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School of Mechanical and Industrial Engineering

A Thesis Report

On

Performance Optimization of Supply Chain Management Systems: A Case of Alle Bejimla

By

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June, 2018

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By

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Declaration

I hereby declare that a thesis report in entitled "**Performance Optimization of Supply Chain Management Systems**" is original work of my own and has not been presented for a degree of any other University and all the sources of references used for the Thesis have been duly acknowledged.

…… ……

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Abstracts

Optimization in supply chain management is differentiated to maximize the profitable and minimize overall operation costs through stakeholders and business partners. Optimization of supply chain management is mainly contributed to ultimately goal of product supplied from source to end users. It has also facilitated socioeconomic growth of the country based on supplied value add goods from the manufacturing industries including agro-industries to consumers. The sector of supply chain management is very wide in order to competitive supply food and fast moving consumables goods in the market based on integrate and collaborate with stakeholders. The study of performance optimization is the outcome of internal and external supply chain integration based on cluster collaboration with channel of business partners that synchronized each other's in the supply of consumables goods. To optimize supply chain performance, efforts have been required to integrate and cluster collaborates with stakeholders and business partners in order to provide quality services to customers. Among the efforts of the study on performance optimization of SCM systems, the research used both primary and secondary source of data to identify gaps of supply chain in Alle Bejimla. The study focused on the existing supply chain systems and further examined by using observation, questionnaires distributed to the respondents and informal key interviewed of top and middle managements. Besides that the research has conducted extensive literature review on the integration and cluster collaboration to optimize supply chain performance in the case company.

The findings show that performance optimization of SCM systems of Alle Bejimla is significance essential to meet customer requirements and satisfaction. The study analyzed overall supply chain activities through Alle Bejimla in order to serve customers by provide food and fast moving consumables goods. The major gaps found in Alle Bejimla which didn't supplied enough food and fast moving consumables goods to consumers. These major gaps occurred due to lack of integration and cluster collaboration with stakeholders and business partnerships. Besides that transport and inventory management systems are other challenges to Alle Bejimla. Based on further assessment and evaluation the actual inventory data under considering transportation & other operation costs, the research has improved the overall inventory operation costs by 24.2% minimized from the actual operational costs. And also the research proposed conceptual model to optimize SCM performance in order to serve customers at right place in the right time with low costs. Besides that Alle Bejimla should adopt the new concept in order to optimize the competitiveness of business in the market and

exceed customers' requirements. It also carries out the new concept to achieve performance optimization of supply chain management systems of the case of Alle Bejimla and maximize its income profits based on customer satisfactory.

Key words: Supply chain, Optimization, performance, integration, cluster collaboration

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List of Acronyms

SCM	Supply chain management
FMCG	Food and fast moving consumables goods
EOQ	Economic order quantity
MOTI	Ministry of trade and industry
ESLSE	Ethiopian shipping and logistic service enterprise
CSA	Central statistical agency
CDDSCM	Customer demand driven of supply chain management
ROI	Return on investment
SKU	Store keeping unit

CHAPTER ONE

Introduction

Nowadays, the nature of competition has changed what within the 21st century supply chain management systems. So that companies are challenged with an ever stronger competition in markets as well as voice of customer needs & requirements increased with quality products at low costs. On other hands, it has faced products short lifecycles to competitive the markets. Along with an increasing motivation on principal competencies, companies focus on handling these competitions within an appropriate cluster collaborated with business partnerships and integrated goods in the supply chain management system [1]. Supply chain management (SCM) is the cluster collaboration and integration of key business processes from the end user through original suppliers that provide products, services, and information (a forward flow of goods & a backward flow of information) that add value for customers [2]. Supply chain in modern world is a competitive of suppliers, manufacturers, distributors, wholesalers, retailers and consumers function mutually [3]. A supply chain is a set of three or more organizations linked directly by one or more of the upstream or downstream flows of products, services, finances, and information from a source to a customer and/ or vice versa.

Receive raw materials from Supplier ⟶ Processes to Add Value ⟶ Supplied to Customer

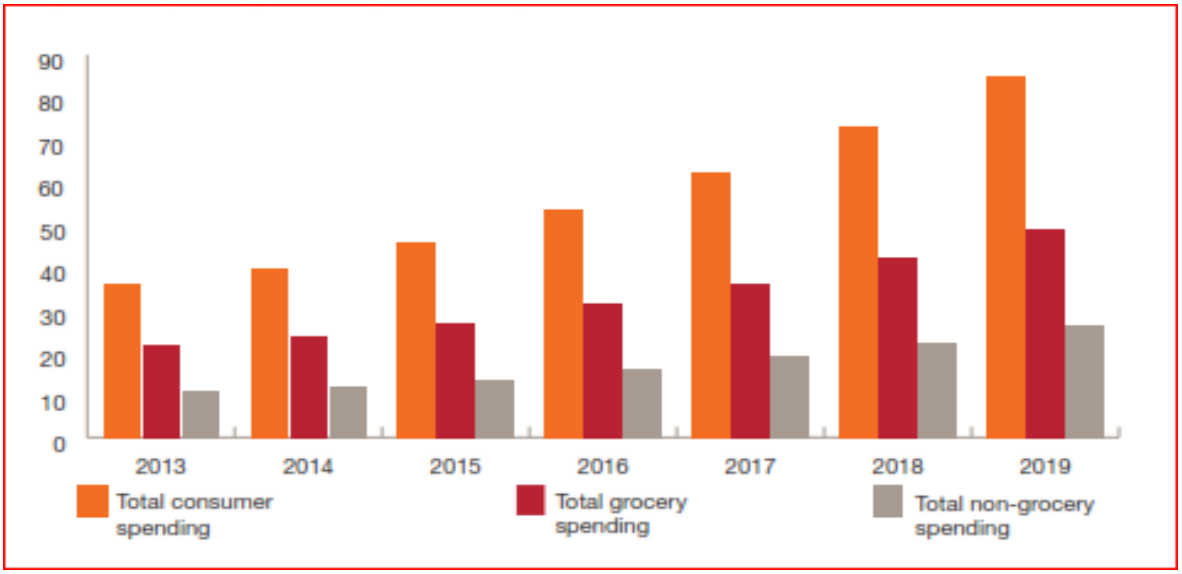
Here a "Supplier" is an external vendor or upstream process within the firm. Similarly, a customer is an end user of finished products or services or a downstream operation that uses the output of one process as the input to another [4]. According to this basic principles, supply chain management systems are an effectively coordinating and operating those three kinds of flows in significant tangible and successful achieve goals.

The main goal of performance optimization of SCM is optimized profit and minimized operation costs for all integrating & cluster collaborating business partnerships. Business partners are shared responsibilities and benefits in order to competitive advantages with maximize profits & minimize operation costs, as combination of supply and demand. So, performance optimization of SCM can achieve the goal of Alle Bejimla through optimizing competitiveness, better customer care and profitability by using and delivering qualitative measures (such as customer satisfaction & product quality) and quantitative measures (such as order to delivery, lead time, supply chain response time, resource utilization, inventory control, etc.) [5][6]. In general, supply chain is the physical moving of goods from the customer order through the commodities flow stages, supply, production and distribution of products to the customers.

1.1. Background of the Study

Regarding to above brief explanation the physical moving of goods are provided & delivered by supply chain systems. Supply chain is the important role that playing in the import and export business. The overall supply chain management systems of import and export which mitigate unbalance trade deficiency. The reasons that become unbalance supply and demand which is an increasing demand for imported consumer goods against on exports value add goods. The cause is lack of productivities; harvest and value add goods which brought unbalance trade deficiency that become price inflation on the food and fast moving consumer goods (FMCG).

Throughout Ethiopia, the most important contribution of basic food cost to the consumer specially living in urban about 42% of the total population is typically depend on market food supply and regulated by local marketing costs. However, it is marketing cost accounts held from 40% to 60% of the total price distribution between manufacturer, wholesale and retail [7]. Regarding to an approach of these cost maintained food and fast moving consumer goods (FMCG) through supply chain that indicated the most important chance to improve and optimize farm product motivation by encouraging technical and financial supports. At the same time supply food is more affordable and reasonable price to low-income consumers. Although the devaluation of the Birr has contributed to food price that strike the market. The main driver has been food price especially in the lower income consumers. The consequence effects of poor harvest of agro-industries & supplier of food and fast moving consumer goods (FMCG) lead to domestic food shortage which in turn causes local price to rises.



Source: Planet Retail [8]

Figure 1.1: Ethiopia spending FMCG past, present & future forecast ($ millions)

It has observed that Ethiopia's annual basic food supplied from abroad has increased every year as revealed on the graph. This driving commands rapidly growth of supply chain FMCG from abroad is drifting that will continue to have an incredible impact on Ethiopian consumer markets. Due to that reasons, Government has been established Alle Bejimla (Cash and Carry Wholesales) in May, 2014 to control the inflation of FMCG, encourage productivity of food harvest, value add goods and commodity price stability to make competitiveness through the markets.

As we have discussed in the above paragraph, SCM systems are playing significant role in providing quality food and fast moving consumer goods (FMCG). Food and fast moving goods (FMCG) are basic needs for human being day to day consuming in modernize people. Those modernize people living standards have tied & adapted their survived with daily based purchasing food and fast moving goods from consumers cooperative association & retailer shops. These association and retailer shops are purchased food and fast moving consuming goods from wholesalers' organization like Alle Bejimla. Alle Bejimla has formed SCM systems which are a competitive strategy for integration goods and cluster collaboration with suppliers, manufacturers, distributors, wholesalers and the end users. The optimal performance of supply chain concepts have become integrated system with physical flow of fast moving goods and manage in cluster collaborating systems. In the same manner physical distribution and wholesales are improved and optimized toward the performance optimization of SCM systems.

At the present time, Ethiopia municipalities are more growth across the country, so companies like Alle Bejimla has consistently maintained and optimized its business efficiency and effectiveness throughput to reach the people across the cities. Of course, the role of SCM in Alle Bejimla is mitigating infrastructure challenges in the reason of lack of facilities such as poor linkage of producers, transportation, warehousing and well trained manpower's, etc., These major reasons are the impact of performance optimization of SCM across the cities that has become a challenging task for role of SCM systems in Alle Bejimla. However, all the way through by re-evaluating its internal business performance and operation systems such as purchasing, warehousing, inventory, transportation, distribution, information and wholesales systems can be retained to as a constrained impact for performance optimization of SCM systems in the Alle Bejimla. Since then, SCM in the Alle Bejimla is playing an approach that has gone forward out of the incorporation of these deliberations. So, the role of SCM in Alle Bejimla is expressed in term of integration goods

and cluster collaboration with business partnerships. Performance optimization of supply chain is the way of significant business processes from the root of original suppliers' throughput manufacturers, warehouses, transporters, distributers, wholesalers, retailers and end users that provide products, services and information by add value for customers[9].

In view of the fact that suppliers are located all over the world, it is essential to integrate the activities both inside and outside of an organization. This requires an integrated information system for sharing information on various value adding activities along the supply chain. Companies have consistently tried to optimize their business activities by reassessing their internal business operations such as purchasing, warehousing, transportation, distribution, wholesalers and retailers. These combine processes are carried out to take more time and financial resources. Therefore companies are continually striving to make them more effective in order to optimize SCM on their financial standing and market positions[4]. Since then ever, the important element of optimizing SCM in such a way is the activity of performance optimization of SCM systems by implementing integration and cluster collaboration. This alliance is a strategic business partnership between retailers, wholesalers, manufacturers, distributors, transporters and suppliers to retain financial increments with positive effects on the overall performance optimization of SCM systems in Alle Bejimla.

Regarding to above further discussion, our main objective in this study is to examine and manage customer intensifying problems through Alle Bejimla SCM systems. And also can retain these problems by using various supply chain tools to optimize SCM systems.

1.2. Problem Statement:

The purposes of any established business company end goals are optimized their profits. However, the customers intensify to get the right goods or services to the right place, at the right time with the lowest cost[10]. In order to these inquiry Alle Bejimla wasn't fulfill the criterion. According to the research paper [11] and consumer cooperative associations, owner of retail agents and end users have complained Alle Bejimla which did not provide enough food and fast moving consumer goods (FMCG) to the market at the right time and then out of stock[12],[13]. These consequence effects led to the customers to shift other wholesalers such as East Africa, Alsam and Hasset. Of course, those wholesalers' companies are Alle competitors whereas they are holding surplus reliable commodities in their warehouse and supplied to their customers in door to door services with effectively & efficiently[12].

Even though the customers were just bought different commodities from Alle Bejimla three times a month, but Alle Bejimla did not provide enough service facilities to customers. This

happened due to the weak link of SCM systems of Alle Bejimla that are compared to its competitors of other wholesalers company such as Alsam, East Africa and Hasset. The customers have been benchmarking those wholesalers as reference and said that about Alle Bejimla's poor service qualities. On other hand, the profit margin of Alle Bejimla gave them are too narrow and did not even cover the cost what customer paid for the commodities and the cost for loading and unloading of the commodities. But, Alle Bejimla competitors are providing effective services to the consumer association & retailer agents by their own transport systems to their door freely and unload the commodities without any payment. Besides, Alle Bejimla isn't facilitated effective transportation systems from origin to destination (upstream to downstream or vice versa) of supply chain systems and to the customers. From above brief problem statements, we realize that transportation is one of the most important requirements in supply chain goods for wholesalers & retailers to deliver goods to their customers. Since then, SC is providing an efficiently and cost-effectively, timely delivery and reliable distribution to minimize product handling systems [14].

Of course; in addition, the present situation of the country of foreign exchange barriers is playing a vital role in import FMCG goods. So, due to those facts Alle Bejimla isn't providing excess commodities to the markets. However the company isn't tied yet with local firms to serve its own customers at right times, and also it isn't motivate to solve the current impact of foreign exchange barriers by taken options to supply commodity goods at yet. Furthers, Alle wasn't reached at all cities across the country as per Government set up objectives to prevention market price inflation. Therefore, Alle has a serious lack of coordination, cluster collaboration and integration between stakeholders of internal and external SC facilitation services. Based on it, the researcher can identifying and carry out the major encounter problems of Alle Bejimla supply chain management systems as follows:

- Alle Bejimla is not supplied and provided enough fast moving consumer goods (FMCG) to the market (consumer association and retail agents). Due to that Alle is not make adequate protection in market price inflation from Government set up objectives [15], [11] and [13].
- Alle has a major gap in linking of supply chain collaboration and integration between local farmers, unions, manufacturers, distributors and customer demands. It has also lack of motivation to solve the current impact of foreign exchange barriers by taken options to supply commodity goods[15] & [9].

- Transport operation is one of the major crucial parts in the SCM systems, so Alle has been a serious existing encounter problem of inbound and outbound transportation systems, due to that Alle Bejimla met lack of SC facilities and inventory control manipulation[16].

Therefore, based on the above mixed approach problems, this research was attempted to find an option to optimize the existing supply chain management systems by using supply chain techniques extensively review and analysis different literatures, books, journal articles and research papers.

Research questions:

Based on the supply chain problem statements and the purpose of the research attempts to solve the following questions:

- What is the existing situation of Alle Bejimla SCM systems in order to provide quality services to customers?
- How effective is the inventory & transportation operation through SC distribution towards achieving the reach of the service to the targeted public?
- What factors that impact the distribution performance of Alle Bejimla supply chain systems?
- What should be done to solve the problems of Alle Bejimla and how does enhance the performance optimization of existing SCM systems of Alle Bejimla?

Regarding to the above research questions, it will be leaded to further discussion on SCM systems and finding an optional solution about the intensifying problem statements under considering performance optimization of SCM systems of Alle Bejimla by applying different supply chain mechanisms.

1.3. Objectives of the study:

General Objectives:

The foremost objective of this study is to develop performance optimization of SCM systems in Alle Bejimla based on integration and cluster collaboration with stakeholders and business partnerships.

Specific Objectives:

The main specific objective of this research is to:

- Assess the gap of Alle Bejimla's FMCG distribution through the market in term of SCM systems.

- Assess the inventory management and transport systems of Alle Bejimla through creating better competition in order to access and facilitate modern trading businesses.
- Measuring and evaluating consistency and accessibility distribution on FMCG of Alle Bejimla through end consumers.
- Evaluating the role of playing of Alle Bejimla in the market stability and regulating price inflation of commodities through the market competency and also effectiveness of financial capacity regarding accessibility of commodities to end consumers.
- Give recommendations to amplify the competitive benefit of SCM systems in the case of Alle Bejimla.

1.4. Significance of the study:

The significance of the study is exploring a solution toward the problem statements of SCM systems of Alle Bejimla. The researcher examines the gap of Alle Bejimla on the integration and collaboration of supply chain between suppliers, manufacturers and consumers and then proposes performance optimization of SCM as a solution. In general overview, the study is playing a vital role to fill the gaps of competence and supply commodities to end consumers at the right place in the right time by perform optimization of existing SCM systems of Alle Bejimla.

1.5. Scope of the study:

The scope of the study is focused on the assessment of the existing supply chain problems in Alle Bejimla at each level of supply chain and finding solution by developing a performance optimization of SCM systems. The study based on descriptive qualitative and quantitative methods. The data gathering procedure follows based on research methodology expression, measures, analysis and evaluation. It has also focused on empirical survey of Alle Bejimla headquarters & its branch around Addis Ababa from supply chain point of view. The survey was proceeding by visualization existing supply chain systems and questionnaires distributed to respondents and then analysis the existing SCM systems of Alle Bejimla's FMCG facilitation and supporting customers. The study final output is proposed an optional supply chain mechanism to competitive benefits in the market by optimized the existing SCM performance in Alle Bejimla.

1.6. Limitation

The major limitation of this study, it has been biased to make a judgment on the right data collection methods of personal observation, questionnaires and interviews. It has also bothered to get the reliable and useful research findings. But the researcher tried to address

the main objectives within the scope of analysis and evaluation the existing SCM systems whereas to make performance optimization of the existing SCM systems.

1.7. Organization of the study

The study has six chapters; the first chapter is an approach of brief introduction in the Supply Chain Management systems. It has also held a brief review of description about the existing SC problem statements, research questions. In addition, it has been discussing the researcher objectives, significances and scopes briefly elaborated under this chapter. The second chapter has contained different concepts while organized from depth reading of related literature reviews and theoretical background on the supply chain management systems. The third chapter is discussed on research methodology with different aspect of data collection & analysis methods. It has also described methodological choices made on the study for readers to understand easily the purpose of the chapter. Under chapter four, the researcher is finding practical data gathering with an approach of quantitative and qualitative data from the case company. After that it has analyzed and evaluated the data based on fact and evident to develop performance optimization of SCM systems. Under chapter five, the researcher is discussed and interpreted the finding results to develop hypothetical business models. It has also developed control mechanisms of existing SCM systems and proceeded to propose new conceptual model to optimize SCM systems. This hypothetical model is improved the Performance Optimization of existing SCM systems of case company by applying supply chain tools. From the developed performance optimized of SCM systems, all concerned parties are benefitable such as suppliers, manufacturing firms, consumer association, retailers & end users. Eventually the last chapter is presented conclusion drawn from the research and give some recommendations as the performance optimization of SCM systems. It has indicated that the implication of ideas for future direction, reference and appendices used.

CHAPTER TWO

Literature Review

These days competitiveness of SCM is increased in the global markets that focused on supplied goods to customers. In order to global competition and increasing demand for quality products that optimized companies' performance in term of cost, delays order, in fast delivery, inventory and logistics management in appropriately [17]. It practices optimization of supply chain in market competitiveness as wholesale goods in order to considering supplied quality products, decrease costs, maximize customer satisfaction, better utilization of assets, and generate revenues [18].

According to [19] performance optimization of SCM as a practices and implements through organization that met serious impacts associated with getting products to the right places at right time and at the lowest cost. In order to maintain these existing impacts, supply chain operation should be collaborated with stakeholders and integrated product goods from sources to optimize performance SCM within as business partnerships as whole [20]. From different authors perspective, SCM practices are a situation of carry out and processes from upstream, suppliers, firms internal operation to downstream of wholesalers, retailers supply chain and end consumers. The growth of supply chain aims to maximize profitability, customer response and ability to market expanding by increase customer demanding at lower prices, fast supplied, higher quality goods with increase variety of item of goods [21].

