FACTORS AFFECTING THE PERFORMANCE OF PHYSICAL DISTRIBUTION OF BEVERAGES:
A CASE OF COCA COLA TANZANIA LIMITED MOROGORO

By
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A Research Dissertation Submitted in Partial/Fulfillment of the Requirements for the Award of Masters of Science in Procurement and Supply Chain Management (MSc-PSCM) of Mzumbe University

2019
CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University a dissertation entitled “Factors Affecting The Performance Of Physical Distribution Of Beverages” in partial fulfillment of the requirements for the Masters of science in Procurement and Supply Chain Management (MSc-P SCM)

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DEDICATION

This dissertation is dedicated to, my Wife Beatrice, my children Geraldine, Vainoela, Winfrida & Belinda, without forgetting my lovely parents the late Mr and Mrs Gerald Kayagambe for their moral, spiritual and material support to the accomplishment of the tough work.
<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tr>
<td>3PPD</td>
<td>Third Party Physical Distribution</td>
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<tr>
<td>AS/RS</td>
<td>Automatic Storage and Retrieval System</td>
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<td>DHL</td>
<td>Darsey Hillbrom and Lynn</td>
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<td>EMS</td>
<td>Express Mail Service</td>
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<td>MOH &amp; SW</td>
<td>Ministry of Health and Social Welfare</td>
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<td>PD</td>
<td>Physical Distribution</td>
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ABSTRACT

This study aimed at determining the factors affecting physical distribution performance of beverages in Morogoro Municipal specifically the study sought to determine the effects of transportation on physical distribution performance; to examine the influence of order processing time on physical distribution performance and to examine the influence of material handling on physical distribution performance.

The study is informed by the Theory of constraints, Bargaining Theory of Distribution and Resource Based View Theory. It was conducted through a mixed method design, using a cross sectional survey. The study employed a non-proportional stratified sampling technique to select sample and sample elements. This resulted to a sample of 178 respondents. A semi structured questionnaire as a data collection instrument was used. The field data were statistically analyzed using descriptive, inferential and narrative summary analyses.

The findings indicate that order processing time has significant effects on physical distribution performance (sales, markets share, profits, inventory and growth prospects).

The findings further ascertained that; order processing time account for 42.4% of all the variations in the physical distribution performance, while transportation account for 33.8% and material handling accounts for the remaining 23.8% of the variations in the physical distribution performance of beverages in Morogoro a case of coca cola.

The researcher recommendations to the Coca cola company includes that, they should computerize their transport and logistics processes and systems to improve the delivery lead time, profits, sales markets share, to reduce inventory and ensuring customer satisfaction all time.
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CHAPTER ONE
INTRODUCTION AND PROBLEM SETTING

1.1 Introduction
This chapter covers the background of the study problem, statement of the problem, research objectives, research question, and significance of the study, scope and organization of the study.

1.2 Background of the Study
Globalization of the markets has received much attention and has been extensively debated at different levels (general, market and business levels) enhancing the modern business environment while providing a fair play for marketing and business practice (Laswai, 2013). Due to globalization process, distribution of the goods and services between and within local industrial and customers has far improved in all countries regardless their level of development (Mattsson and Wallenberg, 2003).

Over the past decade we have seen the great and fast movement of changes in physical supply of both goods and service in less developed territories providing opportunities for the increasing of demand for customer satisfaction (Black et al., 2002). However, satisfaction has forced industries sector to improve the physical distribution process and service quality of their products while minimizing the logistical related costs (Friday et al 2011).

In any business growth especially through competition and at the end of the day to enjoy competitive advantage, customer satisfaction is very important. Organization enjoying competitive advantage must make sure that its customers are always enjoying their goods/service to the level of satisfaction and customer loyalty created. According to Cengiz (2010), organizations that form marketing mix components do realize customer loyalty and satisfaction. The organization growth is another side but has to be supported by good customer’s relationship as the one of vital aspect of organization growth. Anderson and Mary (2008), argue that customer satisfaction is a result of well-maintained relationships between the client and the organization (Emod, 2015).
As national markets grow and as modern opportunities emerge for fulfilling customer request, greater specialization in dissemination is obvious both in level of dispersion and in products and services taken care of (Mallen, 1996). Distribution builds steady competitive advantages, since promoting channels have long-run character and to construct them it is necessary to have a consistent structure; and due moreover to the reality that they are focused on individuals and connections (Neves et al, 2001). Selection of channel significantly depends on characteristics of the type of buyers targeted of the industrial products. Customer, who may be a private household or an industrial user, who may also differ in terms of education level, age group, occupation, economic class, social standing.

Within the refreshments industry, client maintenance and securing is so strongly due to the high levels of substitute items in any given showcase (Dapkevicius & Melnikas, 2009). Bruijin (2011) fights that the refreshments businesses all over the world are too battling to hold their customers in an progressively competitive showcase. Client satisfaction has in this manner gotten to be a major distraction for officials and showcasing directors (Conkiln, Powaga & Lipovetsky, 2004). Moreover, beverages industry in Tanzania has been undergoing a phase of changes of significant growth and stiff competition. The relationship among the operators is not only competitive but also complimentary. Because of the nature complimentary relationship in the carbonated soft drink area, the producers of soft drinks have adopted different models of distribution that led to the changes of consumer behavior. Operators devote all their efforts in strategic distribution in order to obtain the competitive advantage for the success business (Berry, 2010).

The stiff competition in the beverages industry has resulted in aggressive use of various distribution models employed by carbonated soft drink companies to strengthen their brands by appealing to the customers. For the forward-looking, the consistent and divergent use of distribution strategies has proved effective in improving their corporate image and turnover. Dominant players; Coca-Cola, Pepsi, Azam (Bakhresa) and Sayona among others are investing substantial amount of money to the adoption of various distribution strategies
However, the challenge lies on the effective distribution of their products keeping in mind the nature of consumers, infrastructure, economies of scale and creating job opportunities to others (in a distribution network). CSD consumers in Morogoro buy what is convenient and affordable to them simply because of the ever-growing stiff competition, thus the key is problem in effective marketing as the goal lies on effective distribution of the CSD to the final consumer. That is how to make the products available at the points of sale (POS), at the required time.

Friday (2007), suggests that within the journey to progress physical distribution, components like; insufficient capacity offices, low power and data communication innovation entrance rates among other components, ought to be given much more consideration. Various factors are causing adverse effect on the expected performance rates and quality of physical distribution system in manufacturing companies as explained above. This research project was seeking to examine various factors affecting the performance of physical distribution of Coca-Cola (T) Limited a case of Morogoro municipal.

1.3 Statement of the Problem

Recent researches shows that, there is a dyadic relationship between organization performance and physical distribution on beverages (Madodo, 2015; George and Iravo, 2014; Nyalita, 2009). The performance of physical distribution systems impacts largely on the performance of an entire organization (Paulraj and Chen, 2007). The shocks from changes in distribution system in the market of beverages production have affected development in various aspects of the companies. Mostly, in optimization the existing production and distribution processes based on the same resources through management techniques for promoting the efficiency and competitiveness of organizations. The changes will also exert pressure in the developing countries because in developing countries distribution of beverages faces far way difficulties compared to developed countries and companies rely on customers preference of the commodities.
Agreeing to Nyatila, (2009) creating an effective physical conveyance technique in today's furious competitive environment could be a complex undertaking. Showcase globalization and deregulation has heightens competitive competition and propelled producers to re-examine their current techniques and inalienable shortcoming of these techniques and their failure to address current challenges and openings (Stem et al. 2006). The current surge in competition within the beverages production, especially among the various players including the AZAM industries, MO industries, Coca-Cola industries as well as Pepsi industries has speedup the necessities to examine factors influencing performance of physical distribution on beverages. Whereas, volatility in the beverage sector has made it difficult to ascertain the individual, internal and external factors that influence performance of physical distribution.

However, despite physical distribution being very important to the wellbeing of companies, visited studies do not zero in the country specific factors neither mention Coca-Cola Kwanza Tanzania limited. Hence the methodology designed fills the gap of information for measuring factors affecting physical distribution of beverages at Coca-Cola Kwanza (T). Many beverage production organizations perform short of customer expectations in this area as results of factors such as problems in transportation (Kapoor and Kansal, 2005); Ineffective order processing (Etzel, et al 2001); Improper materials handling (Semenik & Bamossy, 1993) and information technology use, competence of staffs and business-to-business relationships (Gacuru & Kabare, 2015).

Therefore it is imperative to fill the gap by examining various factors that affect performance of physical distribution of Coca-Cola beverage products in Tanzania. This study seeks to bridge the knowledge gap by examining factors that affect performance of physical distribution of Coca-Cola Limited in Morogoro municipal with keen base on transportation factors, material handing factors and order processing factors.
1.4 General Objectives
To assess the factors influencing performance of physical distribution of beverages at Coca-Cola company at Morogoro

1.4.1 Specific Objectives
(i) To examine the influence of transportation on performance of physical distribution of beverages at Coca Cola Company (T) Limited.
(ii) To examine the influence of order processing time on the performance of physical distribution of beverages at Coca Cola Company (T) Limited.
(iii) To find out the influence of material handling on the performance of physical distribution of beverages at Coca Cola Company (T) Limited.

1.5 Research Question

1.5.1 General Question
What are the factors influencing performance of physical distribution of beverages at Coca-Cola company in Morogoro?

1.5.2 Specific Questions
(i) Is transportation affecting the performance of the physical distribution of beverages at Coca Cola Company (T) Limited?
(ii) How is the order processing time affecting the performance of the physical distribution of beverages at Coca Cola Company (T) Limited?
(iii) Are the materials handling systems affecting the performance of the physical distribution of beverages at Coca Cola Company (T) Limited?

1.6 Scope of the study
The target population of the study comprise of 315,866 people leaving in Morogoro municipal. The sample size for the study comprise of 178 respondents limited to Morogoro municipal. The study will be limited to Morogoro because of the availability of modern Coca-Cola depot in the region and familiarity of the researcher with the study area.
1.7. Organization of the Study
This research project comprises six chapters in which each chapter discusses several issues.

