommendations both to the beverage companies and further to the government.

##### **6.5.1 Recommendation for the first objective on the influence of ICT**

In order to create good distribution system for a company so as to perform better by selling more products the beverage companies must ensure that there highly uses of the information and communication technology such uses of EPOS so as to accumulates sales data accurately and improve cash flow in their company. Also Beverage companies must invest more on the uses of different digital platforms such as the uses of internet services by opening their own website in social media so as to facilitate easy advertisement and create awareness to majority at low costs. This will help companies easily sell their products in the market.

### **6.5.2 Recommendation for the second objective on the influence of staffs competence**

Also the management of the company must ensure that there are different trainings and workshop for knowledge sharing among employees so as increase employee's skills in order to also to increase their performance in daily operations of the company.

### **6.5.3 Recommendation for the third objective on the influence of management support**

Management within beverage companies must not only formulating policies and regulations or budgeting but also must motivate their employees to do the best in the distribution matter by providing loans, creating good environment for working and allowing self creativity and innovations done by their employees all these will make the company to create and build a good distribution system hence can sell its products very easy in the market.

### **6.5.3 Recommendation for government support**

Due to the mainly challenges in distribution matter of many companies, the government must take some measures in order to reduce those challenges. First of all the government must make construct roads especially in rural areas where road conditions are very bad most of them are seasonal roads hence this sometimes make late delivery of the customers orders. Also through its organ of regulating the price of fuel the government can make reasonable price of fuel so as to reduce the distribution costs to the companies.

### **6.6 Area for further study**

The study only assessed only three factors which influence the performance of distribution system namely; information and communication technology, staff competency and management so other studies can deals with other factors. Also in order to go deep in this study others study can conducts in one company so as get more details concern the distribution issues.

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## APPENDICES

### APPENDIX I: RESEARCH QUESTIONNAIRES

Dear Respondents,

I am .....a student at Mzumbe University Morogoro main Campus. Kindly requesting you to respond to the attached questionnaire on the **factors influencing performance of distribution system in beverage companies**. A research is done as a part of fulfillment for the requirement for the award of Masters Degree in Procurement and Supply chain Management.

The study aims at assessing on how information communication technology, staff competency and management support influencing the performances of distribution system in manufacturing industries like Tanzania Breweries Limited, Serengeti breweries limited, the finding of this study will enable not only TBL or SBL but also other beverage companies in Tanzania and the whole world at large on how to handle these factors so as to achieve great performances in their distribution system.

You are kindly requested to read the attached questionnaires and respond them to the best of your knowledge. Your timely response is of the essence success to the achievement of this study. Please it is assured that the responses will be treated as confidential but should you like to know the findings, the researcher will be pleased and willing to endow with them to you.

**SECTION A: GENERAL RESPONDENT INFORMATION**

V100A	what is your gender a) Male { } b) Female { }	V100D	For how long have been employed a) 5-10 yrs { } b) 15-20 yrs { } c) 25 and above { }
V100B	What is your highest level of education? a) Primary { } b) Secondary/high school { } c) Certificate/ Diploma { }  d) Bachelor/ advanced diploma { } e) Masters degree { }  f) Others specify.....	V100E	what unit/department do you working for a) Finance { } b) PMU { } c) ICT { } d) Marketing sales & distribution { } e) Human resources{ }
V100C	What is your age..?? a) 20-30 { } b) 31-40 { } c) 41 and above { }		

**SECTION B1: Information and communication technology**

Please indicate to what extent you agree or disagree with the following statement. Use

**1= strongly disagree 2= disagree 3=not sure 4= agree 5= strongly agree**

		Rating				
		A	B	C	D	E
V200A	In our company there is an internet service to support distribution activities operations.					
V200B	There is availability of network cables in our company to support distribution operations					
V200C	Our company uses ERP/SAP for effectively resource planning so as to improve distribution performance.					
V200D	Our company uses EDI to minimize human errors and to share information within and outside the company					
V200E	Improve operational excellence eg. Improve efficiency result in high profits					
V200F	Our company uses EPOS to accumulate sales data effectively, prevent the loss of sales and to improve cash flow					
V200G	Our company uses RFID to track and provide real time data about inventory and products in the distribution operations					
V200H	Reduces errors and paper work					
V200I	Reduce lead time					

**SECTION C: STAFF COMPETENCE**

Please indicate to what extent you agree or disagree with the following statement. Use

**1= strongly disagree 2= disagree 3=not sure 4= agree 5= strongly agree**

		RATING				
		A	B	C	D	E
V300A	Our company has regular trainings, seminars, workshop and conferences for knowledge sharing among the employees concern distribution system					
V300B	Our company conducting seminars to the employees so as to gain more competence					
V300C	Our company prepare different workshops and conferences for knowledge sharing among employees					
V300D	Skills of our employees enable to maintain good relationship with our customers					
V300E	Skills of our employees enable them to be creativity and innovative in solving problems in distribution system.					

**SECTION D: MANAGEMENT SUPPORT**

Please indicate to what extent you agree or disagree with the following statement. Use

**1= strongly disagree 2= disagree 3=not sure 4= agree 5= strongly agree**

		RATING				
		A	B	C	D	E
V400A	Facilitate training, seminar and workshop to the employees					
V400B	Ensure proper planning towards distribution system					
V400C	Make good allocation of resources to facilitate distribution system					
V400D	Approval enough budget to operate company distribution activities					
V400E	Make policies and regulations that facilitate proper operations of distribution activities					
V400F	Ensure that there is proper coordination within the distribution system					
V400G	Management ensures that there is proper system of recruiting employees so as to get person for a job.					