The main purpose of the research is to make performance optimization of SCM by practicing cluster collaborating within business partners, suppliers, farmers, unions, manufacturers and producers. It has also integrated both information and product flows through supply chain. The significance of working together based on cluster collaboration and cooperation is obtained flexibility and speed up to optimize performance of SCM systems [22]. As a cluster collaboration to make performance optimization of SCM is a real competitive weapons that contribute to supply chain accessibility in business marketplaces. These collaboration weapons well implement in supply chain to success performance optimization of SCM in term of systematic supplier partnership, customer relationship, and information sharing on supply chain responsiveness as competitive benefits on the business partnerships [23].

SCM practices in an organization business partners to approve real management of manufacturing and wholesale distribution in order to supply quality goods with lower costs. SCM practice is a competitive benefits between manufacturers, firms, wholesalers as distinguish customer demand for most goods which creates more demanding in response

time, in choice and seeking within competitive prices [24]. To competitive in markets, manufacturers and wholesalers can be made actual performance optimization of SCM to maximize their outcomes, then access and deliver the right goods to customer needs & requirements at right place in the right time.

2.1. Supply Chain Management

Supply chain is a physical flow of goods/products, funds and information from source to end consumers or vice versa in order to meet customer requirements. The concept of supply chain management has various meaning & implication at different approaches in a view. According to different author overviews, SCM is a total system approach to manage the physical movement of materials and services, information and funds from suppliers to manufacturer to wholesaler to retailer to consumers or vice versa [25]. SCM is a creating local and global competition by increasing demanding customer and demanding driven markets that optimize performance of business partners [26]. Performance optimization of SCM is maximized overall profits of partners through competitive markets and minimized operational costs of partners in the systems. Accordingly [26] performance optimization of SCM is a core approach of integrative and collaborative key business partners that interlinked each other. Without integration and collaboration of these key business partners, it can't achieve the target of performance optimization of SCM systems in order to access goods to satisfy different customer needs [17]. So, collaboration and integration are interlinked together with key business partners from source of initial suppliers to end customers that transform goods, services, funds and information based on value add for end consumers [22].

On further discussion, Performance optimization of Supply Chain Management is a significant in order to continue competitive benefit in product and service of the business partners. Supply chain management approach need supports the business plan of supply chain collaboration and integration to achieve competitive benefits and better performance optimization in term of business partnership, customer relationship and market shares[23]. Performance optimization of SCM is targeted to meet customer demand satisfaction, flexibility, on time deliveries, cutting costs & lead times [27].

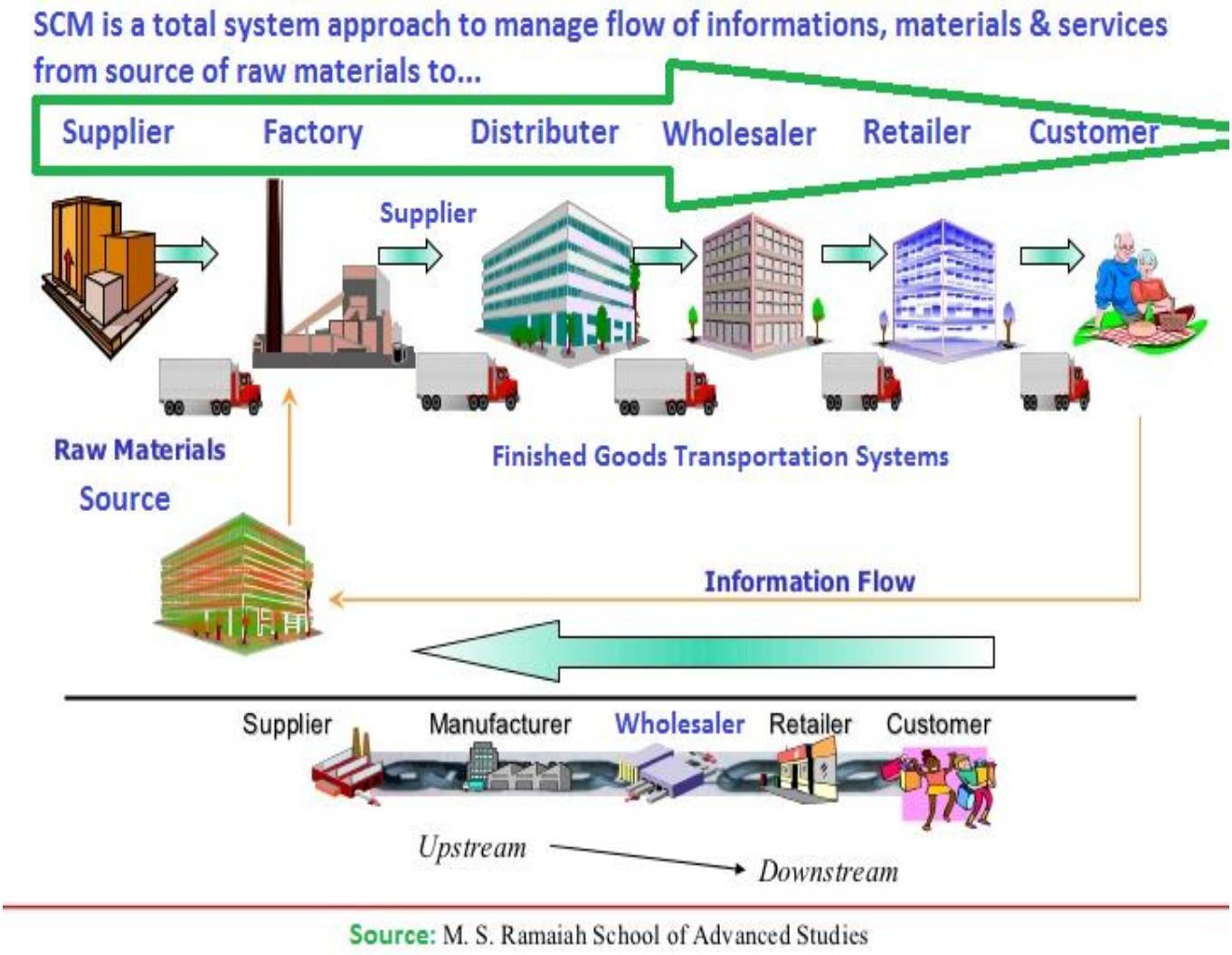


Figure 2.1: Flow of Supply Chain systems

SCM is planning and controlling of supply chain activities that optimize the competitive benefits by harmonizes supply & demand. Performance optimization of SCM is the cooperative of different business partners and/ or companies to manage supply and demand through each and every means of distribution levels such as suppliers, manufacturers, wholesaler and retailer to satisfy customers [3].

In order to practices supply chain collaboration and integration of key business interlink activities that carry out by cooperative firms from supplied raw material to produce finished goods and distributed/ wholesales to consumers which are the most important process for performance optimization of SCM systems [28]. The purpose of supply chain activities are a dynamic network of several business entities that involves to continuous perform the SCM optimization by eluding the main impact of uncertainty of demand and supplies strategy plan.

The complex dynamic nature of uncertainty in supply chain planning is the main factors that may influences on the performance optimization of SCM systems [29].

Performance optimization of SCM has been considered as a competitive advantage for collaborating and integrating suppliers and customers within the target of performance optimizing responsiveness and flexibility of service firms. It recognized that any company or business partnership ultimate goal is available products in exceed quantity when the customer needs. It has also maximized its profits with reduce inventory and manage transportation cost in appropriate way. In order to practice SCM can be performed resource utilized at optimize levels through the company supply chain systems to deliver the right products at right place in the right time to markets [30]. From this meaningful concept, it recognized that performance optimization of SCM takes into an account and response the time of delivery, cost and value for end customers. So that the application of performance optimization of SCM will enable to get lower process costs, improved service consistency, reduce inventory level, decrease order cycle time, lower the number of reverse orders, consistency customer satisfaction and continuous improve overall competitive benefits [31].

2.2. Optimization Supply Chain Management

In order to optimize supply chain management becomes maximized competitiveness, overall profits in all aspects, and minimized annoying cost of supply chain through all business partnerships. The supply chain management call attention to optimize the overall value of the business partners by applying a better using and operation of resources through the whole of the firms. A supply chain optimization is maximizing the operation of value add activities in order to minimize a pointless operation cost which becomes build up optimization of suppliers to provide and serve exceed customer needs and requirements. The principle of supply chain activity is receiving input from suppliers and processing to add value and then distribute and wholesales to consumers as per their need & requirement at the right place in the right time [30].

The primary goals of any supply chain management systems is to satisfy customer requirements and needs in the process of maximizing profit of the company by applying these links of information, integration and collaboration each other's with business partners [17]. Optimization of supply chain management activities commence with collaboration and integration among suppliers to simply access for customer orders and then satisfy customer needs. Those constituent of components are equally significant for oscillation of orders, inventory continuation, replenishment lead times, transportation costs, etc.[20].

In order to achieve optimization of supply chain management systems, supply chain operation must operate an integrated and collaborated manner. These overall major activities of supply chain optimization is the network of suppliers, farmers, unions, manufacturers, wholesalers and retailers through which from input materials to finished goods are obtained, transformed and distributed to the consumers [32].

2.3. Supply Chain Drivers and their Impacts on Supply Chain Optimization

The main target of supply chain strategy is to strike the stability between responsiveness and efficiency that fits with the competitive advantages. To achieve the target objective, company can be built up the correct arrangement of the logistical drivers and cross functional drivers as seen below in the figure 2.2. The individual derivers are important for performance optimization of supply chain management systems to make trade-off between efficiency and responsiveness based on interaction with the other drivers. The combined impacts of these drivers are determined the responsiveness and the entire supply chain optimization [25].

Further, Companies are mitigating various types of impacts on supply chain optimization with their effort of competing in today's dynamic global markets. To remain competitive, companies must considering performance optimization of supply chain practices that optimize not only their own companies' performance, but also collaborated with partnerships to optimize their performance [33]. Performance optimization of supply chain uses logistical and functional drivers to reach the performance levels and maximize the supply chain profits. The major drivers of supply chain performance: facilities, inventory, transportation, information, sourcing, and pricing [25].These drivers are the major impacts for performance optimization of supply chain management. So every company must manage these drivers in appropriately to be competitive in markets and optimize profits.

In order to the purpose of performance optimization of supply chain management which leads to elude the impact of supply chain drivers by optimize the competitive advantages in the market strategy & maximize profits of business partners. To meet up this objective, wholesalers must be prearranged in the right permutation of logistical and cross functional drivers whereas facilitation, inventory, transportation, information sourcing and pricing as respectively [34]. Performance optimization of supply chain management must make a trade-off between efficiency and responsiveness based on interaction with the others drivers to increase competitiveness advantage as considering with maximize profits [22].

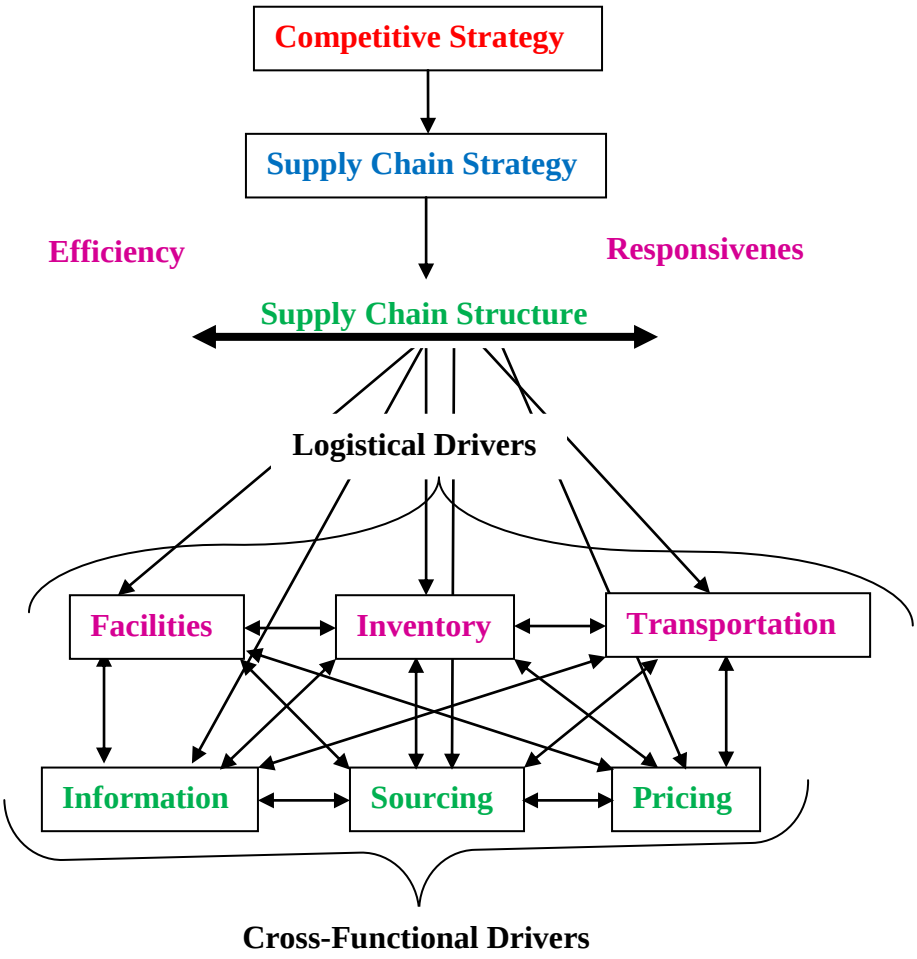
In a supplementary discussion, the case company of Alle Bejimla can managed each driver to evade overall impact on the performance optimization of supply chain management. Based

on this, the Alle Bejimla can also manage these drivers in appropriately to optimize performance of supply chain as the cash and carry wholesale services to their customers.

The research has been analyzed in brief the effectiveness and responsiveness of supply chain drivers on the Alle Bejimla's. Alle Bejimla to be competitive in the markets with these drivers and provide quality services to their customers by supply reliable goods in the right place at the right time with low costs. Based on the principle of supply chain drivers, Alle Bejimla to be supplied effectively accessible food & fast moving consumer goods in the market by performance optimization of supply chain management.

So, Alle can keep up well organize supply chain performance optimization by maintain low level inventory systems. So that with respect to this radically low level inventory, Alle to be supplied food and fast moving consumer goods effectively & efficiently by its own transportation fleets as responsiveness to serve the customers at required levels. Off course, Alle Bejimla's responsiveness is too much high to serve this supply chain system with door to door and shipped from manufacturer firms to its own warehouse by its own transportation systems, and also the transportation cost clearly increased. However, the advantages and benefits which provide this service to customer in term of reduce inventory and optimize product availability in wholesales center. In addition, it replays the claims of customer appeals and also it can elude the impact of qualitative barriers of goods in warehouse by optimized product availability in the wholesale centers that becomes performance optimization of supply chain management systems.

According to the facilities driver, Alle Bejimla can be working effectively with manufacturing firms, retailers and consumers association by collaborating and integrating strongly and efficiently to serve customers by decreasing number of facilities. Alle to be collaborated and integrated with retailers and consumers association by optimizing transportation assets and well utilize information in the supply chain performance optimization. Based on information drivers Alle's supply chain systems can be optimized in the responsiveness and decrease inventory systems.



Source: Sunil Chopra, 2007

Figure 2.2: Supply chain decision making framework

Alle Bejimla receives and shares demand information that requires performance optimization of supply chain management in term of both responsiveness and efficiency. With regarding to the sourcing drive, Alle Bejimla looking for well-organized firm sources for individual product sells. Well organized sources are important for performance optimization of supply chain management systems that operate in appropriate ways to supply quality products to end consumers at low costs.

Finally, for the pricing drivers, Alle Bejimla practices "everyday low pricing" for its products. Based on this ensure that customers demand stays steady and does not fluctuate with price variations. However, Alle Bejimla is found in Ethiopia; so, how do evaluate the Ethiopian supply chain management systems in order to provide quality services to end users? How do measures the Ethiopian supply chain management systems in order to facilitate, inventory, transportation, information, sourcing and pricing? Therefore, Alle Bejimla may use Ethiopian supply chain management systems in order to all the supply chain

drivers to achieve the right balance between responsiveness and efficiency so that its competitive strategy and supply chain strategy are in harmonizes.

2.4. Supply Chain Management Practices in Ethiopia

The role of supply chain management in Ethiopian circumstance has become importance for companies to increase productivity in highly competitive markets. Based on literature review, SCM practices have made clear as the set of activities carryout in companies to endorse performance optimization of SCM. In order to supply and distribute FMCG transportation and warehouse managements are significant for supply goods at require places. In the meantime inventory, distribution, replenishment lead time, sourcing and pricing are major subject in the warehouse management systems. Based on this common understand transportation and warehouse management systems are mitigate serious challenge in Ethiopian supply chain condition. It hasn't to do the right direction of SCM; due to the reason of lack of coordination, integration and collaboration each firms [35]. Of course, transportation management is the part of supply chain management that plans the inbound and outbound transportation. It has also practiced and controlled forward and reverse flow of goods and storage of goods based on the require services related information between the place of origin and the point of consumption in order to meet customers' requirements [30].

Furthermore; in order to implement performance optimization of SCM practices in Ethiopian circumstance, it may directly need the optimization of financial and marketing performances in the long run. The performance optimization of the Ethiopian SCM systems to be assessed in terms of product and service quality, in time delivery, operating costs as well as the extent to wholesales and market share was growing as optimum levels.

Based on the above brief discussion, transportation is a major role for performance optimization of SCM in Ethiopian business facilities. Transportation is playing crucial contribution in the supply of goods from the source to end consumers. The role of transportation in the performance optimization of SCM could be sent to the right place at right time in order to satisfy customers' demands. In general observation, transportation is a part of SCM systems that plan, implement, practice and control for performance optimization of SCM systems.

2.5. The major impact factors in Ethiopian goods distribution & wholesale network

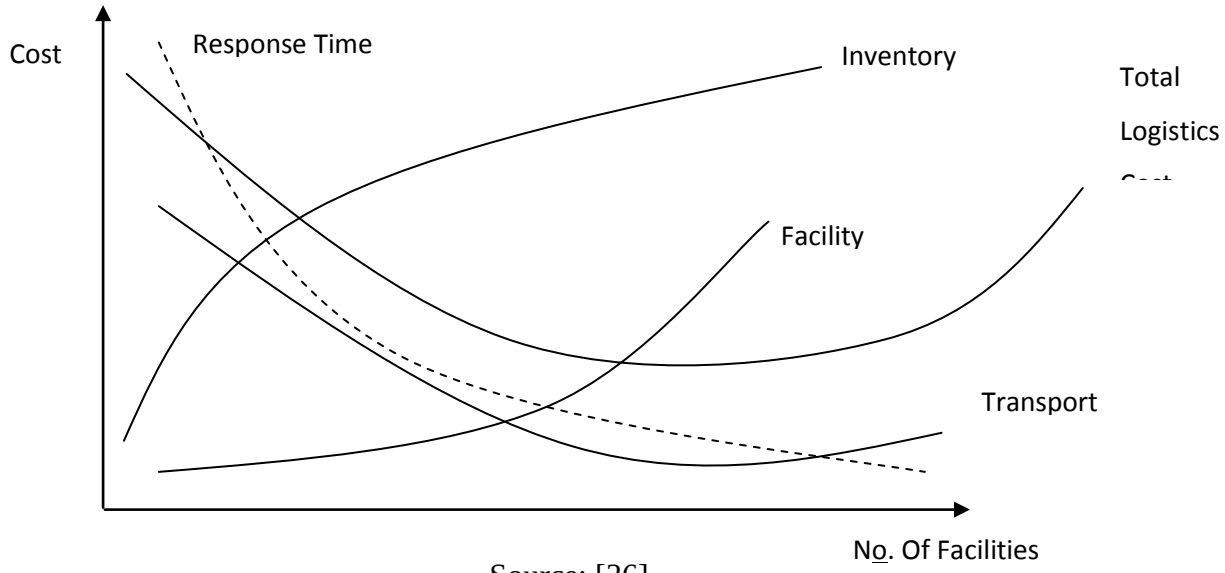
Distribution refers to the steps taken to move and store manufactured goods from the suppliers point to customers place in the supply chain systems. Distribution is a key driver of

the overall profitability of a firm because it directly impacts both the supply chain cost and the customer requirement experience. On the other hand, wholesale is buying goods in large quantities from manufacturers, suppliers, farmers, unions, and then distribute to retailers, supermarkets and consumers association and to end consumers. The major impact factors along performance optimization of supply chain distribution in Ethiopian wholesale are:

- Customer needs that aren't met expectation.
- Cost of meeting customer needs

Regarding to customers need that aren't met expectations to manipulate the company's generate income which along with expenditure settle on the productivity of the providing network. Whereas customer handling systems based on cost and customer requirements that will targets on these several measure of distribution networks in Alle Bejimla wholesales. These are

1. **Response time**: is the amount of time that takes customer receives places an order.
2. **Product variety**: is the number of different products configurations that a customer desires from the distribution network.
3. **Product availability**: is the probability of having FMCG goods in stock when a customer order arrives.
4. **Customer experience:** when customer can place and receive their order.
5. **Order visibility**: the ability of the customer to track their order from placement to delivery.
6. **Returnability**: which a customer can return unsatisfactory merchandise and the ability of the network to handle such returns.