Chapter one covers the overview of the conducted research is given related to background of the study. The chapter demonstrated the statement of the problem discussed, objective of the study and research questions were covered. Furthermore, importance of taking this study and scope of the study was discussed in the chapter.

Chapter two, it covers all issues regarding the literature review. In this chapter the whole concept of performance of physical distribution of beverages and satisfaction of the customers was discussed in relation to other scholars with theory that support the study. Therefore, from the review from different authors regarding the concept performance of physical distribution, the research gap was constructed together with the conceptual framework.

Chapter three covers the methodology of the study. This study used quantitative together with narrative summary analysis methodologies with the aim of evaluating factors influencing performance of physical distribution of beverages. Not only that but also this chapter explains research design, area of study, sample size to be covered in this study, data gathering methods together with reliability and validity of the measurements used.

Chapter four covers the presentations of findings, while chapter five and six covers discussion of findings and summary, conclusions and policy implications respectively.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
A literature review is a body of text that is aiming at reviewing critical points of current knowledge on factors affecting physical distribution of beverages at Coca-Cola Kwanza Limited. This chapter is comprised of three mainly parts namely; theoretical literature review, empirical literature review and conceptual framework.

The theoretical literatures reviews attempts to link theoretical knowledge and reality(facts) about the study while empirical literature review provides evidences on how various factors or practices are affecting the performance of the physical distribution of beverages at Coca-Cola Kwanza Limited. This was accomplished by comparing other scholars/ sources and researchers in the country and abroad.

The purpose of literature review is to show readers what sort of knowledge and ideas that has been established by the past researchers and scholars on a topic, and what are their strengths and weaknesses so that to unfold and bridge the research gap identified by this research study.

This chapter will include the systematic identification, location and analysis of document containing information related with the study. For the purpose of this research, literature will focus mainly on the theoretical bases of the study, empirical studies, conceptual framework and measurement of variables.

2.2 Definition of key Concepts

2.2.1 Transportation
Is any device used to move an item from one location to another? Common forms of transportation include planes, trains, automobiles, and other two-wheel devices such as bikes and motor cycles. According to www.businessdictionary.com.

Perrault & McCarthy, (2002) showed that "Transportation is the movement of raw materials, semi-finished products, or parts from the point where are produced to point where are processed or assembled and the movement of the finished products
to the point of purchase. Products arrive at their destination by one or a combination of five modes of transportation: railway, tracks, pipelines, water craft, and air craft’s.

2.2.2 Railroad
Rail transportation is particularly suitable for the movement of bulk goods whose value per ton is relatively low, such as grain, coal, lumber, cement, iron ore, and stone. It is the lowest-cost form of transportation.

Motor carriers: Our second mode of transportation is truck. Track can provide speedy service to an increasing number of points. The importance of tracks is that they carry a vast quantity of goods between points within major metropolitan centers.

Advantages of tracks over other forms of transport:-
(i) They are convenient. They provide shippers with door-to-door service.
(ii) They are fast. It is much quicker to move goods by track than by waterways
(iii) Motor carriers are very flexible from of transport.

2.2.3 Pipelines
The third mode of transportation is pipeline. Unobtrusive and silent, pipeline principally used to transport petroleum and gaseous products from the points where they produced to the consumption centers. Pipeline are the most dependable mode of transportation because they are largely unaffected by weather, traffic, and the other problems of an above surface environment.

2.2.4 Air transportation
Our last mode of transport is air. In 1978, air transport accounted for only 1.7 percent of the total tonnage moved domestically. It is used principally for the shipment of items of high value and low bulk and goods that are needed very quickly because of some emergency. According to Air Transport Association, the most important items shipped by air are apparel, computers, calculating and accounting machines, tool and die equipment, scientific instruments, parts for automobile and aircraft, and food. The advantage of air transport is speed and safety”
2.2.5 Selecting the transportation mix

Kapoor and Kansal, (2005, pp84-85) showed that “selection procedure for the choice of transport mode could vary from very simple one to complex decisions, where every cost incurred is accounted until an optimum solution is achieved. There are four potential selection methods:-

(i) Judgment
The identification of all necessary factors should be given a great potentiality as long as they can affect transportation, and soon to acquire necessary features of transportation needs and customers are satisfied. The shortcoming of this particular selection methods are numerous some which are:-

(i.) Only transport has been considered,
(ii.) Transport has been termed as service.
(iii.) Other transport methods have been neglected.
(iv.) As long as decision made or approved by the authorities, cost is not considered.

(ii) Cost trade-off-under
The impact of transport is calculated in relation to its immediate activities and the total cost, so that the distribution system can be optimized. This approach acknowledges the existence of trade-offs within the numerous alternative approaches in an attempt to assess the situation to minimize total costs.

(iii) Distribution models
These identify and explain the interrelationship between the components of the distribution system at various levels of daily/weekly/monthly demand. These models could be built to examine the impacts of alternatives transport models and methods, as either the demand changes or the components in the system change. The models are logical and mathematical, and attempt to stimulate operating practices and conditions. The major shortfalls of this model building lay capability of specialist in operational research, correctly calculate/solve operational algorithm, otherwise possibility of including error is possible.
(iv) **System selection**

In this analysis the group of factors that affect the selection of the right mode of transportation considered just to reduce the cost of distribution. Based on the type of goods or service carried/transported and cost the selection of mode of the mode of transport finally selected.

Johnson, and Wood. (2006, pp205-206) added that “Earlier comparison of modes were done in terms of speed, dependability, rates, and fuel efficiency and results of survey as to which services features appealed most to traffic managers making the choice of modes. Such comparisons are less relevant today, this is for reasons. First is intermodalism, an intermodal carrier can combine the various services and cost aspects of several modes in order to offer the mix desired by the shipper. Second, negotiated contract between carriers and shippers are now widely used. Though negotiations the shipper can express widely what it does or does not want and can expect to see this reflected in the final bottom-line price it must pay. Third carriers are no longer constrained with respect to the variety of services they may offer.

Some carrier firms provide services allowing shippers access to the carrier’s computers to track freight, give shippers monthly analyses of their flows of their freight, manage shippers inventories and provide warehousing. These additional services help the carrier from strategic alliances with its customers.

Having said this, some broad comparisons to emphasize that there are still some differences using current national transportation data, one can compare in rough terms the intercity revenue and no miles carriage by each mode to get an idea as to the relative costs per ton-mile. Pipeline costs are about 1.3 cent per ton.
Differences in speed are obvious with air being the fastest and water or pipeline being the slowest. On time delivery is often used as a criterion, the air express services and some truckers probably have the best records. Weather does affect all modes accept pipelines.

Bowersox and Closs (2000, pp.325) showed this in selecting the transport mix “speed refers to the elapsed movement time; air freight is the fastest of all modes. Availability of a mode to service any given pair of locations; highway carriers have the greatest availability since they can drive directly to origin and destination points. Dependability is the potential variance from expected or published delivery schedules; pipelines because of their continuous service and limited interference from the weather and congestion rank the highest in dependability. Capability is the ability of a mode to handle any transport requirement, such as load size; water transport is the most capable. Frequency which relates to the quantity of scheduled movement; pipeline again because of their continuous services between two points lead all modes in frequency.

2.3 The impacts of transportation in the physical distribution
Kapoor and Kansal (2005) added " problems in transportation services can lead to company retaining the inventory for several days more than physical distribution had planned for. This increases inventory carrying cost and decreases the number of times inventory is consented into cash"

2.4 Material Handling
Schoell, and Guiltinam, (2007) defined that materials handling is the activity of physically moving product into and out of plants, warehouses, and transportation terminals. The key objectives of materials handling management are to

(i.) Have the right assortment and quantity of product in storage.
(ii.) Fill orders quickly, accurately and efficiently, using as little labour as possible.
(iii.) Robbery minimization and
(iv.) Minimize harm to product
2.4.1 Four Dimension of Materials Handling

Coyle et al. (2003, pp.309) said that “materials handling has four measurements: movement-aspect of materials handling includes the movement of products into and out of capacity offices, as well as inside such offices. Effective materials dealing with, at that point cruel effective development of products to, from, and inside the capacity facility.

The time measurement of materials handling, is concerned with preparing products for generation or for client arrange filling. The longer it takes to induce crude materials to generation, the more prominent the chance of work stoppage, higher inventories, and expanded capacity space. Moreover, the longer it takes to move wrapped up products to the shipping zone, the longer the arrange cycle time and the lower the client service.

The time estimation of materials dealing with, is concerned with planning items for era or for client orchestrate filling. The longer it takes to initiate rough materials to era, the more conspicuous the chance of work stoppage, higher inventories, and extended capacity space. Additionally, the longer it takes to move wrapped up items to the shipping zone, the longer the organize cycle time and the lower the client benefit.

Materials- handling equipment devours space within the stockroom and plant. This space in a office is settled, and the materials- handling framework must utilize this space viably. Forklifts adjusted with expansions can reach twenty –five to thirty feet, subsequently expanding the capacity utilization of the stockroom. Coordination-most regularly, the coordinations manager’s materials- taking care of duty happens in and around distribution center or plants’ warehousing area. Materials taking care of does not work alone because it is in island, but in collaboration with more than two divisions such as generation administration group, for obtaining inputs materials for generation of merchandise, fabricating group for generation of mechanical yields fair to meet orders set by clients or not arrange. Another coordination is for logistic and people of sales. All these units work together hand by hand in arrange to meet the pre-determined level of generation.
2.4.2 Objective of materials handling

Schoell, and Guitinam, (1992) showed “the goals of materials dealing with as:-Have the proper grouping and amount of items in storage. Fill orders rapidly, precisely, and proficiently, utilizing as small work as possible. Minimize theft and Minimize harm to product”. Coyle, et al. (2003, pp.309-312) illustrates that “objectives of material handling are;

To extend the distribution center facility’s usable capacity – a distribution center has settled insides length, width, and tallness that's , cubic capacity. Utilizing as much of this space as conceivable minimize the warehouse’s working cost. The utilize of distribution center space as a rule has two aspects. One is the capacity to utilize the building’s stature as much as possible. Many warehousing offices waste much space by not putting away products as tall as possible. Even stockroom space is ordinarily the most obvious and easiest to fill. But the vertical measurement is additionally a cost factor, and a stockroom operation must utilize this space successfully in arrange to be proficient. The vertical measurement is in this manner, the greatest challenge. Distribution center directors must center on cubic space, not fair on floor space.