**I humbly thank you for your assistance and time.**

## **APPENDIX I1: INTERVIEW GUIDE**

1. What do you understand by the term ICT?
2. Are there enough computers?
3. Do you know how to use it?
4. Which information system is mostly used?
5. Does your company provide trainings?
6. Those trainings are enough to help to accomplish your tasks?
7. Which challenges you face in distribution?
8. Management provides any incentives to the good performers?

**Thanks for your time.**

## 4.2 General Profile of the Respondents

This segment summarized the demographic characteristics of the respondents that including; gender, age, education level, experience, department and their position they hold in the company.

### 4.2.1 Gender of the respondents

The table below indicates the gender of the respondents involved in this study who were asked to indicate their gender. The researcher decided to involve gender in this study to ensure there is gender balance, hence to eliminate gender discrimination because now days, our country emphasizes gender balance in many sector.

**Table 4.2 Gender of the respondents**

	<b>Frequency</b>	<b>Percent</b>
Male	60	60.0
Female	40	40.0
Total	100	100.0

**Source: Survey data (2019)**

The demographic analysis from the study show that 60 respondents equivalents to 60% who had responded were male and 40 respondents equivalents to 40 % responded were female. This shows that there was a dominance of male respondents in this study rather than female respondents who have responded to this study.

### 4.2.2 Education level of the respondents

Table 4.3 below indicates the academic qualifications of the respondents who were asked to state their academic qualification. Since the nature of the study needs literate personnel the researcher have to know the education level of the respondents to sure that is working with the competent people in data collection on inventory so researcher asked about the education level of the respondents and shown in the Table below

**Table 4.3 Education level of the respondents**

	<b>Frequency</b>	<b>Percent</b>
Diploma	17	17.0
Degree/Advance diploma	72	72.0
Masters	11	11.0
Total	100	100.0

**Source: Survey data (2019)**

Table 4.3 above shows the frequency of individuals' level of academic qualification possessed by the respondents. The findings indicated that 17 respondents which is equivalent to 17% of the whole respondents possessed diploma while 72 respondents which is equal to 72% of the whole respondents possessed degree/ Advance diploma while 11 respondents made 11% hold masters degree. From the table above show that respondents who possessed degree/ Advance diploma made 72% of whole respondents were mostly responded to the study due to their big number compared to others respondents who made 28% in total.

#### **4.2.4 Respondents time in the company**

The table below indicates the respondent's time they spent in their company. Since the nature of the study needs literate personnel the researcher have to know the working experience of the respondents to sure that is working with the experienced people in data collection so researcher asked about the working experience of the respondents and shown in the Table below.

**Table 4.5 Respondents time in the company**

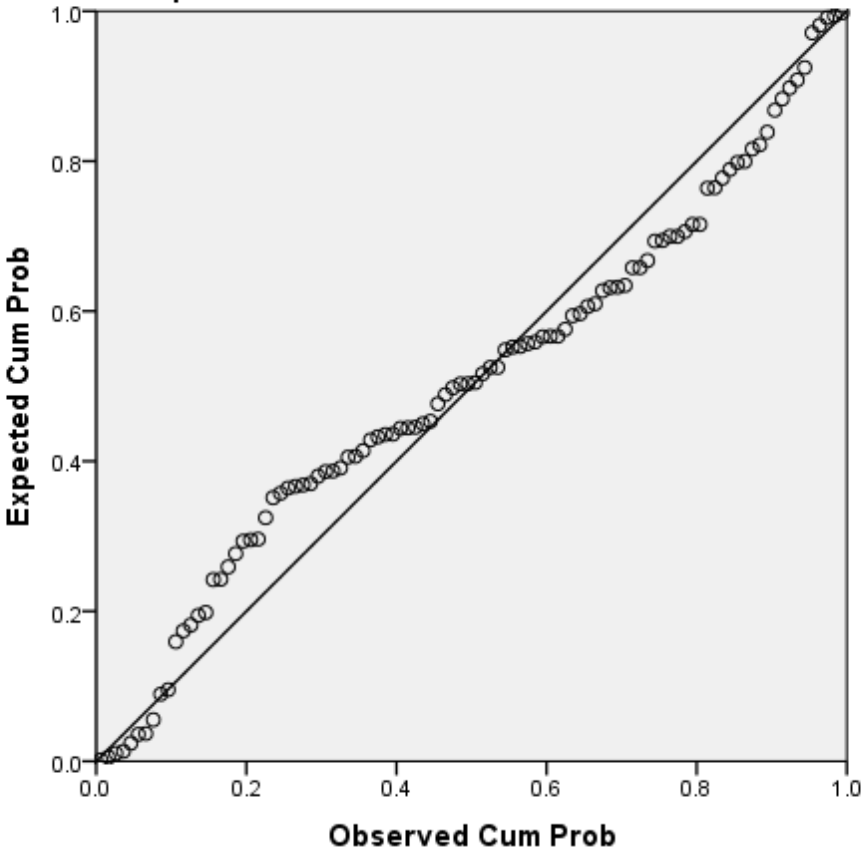
	Frequency	Percent
1-5 years	35	35.0
6-10 years	52	52.0
11-15 years	13	13.0
Total	100	100.0

**Source: Survey data (2019)**

The study analysis indicate that between 1-5 years there is 35 respondents which is equivalent to 35% of the whole population, 6-10 years were 52 respondents which is equivalent to 52% of the whole population and 11-15 years were 13 respondents which is equal to 13 % of the whole population. Hence this indicates that the number of respondents involved in this study had much experience concern their company activities which was enough to provide reliable information concern the study objectives.

**APPENDIX 111: MULTIPLE REGRESSION ASSUMPTION TABLE AND FIGURES**

**Normal P-P Plot of Regression Standardized Residual**  
**Dependent Variable: PERFORMANCE**



### Histogram

Dependent Variable: PERFORMANCE