Source: [36]

Figure 2.3.Variation in logistics cost and response time with No. of facilities

According to the above justification, customers always want the highest level of performance optimization along all these dimensions to meet the requirements. In practice as seen on the graph, the number of facilities in a supply chain increases, the inventory costs also increases and vice versa to decrease inventory costs as decreasing number of facilities. The inbounded transportation system is decreased as seen on the graph when the number of facilities increased and also it is working in vice versa. However, the outbound transportation costs per unit tend to be higher than the inbound costs because inbound lot sizes are typically larger. Facility costs decrease as a number of facilities is reduced as shown on the graph. The total logistics costs are the sum of the inventory, transportation and facility costs for a supply chain network as the number of facilities increase the total logistics cost first decrease and then increase as shown in the graph. Each firm should have at least the number of facilities that minimize total logistics costs. The analysis will facilitate distributors and manufacturers in optimizing their operations potential and financial firms seeking to understand the value of their achievement.

2.6. Customer Demand driven in SCM

Customer demand driven supply chain is an approach of consumer goods and retail shops create a "Pull" supply chain driven by consumer demand. The consumer seeks the right products in the right place, at the right time with low costs[10]. To achieve this situation in the real world is challenging, due to the reason of difficulty in supply demand chains, lack of harmonization between planning and execution, lack of experience, poor real time data availability. The solution of this challenge is implementing and practicing demand driven supply chains for retailers and consumers FMCG. It means that the change in demand by consumers or retailers of FMCG which result that "either consumers or retailers are demanding FMCG consistently delivered, faster, on time without damage" [37]. These business partners can read and react each other's with actual purchasing customer goods to attain more accuracy in differentiate products with available under inventory controls in a wholesales that successes in performance optimization of SCM [25]. The most common measurements of DDSC success are reduction in inventory levels and working capital, fewer Stock out, faster & more accurate order fulfilment, and higher rates of customer satisfaction. By working to balance all of these objectives in a coordinated manner, all supply chain parties can reduce their costs, increase sales, and improve profitability [38].

In customer demand driven SCM (CDDSCM) which is to satisfy highly variable and fluctuate customer demands. It needs to gain overall insights in buying behaviour while

mitigating challenge of demand product availabilities in wholesales at lower costs by optimizes inventory level. Customer demand driven is significant and important for performance optimization of SCM systems, due to both business partnerships can manage their suppliers, transportation, warehouses, distributors, wholesales and maintain its optimal balance between inventory replenishment decisions [39]. Customer demand exceeding expectation in quality goods availability at low costs, it can all contribute to customer satisfaction and benefits as a case company to generate incomes. At whatsoever facilitate fulfilment is important for supply chain from source to end consumer such as transportation, distribution, warehousing, wholesales are optimized to at require levels that results performance optimization of SCM systems.

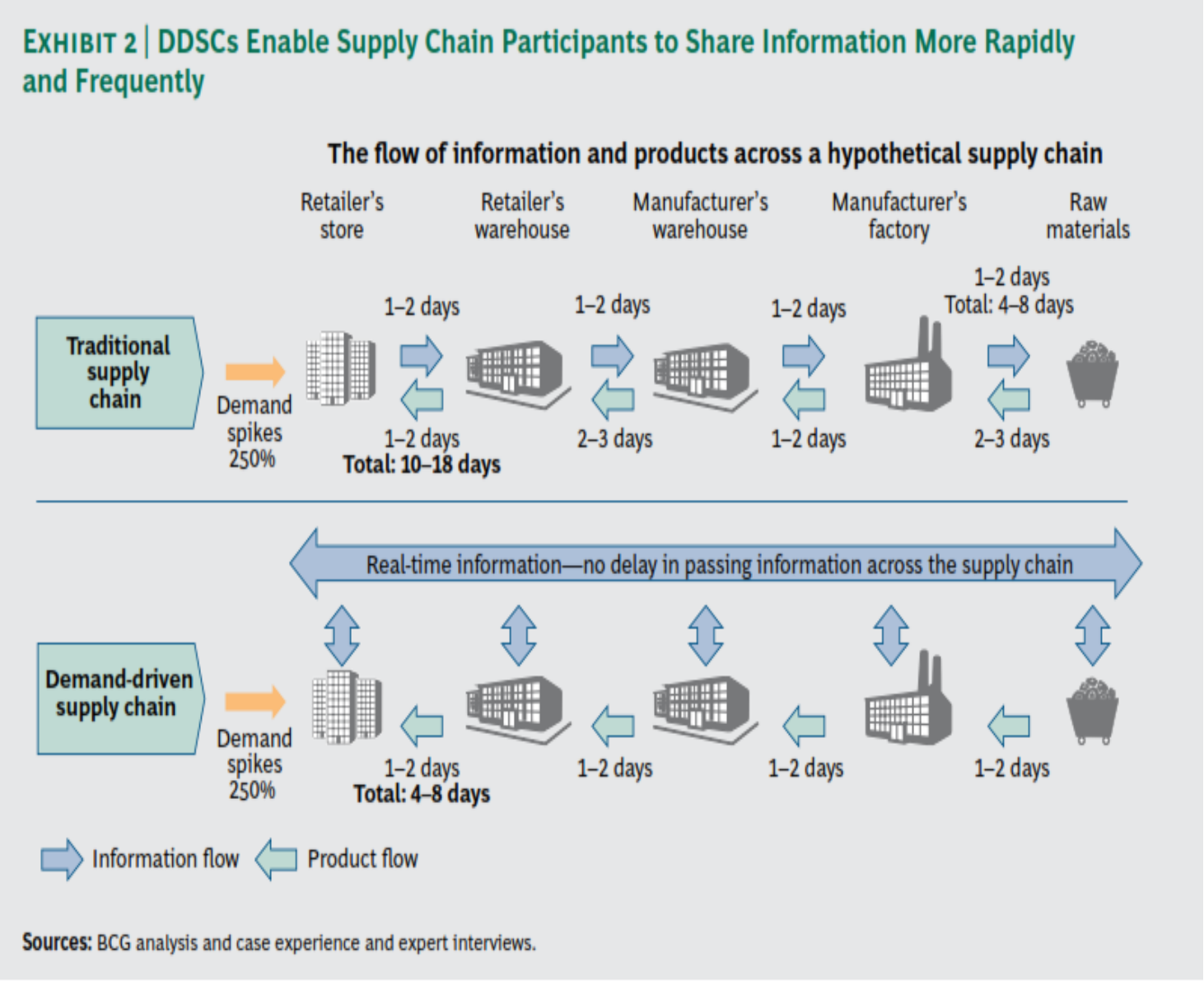


Figure 2.4: Demand Driven Supply Chain Management Systems

Performance optimization of SCM can provide as a well-organized and harmonized up-down stream of supply & demand chain of wholesalers with consumer association & retailers as a common view to manage planning and execution facility of supply chain systems. Performance optimization of SCM is an implementing and practicing of inventory control planning in every wholesale distributors, retailers and consumer association to maximize revenue margins at cost reduction with entire supply chain. Based on customer demand driven in supply chain incorporates to practicing and implementing through consumer association and retailers which helps meaningful and measurable values for sustainable business benefits, rapid and long term return on investment (ROI), and scalability for future growth.

2.7. Optimization supply chain management variables

Optimization supply chain is clearly explained as the functional excellence to distribute for important customer practice[40]. Supply chain is our daily life activity everywhere the world. Supply chain is a physical flow of products from the source of producers to end consumers [17]. When we have discussed about Optimization SCM variables, it may consider as product reliabilities, responsiveness, efficiency, flexibility, quality and costs. So, Variables are intensifying from this point of view, it has an important indicators to know the status or situation of company overall performance efficiency.

In order to measure optimization of SCM in such a ways by gap identification in customer satisfaction, cost reduction, lead time minimization, service facility optimization, decrease inventory level, reduce product order cycle time and lower the number of back orders that looking for rings in the SCM systems [41]. Different authors enlighten optimization supply chain variables measure in different ways; for instance, according to [42] identifies several qualitative supply chain optimization measures are: level of customer satisfaction, flexibility, information, and material flows through integration and cluster collaboration with business partnerships. It also develops a performance optimization of SCM evaluation framework for wholesales supply chains. According to [43] further clarification and emphasise of variables under distinguish Performance optimization of SCM is as a wholesales based on FMCG perception. It has identified the gaps of the case company performance against these optimization SCM variables. The purpose of this measurement is to understand the strengths and weaknesses against each variable and to analysis the impact of variables on the performance optimization of SCM.

Finally the key performance indicators of these variables are measured by customer satisfaction; maximize case company profits and internal employees' satisfaction. In general customers are the final judge of how well the case company organized to perform and serve its customers' and what they say accountabilities and responsiveness on performance optimization of SCM systems. It's this perception that will determine whether they remain loyal or seek better providers in the supply chain systems.

A good performance optimization of SCM system can identify the gaps by critical successes factor as fundamental tools to measure and evaluate the position of the company in the supply chain contribution through the wholesales to maximize its competitiveness in the markets. In view of the fact that performance optimization of SCM becomes tactical tools for supply goods in the market to create sustain and competitive business environment. The most vital critical success factor in SCM is source of goods, suppliers, producer, transporter, distributor wholesales, consumer association; retailers and end user factor, information and financial availability to supply products at require levels [44].

Performance optimization of SCM can look for competitive benefits in critical success factor by implementing and practicing cluster collaboration as interrelated with integration internal and external business partners and wholesalers to satisfy end users [45].

2.8. Suppliers and customers relationship

Suppliers and customers relationships are well defined as locate of products which transits from supplier to customer under a proper managing product flows. Customer relationship management is a business philosophy which is placed on an arrangement of tactical schedules and systems that focused on grouping and put together reliable goods within wholesaler to most prioritize customers [46]. Further, Customer relationship is a business strategies focus on identifying and come up most valued loyal retailer and consumers which makes repeat visits wholesale centres to purchase FMCG products. A supply chain management is harmonized supply chain activities with suppliers and wholesalers to constancy and continuous optimized customer satisfaction [47].

The impression of this brief explanation which come together supply and customer relationship and lead to achieve require levels by practicing performance optimization of SCM systems. It is also making together suppliers and customer relationships by suppliers' collaborated & integrated through supply chain interrelationship strongly tied each other's to supply quality goods to the customers. While suppliers and wholesalers correlated each other to facilitate and deliver the right products at right place on right time to their customer. These

proceedings due to the ultimate goal of performance optimization of SCM are delivered quality FMCG products as competitive advantages in the market with benefit of maximize profits as recognize satisfaction of end consumers [48]. Based on the supply chain philosophy that cash and carry wholesalers can increase their profits by come together strong interrelationships' with their loyal consumers & retailers to optimize their competitive advantages and profits.

The main purpose of suppliers and customer relationship is to perform optimization of business interrelationships between them as a common benefits base on loyal consumers and retailers who support frequently their loyal customers by either wholesalers or suppliers that purchasing quality FMCG product. Good relationships with supply chain members, including customers, are needed for successful implementation and practicing of performance optimization of SCM systems.

2.9. Cash & carry wholesales versus customer relationships

In the rapidly growth of the global business scopes, customer needs and expectation are exceeding their requirements from day to day. In order to fulfill customer requirements, business operators can be anticipated strong business relationships existed between customer satisfaction and loyalty[49]. According to the customer expectation, companies creating values for their customer as strong relationship build up on continuous improvement of the customer service satisfaction. Besides that creating value for buyers will also bring value back to the company[50]. In customer value perspective, company expands business relationship of wholesale distribution through investing on Cash and Carry marketing to optimize profits with effective accessible FMCG to customers.

According to [49] Cash and Carry wholesales concepts are defined as a type of operation in which goods are sold from a wholesale warehouse either on a self-service basis or on the basis of samples (with the customer selecting from specimen articles using a manual or computerized ordering systems but not serving himself) or a combination of the two.

- Customers (retailers, professional users, caterers, institutional buyers, etc.) pay the amount in cash and carry the products away themselves.
- It is a substantial transformation between "traditional" sales at the wholesale platform and the cash and carry wholesaler: namely cash and carry customers organize the transport of the goods themselves and pay for the goods in cash, and not on credit.

According to the above definition of Cash and Carry, the bulk buying are multinational wholesalers who targets the business and professional buyers rather than the end consumers.

In order to Ethiopian situations, Cash and Carry wholesalers are already doing important business with manufacturing and suppliers. Despite the fact that cash and carry wholesalers can be purchased goods primarily from producers and sell mostly to retailers, consumers association and end users. So, according to cash and carry principle of business to business relationships with customers are the most essential part of cash and carry wholesalers which targeted to achieve its mission. Cash and carry wholesalers are often announced in many various platforms to encourage customer loyalty. However, specifically, the cash and carry company will have built up strong systematical business relationships with their profitable clients as well as to attract new potential customers; on the other hand, it may cease up business relationships with some customers who is unutilized effectively company's resources [50]. For the seek customer relation manager is always thinking positive business relationships with partners to set up minded strategic business that focuses on identifying and building loyalty customer and retailer to increase competitive advantages and maximize profits.

2.10. Retailing price is affecting on the consumers preference

In today's challenge competitive business environment, the retail business will be more operative for the giant economies because of population density over growing. Retailing is a business activity that involved in selling goods and services to consumers for their personal, family, or household use. The demand and supply with market competition are playing significant roles for increasing price on the key commodities. A retailer is one who stocks the producer's goods that involves in the progressive effort of selling goods to the individual consumers at a margin of maximum profit. Retailing is the end level in a distribution and wholesales channel which contains the businesses and people activated in physical moving and transferring ownership of goods and services from producer to consumer. In order to these movement activities, the price of goods is crucial and sensitive issues for retailers and consumers such as retailers need more profits on the selling goods. On the other hand consumers' perception that needs quality goods at low prices. To reconcile this conflict idea, Cash and Carry wholesales enterprises can show the commodities price that brings transparency to all concerning parts. In FMCG price transparency is a significance role for all concerned bodies to obtain and looking for right price information that allows making useful comparison of costs and alternative choices, especially for consumer preference.

Cash and Carry wholesalers are making price transparency means consumers and retailers recognize that how the prices are set up and making a consciousness of any price unfairness.

In addition, transparent of prices are playing key roles in the efficient allocation of FMCG goods. It has also end consumers are getting an opportunities to see and adjust them as available price information and to choose other competitors. Consumers can put tremendous pressures in all retailers and wholesalers that provide to lower prices and improve quality goods & services. According to [51] argumentative debate, lack of price transparency may lead to price unfairness that can bring serious cause for various consumers to pay higher prices. So, to maintain this unfairness price increment, transparency and information of price are important issues for consumers to challenge market competitors and sellers to supply quality products at lower costs. Moreover, according to Ethiopian price protection proclamation No. 685/2010 any business entity or person is expected to display prices of goods and services by posting such the price list in a noticeable place in his business premise or by attaching price tags on the goods. The price of goods and services should be comprehensive of customs duties, taxes and other lawful fees.

2.11. Research works on the performance optimization of Supply chain management

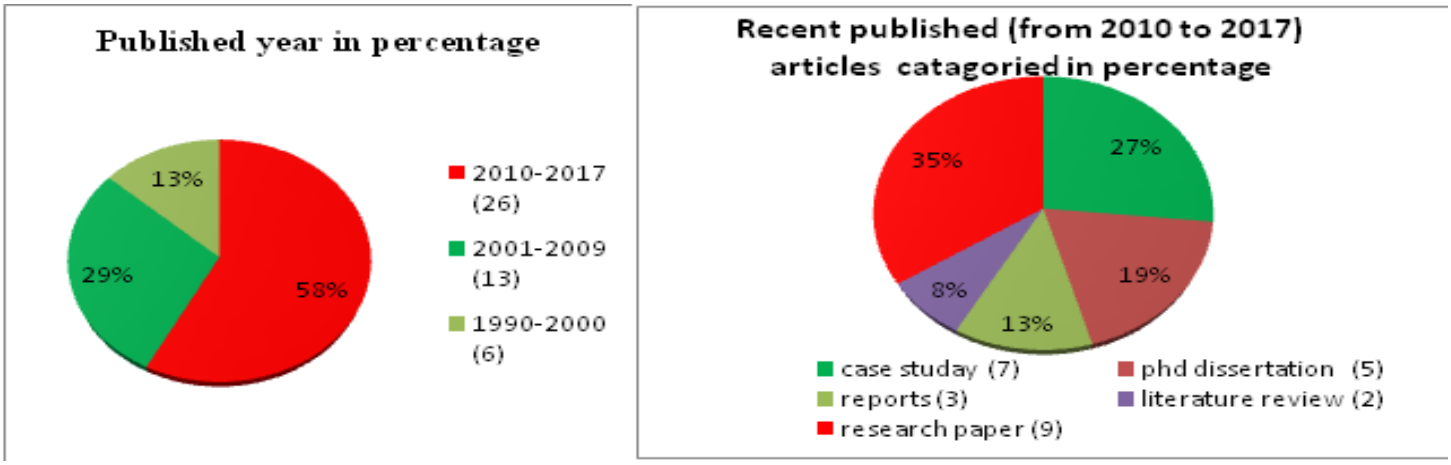
With increasing global market competition and exceeding customer demand requirement and expectation that look for companies must optimize supply chain performance. Supply chain is driven by customers within shorter lead time and increasing customer value expectation of the food and fast moving consumer goods (FMCG). Supply chain optimization is crucial for a successful customer satisfaction. In particular fields such as cash and carry wholesales are served by optimized supply chain performance to satisfy customers. Satisfaction becomes in order to provide quality services, variety of FMCG, low costs, avoiding delays, availability goods, managing inventory level, ordering cycle time, lead time, and flexibility. Product wholesalers have been optimizing performance efficiency to achieve their mission at requires levels to meet customer satisfaction [17].

Regarding to performance optimization of SCM, companies working together with business partnerships as collaborate and integrate to optimize supply chain performance systems. It has also shared information with business partnerships to optimize supply chain performance, due to the reason of differentiate that accompanying with suppliers can reduce stock outs; improve service levels, and optimize overall sales and customer satisfaction.

According to the researcher objectives, the researcher conducted a systematic reviewed of different literatures, dissertations, research papers and international journals to optimize supply chain management performance. As well as the researcher has been continuing a conductive discussion about collaboration with business partnerships and also integration

goods as a sales and buy by using optimize supply chain within systematical and transparency way of review. All reviewed documents were published in the international journals particularly focusing on either supply chain performance or supply chain optimization or performance optimization of supply chain management systems. The total reviewed articles have been more than 45, when it was published years from 1990 to 2017.