Moment viewpoint of space utilization is to play down walkway space whereas avoiding passageway narrow enough to hinder development within the distribution center office. The sort of materials taking care of equipment a company employments will influence passageway width. Forklift trucks very often require turning space, and they may necessitate much wider aisles than required by other types of material handling equipment.

Double handling of goods got to be diminished as much as possible just to dodge unnecessary costs and decrease the hazard of destroying items. Development of items into a stockroom keeping them in a store, at that point move these items to an arrange choice point to be picked and made up into orders, and at long last moves the items once more to examined them for shipment to clients. This process requires a few unavoidable developments. A few of distribution centers, a company may exchange items a few times in a few focuses. In the event that a stockroom is to working effectively, minimizing number of handling is necessary .Therefore, the
design of any materials-dealing with system and its related activities ought to minimize developments to inside, and from a warehouse. Kibaso, L(2008)

Develop successful working conditions- the objective of successful working condition contains a number of significant measurements within the coordination’s range, counting security. All materials-handling systems, whether in connection with coordination’s or manufacturing, ought to minimize threat to nearby laborers whereas improving efficiency. As expressed already, materials handling usually combine robotization and manual work. Most manual exertion usually happens within the order-picking area. Therefore a company needs to make an environment that spurs individuals to induce the work done. Kibaso, (2008).

Improve logistics benefit- materials handling moves forward effectiveness by making the coordination’s framework react rapidly and successfully to plant and client necessities. Materials dealing with plays a huge portion in getting products to clients on right time and within the right amount. By efficiently moving goods into the warehouse, locating stock accurately filling orders, and rapidly preparing orders for shipment to customers, materials handling is very important to outbound logistics.

In inbound logistics terms, materials handlings Serves Company plant in much the same way. The benefit objective gets much consideration from the coordination’s supervisor. He or she must always guarantee that the materials handling system will react rapidly and effectively to customers’ orders and to a production schedule’s requirements.

Some companies spend a part of time and effort endeavoring to decrease transport time by twenty-four hours. At the same time, their materials–handling system may be counting a number of days to the time passing after a client places an arrange. Customer service changes which can be possible through advancement in materials taking care of are straightforward to miss many firms recognize the needs for versatile materials handling within their client benefit program. Firms need to facilitated materials handlings requirements not because it were with the company’s office needs but as well with customer’s needs.
Decreased cost- successful materials taking care of can lead to a cost minimization program by raising efficiency by giving more and quicker throughput the method. Too utilizing space more productively and losing things less as often as possible will lead to diminished cost. All of these goals are important and interrelated. Within the 2000s, materials dealing with helps companies to play down stockroom venture and to attain higher stock turns.

The fabricating of material handling and its dispersion of equipment’s and administrations required to execute the framework of material handling, contrast from bed rack and other basic ways, to complex ones such as fork lifts. Schoell, and Guiltinam, (1992) defined that “Material handling is the activity of physical moving products into and out of plants, warehouse, and transportation terminals.

2.5 Order Processing
Kapoor and Kansal (2005) characterized arrange preparing as “it refers to gather of exercises which required to be performed in arrange to serve the extreme market”

Schoelland Guiltinam, (2007) added, “The accuracy, reliability, and speed with which orders are received, handled, and filled are crucial customer's service factors. Order processing activities comprises order receipt, credit approval, invoice preparation and collection of accounts receivable.

These activities also cross-departmental lines: Connection between sales and office personnel is important. The longer sales person wait to submit orders to office personnel, the less efficient the system becomes. As soon as orders received in the office, it must be invoiced quickly; order picking instruction must be sent to the warehouse, and transportation instruction must be sent to the traffic department. Variability in the timing of these activities causes unreliable delivery and customer’s complaints and at the end of the day lead to satisfaction. Logistic managers also have be able to provide customers up-to-date information about the status of their orders.
2.5.1 The effects of order processing on physical distribution

The idea of the impacts order processing was spoken by various authors Griffin and Ebert, (2002, pp.400); and Etzel, et al. (2001, pp.469) "Errors such as filling a buyers order incorrectly are both costly to retailers and irritating to customers. The information transmitted on orders is essential. Errors, delay and incomplete information can cause distribution problems. Inefficient order processing can results in orders; taking too long to fill, being shipped to the wrong customers, being inaccurately filled and not being billed properly".

Stevenson (2009) defined an inventory as any assets available both inside and outside stores. Inventory comprises both assets available in store as well as those available outside the stores or in buildings such as offices. Inventories outside stores are such as buildings themselves, motorcars, and plots. Electrical equipment’s such as computers, air conditioners, furniture and shelves are some of internal inventories. Inventories are so vital in any business, they are necessary for operations in which at the end of the day lead to customer satisfaction by reducing complaints. All of these inventories are necessary for production of goods and even distribution of those manufactured goods

Order processing comprises the identification of the whole total exercise associated with accomplishment of order for both goods and services as it had been placed by consumers of those goods and services and this forms a foundation for exchange and flow of information of physical distribution. It comprises tasks that are creating information which comes before the goods, supporting them and finally make follow-up. (Christopher, 2010). The necessity of right and correct information to reach the higher level of distribution performance, was not been accepted in a right level. Failure of any important component necessary for the physical distribution can slow down the process and ending up with poor customer satisfaction. The accuracy of information and in right time enables the supplying of goods to reach the customer in a right amount, right time and in right place ending up with fully satisfaction of customers.
Order processing is cycle consisting a number of collective tasks starting with order received and accepted, production of that order and then physical distribution of that orders. Customers place order with full information of when they need that order, the amount needed, place of delivery and even quality needed. The positive response of manufacturers to the order placed by customers provides a chance for possibility of reaching customers satisfactions and a company make a goodwill to its customers. (Stevenson 2009)

The principal function of a firm is to make sure that information is flowing to lead the goods. Fast flowing information gives benefits to a particular work done. Bowersox, et al (2010) stated that, does not make sense for a firm to accumulate order at the local level then send that order to the regional level office, produce order and then distribute to the customers who placed that order. Instead of doing that, internet can play a great part to simplify communication since placing order and lastly distributing physically. Apart from positive results obtained through use of internet, other benefit obtained is reducing cost of making order process transaction. Efficiency in order processing results to quick response and accurate of order processing ending in providing favorite environments.

2.5.2 Beverages

Refreshments are all kind of fluid. Refreshment is any kind of fluid. Water, tea, coffee, drain, juice, lager, and any kind of drinks thing are recorded in refreshments things. Really, refreshments cruel any kind of fluid thing.

Hannah Barton-answered: A refreshment is characterized by dictionary.com as ‘a consumable fluid, particularly one other than water, as tea, coffee, brew, or milk’. The word refreshment could be a thing. A refreshment can be a hot or cold drink or an alcoholic or non alcoholic drink, and it can be utilized for everything that you simply can drink.
2.6 Physical Distribution

Arnold, et al. (2008, pp 360) characterized PD as "the development of materials from the maker to the clients or is the development and capacity of wrapped up merchandise from the conclusion of generation to the clients"

Is the set of exercises concerned with productive development of wrapped up products from the conclusion of generation operation to the clients.

Physical distribution takes inside various wholesaling and retailing conveyance channels, and incorporates such imperative choice ranges as client administrations, stock control, fabric dealing with, and defensive bundling; arrange handling, transportation, distribution center and warehousing.

Physical distribution management is a relatively new concept which has not yet won an acceptance in every company and it is still in the process of finding its right level within company hierarchies. What this level should be depends largely on the nature of the business, in each case and on the importance of the physical distribution faction to the company.

2.6.1 Physical Distribution Channels

Schoell, and Guitinam, (2002)Physical distribution channels is the term utilized to portray the strategies and implies by which item or a bunch of items are physically exchanged or dispersed from their point of generation to the point at which they are made accessible to last clients. In other words distribution channels comprise of the set of the individuals and firms included within the exchange of title of items as the item moves from maker to extreme buyer or trade client.

2.6.2 Channel Intermediaries

Physical distribution channel intermediaries refer to companies, persons, organizations or institution that aid distribution process.(Schoell, and Guitinam, 2002)

2.6.3 Distribution Network Configuration

The network configuration stating number of supplier’s known, all necessary attribute is clearly considered such as the company profile, power to meet condition
laid down on Coca Cola drinks, its capacity and reputation on services and compliance of all law and procedures on business environment.

2.6.4 Distribution Plans
One of the basic issues of distribution arranging is with respect to the choice and determination of distribution channels. The address that emerges concerns the choice of whether the maker ought to exchange the products directly to the client. The most focuses are clarified as here beneath.

To make the product ready available to the correct consumer at which it is aimed, then the appropriate channel is selected to achieve this objective.

To enhance the prospect of sales being made: The product should be visible, accessible and attractively displayed.

To realize participation with respect to any important conveyance components both from supplier’s or the receiver’s point of see and counting least arrange sizes, solidarity stack sorts, material handling helps etc. To accomplish a given level of benefit once once more, from both the supplier’s and the retailer’s see focuses as indicated level of benefit ought to be built up and maintained. To minimize the fetched of the framework: The framework fetched must be evaluated in connection to the sort of items and the level of benefit that’s to be given as they are reflected within the last cost of item.