From these article reviewed which were categorized in their published years. 26 out of 45 (or 58%) published from 2010 to 2017, 13 out of 45 (or 29%) published from 2001 to 2009 & 6 out of 45 (or 13%) published from 1990 to 2000. However; the researcher has been selected the latest published years in order to meet the researcher subjective goals of performance optimization of SCM systems as seen in the summary table 2.1. Of course the overall reviewed articles which were presented as categorized in their published years as seen in the pie chart figure 2.6. The second pie chart figure 2.7 indicated that 26 out of 45 (or 58%) latest published articles categorized in their research approaches. And also these subsection of latest reviewed approaches from 2010 to 2017 have more suitable for performance optimization of supply chain management. Due that the recent conceit articles concept can be optimized supply chain management systems. So, it has also carried out manually as a spread sheet database which looks for operation to adapt the entail principles.

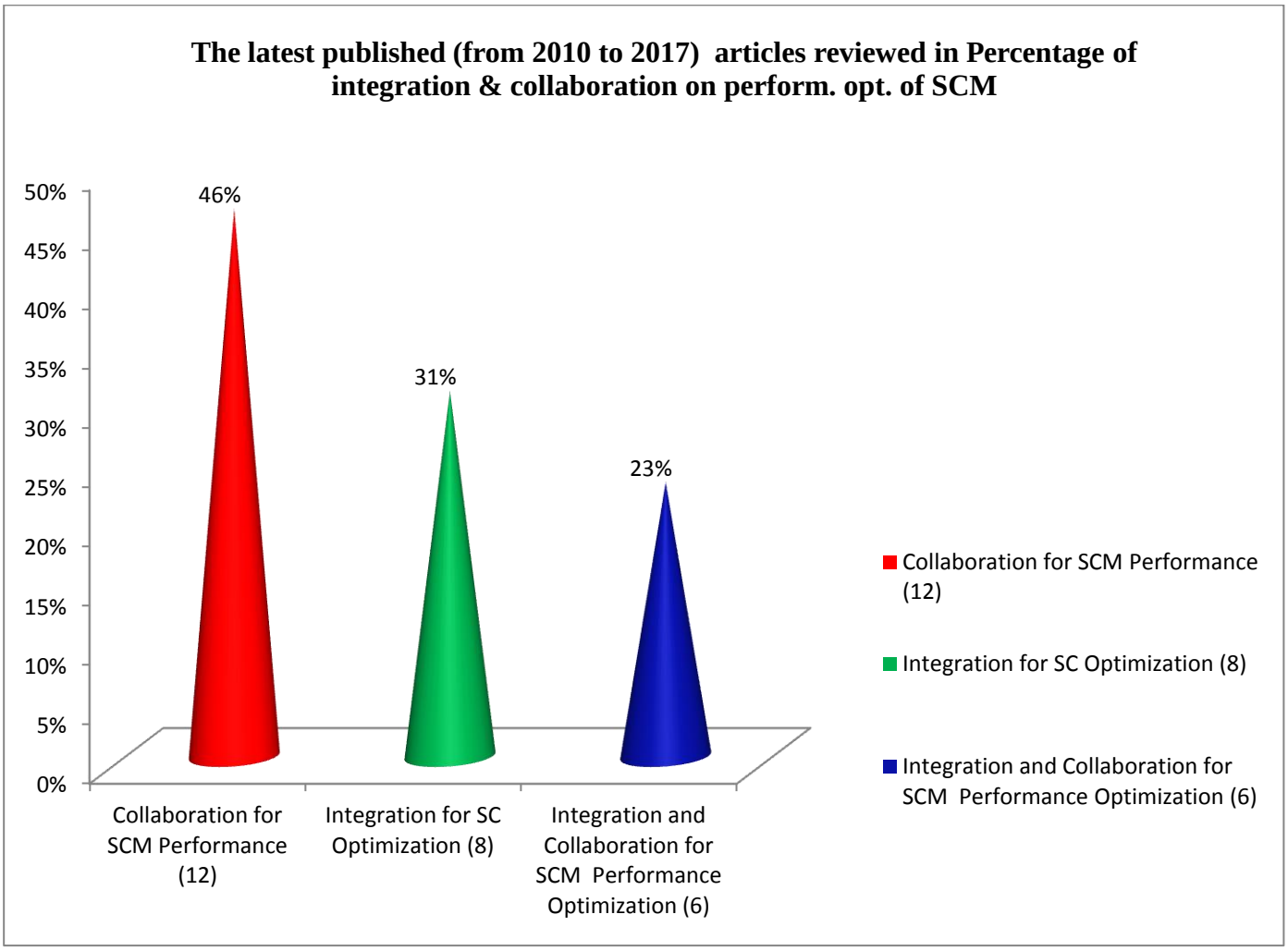


Source: Survey of literature review (2018)

Fig. 2.5: Overall reviewed articles in published (1990-2017) on the left and also sorted latest published (2010-2017) research approaches of subsection 58% reviewed articles on the right.

Furthermore, in order to analysis and evaluated these 58% (26) key research approaches that choice to help the overall motivation range to meet the purpose research works. After that, the research approaches have categorized into literature review, research papers, Phd dissertation, reports and case studies as shown in the figure 2.5 above.

On the other hand, based on these categorized research approaches which was conducting on the latest published years from 2010-2017 as evaluated as 46% (12) out of key research approaches of sub-section materials discussed on supply chain performance and 31% (8) which is out of key research sub section materials focused on supply chain optimization and then the rest 23% (6) which is out of key research sub-section materials was discussed on supply chain management performance optimization.



Source: Survey of latest literature review (2018)

Figure 2.6: Latest published articles reviewed approached in percentage

2.12. Findings from the articles review

In order to review each articles, the research has clearly setup in brief the concept of article intention and it is focused area that is from overview of the supply chain management systems. So that the article reviewed is strategically important to optimize supply chain performance under considering in a supplier business partnerships and customers handling

with satisfaction. As we have seen from the pie charts, over 58% has been the latest published articles which focused directly on supply chain systems. So, these reviewed articles in general have seen it as importance to performance optimization of supply chain management systems. It has also provided enough evidences & justification for optimize supply chain management performance. In addition, the articles have measured and evaluated the supply chain systems by considering the source of goods that supplied to firms, transportation, distributions, warehouse and then wholesales to retailers and consumer association as well as to the end consumers. Based on all article reviewed, the research has clearly and strongly discussed somehow to find the gaps on performance optimization of SCM practicing and implementation. Since then, based on gap identification of the articles, the research has made some refinement process using data reduction procedures. The refinement has proceeded based on the initial pair keywords such as "performance" & "optimization" to be jointly found in titles. This refinement was significant to identify the gaps of articles review and also to meet an approach of research objectives. The gaps identification is a best option to improve research objectives in order to optimize SCM performance. It has also identified its problems and findings to make such an argumentative discussion on the selection of articles review. This yielded 58% (26) articles published between 2010 & 2017 as seen on the pie chart figure 2.6. However, this outperform yielded more refined and screened ten (10) articles as an approach to identify the gaps of the performance optimization of SCM systems. In general, this information was easily convenience to the research that recognizes the gaps identification of the articles reviewed. In order to make an argumentative supposition to identify the gaps of articles reviewed on the performance optimization of SCM systems based on theoretical discussion to discover the final draw of conclusions.

Table 2.1: summary of key articles on the performance optimization of supply chain management systems

Sr.	Author	Problems	Findings	Finding gaps
1	[52]	The gap between SCM, critical success factors, logistics management and supply chain drivers and barriers.	The factors are collaborative partnership, information technology, top management support and skilled human resource are significant important to optimize SCM performance.	The author attempted to address all part of supply chain logistics and cross sectional drivers with efficiency and responsiveness including the importance of human resource as a key factor in the SCM performance optimization. Of course all are equal importance to SCM performance optimization as well. However, the paper organizer opinion is the author can in some way hiding perceptible and stated these derivers become the barrier of SCM. For instance author defined drivers can somehow become barriers for SCM, ok, but not clearly correlate each other of the impact of drivers cause to the barriers of SCM.
2	[30]	Identifying with explore the relationship between SCM strategy and SCM practices on supply chain performance.	SCM practices have a significant importance relationship with SC performance statistically. However, SCM strategy is a weak predictor of SCM performance.	Regarding to the author strategic supplier partnerships need better coordination between the organization and its suppliers. On my opinion the author wasn't magnified and justified the correlation between suppliers and business partners in long term relationship. And also the author has discussed on effectiveness and repulsiveness based on information communication among all supply chain members, regarding to the discussion the author didn't raise the others responsiveness and effectiveness of SC drivers such as transport, inventory, resource and facilitate.

3	[53]	The impact of information sharing on the supply chain performance	Information sharing is useful insights to optimize supply chain performance	Of course information is one of sub driver for SCM performance optimization, but the author wasn't supposed yet the major input source drivers of supply chain interlink correlation with coordination, collaboration & integration such as inventory, facilitate, transport, source & price.
4	[17]	The impact of the information systems in performance of SCM in which a framework is based on model predictive control combined with a forecasting module was presented as problems	The relationship between information system and supply chain management optimization by develop a new model based in model predictive control as a framework to determine the efficiency and forecast accuracy for overall control performance of the supply chain.	Information is one of the major tools to interlink coordination, cooperation, collaboration and integration of business partnership from raw material extracting then processing to the end users that is flow up and down or vice versa the supply chain optimization. However, the author explanation ambiguous their correlation between each other's, since it stated keeps on its own meaningful phrase not clearly visibility one interlinks with others except its own interchangeably with the others. On the other hand, the author clearly and strongly addressed with evident the information significances for the modern supply chain management performance optimization.
5	[38]	Willing among supply chain players to share information with creating a demand driven supply chain	For all demand driven supply chain participants is trust one another. In the consumer goods industry, retailers must be willing to share their data and trust that suppliers will deliver the right merchandise at the right time. Consumer goods	Regarding to the article review, it has clearly and precisely defined the true demand driven supply chain systems with key pillars, visibility with demand and inventory, infrastructure allows supply chain players to supply and demand, coordination, collaboration and integration tight with all supply chain players to optimize the

		behaviours can hinder true change and sharply limit results.	manufacturers must trust that retailer buyers will reward their performance and that closer alignment will lead to greater benefits for all. At the same time all goods supplied at right place in the right time with competitive prices.	overall supply chain performance with best customer services and satisfaction.
6	[54]	The lack of clarity & comparability concerns in the area creates misunderstanding & makes it more difficult to formulate a clear strategy on SC performance measurement.	Author has proposed conceptual framework based on operation, economic and environmental performance distribution of SC measurement. It has also an antecedent practices for measuring impact of SC performance with regard to a lean, agile, resilient and green (LARG) performance.	Of course the author has clarified in brief the deficiency and performance measurement of SCM and also proposed consequence output of conceptual framework for lean, agile, resilient, green (LARG) SC performance measurement. But, the author didn't interlink with correlation of information integration and collaboration regarding to those measuring outputs for optimizing of SCM performance.
7	[55]	The increasing complexity of supply chain is a major causes and challenges of creating & developing a	Performance optimization of SCM can measured by balance scorecard (BSC) and the supply chain operation research (SCOR) model development based on increasing competition between supply chain performance under considering and providing products with appropriate quality	Regarding to the author approaches performance optimization of SCM can be measured with those indicator tools; however, this paper organizer opinion the author in somehow hide the relationships of BSC, SCOR with considering cost analysis and supplied specific quantities through appointed time and also its indicators are measured in the isolated form, it doesn't have given

		structural system for measuring performance optimization of SCM systems.	services in specific quantities at the appointed time by means of minimize the total cost of products and services to the final customers in the supply chain.	a clue how to make integration between suppliers, products and end users to optimize supply chain performance and also its new model development as seen in the illustration some gaps to optimize SCM performance measurement.
8	[56]	The gap identified by taking into account both upstream &downstream green SCM that ongoing debate the direct and indirect impact of customer driven green SCM practices on environmental and financial performance optimization of SCM.	The performance outcomes of Green SCM appear to depend on the type of practices in the environment that has to facilitate supply chain performance optimization. The results indicate that manufacturers with strong internal Green SCM practices combined with environmental and financial collaborating or monitoring of suppliers are likely to carry out well the performance optimization of SCM systems.	The paper organizer opinion, The author position on his hypothesis in somehow hide some concepts that is the direct and indirect relationships between customer-driven green supply chain management (GSCM) practices and environmental and financial performance to optimize SCM performance. On the other hand, the author argues that environmental collaboration with customers and suppliers had no effect on environmental performance. This finding show the challenges who suggest that firms should move argumentative relationships to a collaborative relationship in order to affect lack of direct relationship between internal green SCM and financial performance to optimize SCM.
9	[57]	Many manufacturing companies facing uncertainties and stiff competition both	The findings suggest that SCM has significant correlations with supply chain performance and financial optimization. And then to optimize SCM of companies realize the importance of	Regarding to the author SCM has a positive influence on well as the overall supply chain performance. With effective implementation of SCM practices such as strategic supplier partnership, cooperation and exchange information can be

		locally and globally intensified by increasing needs for sophisticated and high value products from demanding customers.	proper managing resources and supply chain systems. The company gives attention for supply chain and information flow integration through the systems to optimize SCM in order to maximize profit and minimize cost.	synchronized each other's. Based on this scope the author was not clearly stated the examination how supply chain competency lead to business success in order to harmonize SCM performance optimization.
10	[20]	The bullwhip effect & order fluctuations, inventory maintenance, replenishment lead times, transportation costs are major impacts of supply chain performances among all suppliers, firms, distribution and wholesales	The resulting order fluctuations have a variety of consequences for the supply chain that increase manufacturing costs, inventory costs, replenishment lead times, transportation costs, and also labour costs for shipping and receiving. To maintain the fluctuation of order an easy access for coordination, collaboration and integration among suppliers for optimize supply chain management performance.	Regarding to the author opinion coordination, collaboration and integration are equally important for supply chain management. However, Coordination, collaboration and integration are confusion and ambiguity due to undefined clearly distinguish the inter correlation between each other's. And also information wasn't clearly stuck with present in all three elements of the SCM performance optimization. It was only defined one could be interchangeable the others.

2.13. Summary and gaps identification of the literature review

The most reviewed articles on the table 2.1 has been provided evidences on the relation of supply chain performance and supply chain optimization by using collaboration among suppliers and business partnerships with integration goods, at the same time as information sharing with business partners to increase competitive advantages and benefits [17], [58], [9], [20] & [23].

These reviewed articles have clearly pointed toward an argumentative discussion to identify the gaps in order to optimize SCM performance. Based on different articles reviewed in general, it was importance to optimize supply chain management performance under allowing for integration goods and cluster collaboration with business partnerships in order to customers handling with satisfaction. But, supply and demand uncertainties are the other challenge in global competition due to the gaps of integration and collaboration with business partnerships in the performance optimization of supply chain management systems. Besides that the supply chain of articles review has some constrained to meet & facilitate the hot topic of optimization supply chain in order to satisfy end consumers. However, to maintain these constrained of supply chain practices which needed further investigation on supply and demand uncertainty to improve supply chain management performance.

Uncertainty regarding to performance optimization of SCM is a major gaps of the articles reviewed due to lack of transparency in the information sharing through cluster collaboration with business partnerships. Furthers, in order to measure performance optimization of supply chain based on qualitative measure (such as product quality with exceeding requirement and to meet customer satisfactory) whereas quantitative measure (such as order delivery lead time, supply chain response time, flexibility, resource utilization and delivery performance to customers) are the major tools of performance optimization of SCM systems. Performance optimization of SCM can provide as a well-organized and synchronized up-down stream of supply & demand integration and cluster collaboration farmers, manufacturers, suppliers, wholesalers, retailers and end consumers as a common view to manage planning and execution facility, inventory, transport, information, sourcing and price of goods in order to get together qualitative and quantitative measure.

From Global perspective in the fields of performance optimization of supply chain management United States, China, United Kingdom, Canada, Hong Kong, France and South Korea are the leading contributors in the area of study [17], [58]. However, the analysis of the real case studies in the performance optimization of supply chain management from African

countries including Ethiopia have not been studied that much well. As a result with the intention of the reviewed articles, the research has been developed concepts to fill gaps and contribute on the performance optimization of supply chain management systems.

Therefore, based on above article review and summarized results the researcher can optimize SCM performance of Alle Bejimla by utilizing resources with managed it in an appropriate ways. So that performance optimization of Alle Bejimla supply chain which is controlling and managing the existing SCM systems such as inventory, transportation, facility, information, sourcing and pricing as a competitive advantage in markets as well as accessibility of goods in sales and buys order within response time to end consumers. In addition, the study will be verified performance optimization of SCM systems in the Alle Bejimla to meet customer requirements as function of SCM (supply, customer & maximize internal integration).

2.14. The study framework assumption based on:

- concepts of different theories such as articles and journals
- Optimization model of supply chain based on integration and collaboration with business partners and to be used in the forward supply chain performance with the variables of goods, suppliers reliable, facilitate, inventory transportation service, customers and order lead time.
- Performance optimization in supply chain management is differentiated to maximize the profitable operation through integration goods and cluster collaboration of farmers, unions, manufacturers and distribution products; besides that to minimize overall operation cost and increase responsiveness to customer orders.

CHAPTER THREE

Research Design and Methodology

This chapter contained overall research design and methodology of performance optimization of supply chain management systems which followed data collection (mixed approach qualitative and quantitative) and also general framework of the research.

3.5. Research Design

The research design is significant for providing an appropriate solution for studies of performance optimization of supply chain management systems. It is important to set up a guide lines to make the studies throughout the system towards its objective. Research design is involved in many correlation issues to obtain important and relevant information that makes a decision in easy ways [59].

Under this thesis research, it has done progressive efforts to assess the case company of Alle Bejimla and carried out its major problems. The assessment is done by taking three branch of Addis Ababa Cash & Carry Wholesales centre (Kality Alle Cash & Carry Wholesales centre, Megenagna Alle Cash & Carry Wholesales centre and Mercato Alle Cash & Carry Wholesales centre). The reason for selecting Addis Ababa is a capital city of the country and more population density lived here and more retailer and consumer also obtainable in the city. The assessment was focused on identified the major problems of the case company at each stage levels especially in the customer handling systems by considering supply chain performs. After considering the existing supply chain problems of the case company, the researcher is proposed framework solutions to optimize performance of supply chain management as to serve continuous improvement of customer satisfaction.

3.6. Research Methodologies

The research methodological structures are going on from the beginning to the end of the research based on descriptive quantitative and qualitative dimensions. According to the mix approach of data collection methodology is benefitable in order to make a comprehensive analysis and evaluation. Based on the results, it has been proposed a general conceptual framework to show the right solution.

3.7. Source of Data collection

The required mixed approach of qualitative and quantitative data is collected from Alle Bejimla and Alle's licensed that is selected Consumer Associations and retailer shops. In this research, we were made general survey of the supply chain systems of Alle Bejimla versus customer handling systems of consumer association & retailers. Problems at each level of the

supply chain and customer handling systems have been identified and carried out with requested questionnaires. And then they have suggested their views on the questionnaire paper with proposal solutions.

3.3.1 Primary Data

The primary data was collected through questionnaire and face to face interview and discussion with senior officers of Alle Bejimla and owners of retailers and chairman of consumer association. Moreover, It has collected from selected employees of the case company and Alle's licensed consumer association and retailers by using a self-administrated questionnaire that consists both opened and closed ended questions that designed to collect require information and response for qualitative and quantitative analysis respectively. It has also implemented different empirical studies by using five point of Likert scales for measuring performance optimization of supply chain management. Likert scale is an ideal measurement approaches. So that it requested the respondents and rated their opinion by using Likert scale to measure the company of Alle Bejimla. The standard questionnaires have used to collect the required information according to the research that adopted an approach of practices the research studies [60].

3.3.2 Secondary Data

The secondary data has been collected from recent literature review, documents, periodical reports, publishers, and others relevant study are collected from different government institutions such as Central Statistical Agency (CSA), Ministry of Trade and Industry (MOTI) and last but not least formally Alle Bejimla wholesales enterprise.

3.3.3 Observation

The observation is a significant tools and methods to collect empirical and descriptive data. It has also subjected to systematically examine by observing directly the actual activities of Alle's customer handling systems. The main benefits of observation are reduced wrong rumours' without requesting others. Observation is a simple and easy explanatory of the researcher purposes to collect the actual data. An observation method is important to check and controls on validity and reliability data to optimize SCM performance.

3.3.4 Interview

The interview is conducted to collect general information regarding to Alle's supply chain process and customers handling systems with aspect of selective senior officers and direct

sales personnel. It has also including customer association chairman, FMCG purchasers and retailers owners. The interview process has taken 15-20 minutes to complete.

3.3.5 Questionnaire

The questionnaire is prepared based from the recent literature review, the problems statements and the objective of the research. The questionnaire is carefully prepared and organized in such a way that measures the conceptual structure to reply the research objective.

3.3.6 Documentation

The documentation data is a significant tool to gathering the required information in the written forms that comes from reports, journals and relevant recording documents.

3.8. **Sample Design**

3.4.1 Target population

The target population of the research purposes have been specified the selected people by categorized in such a way that to request the require information which is from Alle Bejimla employees staffs. The employees in Addis Ababa cash and carry wholesales centres are 84, 60 and 56 of Akaki Kality warehouse store, Megenagna warehouse store and Mercato warehouse store respectively, total 200 staffs who served consumer association and retailers agents. Furthermore, we have to know the population of consumer association and retailers agent of Addis Ababa. According to the official statistics of the federal government ministry of trade and industry said that in Addis Ababa of 119,197 people in the city are engaged in trade commerce [15].

It has also ten Sub cities in Addis Ababa which contained an average eleven wereda in each sub cities that is total 116 wereda and 842 Sub-wereda as seen on table 3.1. In each Wereda has one main consumer association which distributors for sub-wereda association, total 116 consumer associations in the cities though licensed from Alle Bejimla to distribute food & fast moving consuming goods. These populations have been considering in this questionnaire. And it has also 3,000 retailer agents licensed from Alle Bejimla is considering in this questionnaire (or distributors for small retailers and end consumers). Source: Alle Bejimla cash and carry wholesales warehouse stores.

Table 3.1: Addis Ababa sub-city Wereda administration

Total no. of Wereda & sub-wereda in each sub-city of Addis Ababa city Administration											
No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Tot**
Sub city	Bole	Yeka	Kirkos	Lideta	Arada	Gulele	N.Lafto	Akaki K.	Kolfe K.	Addis K.	**al**
Wereda	14	13	11	10	10	10	12	11	15	10	116
Sub-wereda	152	124	41	27	31	73	128	135	103	28	842

Source: Addis Ababa city administration, integrated land information centre.

3.4.2 Sampling technique

For the purpose of this study, the researcher used probability sampling particularly stratified sampling techniques for selecting representatives from Alle consumer association and retail agents plus its employees. The total population of the study is large and heterogeneous in type stratified sampling techniques was preferred. These stratify data are arranged per sub city (strata) and then after from each sub city (strata) equal number of retail agents are selected randomly based on simple random sampling techniques. Moreover to select representatives of consumers, who buy goods from the retail agents, the research applied simple random sampling and contacted them randomly while buying goods at Alle retail agent's shops.

According to [61] stated that to more accurate the data generating mechanisms of large population which determines a sample sizes. The details of the sample taking activities are described in the table 3.2 as follows:

Table 3.2: Sample size determination

Population size	**Small**	**Medium**	**Large**	**Remark**
51-90	**5**	**13**	**20**	
91-150	**8**	**20**	**32**	**Consumer A.**
151-280	**13**	**32**	**50**	**Alle B.**
281-500	**20**	**50**	**80**	
501-1200	**32**	**80**	**125**	
1201-3200	**50**	**125**	**200**	**Retailers**
3201-10,000	**80**	**200**	**315**	
10,001-35,000	**125**	**315**	**500**	
35,000-150,000	**200**	**500**	**800**	

Source: [61] and [62]

3.4.3 Sample size

According to [61], [63], [64] and [65] stated that, the larger the sampling size of a research, the more accurate the data generated. However, due to time and financial limitations and the nature of the population, sample determination method developed by [62] was preferred and applied by researcher as a method to determine a sample size. So that based on the sample size determination analysis, we have taken 50, 32 and 200 sample sizes from Alle Bejimla, consumer association and retailer agents respectively.

3.4.4 Sample size determination in each sub city

Based on the sample size determination, it has been allocated the sample size in each centres or sub city to collect the required information as seen below in the table 3.3.

Table 3.3: sample size in each sub city and Alle Bejimla employees

Strata (Agents)	Total population of stratum	Target population of stratum	Sample size in each centre/ sub-city (stratum)
Consumer Association	116	32	3
Retailer Agents	3000	200	20
Alle Bejimla	200 (84,60 & 56)	50	21, 15, 14

Source: field survey (2018)

3.9. **Data gathering methodology**

In order to gather the require data, we have to practice survey observation through Alle Bejimla SCM systems, and distributed different questionnaire for internal and external customers. It has also preceded informal key interviewed with senior top and middle management groups of Alle Bejimla.

3.10. **Characteristics of the questionnaires and the respondents**

The research has designed two types of survey questionnaire and one type of key informant interviewed questions. The design of the research questionnaires was extremely dependent on the concept of literature survey. One of the survey questionnaires has contained twenty eight questions and key informant interviewed ten questions that circulated for selected Alle Bejimla staffs in Addis Ababa wholesales cash and carry warehouse stores. It has also others survey questionnaires contained twenty five questions which were circulated to Addis Ababa sub-city Wereda consumer association and retailer agents respectively. These circulated questionnaires were designed as related type questions. Due to the reason of their operational activities are similar each other's whereas retailers to end consumers.

The survey questionnaires have evaluated and commented by senior advisor before circulated to the respondents. The survey questionnaires were designed based on educational levels &

general overviews for consumers' association and retailers' agents. It has also arranged in Amharic to feel and express their opinion well as seen in appendix IV. The remaining questionnaires are designed in English based on SCM systems for Alle Bejimla staffs and customers.

3.11. **General overview and interpretation of design questionnaires**

Based on the survey questionnaires which contained to the require questions are six types of answers.

1 Appendix I is contained the general information of Alle Bejimla

2 Appendix II questionnaires (1-9) used for a nominal scale of "Yes or No" that is the lowest level of measurement scales in the company.

3 Appendix III sub-section questionnaires (10-18) with the purpose of a Likert scale of 1 to 5 is used as strong agreement, Agreement, Neutral, Disagreement, and Strong disagreement. Furthermore, in the same manner sub-section questionnaires (19-23) is a Likert scale of 1 to 4 used as extremely important, important, somewhat important, and not important, all are used for an ordinal scales. Besides these sub-section questionnaires (24-28) are further discussion on responsibility for supply chain optimization in Alle Bejimla.

4 Appendix IV questionnaires (1-15) are prepared in Amharic language based on the background of the respondents and suppose the multiple choice question is nominal. These survey design questionnaires are used for measuring and evaluate customer satisfaction within the existing supply chain management systems in the Alle Bejimla. As results to designate the direction of improvement the existing SCM by using performance optimization of supply chain management systems.

5 Furthermore appendix V sub section questionnaires (1-6) with the intent of a Likert scale of 1 to 5 is used as representing as strong agreement, agreement, neutral, disagreement & strong disagreement respectively. Using these Likert scales are a significant important for measuring performance optimization of supply chain management. In the same appendix V of subsection questionnaires (7-10) presented for customer to respond the questions that are Alle Bejimla give responsibility for performance optimization of supply chain management systems.

6 Appendix VI is a key informant interview format questionnaire.

7 Appendix VII is indicated that the supplied goods structural procedures of Alle Bejimla.

8 The last appendix VIII contains more than 190 supply products of Alle Bejimla sequence arrangement in their cluster categories.

3.12. General summary of design questionnaires

3.8.1 Design of survey questionnaires for Alle Bejimla staffs

- Appendix I survey questionnaires place the background picture of the Addis Ababa City of Alle Bejimla cash & carry wholesales total employee with their education level, annul supplied goods per ton, current capital assets, product categorize methods, annual sales volume and list of supplied FMCG.
- The general overview of the survey questionnaires in appendix II nominal scales categorize (1-4) was designed to understand the commitment of Alle Bejimla management towards performance optimization of supply chain systems with strongly intensifying cluster collaborating, integrating and information sharing with suppliers, business partners and stakeholders. And it has also under the same appendix (5-9) was designed to understand the commitment of Alle Bejimla management on the way of customer handling and customer claim appealing methods to optimize supply chain performance.
- Appendix III group of questions (10-17) designed to understand and discussed the performance optimization of SCM with control of resources and sharing information in business partners. The 2nd category (18-22) was designed an ordinal scale to understand senior executive management mandatory of SCM performance optimization. The 3rd category (23-28) was designed the general picture of Alle Bejimla management responsibility for optimization of supply chain management systems. In general overview under these category, questions focused on the level of performance optimization of SCM in Alle Bejimla which is a significant important to facilitate supplied goods and delivered to customer with competitive price at right place on the right time.

Based on the design of questionnaires contented and arranged in their categories which are distributed to Alle Bejimla key staffs toward their sex roles to respondents the assigned questions as seen in the summary table 3.4 below.

Table 3.4: Summary of survey respondents toward their sex roles in Alle Bejimla staffs

General information:	Akaki Kality warehouse store		Megenagna warehouse store		Mercato warehouse store		Total questionnaires	
	Respondents sex		Respondents sex		Respondents sex		Respondents sex	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Total number of questionnaires circulated	16	5	12	3	13	1	41	9
	21		15		14		**50**	
Number of respondents in number	13	4	11	2	8	1	32	7
	17		13		9		**39**	
Respondent in percent	76.5%	23.5%	85%	15%	89%	11%	82%	18%
	81%		87%		64%		**78%**	

- The respondents' service years are more than 2 years experienced in the Alle Bejimla; however, the company is new established since May, 2014. The staffs who participated on the respondents of the questionnaires have more than 6 years experienced in different companies.
- Respondents composition of department and positions: Branch managers, Human Resource managers, finance managers, marketing managers, sales managers, local procurement managers, foreign procurement managers, logistics and transportation facilitator managers, IT manager, Warehouse and inventory facility operation.

Source: field survey (2018)

3.8.2 **Design of survey questionnaires for Consumers association and Retailer agents**

- Appendix IV questionnaires (1-15) were designed to understand the customers' voice towards satisfaction and perception by measures and evaluation supply chain facilitation of the Alle Bejimla. The question of these questionnaires focused on customers' requirement of the fastest and modern services from Alle Bejimla by optimization of supply chain management performance.
- Appendix V questionnaire (1-6) were designed to understand the importance of performance optimization of SCM in Alle Bejimla to facilitate and provide quality goods with competitive prices under considering and evaluating customers requirement. And also the last group of questionnaires (7-10) more attention and responsibility for performance optimization of supply chain in Alle Bejimla. These questions clearly discussed and measured the economic benefits, customer disappointment, and way of resolve the impacts with discussion and recommendation to optimize SCM performance in Alle Bejimla. Based on the design of questionnaires contented and arranged in their categories while circulated to consumer association & retailer agents toward their sex roles to respondents the assigned questions as seen in the summary table 3.5 & 3.6 below here respectively.

Table 3.5: Summary of survey questionnaire respondents in the consumer association

General information	1		2		3		4		5		6		7		8		9		10		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total no of questionnaire circulated	-	3	-	3	1	2	-	3	1	2	-	3	-	3	1	3	3	1	2	1	8	24
	3		3		3		3		3		3		3		4		4		3		32	
Number of respondents in number	-	3	-	3	1	2	-	3	1	2	-	3	-	3	1	3	3	1	2	1	8	24
	3		3		3		3		3		3		3		4		4		3		32	
Respondent in percent	All questionnaires circulated to respondents and then 100% responded by respondents.																				25%	75%
																					100%	

Key: 1=Bole, 2= Yeka, 3= Kirkos, 4= Lideta, 5=Arada, 6=Gulele, 7=Nefas Silk Lafto, 8=Akaki Kality, 9=Kolfi Keranio, 10= Addis Ketema and also M= male, F = female

- The respondents' education levels between grade 8 to 12 and worked experience in different fields more than 10 years but in the current assigned position of consumer association 2 to 3 years' experience and they are members of association.

Source: field survey (2018)

Table 3.6: Summary of survey questionnaire respondents in retailer agents

General information	1		2		3		4		5		6		7		8		9		10		Total Respondents	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total number of questionnaire circulated	3	17	8	12	10	10	12	8	6	14	7	13	12	8	11	9	15	5	18	2	102	98
	20		20		20		20		20		20		20		20		20		20		200	
Number of respondents in number	2	11	5	9	8	9	9	5	6	13	7	8	11	6	7	5	10	3	11	2	76	71
	13		14		17		14		19		15		17		12		13		13		147	
Respondent in percent (%)	15	85	36	64	47	53	64	36	32	68	47	53	65	35	58	42	77	23	85	15	52	48
	65%		70%		85%		70%		95%		75%		85%		60%		65%		65%		73.5%	

Key: 1=Bole, 2= Yeka, 3= Kirkos, 4= Lideta, 5=Arada, 6=Gulele, 7=Nefas Silk Lafto, 8=Akaki Kality, 9=Kolfe Keranio, 10= Addis Ketema and also M=male, F= female

- The respondents' education between grade 12 to diploma levels and worked experience in the retailer business fields more than 15 years, but working with Alle Bejimla as retailer agents weren't more than 3 years' experience due to Alle Bejimla latest established.

Source: field survey (2018)

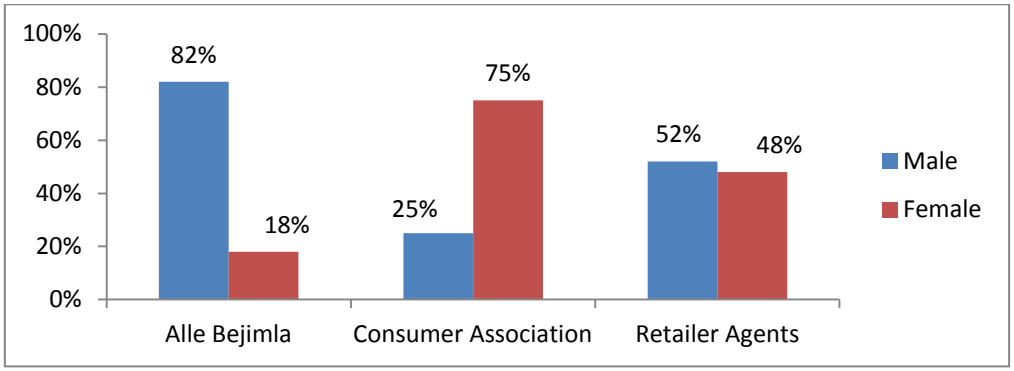
3.13. **Design of key informant interview**

The design of the key informant interviews structured based on the research objectives. The informant interview questions have contented ten questions who interviewed Alle Bejimla's senior and middle management groups. The extensive objectives to optimize supply chain

management performance by using literature review, the input feedback from senior colleagues and also from previous research conducted by other researchers.

The general impression of these questionnaires and interviews were carried on performance optimization of supply chain management systems of Alle Bejimla which has supplied food and fast moving consuming goods for end consumers. The interview performed to collect overall information regarding to Alle Bejimla supply chain process and customers handling systems with aspect of selective senior officers and direct sales personnel. And also the questionnaires have conducted including customer association, fast moving consumer goods purchasers and retailers owners.

3.14. Comparison of sex roles in Alle Bejimla and its customers



Source: field survey (2018)

Figure 3.1: Comparison of sex roles interrelated to Alle Bejimla SCM systems

Based on the summary results in the table 3.4 & figure 3.1, the research observed the involvement of female (18%) in Alle Bejimla wholesales too much less as compare to male. According to encyclopaedia of America in 1984 edition, Women are more accountable, responsible & confidential to transfer clear information in the field of assign position. However, as indicated in the graph Alle Bejimla management groups given less attention and fewer positions to women as their playing roles in the performance optimization of supply chain management systems. On the other hand, under the consumer association summary table 3.5 & figure 3.1, out of the total respondents 75% were female and the remaining has been male. From these data responses dominantly female respondents are more crucial for this research from the perspective of getting better information to optimize supply chain management performance. And also from summary table 3.6 & figure 3.1, of retailer agents out off the retailer 52 % of male and 48% of female that has almost a balanced respondents for getting better information in the performance optimization of SCM systems.

Research Methodology Structural Flow Charts.

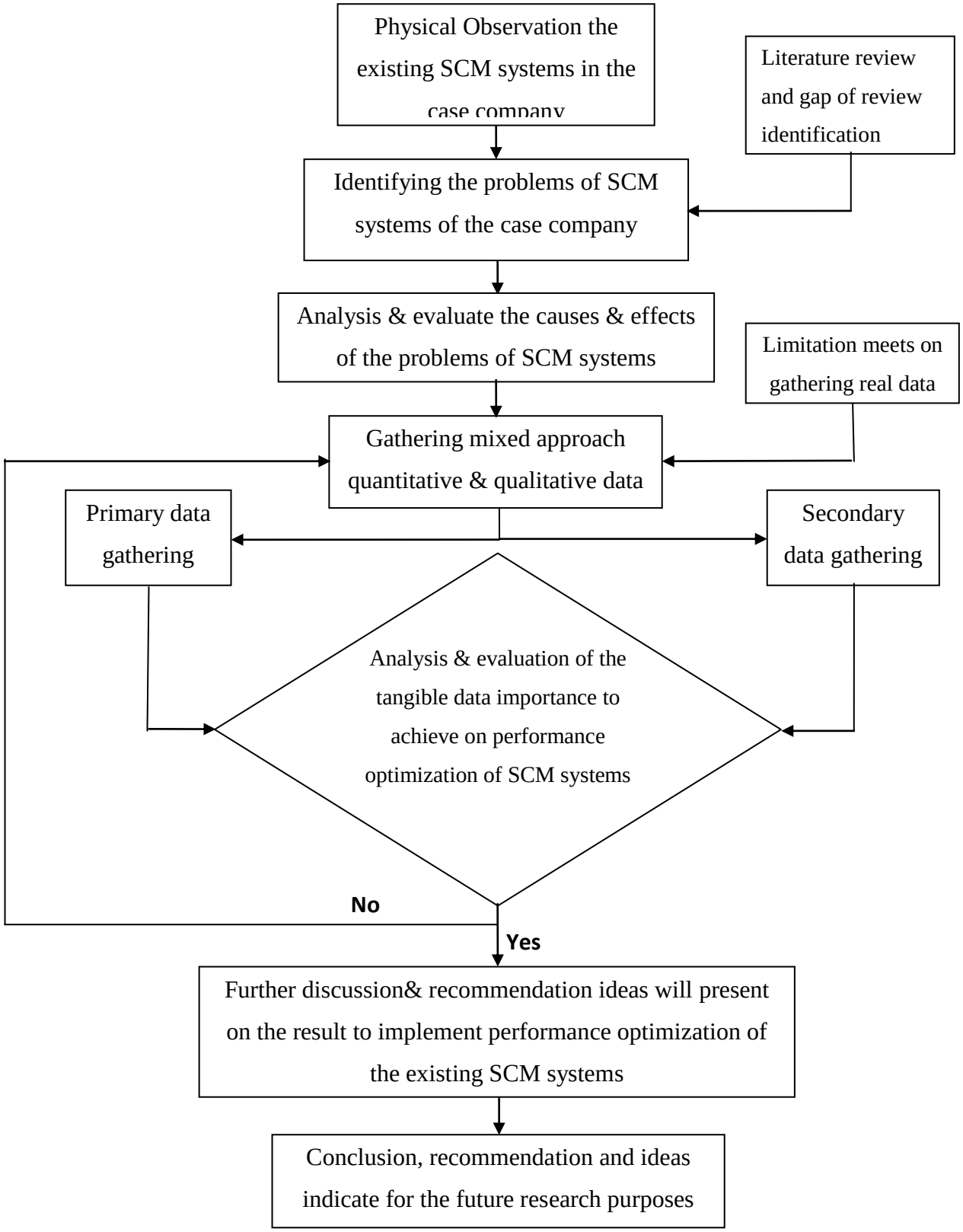


Figure 3.2: the research methodology framework

CHAPTER FOUR

Data analysis and findings

4.12. Data analysis

The general picture of questionnaires and interviews were performed in an appropriate of supply chain management based on supplied food and fast moving consuming goods (FMCG). The finding results of the statistical analysis from the questionnaire respondents were presented in each appendix below here. According to the respondents response of Alle Bejimla staffs in the appendix II & III questionnaires, the final analysis result indicated that about 61% & 95% of the staffs proposed that Alle Bejimla needs performance optimization of SCM systems, about 26% & 3% of respondents responded that it wasn't that much important optimization of SCM in Alle Bejimla and the remaining respondents responded that 13% & 2% weren't recommended any change yet respectively.