To get quick and precise criticism of data: Compelling data stream is basic for giving an efficient conveyance benefit. It’ll incorporate deals patterns, stock levels, harm reports, benefit levels, etc.

2.6.5 Physical distribution Performance indicators
Physical distribution performance often depend on logistic managers skills of converting knowledge into action (Saleem, 2011). But it’s not always the case in public entities as the overriding objective of public procurement framework is to provide productivity and value for cash when using public funds, as well as accommodating country specific requirements, national laws and policies (PPA 2011; PPR, 2013). Physical distribution performance is significantly influenced by
the purchasing function’s ability to use and adopts various techniques to accommodate the new changes in their operating environment. Physical distribution performance is measured using different measurement attributes as suggested by various published literatures: Monczka et al. (2009); measured physical distribution performance in terms of reductions of costs, exponential improvements of quality and reductions of lead time Ahmad et al. (2010); Phan et al. (2011); measured physical distribution performance in terms of total costs reductions, quality improvement, flexibility and delivery efficiency. In this paper physical distribution performance will be measured in terms of sales, market share, profits, and inventory management and growth prospects.

2.7 Logistics Theory

Coordinations is characterized as the organizing, organization, and management of all exercises within the fabric stream, from unrefined texture until final utilization and switch streams of the made thing, with the point of satisfying the customer’s and other intrigued party’s needs and wishes to supply a great client benefit, moo fetched, moo tied-up capital and little natural results (Christopher, 2007).

Logistics is additionally characterized as those exercises that relate to getting the proper item or service within the right amount, within the right quality, within the right put, at the proper time, conveying to the proper client, and doing this at the proper fetched. Logistics is additionally characterized as those exercises that relate to getting the proper item or service within the right amount, within the right quality, within the right put, at the proper time, conveying to the proper client, and doing this at the proper fetched. Coordination’s frameworks envelop agent duties, which incorporate organization, operation and buy and helpful obligations as well as point by point plan, (Lieb, Millen & Wassenhove, 2013).

Coordination administration is that portion of acquirement administration that plans, actualizes, and controls the productive, compelling forward and inverts stream and capacity of products, administrations, and related data between the point of beginning and the point of utilization in arrange to meet customer’s necessities. Logistics administration exercises ordinarily incorporate inbound and outbound
transportation administration, armada administration, warehousing, materials dealing with, arrange fulfillment, coordination arrange plan, stock administration, supply or request arranging, and administration of third party coordination administrations suppliers. To shifting degrees, the coordination work too incorporates sourcing and obtainment, generation arranging and planning, bundling and gathering, and client benefit. It is included in all levels of arranging and execution vital, operational, and strategic. Coordinations administration is an coordination work which arranges and optimizes all coordinations exercises, as well as coordinating coordination exercises with other capacities, counting showcasing, deals, fabricating, fund, and data innovation (Morris & Imrie, 2012).

2.8 Theoretical literature review

2.8.1 Theory of Constraints

The hypothesis gives the clue on how to oversee conveyance methodology to dispense with stock-outs with fewer ventures in stock (McCabe, 2009). Disposing of stock-outs is certain to boost deals and benefit; it is outlined for administrators who need to memorize how to move forward the execution of their supply chain. Decrease stock within the framework, increment item accessibility, and move forward supply chain responsiveness to changing and dubious request.

In connection to carbonated delicate drinks company situations like Coca-Cola, the hypothesis offer assistance to get it how is fundamental to create to stock, the time it takes to procure crude materials and after that deliver the item is basically longer than clients are willing to hold up. At the time the item is created, it’s dubious where it’ll be required (McCarthy, 1991). Moreover, the hypothesis edifies to maximize arrange fill rates to the customer, how stock are carried in reasonably noteworthy sums. Moreover the hypothesis empowered the analyst to get it how Coca-Cola minimizes costs for carrying stock (out of date quality, intrigued, decay). So on one hand, the sum of stock ought to be expanded but, on the other, the sum of stock ought to be diminished. Most supply chain arrangements compromise one objective in favor of the other (Levi, 2007).
The Hypothesis of Constraints Distribution (To CD) conveys the arrangement to coordinate monetary benefits in different ways. It conveys an cluster of benefits influencing throughput, stock, and working cost within the plant, conveyance and client.

The foremost critical road of advancement is of course, expanding deals (throughput). The pith of the conveyance arrangement is fast renewal; empowering expanded accessibility of items with noteworthy less-inventory (Kauri, 2011).

2.8.2 Bargaining Theory of Distribution
A pivotal figure in channel connections between producers and retailers is the relative haggling control of both parties. This hypothesis is valuable in understanding how bartering between channel individuals and illustrate that the haggling prepare really influences the degree of coordination which two-part duties isn't portion of the showcase contract indeed in a basic one manufacturer-one retailer channel. The hypothesis appears how the institution of haggling has constrained, and it influences channel coordination when the complexity of particular capacity of the item trades (Daniel, 1998). The hypothesis demonstrates how retailer control advances channel coordination. Subsequently the hypothesis empowered the analyst to get it the conditions in which the nearness of a effective retailer might really be useful to all channel individuals.

The hypothesis makes a difference to recoup the standard double-marginalization take-it-or-leave-it offer result as a specific case of the bartering prepare. The hypothesis made a difference the analyst to look at the suggestions of relative bartering powers for whether the item is conveyed "early" (i.e., some time recently request is realized) or "late" (i.e., conveyed to the retailer as it were on the off chance that there's request). The hypothesis shows the suggestions for returns approaches as well as of renegotiation costs and retail competition (Harrington, 2003).

2.8.3 Resource Based View Theory
Asset based see give an understanding on the inner sources of a firm's supported competitive advantage (Kraaijenbrink, et al, 2010). The Asset Based See (RBV) of
the firm hypothesized that, assets inner to the firm were sources of competitive advantage (Tukamuhabwa et al., 2011). Such assets were profitable, uncommon, one of a kind and troublesome to substitute. Assets accepted to be important were those that were able of encouraging conception or execution of methodologies that moved forward execution, abused showcase openings or neutralized approaching dangers (Barney & Clark, 2007). The two suspicions for RBV hypothesis were, assets and capabilities were heterogeneously dispersed among firms; and assets and capabilities were defectively versatile, which made firms’ contrasts remained steady over time (Karia, & Wong, 2011). Each venture was distinctive from other one in terms of the assets and capabilities an undertaking has or gets to. These contrasts separated one from another and their victory was due to its particular assets (Karia, & Wong, 2011).

In like manner, person firm assets, competencies and capabilities of the organization were a bundle of the firm’s assets or the pith of the resource-based see. For occasion, in coordinations commerce, a asset is portrayed as a fundamental component or a 30 prerequisite for the improvement and operation of coordinations; and it is required for building up a firm’s capabilities (Aldin, et al., 2004). The resource-based see (RBV) of firms basically emphasized their inner qualities and shortcomings, in differentiate to mechanical organization financial matters which centered on firms’ outside openings and dangers Shang & Marlow (2005), since when the outside environment is unsteady, a firm’s possess assets and capabilities may be simpler to control.

The asset based viewpoint contends that a firm was a collection of unmistakable and intangible assets. This collection was special to each firm so that each firm may well be considered distinctive from each other inside the same industry i.e. no two companies have the same encounters, or had obtained the same resources or aptitudes or built the same organizational culture (Barney & Clark, 2007). Such contrasts within the qualities of assets among firms were the colossal determinants of key choices (Shang & Marlow, 2005).
2.9 Empirical Literature Review

The relationship between order processing, materials handling and transportation with physical distribution has been shown in a number of studies. Nishiura, et al. (2004) in their study titled "geographical distribution of medical supplies in the provinces". The purposes of the consider was to analyze the territorial characteristics and geographic conveyance of the therapeutic staffs and patients beds within the connection to the populace and normal passing rates in each of the territories in Thailand, by utilizing the Lorenz bend and Gini coefficients. It was illustrated that there are certain clear uneven dispersions in restorative work force; particularly physician’s beds roughly 39.65%, 25.8% and 20.6% are concentrated within the Bangkok city. Particular thoughts to illuminate these issues are discuses in arrange to overcome this wellbeing care emergency by the year 2025.

Tseng et al.,(2005) in their paper titled "the role of transportation in logistic chains’ which were conducted in South Korea showed that transportations systems if well developed and managed could bring the following advantages into fully play. That are it will reduce costs of operations and promote service quality, but they further hinted that a well operated transport systems is in pole position of also increasing both competitiveness of the government and that of the enterprise.

Fugate, et al., (2010) conducted a ponder on 150 firms in USA to look at calculated impact on the firms execution, they uncovered that increment in coordinations productivity, viability, and separation diminished costs, stock, cash necessities and expanded stock accessibility, convenient conveyance, on-time and damage-free conveyances, line thing fill rates and deals, it too moved forward net edge and resource turnover, which made strides return on resources and in general firm execution.

Vijayaraghavan and Raju, (2008), conducted a study to examine the relationship existing between transport capabilities and the logistics performance of a firm in India. The comes about were positive that, transport capabilities had a coordinate impact on the calculated execution.
The Michigan State University study (GLRT at Michigan State University 1995) especially revealed how firms used logistics management to achieve competitive superiority by consistently meeting customer expectations.

Sezhiyan and Nambirajan, (2010), conducted a consider to look at different angles and factors on administration of coordinations capabilities and firm execution in India. Firm execution was relapsed against coordinations capabilities and the comes about shown that the prescient variable had positive and noteworthy impact on firm execution.

From the above observations it is clear that the performance of physical distribution is still poor even in other countries of the world regardless of their economic status and capabilities. The poor performance trends inspired the researcher to conduct this study trying to leverage the existing knowledge deficit on factors affecting physical distributions in beverage industries.