In order to Customers voice, out of Alle Bejimla respondents in the appendix IV & V that is consumer association suggested and believed that 81% of respondents responded that it needs a change and require performance optimization of SCM systems in Alle Bejimla, 7% of them advocated that the performance optimization of SCM is not affected too much in the provide services and 12% of the respondents suppose that the organization of Alle Bejimla needs only an embellishment.

In order to proceed at the similar questionnaires of appendix IV & V circulated to retailer agents' which have suggested and proposed that a radical change & transform while 65% of respondents need performance optimization of SCM, 21% of them no suggestion anything further yet, and 14% of respondents believes that the organization of Alle Bejimla needs an embellishment. So, from the above mixed approach data analysis it can easily findings the performance optimization of SCM is predictable and must for Alle Bejimla cash and carry wholesales to supply and provide quality services.

4.13. Descriptive data analysis of the survey results

According to previous section of data presentation, we have analyzed and interpreted the collective data in detail, clear and meaningful way. The analysis and interpretation data was preceding based on frequency and percentage to illustrate the respondents' response position towards performance optimization of SCM systems in Alle Bejimla. Based on the respondent position in the relation of supply, customer and internal integration activities that mean to compare collaboration with wholesale of Alle Bejimla.

4.14. Information sharing to optimization supply chain integration with cluster collaboration

Table 4.1: Information sharing to exceed supply chain optimization

Sr.	Items	Respondents (%)		
		Yes	No	No response
1	Is Alle Bejimla provided high quality services, fast delivery goods to customer and positive relationships with customers and suppliers?	10	29	
		26%	74%	
2	Do you believe Alle Bejimla exceed customer expectations within supply of goods by continuous optimize supply performance?	5	34	
		13%	87%	
3	Do you have effective communications with your suppliers?	9	24	6
		23%	62%	15%
4	Do you have share any relevant information with your business partners through internet or other internet supported real time information sharing mechanisms.	10	12	17
		26%	31%	43%
5	Is there an effective utilized of electronic corresponding system that connects your institution with all relevant trade facilitation stakeholders (including government agencies, importers and other stakeholders)?	11	23	5
		28%	59%	13%
6	Can goods importers like Alle and other interested parties easily find information related to your institutions service they need on the internet?	6	25	8
		15%	64%	21%
7	Is Alle Bejimla supplied food & fast moving consuming goods from national and international markets that is checking goods in quality inspection?	27	9	3
		69%	23%	8%
8	Are sufficient and qualified staffs available to your daily task of trade facilitation and handling customer enquiries?	11	28	
		28%	72%	
9	Is it your company gives fast replay for rising claims?	3	31	5
		8%	79%	13%
Respondents responded cumulative % of Yes/No/unknown respectively		30%	53%	17%

Source: field survey (2018)

As it is seen in table 4.1, which analysis the evaluation of respondents' rate in percentage through provide quality services by exceed supply chain information sharing. Item 1, 26% and 74% "Yes and No" respectively and also item 2 is 13% and 87% "Yes and No" respectively of the respondents were responded. Both items indicated that Alle Bejimla needs teamwork to provide quality services and meet customer expectations. It has also joined work as cluster collaboration with local suppliers and firms to optimize SCM performance by purchasing and distributing commodity goods. The output result indicated that mean more than 80% of the respondents want and support a continuous improvement in the existing

SCM systems of Alle Bejimla. Based on the respondents responded that performance optimization of SCM is a significant topic for facilitate and provide quality services to customers. In order to exceeding customers expectation, performance optimization of supply chain is a mandatory to meet customer requirements by using an integration goods based on cluster collaboration with business partners such as suppliers, manufacturers, farms, unions, and transport providers.

For the 2nd categories of items 3, 4, 5 and 6 that have being discussed on the communication and information sharing with business partners, suppliers, stakeholders, producers and farms. Based on the requested questionnaires more than 60% of the respondents responded that Alle Bejimla has a gap in information sharing with business partners. However, communication and sharing information is an important concern to ensure the overall managing of supply chain systems. In addition, communication and sharing information is a good indicator for monitoring the bullwhip effects. If the communication and information sharing is sufficient exchange with business partnerships, it can be minimized the bullwhip effects through ability deliver goods in a flexible ways. Therefore, Alle Bejimla to be worked in collaboration with business partners to fill the gaps of sharing information in order to competitive in markets and benefits. As well as Alle Bejimla has carried out an integration goods based on a cluster collaboration with farms, producers and suppliers to continue and ensure performance optimization of SCM in the purpose of provide quality service to the customers.

For the last requested questionnaires in the table 6.1, item 7, 8 and 9 have discussed on the quality of supplied goods. It has also discussed on the monitoring and controlling mechanism with regarding to customers treatment, handling and optimistic replays for rising claims. Based on the requested questionnaires 69% of the respondents responded that Alle Bejimla has been controlling and monitoring the quality of imported goods. However, the customer handling culture is not that much satisfied.

In order to analysis the requested questionnaires, 72% and 79% of the respondents responded that customers have not satisfied and happy on the handling systems. The reason is that as shown in the observation, there is a gap of continue employee trainings. While customers have requested why goods that replied either out of stokes (inventory managing groups weren't monitoring in the right ways to available goods) or long line of queue up to get the goods. After customer bought goods, they have requested external payment for loading and unloading goods. In addition, it didn't provide door to door transportation services as compare to a benchmarking reference of others competitors. Of course a price of goods in

somehow a little difference from other competitors. But it isn't facilitate in lead time services, customer are queuing for long times compare to others competitors. Based on the above analysis, Alle Bejimla to be worked toughly internal integrated goods as become cluster collaboration with other farms, unions, producers, and suppliers to optimize SCM performance.

Based on the analysis of cumulative results indicated that performance optimization is significant in order to integration goods and cluster collaboration becomes an optimized level that facilitates quality service and provides to exceeding customers expectation. From these cumulative results we conclude that Alle Bejimla can take more responsible to motivate and persuade local manufacturer, unions and farmers to produce surplus goods. It has also supporting technical training to improve their skills and encourage by awarding incentive to produce local value add goods.

4.15. Supply chain integration and cluster collaboration with business partners in order to meet customers' requirement

Table 4.2: Supply chain integration becomes a collaboration to meet customer expectation

Items		Respondents frequency and rate in percentage (%) respectively				
		1	2	3	4	5
10	Do you believe an improvement needs on existing SCM systems of Alle Bejimla	19	13	5	2	
		49%	33%	13%	5%	
11	Do you suppose Performance optimization of SCM is significance for Alle Bejimla to supply & facilitate FMCG on time to customers?	27	10	2		
		69%	26%	5%		
12	Supply and demand integration is significant for Performance optimization of SCM in Alle Bejimla.	29	8	2		
		74%	21%	5%		
13	Internal integration with management and staffs are significant for performance optimization of SCM systems	30	9			
		77%	23%			
14	Collaboration & information sharing with partners are significant for performance optimization of SCM systems	32	7			
		82%	18%			
15	Transportation and facilitation are significant important for performance optimization of SCM	36	3			
		92%	8%			
16	Do you believe pricing and sourcing of goods are significant factors for performance optimization of SCM systems	18	16	3	2	
		46%	41%	8%	5%	
17	Do you believe inventory controls of FMCG are playing significant roles for performance optimization of SCM systems of Alle Bejimla	35	4			
		90%	10%			
Key: 1=Strong agreement, 2=Agreement 3=Neutral, 4=Disagreement, 5=Strong disagreement						

Source: field survey (2018)

As it is seen in table 4.2, Analysis the respondents' responded rate in percentage through supply chain integration becomes a cluster collaboration to meet customer expectation. Items 10 and 11 discussed on the improving existing SCM and suppose the significance of performance optimization of SCM. Based on the questions 49%, 33%, 13% 5% and 69%, 26%, 5% of the respondents' responded that strong agreement, agreement, neutral, and disagreement respectively. The respondents responded with the purpose of having an improvement on the existing SCM systems to provide quality services. This means that more than 80% of the respondents want and support an improvement to optimize the existing SCM systems of Alle Bejimla.

The 2nd categories of items 12, 13 and 14 discussed on the integration, information sharing and cluster collaboration of Alle Bejimla to optimize SCM performance. Based on the questions output were 74%, 21%, 5%, and 77%, 23% and 82%, 18% of the respondents responded that strong agreement, agreement, and neutral respectively. The respondents responded with the purpose of having integration, information sharing and cluster collaboration between business partnerships are crucial topic to optimize SCM performance of Alle Bejimla. In order to gathering information from the requested questionnaire, more than 95% of the respondents responded that the existing SCM to be optimized by integrated, sharing information and cluster collaboration with suppliers, farmers, unions and producer firms.

For further discussion, the variety of goods supplied by Alle Bejimla categorized in seven groups which are containing more than 190 products, you can see the appendix VIII. The company supplied a lot of variety of goods, but, to what degree a company manages to provide customers without form of relationships in cluster collaboration with farmers, suppliers, manufacturers, customers and internal employees. Otherwise, the required service level is another impact factors that influencing the level of implied demand uncertainty. The customers require service level to be kept in high and stable with cluster collaboration. So, to increase the degree of service level integration, sharing information and cluster collaboration are significant concern to optimize SCM performance.

Among Alle Bejimla collaborated with suppliers, farmers, producers and manufacturers, Alle can optimized its performance by supplied goods to provide fast and quality services. However, in Alle Bejimla still have serious gaps in cluster collaboration with relationships with suppliers, relationships with customers, relationships with farmers, relationships with producers, manufacturers and relationships with internal employees. To fill the gaps, Alle Bejimla to be began a smart modification on the existing SCM systems from internal

integration and then extend to external integration becomes as cluster collaboration to facilitate and exceeding the customer expectation.

The last categories of items 15, 16 and 17 discussed on supply chain drivers of Alle Bejimla based on transport, price and inventory of goods which are playing a significant role in performance optimization of SCM systems case of Alle Bejimla. In order to get better supply chain practice and implement, monitoring and controlling the inbound and outbound transport systems are significant to optimize supply chain performance. It has also managed price of goods and inventory stocks to optimize SCM systems. In order to supply and distribute variety of goods within short lead time to end consumers which means that an increased more supply chain responsiveness and competitiveness in the market. In general monitoring transport, price and inventory levels are relatively high when striving for responsiveness in order to be able to deliver goods when the customer needed. Inventory accuracy is important to maintain service quality in order to supply lead time and deliver an order placed by customer. In all-purpose, having Alle Bejimla supply goods with short lead times is advantageous when striving to become more responsiveness, since this increased the capability to obtain variety goods in timely manner. Poor managing supply goods reliability are hurt responsiveness of suppliers' and service levels in order to meet customers' requirement. So, supply goods reliability means the lead time in order to gain order received on time and to commit responsiveness of suppliers' performance ability to deliver on time.

Based on the above discussion the research analysis depend on the respondents responded in order to evaluate the existing supply chain management systems. Results showed that 92%, 8%, and 46%, 41%, 8%, 5% and 90%, 10% respectively; strong agreement, agreement, neutral and disagreement on the supply chain drivers of transport, price and inventory. Based on analysis and evaluation result indicated that monitoring and controlling these drivers are significant issue to maximize supply chain performance and minimize the discrepancy of poor managing of overall supply chain systems.

Based on the above brief analysis of summary which is the performance optimization of SCM case of Alle Bejimla is a vital issue to facilitate the striving of responsiveness to meet and exceeding the customer expectation. In order to investigate to what extent with these questionnaire analyses which indicated that performance optimization of SCM case of Alle Bejimla is an obligatory issue to provide quality services for customer and maximized income profits. In order to achieve these objectives, Alle Bejimla works together with all actors in SCM systems toward the common goals. Based on this meaningful and precise

interpretation cluster collaboration is vital and fundamental for performance optimization of SCM since it enables long lasting relationships with common targets. So, Alle Bejimla should be worked strongly and toughly with concerned stakeholders to facilitate the country development by supporting technically and financially on the local manufacturers and farmers to produce quality and value add goods.

4.16. The significance of performance optimization of SCM to meet customer expectation

Table 4.3: The significance of supply chain to meet customer expectation

Items		Respondents' frequency and rate in percentage (%)			
		1	2	3	4
18	How frequently does your company work long lasting with customer relationships to optimize SCM performance?	9	17	8	5
		23%	44%	20%	13%
19	How important is supply chain performance optimization of the company as a criterion for evaluating senior executive in Alle?	25	12	2	
		64%	31%	5%	
20	How much significant important does your company place on customer satisfaction in strategic planning?	19	11	5	4
		49%	28%	13%	10%
21	How frequent do you incorporate customer expectations in to the design of performance optimization of SCM systems	12	21	4	2
		31%	54%	10%	5%
22	How significant important is the application of performance optimization of SCM in your company to meet customer satisfaction?	27	8	3	1
		69%	20%	8%	3%
Key: 1=extremely important, 2=important, 3= somewhat important & 4=not important					

Source: field survey (2018)

As seen it in the table 6.3: the performance optimization of SCM is a significant issue to meet and exceed customer expectation. Items 18, 19, 20, 21 and 22 have discussed in the significance of customer relationships to optimize SCM performance. Based on the requested questionnaire, the respondents responded that 23%, 44%, 20% 13% and 64%, 31%, 5% and 49%, 28% 13%, 10% and 31%, 54%, 10%, 5% and 69% 20%, 8% , 3% results respectively in the sequence of items extremely important, important, somewhat important and not important.

The approach of customer relationship is a base of important aspects in the structure of performance optimization of SCM systems. In order to optimize SCM performance, customers are willing to share potential and confidential information with trust business partnerships. As mentioned in the literature review, customers' relationships are great importance for supply chain strategies. The strategies reveal that to provide consistency and stable service quality in the form of performance optimization of SCM systems to meet and exceed customer expectation. Based on this understanding, Alle Bejimla should be worked

toughly to provide and supply quality goods in exceeding quantity to meet customer requirement. Since then, according to the customer expectation and requirement, companies creating values for their customer as strong relationship build up on continuous improvement of the customer service satisfaction. Besides that creating value for buyers will also bring value back to the companies.

4.17. Supply chain responsibility for all management groups

Table 4.4: Supply chain responsibility

	Items	**Percent (%)**
23	Which division or departments are the most responsible for SCM?	
	• Procurement & logistics	25
		64%
	• Sales and commercial	13
		33%
	• Both department	1
		3%
24	What is your company of Alle Bejimla optimal relation to choose suppliers	
	• Price of goods	13
		33%
	• Location proximity	8
		21%
	• Quality of goods	9
		23%
	• Availabilities of variety goods at one stores	9
		23%
	• Other reasons	
25	Which criterions are used to select supplied of goods	
	• Long term contracting	1
		3%
	• Vendor location	5
		13%
	• Capacity allocation	6
		15%
	• Quality of goods	11
		28%
	• Local market implications	4
		10%
	• Price of goods	10
		26%
	• Tax implementation	2
		5%
26	What do you observe from other local suppliers (competitors of Alle Bejimla)	
	• Price discount	
	• Providing credit facilities	
	• Door to door delivery services	27
		69%
	• Transport services provides for all customers	12
		31%
27	Indicate the factors that could made proper decision of inbound logistics	

	• Warehouse location	28
		72%
	• Warehouse holding capacity	2
		5%
	• Contract carriers	
	• Local regulations	1
		3%
	• Number of carriers	8
		20%
	• Number of warehouse	
	• Tax implementation	
28	Indicate the factors that could made proper decision of outbound logistics	
	• Warehouse location	25
		64%
	• Warehouse holding capacity	
	• Contract carriers	4
		10%
	• Local regulations	
	• Number of carriers	8
		21%
	• Number of warehouse	
	• Tax implementation	2
		5%

Source: field survey (2018)

As it is seen in the table 4.4, the supply chain responsibility is a major concern for all management groups in order to meet the organization objectives. Alle Bejimla should be provided quality services to meet the customers' requirements. Regarding to the requested questionnaires the respondents responded that depend on the approach questions. Based on this for item 23 respondents responded that 64% of procurement and logistics department, 33% of sales and commercial department and the remaining 3% concerned both departments. Of course supply goods are significant roles in the local and global market to provide quality goods continuously, without interrupt through a stable level. It has also a competitive in the market and attracts customers' expectation with reasonable prices. To supply the expectation goods that will be assigned skilled manpower to lead and manage the departments. Procurement goods are the output relation of internal and external integration which becomes cluster collaboration with business partnerships such as suppliers, farmers, unions, producers and manufacturers. However, as it is seen in the observation of Alle Bejimla and in key informant interview, the supply chain responsibility isn't clearly demarcation for the body that is the most responsible for the SCM performance optimization in Alle Bejimla.

The 2nd categories of items 24 and 25 were discussed on the issue of supplier optimal relation and selective criterions. The respondents responded based on the approach question, since then for item 24 in the optimal relation to choice suppliers, 33% based on price goods, 21%

location proximity, 23% quality of goods and 23% availability of variety goods at one stores. And also for items 25 in the criterion of selection suppliers, 3% based on long term contracting, 13% vendor location, 15% capacity allocation, 28% quality of goods, 10% local market implications, 26% price of goods and 5% tax implementation. Based on above analysis, Alle Bejimla to be focused the way of supplied goods in stable and consistency, without interrupted supplied through in actual lead times. Of course, these criterions measured as a standard level to optimize SCM performance based on the previous business relationships with work together as team in the form of cluster collaboration.

The last categories of items 26, 27 and 28 discussed on the role of transportation factors applied inbound and outbound transportation systems. The respondents responded that based on the requested questions as seen in the table 7.4. The role of transportation is playing and facilitates the movement of goods from point of sources to destination points such as supply goods from source to manufacturer, to storage, to distribution, to wholesales and to end consumers. Regarding to the request questionnaire the respondents confirmed that 72% of the inbound transportation can be factorized to determine the decision in warehouse location or source of goods location. It is also distributing finished goods from suppliers or manufacturer to warehouse or wholesales and then to retail stores. On the other hand, 64% of the questionnaires confirmed that the factor decision of the outbound transportation is warehouse location or source of goods to deliver to end consumers. Here in Alle Bejimla wasn't implement and practice outbound transportation systems of door to door services to end customers. The service quality of Alle Bejimla under remarks in order to customers weren't obtained door to door transportation services against other business competitors.

In order to vehicle route managing and scheduling of Alle Bejimla is some gaps. As it is seen in the survey observation, and the respondents responded and confirmed that based on the requested questionnaires, some vehicles travel long distance without loading. Some vehicles are also placing in compound without operation. However, regarding to optimize SCM performance, vehicles management in the supply chain operation is the heart of enterprise. Vehicles management is a significant role in the overall market facilitation. Based on these understanding and analysis managing vehicles routing and scheduling is an important function for overall performance optimization of SCM in Alle Bejimla. For performance optimization of supply chain management, vehicles operation management focused on the following ways to satisfying customer requirements.

- Maximizing vehicle payload
- Maximizing vehicle fill out and back
- Maximizing vehicle utilization
- Maximizing number of loaded journey per vehicle
- Minimizing distance and utilize time (minimize nonmoving time)
- Meeting customer requirements in term of cost, service and times
- Meeting legal requirements in term of vehicles capacity and drivers hours.