2.10 Conceptual Framework
In a conceptual system, expressive categories are methodically put in a wide structure of express recommendations, explanation of relationship between two or more observational properties to be acknowledged or rejected (Nachmias, 2003). Kombo and Tromp (2006) characterized conceptual system as a "set of wide thoughts and standards taken from relevant fields of inquiry and used to structure a subsequent presentation" In this research, there were independent and dependent variables. Autonomous factors were transportation capabilities, fabric taking care of frameworks, and arrange preparing frameworks procedures and strategies whereas subordinate factors was the execution of physical dissemination of refreshments at Coca Cola company. The execution of physical conveyance is influenced emphatically or contrarily by these autonomous factors. Coca-Cola has got to control this circumstance for the creation of great environment for positive physical dissemination. Variables to be tested against the statistical evidence were as follows which made a potential physical distribution of beverages
Figure 2.1: Conceptual model

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANSPORTATION FACTORS</td>
<td>PHYSICAL DISTRIBUTION PERFORMANCE</td>
</tr>
<tr>
<td>• Shipment of products</td>
<td>• Sales</td>
</tr>
<tr>
<td>• Time used to deliver products</td>
<td>• Markets share</td>
</tr>
<tr>
<td>• Damage to product in transit</td>
<td>• Profits</td>
</tr>
<tr>
<td>• Transportation cost</td>
<td>• Inventory</td>
</tr>
<tr>
<td>• Quality of delivery</td>
<td>• Growth prospects</td>
</tr>
<tr>
<td>MATERIAL HANDLING FACTORS</td>
<td></td>
</tr>
<tr>
<td>• Decrease/increase damage</td>
<td></td>
</tr>
<tr>
<td>• Facilitate/not facilitate order processing</td>
<td></td>
</tr>
<tr>
<td>• Move goods at the right time</td>
<td></td>
</tr>
<tr>
<td>ORDER PROCESSING FACTORS</td>
<td></td>
</tr>
<tr>
<td>• Shipping right, full, correct and complete orders</td>
<td></td>
</tr>
<tr>
<td>• Delivery of orders at the right time</td>
<td></td>
</tr>
<tr>
<td>• Package formation</td>
<td></td>
</tr>
<tr>
<td>• Order consolidation</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher, (2019)
2.10.1 Transportation Factors and physical distribution performance
Transport as independent factor does not be affected by physical distribution performance as it is, but affects the dependent factor of physical distribution performance. Attribute such as timely delivery of products can raise distribution performance through sales, market share, profit and growth prospects of Coca Cola Company at Morogoro Municipality. Also attribute like damage of product on transit if can be controlled well will enable the performance of physical distribution of beverages to be not affected negatively in terms of high performance. If all or some of these attributes can be poorly performed, the performance of physical distribution will drop down.

2.10.2 Material Handling Factors and physical distribution performance
Material Handling Factors as independent factor does not be affected by physical distribution performance as it is, but affects the dependent factor of physical distribution performance. Attribute such as movement of goods at the right time, decrease/increase damage, can also rise distribution performance through sales, market share, profit and growth prospects of Coca Cola Company at Morogoro Municipality. Also attribute such as decrease/increase damage if can be controlled well will enable the performance of physical distribution of beverages to be not affected negatively in terms of high performance. If all or some of these attributes can be poorly performed, the performance of physical distribution will drop down too.

2.10.3 Order Processing Factors and physical distribution performance
Order Processing Factors as independent factor will not be affected by physical distribution performance as it is, but affects the dependent factor of physical distribution performance. Attribute such as shipping correct and complete orders, delivery of order at the right time package formation and order consolidation, can also raise distribution performance through sales, market share, profit and growth prospects of Coca Cola Company at Morogoro Municipality. Also attribute like order consolidated if can be controlled well will enable the performance of physical distribution of beverages to be not affected negatively in terms of high performance.
If all or some of these attributes can be poorly performed, the performance of physical distribution will drop down too.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction
This chapter examined the investigate plan that the researcher utilized within the think the study. It’s too, displaying the populace and testing strategy that was used to secure the required sample estimate, information collection strategies that were utilized within the study and information examination strategies that the analyst utilized within the study.

3.2 Study area
This study was conducted at Morogoro town and the unit of analysis was Coca cola Company limited.
Figure 3.1: The study area was Morogoro Municipal as shown below.

Source: NBS, (2018)

3.3 Research Paradigm (Philosophy)

The research in this context used positivistic approach in conducting the study. With this phenomenon the only positive requirements towards the respondents are the factors to consider in implementing physical distribution. In positivism process the reality of the study obtained from the observable situation within Coca Cola Community. According to Mayor and Blackman (2005) paradigm or school of thought in research scholarship are acknowledged ways of looking at reality and the resulting approaches/methods to create information that’s held by group influence within the subject range. According to Mayor and Blackman (2005) paradigm or school of thought in research scholarship are recognized ways of looking at reality and the coming about approaches/methods to form data that's held by group influence inside the subject range.
3.4 Research Design
This study was built on post positivism and it’s a descriptive case study design. Descriptive case study research design describe the characteristics of a particular individual or of a group, and determining the frequency with which something occurs or it’s associated with something else(Kothari, 2006). In order to fulfill the study objectives research design was deployed to establish the required information’s and the existing relationships. The researcher adopted a descriptive case study design, to try to describe the characteristics, specific predictions and narration of facts concerning individuals and groups. The design helped the researcher in collection of quantitative data using different methods. According to Churchill (2002) research design may be a master plan indicating methods for collecting and analyzing the required information.

3.5 Population and Sample Size
The population of the study includes Coca Cola Company (workers and customers). For the purpose of this study the total population included all workers and customers located in Morogoro town. From 2012 census the population of Morogoro town were 315866 although the current exactly figure might be slightly different. All components, people, or units that meet the selection criteria for a group to be examined, and from which a representative’s test is taken for detailed examination. The overall of population is called a universe (Kothari 2012).

3.5.1 Sample Size
Kothari, (2004) defined sample size as the number of items to be chosen from the universe to constitute a sample to be examined. The sample measure was gotten by using the formula developed by Yamane (1967) as in the equation underneath.

\[ n = \frac{N}{1 + Ne^2} \]

Where;

n = Sample size

N= total population of the study (Ward population)
E=error of prediction = 0.075

According to population and housing census of 2012 Morogoro municipal had 315866, therefore when applying Yamane formula

\[
\frac{315866}{1 + 315866(0.075)^2} = 178
\]

The required sample size is 178 respondents.

After stratifications of the population the required sample were drawn using a table of random numbers shown later below.

<table>
<thead>
<tr>
<th>Department / Section</th>
<th>Number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td>5</td>
</tr>
<tr>
<td>Marketing</td>
<td>10</td>
</tr>
<tr>
<td>Finance</td>
<td>7</td>
</tr>
<tr>
<td>Sales</td>
<td>20</td>
</tr>
<tr>
<td>Stores</td>
<td>8</td>
</tr>
<tr>
<td>Wholesalers</td>
<td>10</td>
</tr>
<tr>
<td>Retailers</td>
<td>109</td>
</tr>
<tr>
<td>Transport unit</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>178</strong></td>
</tr>
</tbody>
</table>

3.6 Sampling Technique

Non-proportional stratified sampling technique was used since the sample does not reflect the proportions in the sampling frame the population of this study was heterogeneous consisting of several sub populations which are homogenous internally and shows differences between them.

In stratified sampling the sampling frame is separated into homogenous and non-overlapping sub groups (called strata), and a simple random test is drawn inside each sub group (Bhattacherjee, 2012).

Stratified sampling techniques avoids over representation, underrepresentation and non-representations of groups of the population as well as it reduce random sampling error since strata are internally homogenous and show a comparative difference between groups. Blank (1984) defines a sample as “a subset or portion of the whole population. Saunders et al (2000) emphasizes on a need for using sample due to time and cash constraints additionally access restriction, test can be taken as a agent of the
whole populace whereby its results can be generalized. The research was conducted at Coca Cola company community in Morogoro town with population estimate of about 315,866 as per 2012 census (NBS, 2012).

**3.7 Data Collection Method**

In this study both primary and secondary information were collected. Primary data was collected from the field by utilizing questionnaires and through interview. Structured and open–ended questions were used. The secondary data were gathered various from sources including books, reports, journals, and other publications. Also Internet as a source of secondary data was used by the researcher. Data collection methods refer to the gathering particular data aimed at giving a few reality (Kombo and Tromp, 2003).

According to (Krishnaswami, 1996) data are facts, figure and other significant materials past and present serving as bases for study and analysis. In deciding about the method of data collection to be used for the study, the researcher kept in mind two types of data. Both primary and secondary information was utilized in this inquire about study.

**3.7.1 Primary Data**

The primary data are those which are collected for the first time and this happen to be original (Kothari 2004). Krishna swami, (1996) stated that primary data are those which have not been already collected. The primary data were collected by the researcher himself from the field. These data was collected afresh and for the first time. All the information that were collected by the researcher from the respondents for the first time during this research study was used for the purposes of this study, primary data were obtained from retailers, bars and from Coca Cola company employees.
3.7.2 Secondary Data

Secondary data are the one gotten from already existing sources, and they also have already been collected by other individuals for a few other purposes, these are secondary data, secondary data included both raw information and published ones. The researcher gone by different literatures from professional journals, investigate reports, introduction notes and internet sources for auxiliary data.

3.7.2.1 Measurement of variables

Concurring to Kothari, (2004,2012) measurement is the method of assigning number to object or observations, the level of measurement being a work of the rules under which the numbers are assigned. For the purpose of the study the researcher used non-parametric measures.

The variables used in this study are operationalized in which the concept of performance of physical distribution of beverages is translated into the something that can be measured. In this study physical distribution performance was measured by assessing how order processing, transportations and materials handling factors are influencing firm’s physical distributions performance in a form of sales, markets share, profits, inventory and growth prospects.

This study utilized ordinal regression analysis, where by all two variables, dependent and independent factors measured on 5-point Likert scale which extended from “Strongly Agree” to “Strongly Disagree”. The following codes were utilized within the data set to stand for, 1- Strongly agree, 2- Agree, 3- Neutral, 4- Disagree and 5- Strongly disagree. The taking after table below 3.1 appears the conceptualization of dependent and independent variables

<table>
<thead>
<tr>
<th>Table 3.1: Conceptualization of dependent and independent variables</th>
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<tbody>
<tr>
<td>Variables</td>
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<tr>
<td>-----------</td>
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<tr>
<td></td>
</tr>
<tr>
<td>Performance of physical distribution of beverages</td>
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<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Transportation factors</td>
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<tr>
<td>Material Handling Factors</td>
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<td>Order Processing Factors</td>
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</table>

Source: Researcher, (2019)

3.8 Data Analysis

To make sure that all items are measuring the same underlying constructs. Internal consistencies of the scales were also determined. The researcher used Cronbach’s alpha Coefficient indicator to check internal consistencies of variables, the average value was found to be 0.7879 which is above the ideally acceptable value of 0.7. The results for reliability analysis are summarized in the table below. Table 3.2 summarizes the reliability result for each variable of the study.
Table 3.2: Reliability Analysis Results

<table>
<thead>
<tr>
<th>Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>0.7636</td>
</tr>
<tr>
<td>Order processing</td>
<td>0.8542</td>
</tr>
<tr>
<td>Material handling practices</td>
<td>0.7459</td>
</tr>
<tr>
<td>Average</td>
<td>0.7879</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

The information that was collected by the researcher through questionnaire was double checked, coded and transferred to the computer. Since the data obtained from the field was in a raw form and were difficult to translate. The researcher summarized, systematized, edited and coded to ensure the completeness, exactness, clarity and consistence.

Descriptive statistics was used to determine the frequency distribution and percentages. But, multiple linear regression model was used to check how each independent variables of this study(order processing, material handling and transportations) are contributing to the occurrence of the outcome (physical distribution performance) correlation was used in determining the relationships among factors affecting physical distribution performance and between the factors and the outcome of this study in Morogoro municipal. Qualitative data were collected first and were used for the development of the study instruments. Narrative summary analysis was incorporated in the study to facilitate detailed explanations of the projects findings so that to create a good understanding of the findings.
Regression Model was in form of;

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + E \]

Where by

Y- The dependent variable (Physical distribution performance)

\( b_1, b_2, \) and \( b_3 \) are regression Coefficients, or change induced by each \( X \) (independent variable) on \( Y \).

\( X_1 \)- Transport management, \( X_2 \)-Order processing factors and \( X_3 \)-material handling practices.

a- The constant

E- Error term.

The significance of the model in explaining the relationship that exists between physical distribution and the three independent variables of this study namely; transportation, order processing and material handling was tested using the analysis of variance. Additionally T-test and F-test were conducted at the 95% confidence level. The coefficient of determination was used to show the nature and directions between the research variables. The analyzed data were presented using tables.
CHAPTER FOUR
PRESENTATION OF FINDINGS

4.1 Introduction
This chapter presents the findings of the study. The study focus was on the effects of various factors / aspects / attributes of the firm and its surrounding components on performance of the physical distribution in Morogoro township Tanzania. The findings are presented in terms of specific objectives of this study.

4.2 The response rate
A group of procurement, logistics and transport professionals and other stakeholders were selected. A total of 178 questionnaires were distributed to respondents from various selected departments, sections and units and businesses. For the case of this study, the researcher opted for the departments and personnel who are always involved almost in every physical distribution activities in the coca cola community. Out of 178 respondents which were provided with questionaires to fill, only 122 respondents returned the fully filled questionnaires. 122 respondents is equivalent to 68.55% of the sample made up by 178 respondents first selected. Henceforth, the actual sample size was 122 respondents, which actually were a good representation of both the population and the sample.

4.3 Validity and Reliability Measurements
Msabila and Nalaila (2013) defined the validity as the accurateness and the fact of the data and the discoveries that are formed, that is it measures what it is supposed to measure; while the reliability was the measure of the degree or extent to which the inquiere about instrument yields consistent results of information after repeated trials, that’s consistency of what to be measured.

According to Kothari (2012) two aspects of reliability, i.e. stability and equivalence deserve special consideration. Stability aspect is concerned with securing consistent results with repeated estimations of the same individual and with the same instrument. The researcher considers reliability of data as core in respect to research issue. The degree of data stability will depend on reliability of that information. In
other words, the researcher argues that dependable information is the reflection of the truth around investigates issue. In this manner, the degree of stability was determined by comparing the results or repeated measurements in arrange to reach at right research findings.

To guarantee Reliability and validity of the study the researcher make sure that, questionnaire was pre-tested (guiding), created questions were basic to understand, simple dialect was utilized, surveys were altered some time recently analysis was done and questions in the questionnaire were systematically arranged. In addition to that each question in the questionnaire was checked for its completeness and consistency. For the study to yield the same results on different occasion or when conducted by different researcher, a researcher issued questionnaires to be filled at the same time with a standardized time duration to all participant which was a total of four(4) days this helped to avoid or reduce participants error. Saunders et al. (2009) recommended that “it’s important to include the declarations of privacy of the respondents information”s to avoid participant bias due to fear therefore the declaration of privacy of information was also included.

4.4. The influence of transportation on physical distribution performance

The first objective of this study was to examine the influence of transportation on physical distribution performance of beverages at Coca Cola in Morogoro town. In order to achieve this objective the researcher sought to enquire about whether the available transportations systems and infrastructures at disposal are curently helping the firm to realize its set targets in sales, market share attainment, profits maximation, inventory control and management as well as company growth targets in Morogoro. These informations were collected using open and closed ended questionnaire. From the findings 77.05% of all respondents agreed with the major statment that transportation system and infrastructure influence physical distribution performance.

From the findings, 28.69% of respondent Strongly agreed that transportation sytems and infrastructure in place are affecting the physical distribution performance of the firm at Morogoro town, 48.36% Agreed, 10.66% were Neutral for the case, 9.02%
Disagree while 3.28% Strongly Disagreed that transportations is affecting physical distribution performance of beverages at coca cola in Morogorotown.

Table 4.1: The effects of transportation on physical distribution performance

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>35</td>
<td>28.69</td>
</tr>
<tr>
<td>Agree</td>
<td>59</td>
<td>48.36</td>
</tr>
<tr>
<td>Neutral</td>
<td>13</td>
<td>10.66</td>
</tr>
<tr>
<td>Disagree</td>
<td>11</td>
<td>9.02</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>4</td>
<td>3.28</td>
</tr>
<tr>
<td>TOTAL</td>
<td>122</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

4.5 The influence of order processing on physical distribution performance

The next objective of the study was to examine the influence of order processing time on physical distribution performance of beverages at Coca Cola in Morogoro town. The researcher also sought to enquire whether there are order processing practices in their firm as well as to find out how long it takes for the single order to be processed and delivered. The study found out that 100% of respondents said “YES” there are practices, the lead time for the single order in average is too long for customers to wait sometimes. The study also revealed that 87.70% of all respondents agreed that there is a relationship between order processing and physical distribution performance at coca cola firm in Morogoro.

This study also sought to investigate how shipping right and correct orders, delivery of orders at the right time, package formations and order consolidation influenced physical distribution performance at CocaCola in Morogoro town. From the findings 39.34% of all respondents Strongly agreed, 48.36% Agreed, 6.56% were Neutral while the remaining 1.64% and 4.10% Disagreed and Strongly Disagreed respectively that order processing factors such as shipping of full and correct order, delivery of order at the right time, package formations and order consolidation were affecting the performance of a physical distribution system of beverages at Coca Cola in Morogoro town. This is well summarized in the table 4.2 below.
Table 4.2 Order processing factors and distribution performance.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>48</td>
<td>39.34</td>
</tr>
<tr>
<td>Agree</td>
<td>59</td>
<td>48.36</td>
</tr>
<tr>
<td>Neutral</td>
<td>8</td>
<td>6.56</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
<td>1.64</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>5</td>
<td>4.10</td>
</tr>
<tr>
<td>TOTAL</td>
<td>122</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

4.6 The influence of material handling practices on physical distribution performance

The last objective of the study was to examine the influence of material handling on physical distribution performance of beverages at Coca Cola in Morogoro town.

To achieve this the researcher sought to find out whether procurement staff had the necessary skills and experience to carry out materials handling effectively and whether materials handling practices are influencing physical distribution performance. From the findings 72.5% of all respondents indicated that staff had the necessary skills and experience to carry out materials handling efficient and effectively. Also 78.68% of all respondents indicated that material handling is influencing procurement performance. This data presentation is well captured in the summarised table 4.3 below.

Table 4.3 Materials handling practices and physical distribution performance

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>20</td>
<td>16.39</td>
</tr>
<tr>
<td>Agree</td>
<td>76</td>
<td>62.29</td>
</tr>
<tr>
<td>Neutral</td>
<td>3</td>
<td>2.46</td>
</tr>
<tr>
<td>Disagree</td>
<td>20</td>
<td>16.39</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>3</td>
<td>2.46</td>
</tr>
<tr>
<td>TOTAL</td>
<td>122</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

4.7 Inferential analysis

To establish the relationship between independent variables of the study (material handling practices, Order processing factors and Transportation management) and dependent variable (Physical distribution performance) of the study. Inferential
This study used a regression analysis to find out if there was a relationship between the variables as well as the strengths of those relationships. Multiple regressions enabled a researcher to predict how well a set of independent variables of this study are influencing the outcome/dependent variable (physical distribution performance). As a result, a researcher was able to reach a conclusion which was extended beyond the immediate data of the independent variables. The coefficient of determination enabled the researcher to quantify the strengths of those relationships between variables.

### 4.7.1 Correlation Analysis

To quantify the strengths and directions of the relationship between independent variables and the dependent variable, the researcher used a Pearson coefficient of correlation as shown by the Table 4.8 below.