4.18. **Analysis and interpretation of customer expectation to meet satisfaction**

Table 4.5: customer expectation to meet satisfaction

Sr.	Items	Respondents' frequency & rate in (%)				
		1	2	3	4	5
1	Do you satisfying in Alle Bejimla provide services	9	18	29	81	10
		6%	12%	20%	55%	7%
2	Do you believe inventory controls of FMCG are playing important roles for performance optimization of SCM systems of Alle Bejimla	76	49	20	2	
		52%	33%	14%	1%	
3	Transportation facilities are significant important for performance optimization of SCM	91	35	13	8	
		62%	24%	9%	5%	
4	Performance optimization of SCM is important for Alle Bejimla to facilitate & provide FMCG on time to customers	75	60	9	3	75
		51%	41%	6%	2%	51%
5	Collaboration & information sharing with partners are important for performance optimization of SCM systems	27	87	25	8	27
		18%	60%	17%	5%	18%
6	Integration of goods suppliers are important for performance optimization of SCM systems	47	74	17	9	47
		32%	50%	12%	6%	32%
Key: 1=Strong agreement, 2=Agreement 3=Neutral, 4=Disagreement, 5=Strong disagreement						

Source: field survey (2018)

In the competitive business environments Alle Bejimla to be identified the gaps of supply chain management practices and implements to optimize customer satisfaction. On the other hand, customer satisfaction is a level of expectation and perception of customers depend on their behavior. Customer handling is a day to day motivate and activate in business practicing to improve supply chain delivery and meet customer requirements. The quality of services measure depends on the aspect of customer satisfaction. Based on the above assumption, the researcher distributed some questionnaire for customers to evaluate the service quality and supply chain management systems of Alle Bejimla. The respondents responded the assigned questionnaires for Alle Bejimla provides service quality as it is seen in the table 7.5.

Based on the respondents responded for item 1, 6%, 12%, 20%, 55% and 7% as strong agreement, agreement, neutral, disagreement and strong disagreement respectively. As it is seen the results more than 60% of the respondents responded that dissatisfaction in the

providing service qualities of Alle Bejimla. Alle Bejimla must identify the gaps to meet customer expectation. Customers are significant stakeholders in Alle Bejimla and their satisfaction is given priority to management groups.

For 2nd categories for items 2 and 3 that are 52%, 33%, 14%, 1%, and 62%, 24%, 9%, 5%, strong agreement, agreement, neutral, disagreement respectively. Based on the request questionnaires the results indicated that more than 80% of the respondents responded that inventory and transport system to be controlled and monitored to optimize supply chain performance in order to fulfill the customers' requirements. Inventory and transport systems controlled and monitored are a daily delicate act for harmonizing service quality in the form of optimizes supply chain performance in Alle Bejimla. It can also possible an integration of inventory and transportation in the form of cluster collaboration to optimize supply chain performance by using a balance checking of:

- Transportation costs against fulfillment speed of delivery or supply goods from source to destination.
- Inventory costs against the cost of store costs that is a lead time of receiving and placing order.
- Customer satisfaction against costs to service quality.
- New capability against profitability of company.

The last categories of items 4, 5 and 6 that are 51%, 41%, 6%, 2% and 18%, 60%, 17%, 5% and 32%, 50%, 12%, 6% which are strong agreement, agreement, neutral, and disagreement respectively. As it is seen from the results of item 4, more than 90% of the respondents responded that performance optimization of supply chain is a significant roles to play and determine the maximum effectiveness and minimum operating costs (or service costs). Based on the questionnaire output for items 5 and 6, it has also more than 80% of the respondents responded that integration and information sharing is a crucial roles to play in the supply chain cluster collaboration to optimize supply chain performance. Information sharing and cluster collaboration with suppliers, customers, and business partners are facilitated Alle Bejimla's performance optimization of SCM systems. Performance optimization of supply chain can carry out benefit and competitive advantages of Alle Bejimla in markets. Cluster collaboration is the desire to extend the control and coordination of operation across the entire supply chain process.

4.19. **Responsibility to achieve and meet customer expectation**

Table 4.6: Alle Bejimla's responsibility to meet customer expectation

	Items	**Frequency & percentage (%)**
7	How is SC Pertain to economic benefits	
	• Job opportunity	22
		15%
	• In collaboration relationships	45
		31%
	• Purchasing goods in categorize of as integrated form	15
		10%
	• Price of goods compare to other competitive	65
		44%
8	Do you have effective discussion with Alle Bejimla Management groups on	
	• Goods quality	5
		3%
	• Goods price	68
		46%
	• Sales margin on your shops	53
		36%
	• Information sharing	4
		3%
	• inventory status	15
		10%
	• Order lead time	2
		1%
9	What do you recommend to optimize SCM	
	• FMCG suppliers collaborated with local producer	57
		39%
	• FMCG suppliers supported local producer with information, knowledge sharing and training	41
		28%
	• FMCG supplier integration with suppliers, farms, producers and customers	49
		33%
10	What is the major factors that disappointed customers	
	Product / service poor quality	22
		15%
	Goods inaccessibility	49
		33%
	Lack of door to door services	49
		33%
	External load & unload payment	27
		19%

Source: field survey (2018)

As it is seen on the table 4.6, for item 7 the respondents' responded results indicated that 15% job opportunity, 31% cluster collaboration relationships, 10% purchasing goods in categorize of as integrated form, and 44% price of goods compare to other competitive respectively.

Regarding to the result analysis of respondents' responded that the existing supply chain of Alle Bejimla needs a performance optimization to be filled the gaps supply chain and customer handling in order to the relationships of SCM practices with cluster collaboration of supplier, stakeholders, producers, farms and internal integration. Price of goods compare to other competitive is advantageous for consumers. Instead of the gaps of supply chain in Alle Bejimla, it has built up job opportunity in retail and consumer association. A lot of people have gotten a chance to work in retail and consumer association. Further optimized SCM performance in Alle Bejimla can increased productivity of value add goods in the market and also improved market competitiveness across the country, besides that reduced number of unemployed in the country.

The 2nd categories of items 8 discussed about goods quality (3%), goods price (46%), sales margin on your shops (36%), information sharing (3%), inventory status (10%), order lead time (2%). The respondents responded results indicated that Alle Bejimla hasn't effectively works in collaborated with customers and gaps of discussion mutually for common benefits, and it hasn't ready to fill the gaps of communication and information sharing what the customer expectation from Alle Bejimla. It needs a continuous improvement of Alle Bejimla supply chain communication and information sharing to meet customer requirement and ready to accept the customers' feedback.

The 3rd categories of items 9 recommended that the significance of cluster collaborated in local producer (39%), information, knowledge sharing and training employees (28%), and integration suppliers, farmers, producers and customers (33%). Based on the respondents responded that Alle Bejimla to be worked as team with these recommended stakeholder to facilitate performance optimization of supply chain to meet and exceed the customer requirements.

The last categories of items 10 discussed on the factor of impacts customer disappointment issues on the poor service quality (15%), goods inaccessibility (33%), lack of door to door services (33%), and supplementary load and unload payments (19%). Based on the respondents responded that Alle Bejimla to be made restoration and eliminate customer disappointment issues and provide quality services in order to customer satisfaction.

4.20. **Interview results**

On key informant interview the targeted source for this data collection are the top management of Alle Bejimla which respondents' composition of department and positions: Branch managers, Human Resource managers, finance managers, marketing managers, sales

managers, local procurement managers, foreign procurement managers, logistics and transportation facilitator managers, IT manager, and Warehouse and inventory facility operation.

In general overview of the key informant interview respondents' opinion that has on creation supply chain management environment: Alle Bejimla has been set up clear vision and mission about supply chain management system through overall employees that is everyone to be participated in the implementation process. Regarding to development team work, Alle Bejimla gives a training with coordination different departments' as established a task force teams and follows process approaches to integrate workers and result become a cluster collaborate each other and be out of function thinking and see the company overall goals.

Based on the respondents' opinion to practice optimize supply chain by using integrating and collaborating business partnerships and customers. It has also internal integrating the resources as a fishbone relation between them to serve end customers that needs in well with. However, the researcher differentiate the respondents opinion and in general summarize the respondents agree that there is some gap on using these tools of integrating goods and cluster collaborating with stakeholders and performance optimization of SCM inadequately, due to that they have some gaps of well-trained staffs and lack of resources to provide quality services for their customers.

Focus on customer handling: the marketing and operation department manager responds that Alle Bejimla efforts to be a customer focus in our operation and customer requirements. It has also periodically measured supply chain objectives as a designed to optimize supply chain performance as customer satisfaction level. However, it has some gaps in accessibility of food and fast moving consumable goods (FMCG) as per setup lead time schedules. Of course not a true, for instance we have tried to fill the gaps in the discovery of integration inbound and outbound transport systems that utilized for success factor to maintain the gaps, we have tried to solve by good planning and well-designed distribution systems. It has also a lack of commitment and close relationship with suppliers, local producers, and farms. Of course some gaps are there but not that much exaggerated, we have solved as well. Besides that the current situation of the country is another major impact to supply FMCG goods from abroad how do you solve it? Of course this is a country problem, not for us only, due to the reason of foreign currency barrier in the national Bank. On other hand to solve the current challenges of foreign currency barriers, we try to work together with local firms by substitute foreign purchasing power into local purchase. Based on the existing challenges that we try to

supply the require amount of FMCG in our wholesales store to meet and address the customer requirements on time delivery as per our objectives.

Focus on supplier relationship: the general manager responded that the company identified qualified suppliers and analyses the information with supplier selection criteria set by the company. On other hand, Of course as a customer handling, there is some gaps, we are not looking for our computation take as a benchmark, but we are working to perform our services day to day proceeding by measuring and evaluating supply chain activities to reach at optimum levels.

Benchmarking: The respondents agree that there are not practices benchmarking aligned with competitors in the company. Of course, benchmarking is a good reference to know align position toward to have met the company objectives through facilitates and serves as optimize supply chain performance as on time quality services to their customer.

Performance optimization of supply chain of FMCG: the procurement manager responded that the company must be optimized their supply processes by purchasing FMCG and training employees on customer handling and inventory controls to meet the customer requirements.

Involvement of employees: the respondents agree that there are gaps observed in empowering and decision making through the overall operation of the SCM systems. The company must optimize the involvement of employees for performance optimization and business excellence.

4.21. **Findings**

The findings reveal that with respect to continues practices and implementation of performance optimization of SCM in Alle Bejimla. The respondents responded based on the designed questionnaires about Alle Bejimla. The respondents responded that Alle Bejimla hasn't supplied goods in time to facilitate and exceed customers' requirement. The existing supply chain system should be optimized to provide quality services. The analysis results further revealed that the significance of performance optimization of SCM in Alle Bejimla is carryout a radical and incremental change. Performance optimization of SCM is the output result of sharing information, integration goods and cluster collaboration with business partnerships, stakeholders, suppliers, farmers, producers and unions. According to previous chapters' discussion on the physical moment of goods has provided & delivered by supply chain systems. Supply chain is the important role that plays and affects the overall markets. Supply chain performance monitoring and optimizing to gain market competitive advantages.

In order to optimize SCM performance balancing distribution is a major concern to supply and deliver goods to customers.

In the case of supply chain distributions interrupt and incompetent means across the market which affords supply and demand uncertainty and carryout market failures. The reasons become unbalance supply and demand which is an increasing demand for supplied consumer goods against temporary slow harvesting farms and producing goods. The consequence effects become poor quality services and price inflation on the food and fast moving consumer goods (FMCG). In addition, the devaluation of Birr has contributed to food prices strikes in the local markets. The deflation impacts have been driving an increasing food prices especially in the lower income consumers. The price inflation of goods in the local market highly shoot up's in optimum levels. The basic consequence effects of poor harvest farming, lack of value add goods, low skill producing goods & lack of facilitate commodity goods, inadequate supply food and fast moving consumer goods (FMCG) lead to domestic food shortages which in turn causes local prices of goods increases.

Based on above outcome effects the Ethiopian government established Alle Bejimla since May, 2014. The main objective of established Alle Bejimla is to control and monitor the inflation of commodity prices by optimized performance. The government supposition, Alle Bejimla will be facilitated and built up modern market systems across the country by provide and supply in time goods. It has also corrected the market failure across the country by optimize supply chain performance to maintain and facilitate the market competition. However, Alle Bejimla was not achieved the government setup objectives since then yet based on meet and exceed the customer expectation. Due to the gaps of internal integration and external integration that carryout having a lack of cluster collaboration with concerned business partnerships, stakeholders, suppliers, farmers and producers of goods. In view of the fact that Alle Bejimla should be needed radical and incremental change through internal and external supply chain management systems to meet and exceed customers' expectations. To facilitate the exceed customer requirements integration of goods and cluster collaboration with suppliers, manufacturers, producers, farmers, unions and other business stakeholders are significance in the outward appearance of performance optimization of SCM.

4.22. **Performance optimization**

Optimization in term of this paper, managing the whole performance by increasing needs high level of goods and services based on demanding customers requirement. The main purpose of performance optimization of SCM in Alle Bejimla is facilitating and delivering

quality food and fast moving consumer goods (FMCG) at low cost within short period time to customers. In general overview, performance optimization of SCM in the Alle Bejimla means facilitating an integration goods and cluster collaboration among with different business partners and stakeholders, such as farmers, manufacturers, producers, suppliers and consumers as a supporting and sharing quality information while reflected from each other's. As discussed in the literature review, the concept and goal of performance optimization of SCM to optimize the performance of an individual and the whole SCM systems of Alle Bejimla. It has also optimized performance by means of an internal integrated, supplier integrated, supply and demand integrated and farmers and producers integrated and then become a cluster collaboration both information and material flows and distributer across suppliers, manufacturer, wholesalers and end customers.

According to Alle Bejimla's existing supply chain to be optimized its performance by involving everyone in the organization as a mission of quality services to exceed customer expectation. In addition, suppliers have focused on customer satisfactory based on supplied goods in time to their business partnerships'. In a general overview, from the beginning to end the goal of optimization supply chain is focused on customer satisfaction. As well as continual optimization SCM performance based on customer focus by Alle Bejimla wide activity of integration goods and cluster collaboration with stakeholders, suppliers of local and global, with employee empowerment as a team approach.

Performance optimization of SCM systems in Alle Bejimla in term of achieving customer satisfaction that is all employees of the Alle's endeavor of optimizing availability and accessibility of goods with low cost and deliver on time quality services to end consumers. In order to the fact of researcher opinion, integration goods become cluster collaboration of stakeholder that is the yielding factor of performance optimization of SCM in Alle Bejimla. To achieve the targets, a committed leadership involvement is significant to practice and implement with closer communication through suppliers, manufacturers, producers, farmers, customer relationships and bench marking competent, increased training, employee empowerment and optimize team in order to solve supply chain gap barriers.

The research findings, bench marking are a key element that measures its performance optimization of SCM benefits, profitability and growth capability to manage both internal and external customers against other best wholesale practices. All these elements are significant important for performance optimization of SCM systems. Without integrating goods and cluster collaborating with stakeholders, suppliers, farmers, producers and unions for long term agreement, you can't get enough quality goods and/or services with low price. At the

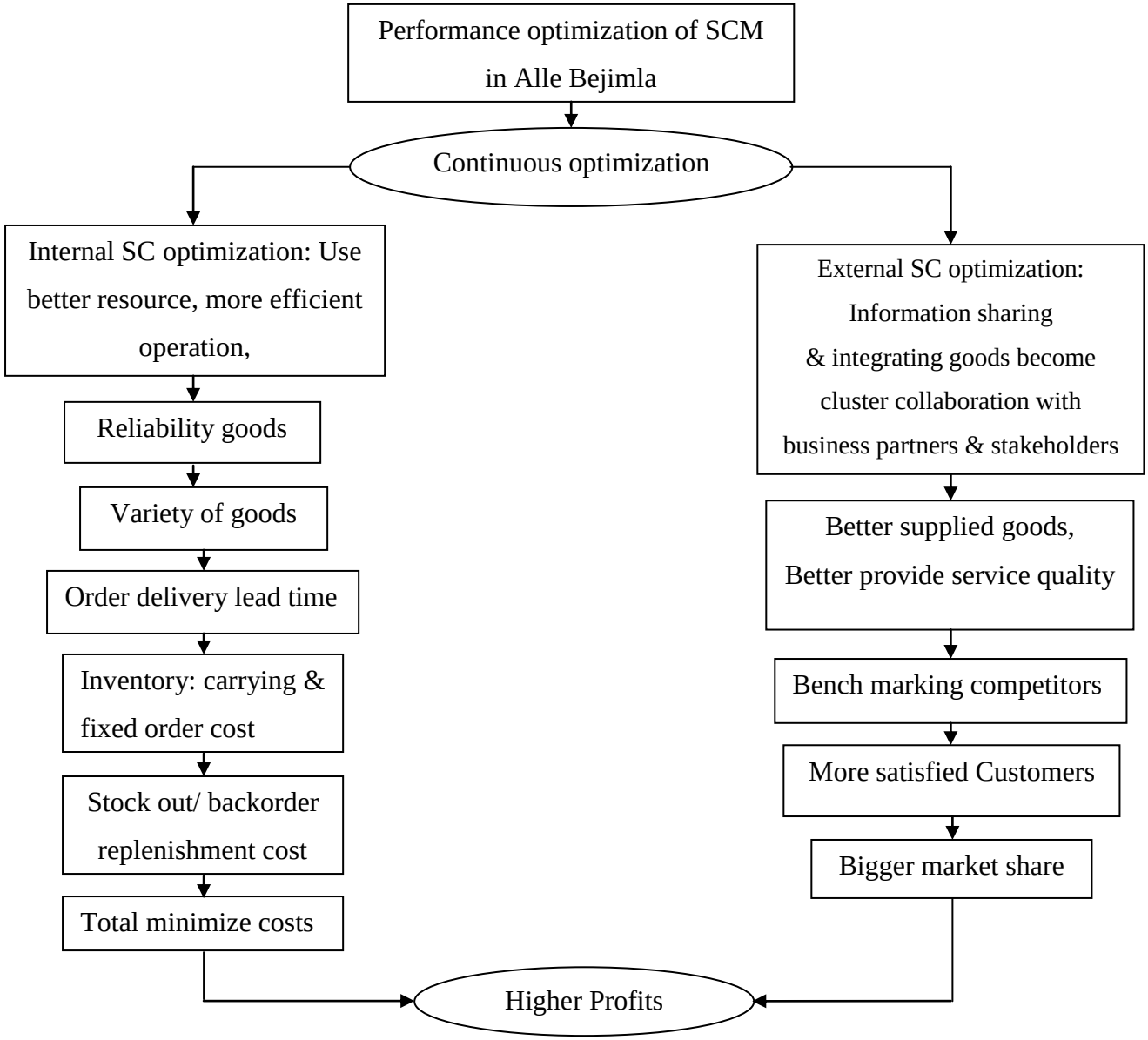
same time, without cluster collaboration and integration with your customers, you can't get the right information and income generate yet. So, performance optimization of SCM in Alle Bejimla to be a result of integration goods and information sharing from end to end, after everything else cluster collaboration with business partnerships and stakeholders significant that focuses on customers' need and expectation.

Of course firms like Alle Bejimla focuses on customer expectation by implementation of maximum utilized performance optimization of SCM is an integrating process goods and building long term relationships among cluster collaboration with suppliers, manufacturers, farmers, and unions that involved in the flow of products and services from sources to end consumers. Among all firms in the supply chain integrating flow of goods and strong cluster collaboration with each others can benefits through achieving lower costs, optimized customer value, satisfaction and strong competitive advantageous in markets. Based on respondents responded that integration of goods and cluster collaboration with business partnerships and stakeholders can be continuously practiced and using through Alle Bejimla, customers can get the expected goods in the form of exceeding quantities at low costs with door to door services and meet satisfaction.

CHAPTER FIVE

Analysis and evaluation supply chain performance a case of Alle Bejimla

In order to optimize the existing supply chain performance has become one of the serious concern for sustain the competitive benefits to Alle Bejimla. Monitoring the existing supply chain is to optimize supply chain performance that has become an increase compound job of supply and deliver service quality. Performance optimization of supply chain is nonstop operations that require both a systematic performance dimensions. Optimization in supply chain is a continuous progress and motivation internally and externally to achieve the targets of meet customers expectation.