**Table 4.4: Correlation coefficient results**

<table>
<thead>
<tr>
<th></th>
<th>Physical distribution performance</th>
<th>Transport management</th>
<th>Order processing practices</th>
<th>Materials handling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>1</td>
<td>.529</td>
<td>.514</td>
<td>.494</td>
</tr>
<tr>
<td><strong>Physical Distribution Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td><strong>Transport management</strong></td>
<td>1</td>
<td>.334</td>
<td>.179</td>
<td></td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.041</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Order processing factors</strong></td>
<td>1</td>
<td>.163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.071</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Material handling practices</strong></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Researcher, 2019*
From the table above, there was a significant positive strong correlation between physical distribution performance and transportation management as shown by the correlation figure 0.529 (Sig.0.000), it was also clear that there was significant positive strong correlation between physical distribution performance and order processing factors since the correlation figure was 0.504 (Sig 0.00001). And finally the table showed clear that there was also a positive strong significant correlation between physical distribution performance and material handling practices provided the correlation value was 0.494 (Sig 0.0001).

4.7.2 Regression Analysis

The study conducted a multiple regression analysis to determine the influence of transportation management, order processing factors and material handling practices on physical distribution performance of Coca Cola at Morogoro town in Tanzania.

Multiple regression analysis is a statistical tests/technique that allows the study to predict a score of one variable on basis of their scores on several other variables (Kiage, 2013).

The coefficient of determination explain the extent to which changes in the dependent variable can be explained by the change in the independent variables, it can also be defined as the dependent variable’s percentage of variation (physical distribution performance) that is explained by both three independent variables of this study.

Table 4.5: Coefficient of determination

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.765*</td>
<td>.715</td>
<td>.678</td>
<td>.89710</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

From the table above the R-squared value mounted to 0.715, that showed that all the factors covered by this study (Transport management, Order processing factors and Material handling practices) were only explaining the variations in dependent variable (physical distribution performance) at only 0.715 which is equivalent to
71.5% and those factors which are not covered in this study were found to be affecting the physical distribution performance at the remaining 28.5%. The model managed to explain more than 50% of the variations in physical distribution performance at 71.5% therefore this model is very good and it can be used for generalization purposes.

Table 4.6: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>234.376</td>
<td>14</td>
<td>.53.594</td>
<td>17.548</td>
<td>.000*</td>
</tr>
<tr>
<td>1 Residual</td>
<td>105.294</td>
<td>108</td>
<td>.972</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>229.670</td>
<td>122</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

From the ANOVA table results above, the overall model adopted in this study was significant since the value of F calculated was 17.548 and the P value was .01 (F= 17.548, P< .01).

Table 4.7: model Coefficient

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.422</td>
<td>.987</td>
<td></td>
<td>2.455</td>
</tr>
<tr>
<td>Transport management</td>
<td>.247</td>
<td>.065</td>
<td>.338</td>
<td>3.779</td>
</tr>
<tr>
<td>Order processing</td>
<td>.310</td>
<td>.058</td>
<td>.424</td>
<td>5.355</td>
</tr>
<tr>
<td>Material handling</td>
<td>.229</td>
<td>.066</td>
<td>.238</td>
<td>3.476</td>
</tr>
</tbody>
</table>


Source: Researchers data, 2019

The findings above more importantly showed the contributions of each independent variable on the variations in the dependent variable. With all variables held constant Order processing factors was found to affect more the physical distribution performance at Coca Cola in Morogoro town since its standardized coefficient beta value mount to 0.424, followed by Transport management with the standardized coefficient beta value mounting to 0.338 and finally by material handling with the
standardized coefficient beta value of 0.238. This means that physical distribution performance at Coca Cola in Morogoro town was increasing by 0.424 for every improvement in order processing factors, and by 0.338 for every improvement in transport management as well as by 0.238 for every improvement in material handling practices.

The value of $t$ critical at 5% level of significance and 95% level of confidence at $k = 4.38$ degree of freedom is 2.455. Since all the values of $t$ calculated were above 2.455, then all the independent variables in this study were significant in explaining the physical distribution performance at Coca Cola Company in Morogoro town. Not only that but also the statistical significance of the independent variables in the model above is also shown by the significance p-values of each independent variables which was less than .05 ($P < .05$) in all cases.
CHAPTER FIVE
DISCUSSION OF THE FINDINGS

5.1 Introduction
This chapter discusses the findings of the study. The study focus was on assessing the factors affecting physical distribution performance of beverages at Morogoro, the case of Coca Cola Company. The study gathered data from various practitioners and stakeholders of Coca Cola Company in Morogoro town.

5.2 The influence of transportation on physical distribution performance.
The researcher sought to enquire about whether the available transportation systems and infrastructures at disposal are currently helping the firm to realize its set targets in sales, market share attainment, profits maximization, inventory control and management as well as company growth targets in Morogoro. These informations were collected using open and closed ended questionnaire. From the findings 77.05% of all respondents agreed with the major statement that transportation systems and infrastructure influence physical distribution performance.

From the findings, 28.69% of respondent Strongly agreed that transportation systems and infrastructure in place are affecting the physical distribution performance of the firm at Morogoro town, 48.36% Agreed, 10.66% were Neutral for the case, 9.02% Disagreed while 3.28% Strongly Disagreed that transportation capabilities are affecting physical distribution performance of beverages at Coca Cola in Morogoro town. Furthermore, the study also find out that transport management had strong positive correlation with physical distribution performance of beverages indicated by the correlation figure of .529, not only that but was also significantly affecting the variations in the physical distribution performance since the value of $t$ calculated was ($t = 5.355$) which was greater than the value of $t$ critical ($t = 2.454$) and the value of $P$ at ($P = .01$). Coca Cola company transportation network appeared to have covered almost every routes in Morogoro municipal this attributed to the on time order delivery but the above findings are in line with the study conducted by Vijayaraghavan and Raju (2008) on the examinations the relationship between...
transport capabilities and logistic performance which found that transport capabilities of firms had a direct influence on firms logistic performance. For the company to always meet the expectations of its customers and their satisfaction in terms of on time delivery of orders there should be constant investment in transportations infrastructure and systems.

5.3 The influence of order processing on physical distribution operation

Researcher at first sought to enquire whether there are order processing practices in the firm. The study found out that 100% of respondents said “YES” there are practices.

The study also revealed that 87.70% of all respondents agreed that there is a relationship between order processing and physical distribution performance at coca cola in Morogoro.

This study also sought to investigate how shipping right and correct orders, delivery of orders at the right time, package formations and order consolidation influenced physical distribution performance at CocaCola in Morogoro town. From the findings 39.34% of all respondents Strongly agreed, 48.36% Agreed, 6.56% were Neutral while the remaining 1.64% and 4.10% Disagreed and Strongly Disagreed respectively that order processing factors such as shipping of full and correct order, delivery of order at the right time, package formations and order consolidation were affecting the performance of a physical distribution sytem of beverages at Coca Cola in Mororgoro town.

The findings are also indicating that there was strong positive correlation between order processing factors and physical distribution performance of beverages as indicated by the correlation figure .504. It was also revealed that order processing is significantly influencing the variations in physical distribution performance, this was indicated by the calculated t value (t = 4.525) which was greater than the value of t critical (t = 2.454) with the value of P (P< .01).

From a regression model, a unit increase in order processing factors will lead to a .424 increase in physical distribution performance of coca cola beverages in Morogoro
town. This implies that order processing factors account for 42.4% of the variations in the physical distribution performance. The above findings are supported by Evans et al. (2015) which asserted that order processing factors and collaborations are to great extents affecting physical distribution performance.

5.4 The influence of material handling practices on physical distribution performance

The researcher looked for to discover out whether acquirement staff had the fundamental abilities and involvement to carry out materials handling successfully and whether materials handling practices are influencing physical distribution performance. From the findings 72.5% of all respondents indicated that staff had the necessary skills and experience to carry out materials handling efficient and effectively. Also 78.68% of all respondents indicated that material handling is influencing procurement performance.

From a regression model, a unit increment in material dealing with homes will lead to a .238 increment in physical distribution execution of refreshments at coca cola in morogoro town, this implies that material handling account for 23.8% of the variations in the physical distribution performance. At coca cola Morogoro branch employees were seen to have good relationship with their customers since most of them were in apostion of knowing each customer personal particular, their average requirement and location without even consulting the catalogue, this showed how competent they are. The so established good relationship between them smoothen the company operations and enhance customer satisfaction in most stances.

The above observation are supported by Kiage (2013); Fulgate et al., (2010) and Tseng et al.,(2005) in their study about factors are influencing physical distribution performance in Kenya.
CHAPTER SIX

SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

6.1 Introduction
This chapter summarizes the entire research work, concludes research objectives and suggests policy implications.

6.2 Summary of the study
The researcher questioned and interviewed people from sales and marketing, user department, logistics, Finance, transportation as well as wholesalers, retailers, customers and vendors. The researcher administered questionnaire to 178 respondents but only 122 respondents returned the fully filled questionnaires. 122 respondents was equivalent to 68.53% of the sample population targeted. Therefore the actual sample used for the purposes of this study was 122 respondents.

The study had three independent variables namely; Transportation management, order processing factors and material handling factors with the following specific objectives; to examine the influence of order processing factors on physical distribution of beverages, to examine the influence transportation on physical distribution performance of beverages and to find out the influence of material handling practices on physical distribution performance of beverages at coca cola in Morogoro town.

The three independent variables of this study were found to contribute about 71.5% to the changes in physical distribution of beverages performance at coca cola in Morogoro town, while other factors not covered in this research were found to contribute the remaining 28.5% of the physical distribution performance of beverages Morogoro town.

From the findings respondents indicated that, the most important factor was order processing factors, followed by transport management and lastly material handling practices.
6.3 Conclusions

6.3.1 The influence of transportation on physical distribution
The study found that transportation is significantly influencing physical distribution of beverages at coca cola depot in Morogoro town, although there were cases of delayed deliveries and insufficient amount of drinks varieties. Therefore I recommend the firm to adopt ICT-enabled transport systems to continue making it more relevant in the future.

6.3.2 The influence of material handling on physical distribution
The study found that material handling practices are significantly influencing physical distribution of beverages at coca cola depot in Morogoro town, which is 23.8% of all the variations in physical distribution performance in the firm, is explained by the variations in material handling practices. Other attributes such as skilled staffs and provisions of job incentives were found to affect material handling practices hence physical distribution performance of the firm.

6.3.3 The influence of order processing on physical distribution performance
The study found that order processing is significantly influencing physical distribution of beverages at coca cola depot in Morogoro town more than the other two factors studied, that is 42.4% of all of the variations in physical distribution performance in the firm is explained by the variations in order processing at Coca cola branch in Morogoro and Tanzania as a whole.

6.4 Policy implications
On the basis of findings and conclusions above, the researcher is now recommending the following to policy makers;

6.4.1 Job training programmes to staffs
Staffs should be provided with time-to-time job training to facilitate them in catering several changing needs of their area of profession. The study observed that staffs are not attending enough in-service training. Job trainings are good as they empower staffs with current knowledge and skills about their profession and enable them to deal with the time-to-time changing.
6.4.2 ICT adoption

Coca cola should adopt ICT-enabled transport system, e-procurement, e-ordering and inventory management systems in their daily operations to improve their physical distribution performance since there are low levels of ICT usage. The more the physical distribution process is integrated the more efficient it becomes. It has been found that technologically enabled physical distribution process has a potential of reducing lead time and procurement costs.

6.5 Areas for further studies

This study assessed three independent variables in a form of transportation, order processing factors and material handling practices which according to the study they influence 71.5% of the variation in physical distribution performance at coca cola in Morogoro town. The researcher recommends further research to assess other factors that are influencing the remaining 28.5% of the variations in physical distribution performance. Equally further research should be carried out in other beverage companies in Morogoro to validate whether these findings are to be generalized.


Boaz Ibrahim (2010), Challenges in preparation and implementation of annual procurement plan in public sectors.


Jumanne Feruzi (2011) Procurement Planning in Public Sectors


Krishnswami O.R (1996) Methodology of research in social science, Himalaya Publication house, Bombay


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URT, (2016) Public Procurement Act Amendment.


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APPENDICES

APPENDIX I:

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

This part presents demographic characteristics of respondents under this study, it includes gender, age, education level and work experience.

1. Gender, age and education level

Sex of Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>79</td>
<td>64.75</td>
</tr>
<tr>
<td>Female</td>
<td>43</td>
<td>35.2</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

Table above shows that 64.75% and 35.2% of respondents were males and females, respectively. Meaning that majority of respondents are male, this suggests that male respondents are more likely to participate in physical distribution activities in their occupations than female. This is attributed by the nature of the job itself.

Age distribution of respondents

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>below 30</td>
<td>50</td>
<td>40.98</td>
</tr>
<tr>
<td>between 30-40</td>
<td>42</td>
<td>34.43</td>
</tr>
<tr>
<td>between 40-50</td>
<td>26</td>
<td>21.31</td>
</tr>
<tr>
<td>above 50</td>
<td>4</td>
<td>3.38</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

Table results above shows that 40.98% of all respondents fall under the age categories of below 30 years, 34.43% of respondents fall under the age category of between 30-40 years, 21.31% of all respondents falls under the age category of between 40-50 years and finally 3.38% of all respondents falls under the age category of above 50 years old. This suggests that majority of the respondents are
in youth and productive age (between 18 to 40 years old) these two groups together comprise about 75.41% of all respondents,

Education levels of respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate</td>
<td>2</td>
<td>1.64</td>
</tr>
<tr>
<td>University graduate</td>
<td>17</td>
<td>13.93</td>
</tr>
<tr>
<td>Diploma</td>
<td>40</td>
<td>32.79</td>
</tr>
<tr>
<td>Certificates</td>
<td>63</td>
<td>51.64</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

Table shows that 1.64% followed by 13.93% of respondents were postgraduate and bachelor degree holders respectively while 32.79% were diploma holders and the remaining 51.64% were certificates holders. These findings ascertain that the groups of respondents included in this study were qualified participants and knowledgeable enough to provide usefully information that could be consulted while making rational decisions about physical distribution performance at Coca Cola company.

Work experience of respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>below 3 years</td>
<td>52</td>
<td>42.62</td>
</tr>
<tr>
<td>above 3 years</td>
<td>70</td>
<td>57.38</td>
</tr>
<tr>
<td>Total</td>
<td>122</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Researchers data, 2019

Table shows that 42.62% of respondents have the experience of less than 3 (three) years in their current jobs, while 57.38% of all respondents had a job experience of more than 3 (three) years in their current jobs. That means most of respondents are experienced in what they were doing at the time this study were carried out.
APPENDIX II: BACKGROUND INFORMATION

I am Gerald Adam Kayagambe, a student at the University of Mzumbe Morogoro pursuing Masters of Science in Procurement and Supply Chain Management (MSc-PLM). I am seeking for your valuable time to go through this questionnaire. The purpose of this Questionnaire is to collect data for a Research on factors affecting the performance of physical distribution of beverages a case of Morogoro Municipal. Here is a list of set of questions which are purely for academic purpose for you to respond to. Your answers to these questions will mean a lot in achieving the objectives of this research.

A. - Identification

Questionnaire number ..............................
Date of interview (Date/Month/Year)

B. Respondents characteristics

1. What is your age? ..............................

2. What is your marital status?
   a) Single
   b) Widowed
   c) Married [ ]
   d) Divorced
   e) Separated
   f) Others (specify).............................

3. Level of education?
   a) Primary
   b) Secondary
   c) College [ ]
   d) Non formal education
   e) Other (Specify)..............................
PART B: ORDER PROCESSING

3. Is there any challenge in order processing that may bring an impact to the physical distribution of beverages at Coca-Cola Company?
   (i) Yes ( )
   (ii) No ( )

4. From question (9) above, mention at least three challenges if any in order processing that may bring impacts to the distribution process at Coca-Cola Company?
   (i) .................................................................
   (ii) .................................................................
   (iii) .................................................................
   Others................................................................

Order processing factors for performance of physical distribution of beverages

The following are factors that affect performance of the physical distribution of beverages in Morogoro Municipal. Please respond to the several questions that are perception factors indicators by ticking (✓) under the choices below.

(5=strongly agree 4=agree 3=not sure 2=disagree 1=strongly disagree)

Order processing factors

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>Agreement scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1   2   3   4   5</td>
</tr>
<tr>
<td>2.1</td>
<td>Shipping right, full, correct and complete orders</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Delivery of orders at the right time</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Package formation</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Order consolidation</td>
<td></td>
</tr>
</tbody>
</table>
PART B: TRANSPORTATION ACTIVITIES IN PHYSICAL DISTRIBUTION

5. Do you think there is any negative impact of transportation in distribution process at Coca Cola?
   (i) Yes ( )
   (ii) No ( )

If yes, mention at least two negative impacts of transportation in physical distribution of beverages supplies at Coca Cola Company.
   (i) ..................................................................................................................
   (ii) .............................................................................................................
Others.............................................................................................................

6. Is there any transportation challenges that you think may bring an impact to the distribution process at Coca Cola?
   (i) Yes ( )
   (ii) No ( )

5. If yes mention at least three challenges if any of transportation that may have an impact to the distribution process at Coca Cola Company.
   (i) ..................................................................................................................
   (ii) .............................................................................................................
   (iii) ...........................................................................................................
Others.............................................................................................................

7. What ways can be used to address these challenges in question (6) above?
   (i) ..................................................................................................................
   (ii) .............................................................................................................
   (iii) ...........................................................................................................
   (iv) .............................................................................................................
8. Does Coca Cola Company adhere to the policy of distributing beverages supplies up to the shops?
   (i) Yes ( ) (ii) No ( )
9. Which mode of transportation does Coca Cola Company used to supply beverages from head quarter to the customers?
   (i) Road ( )
   (ii) Airfreight ( )
   (iii) Rail ( )

Transportation factors for performance of physical distribution of beverages

The following are factors that affect performance of the physical distribution of beverages in Morogoro Municipal. Please respond to the several questions that are perception factors indicators by ticking (√) under the choices below.

(5=strongly agree 4=agree 3=not sure 2=disagree 1=strongly disagree)

Transportation factors

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Agreement scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Shipment of product</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>1.2</td>
<td>Time used to deliver product</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Damage to product in transit</td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Transportation cost</td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>Quality of delivery</td>
<td></td>
</tr>
</tbody>
</table>

PART C: MATERIAL HANDLING

10. What kind of material handling system do you use to handle beverages at Coca Cola Company?
   (i) Manual ( )
   (ii) Mechanical ( )
   (iii) Automatic ( )
11. Is there any loss, damages or theft during material handling?
   (i) Yes (  )
   (ii) No (  )

12. If Yes, what ways can be used to address question (12) above?
   (i) ..............................................................
   (ii) ..............................................................

13. Is there any negative impact of material handling in physical distribution at Coca Cola?
   (i) Yes (  )
   (ii) No (  )

14. Do you think automatic materials handling system can solve problem such as damage and damage of materials?
   (i) Yes (  )
   (ii) No (  )

Material handling factors for performance of physical distribution of beverages
The following are factors that affect performance of the physical distribution of beverages in Morogoro Municipal. Please respond to the several questions that are perception factors indicators by ticking (✓) under the choices below.
(5=strongly agree 4=agree 3=not sure 2=disagree 1=strongly disagree)

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>Agreement scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1   2   3   4   5</td>
</tr>
<tr>
<td>2.1</td>
<td>Decrease damage</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Facilitate order processing</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Move goods at the right</td>
<td></td>
</tr>
</tbody>
</table>

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