Source: Field survey on concept development (2018)

Figure 5.1: Performance optimization of supply chain variable indicators

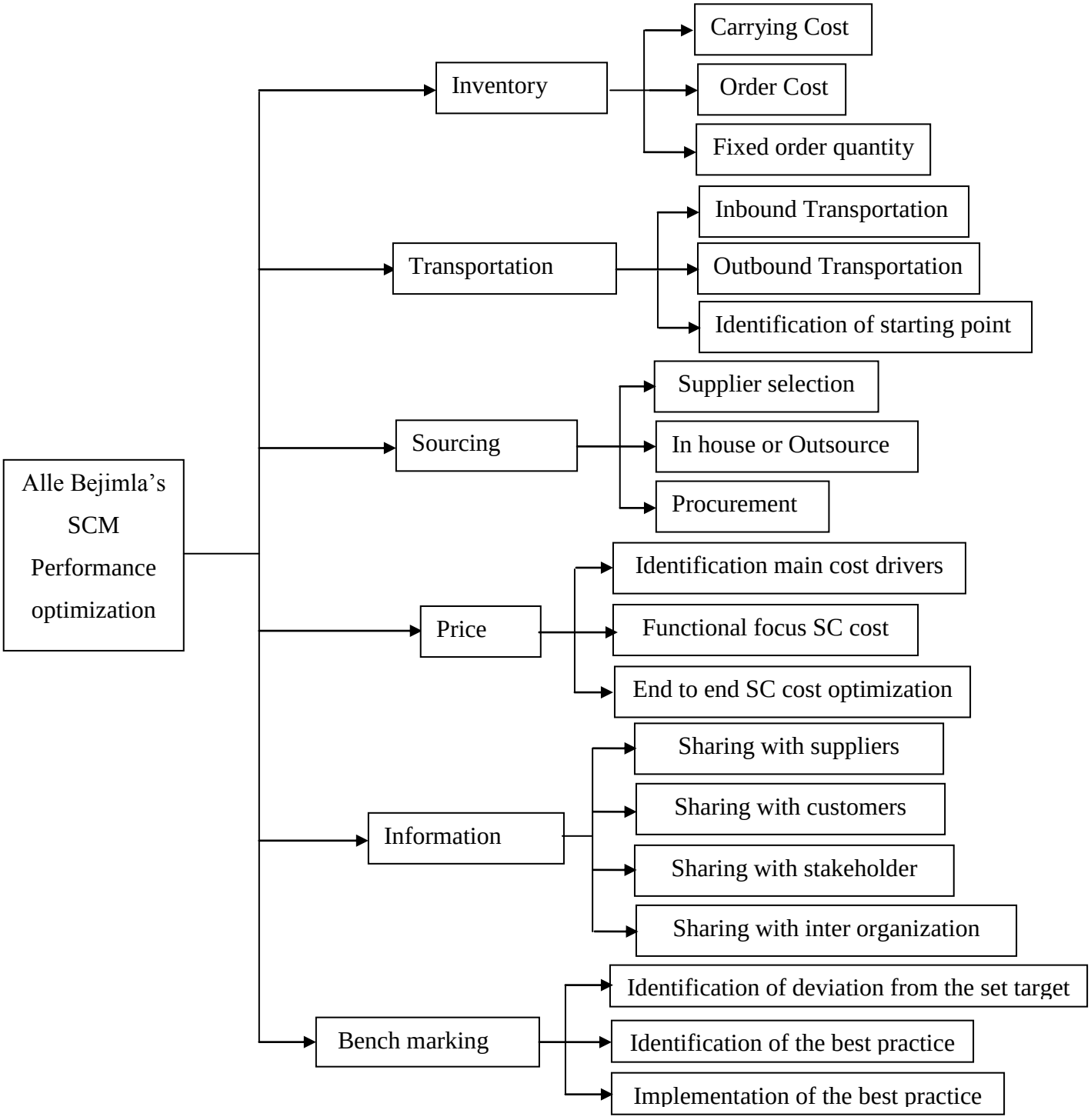
Performance is a set of variables that hold the collision of actual working of supply chain revenues and cost of the whole systems. To optimize supply chain performance of Alle Bejimla, it measures and evaluates the operational function. The operation of supply chain through wholesale motivation to be improved and optimized based on quality services. Operational supply chain becomes performance optimization that measure in variable dimension indicators in Alle Bejimla based on in the above figure 5.1.

Regarding to the exceeding supply chain measures in variable dimension that has monitoring properly in order to optimize the existing SCM performance in Alle Bejimla. So that the Performance optimization of the existing SCM in Alle Bejimla is an optimal point when maximize or minimize the above variable dimensions. Performance optimizations of the existing SCM in Alle Bejimla that have optimized the system performance by maximize effectiveness and responsiveness of delivery quality services and minimize system operating costs, how? It can possible to control internal and external supply chain drivers facilitate such as inventory, transportation, information, souring and pricing. In order to measure the above variable dimensions of the existing supply chain management that developed a monitoring pillar framework to optimize SCM performance in Alle Bejimla.

5.1. Monitoring pillars framework to optimize SCM performance

According to the principle and logical conclusion of article review, we have to monitor and control the pillars framework for successful practice and implementation on the major supply chain drivers such as (inventories, transportation, information, sourcing and pricing) and also benchmarking which is an important situation against to competitors.

These major drivers are extremely important and the supply chain managers pay attention in monitoring and controlling the drivers to optimization SCM performance in the Alle Bejimla. These frameworks are built up as a pillar of supply chain optimization as a strategy for Alle Bejimla's wholesales. The pillars shouldn't be isolated; they need to be bounded together for better organization solidity and monitoring tightly to achieve supply chain performance optimization. So that performance optimization of SCM implemented through Alle Bejimla in order to monitor the source of drivers to achieve the ultimate goals of providing quality services to its customers satisfactory. Based on the pillar framework of performance optimization of SCM is presented in detail as follows:



Source: field survey on develop guide line to monitor SC of Alle Bejimla (2018)

Figure 5.2: Monitoring pillars framework of Alle Bejimla to optimize SCM performance

5.1.1 Inventory purposes

Inventory is the stock of any item or resource that used in an organization. The purpose of inventory is a collection raw material of finished goods and then cash flows. Optimization of inventory management in Alle Bejimla will optimize the supply chain activities by decreasing stock inventory in the form of lead time variable orders. At results, inventory of goods in the

Alle Bejimla is a significant important to optimize supply chain management to competitive benefit and satisfy customers.

According to [66] explanation, the uncertainty of lead time, stock replenishment and customer demands are major impacts in Alle Bejimla inventory management. Alle Bejimla will control and monitor the flow of goods by using reduces lead time, eliminate uncertainty factors, replenish on time as well as more accurate customer demand forecasting. Furthermore, in order to optimize inventory management of the wholesales can optimize the SCM of Alle Bejimla by practicing safety stock balancing which is a buffer stock above and beyond the customer requirements.

In order to calculate optimal order quantities and reorder points implies the exact amount of goods to be ordered depends upon the goods cost and demand characteristics. It is also calculated the relevant inventory carrying and reordering costs. In general overview, wholesale companies like Alle Bejimla to be using an approach to develop a minimum stock level to optimize supply chain management by using fixed order quantity.

When it is practicing of economic order quantities under assumption of condition of certainty that is an economic order quantity (EOQ):

- A continuous, constant, and known demand rate and lead time
- The satisfaction of all demand
- No inventory in transit and one items of inventory
- No limit on capital availability and infinite planning horizon
- Price and cost are independent of order quantity or time

Based on the assumption, we can analysis the annual sales and inventory volumes of Alle Bejimla supplied goods in the market through 2015/16 and 2016/17 budget years. Alle Bejimla is supplied more than one hundred ninety types of goods. So, it has categorized in seven groups with their cluster of variety goods for analysis purposes. The purpose of calculation is to compare the annual sales volume and supplied goods in their perspective budget years as per the study objectives of Alle Bejimla meets performance optimization of SCM systems. The detail category of variety goods can see it on the appendix X.

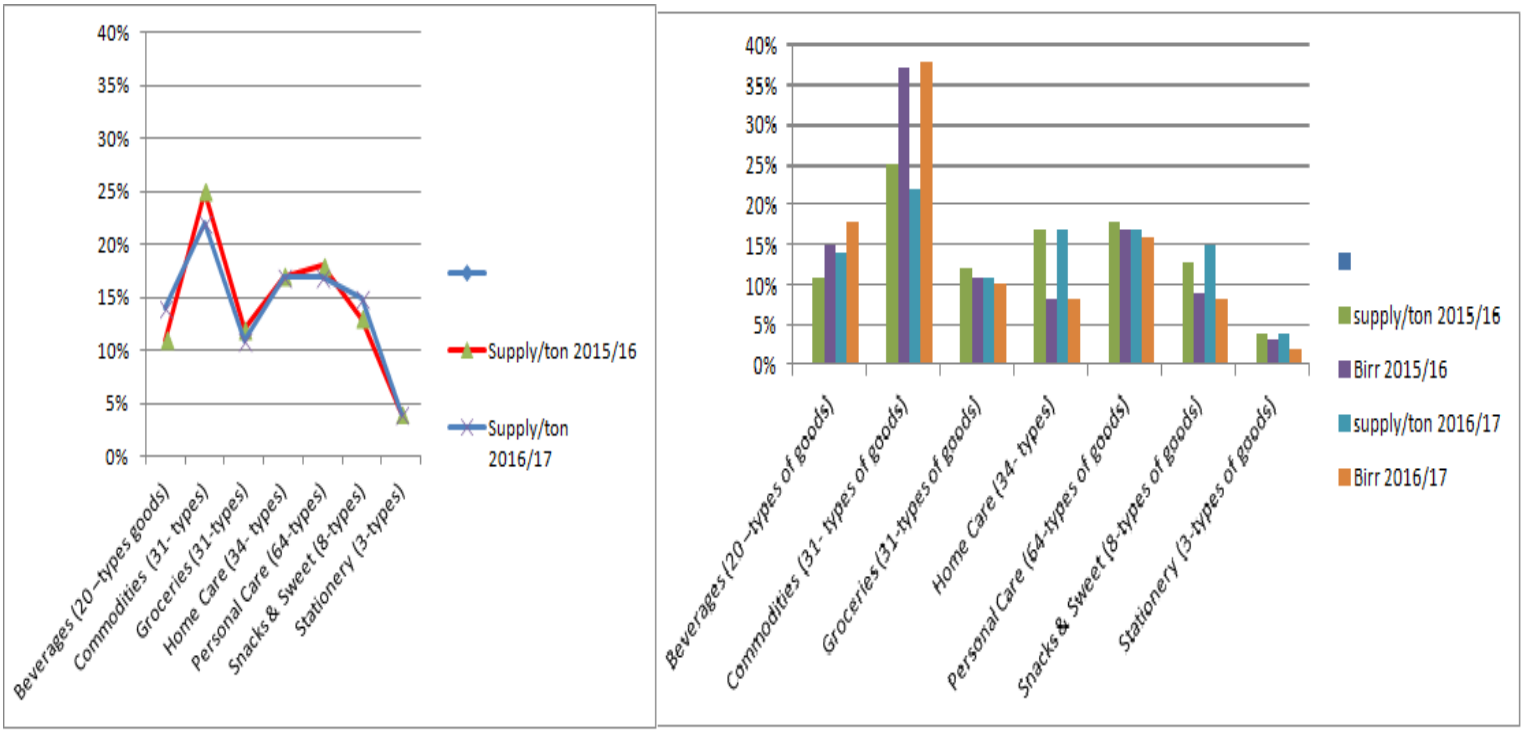
$$S = \sum_{i=1}^{n} S_i$$

S= sum of sales or supply for individual groups of goods determine on the basis of inventory goods consumption per budget years, n= no. of sales or supply frequency per budget years

Table 5.1. Alle Bejimla's warehouse supply inventory and sales volume in percentage per budget years respectively

		Akaki Kality Warehouse				***Megenagna Warehouse***				***Mercato Warehouse***				Total inventory and sales volume in (%) of Alle Bejimla per budget years			
Sr.	Categories in their cluster of varieties	Supplied volume in (%)		Sales volume in (%)		Supplied volume in (%)		Sales volume in (%)		Supplied volume in (%)		Sales volume in (%)		2015/16		2016/17	
		2015/16	2016/17	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17	2015/16	2016/17	Supply/ton	Birr	Supply/ton	Birr
1	Beverages (20 –types of goods)	10%	15%	13%	17%	9%	12%	12%	19%	14%	14%	19%	18%	11%	15%	14%	18%
2	Commodities (31- types of goods)	26%	24%	38%	38%	31%	28%	41%	38%	19%	15%	35%	38%	25%	37%	22%	38%
3	Groceries (31-types of goods)	12%	10%	12%	10%	11%	11%	11%	10%	13%	23%	10%	11%	12%	11%	11%	10%
4	Home Care (34- types)	18%	16%	7%	7%	16%	16%	9%	8%	17%	18%	9%	9%	17%	8%	17%	8%
5	Personal Care (64-types of goods)	18%	17%	18%	17%	17%	17%	16%	15%	20%	18%	16%	14%	18%	17%	17%	16%
6	Snacks & Sweet (8-types of goods)	14%	16%	9%	9%	12%	12%	8%	8%	16%	17%	8%	8%	13%	9%	15%	8%
7	Stationery (3-types of goods)	2%	2%	3%	2%	4%	4%	3%	2%	4%	5%	3%	2%	4%	3%	4%	2%

In order to analysis the above table 7.1 of the inventory goods and sales volume, as it is seen that the annual supplied goods were declined by 24% from 2015/16 to 2016/17 budget year. It is also annual sale volume of goods declined by 10% from 2015/16 to 2016/17 in the annual budget years. Inventory holding costs increased by 3% on beverage goods. It has also snacks and sweet goods increased holding costs by 11% as seen it from the data analysis. According to the survey of inventory, it can increase the customer service by combine and consistency of the inventory goods. Therefore, it is a fundamental to optimize the percentage of the inventory review performed every week and annually to meet customer requirements and also to manage carrying cost and reorder points.



Source: field survey (2018)

Figure 5.3: Supply per ton and sales volume of annual budget 2015-2017

Inventory cost factors

It can be identified and split the major inventory cost factors by using carrying cost and order cost.

- **Holding or carrying costs**: it has categorized for storage facilities, handling, insurance, pilferage, breakage, obsolescence, depreciation, taxes and the opportunity cost of capital. High holding costs to be inclined to favor low inventory level and fast replenishment.
  - **Capital cost:** the company has a mean inventory value Birr 12,500, 000 at Kality warehouse which is out of it, 60% is inventory goods. Birr 7,500, 000 at Megenagna warehouse which is out of it, 40% is inventory goods and Birr 8, 000, 000 at Mercato warehouse which is out of it, 50% is inventory goods. The total carrying cost of the company is Birr 14,500,000 (12,500,000*60% +7,500,000*40% + 8,000,000*50%).
  - **Storage space cost:** the company incurred 40% of supplied goods storage, maintenance, inventory review, inbound and outbound transportation is Birr 13,250,000 (33,125,000*40%).

- Inventory risk cost and service cost were not recording the data in appropriate way. Due to this reason the data analysis isn't considering.
- Total inventory carrying cost approximately Birr 27,750,000 (14,500,000 + 13,250,000).
- The annual inventory carrying cost is 27,750,000/124,000,000=0.224 = 22%
- The maximum average inventory value of each unit 2,500,000
- Annual maximum customer demand per ton is 115, 350

➢ **Ordering cost factors**: these costs refer to **purchasing goods**, **handling goods** (for preparing, packing, counting & calculating order items) and for **payment** documentation preparation (for managerial & clerical costs).

- **Purchasing goods:** Alle Bejimla was not recording purchasing times due to their working cultures, but standard working hours per day is 8 hours. Alle Bejimla has more than five suppliers made an agreement for 1-5 years. These suppliers ensured with continuous goods supply for Alle Bejimla. And then the purchasing personnel takes an average time 6-8 hours per week and each hours cost approximately 500 Birr per hour and annual purchasing an average 44-48 weeks per year. This gives a total purchasing cost 192,000 Birr per year (500*8*48).
- **Handling goods:** when the researcher observed during survey period, it takes an average time approximately 45-50 minutes to move or off-loading from one truck to dock and then managing to the storage space. Offloading of each package an average cost is fifty cent and 400 package offloading from truck and managing with Birr 200 per truck. The company served an offload five trucks per week. Therefore, the researcher conclude the handling cost is 48, 000 Birr per year (200*5*48).
- **Payment:** the assign managerial officer devote for preparation documentation, signed and payment 4 hours per week. Each hour costs an approximately 500 Birr. The annual total cost is 96, 000 Birr per year (4*500*48).
- **Total ordering:** Alle Bejimla orders time from different suppliers to supply goods an average 875 times in the budget year 2015/16. The total ordering cost in the same budget years Birr 336,000 (192,000+48,000+96,000). As a

result Alle Bejimla incurred for each ordering cost more than 384 Birr (336,000/875).

- **Application of economy order quantity (EOQ)**

$$TC = DC + \frac{D}{Q}S + \frac{Q}{2}VH$$

TC = Total Cost
D= Annual demand or usage of goods (no. units)
C= average cost of one unite of inventory
S= the ordering cost per order.
H= annual inventory carrying costs (as a percentage of goods cost)
V= average value of one unite inventory
EOQ= Economic Order Quantity

$$\frac{dTC}{dQ} = 0 \qquad \text{EOQ} = \sqrt{\frac{2DS}{VH}}$$

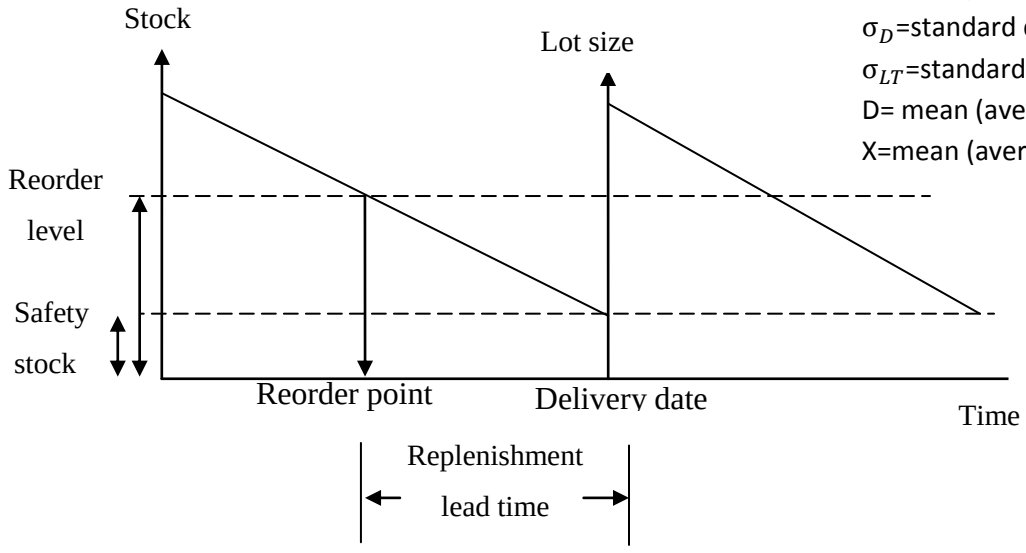
$$\text{EOQ} = \sqrt{\frac{2DS}{VH}} = \sqrt{\frac{2*115350*384}{2500000*0.224}} \approx 13 \text{ units per order}$$

Therefore, the economic order of the Alle Bejimla is 13 units per order in a lot size, but the data analysis of the economic order quantity is the mean level of stock based on the stock replenishment under investigated period of time.

- **Safety stock and reorder points**

Safety stock is maintained to provide some level protection against stock outs. Safety stock can be stated as the amount of inventory carried in extra to the expected demand. This must important for Wholesalers Company like Alle Bejimla because maintained and treated the customers complained stock outs. In general safety stock is the reorder points that depend on inventory level under assumption of certainty of the replenishment time or lead time. Therefore, it has given a known lead time, multiplying lead time length by daily demand determines the reorder point.

$\boldsymbol{\sigma}$ = standard deviation of demand during lead time
L=mean (average) of lead time length
σ_D=standard deviation of daily demand
σ_{LT}=standard deviation of lead time length
D= mean (average) daily demand
X=mean (average) demand during lead time



- Reordering lead time (ROL)
  $\sigma^2 = \mathrm{L}(\sigma_D)^2 + D^2(\sigma_{LT})^2)$,
  X=D*L

Figure 5.4: Reorder points of goods

Alle Bejimla has registered and gave license to customers (consumer association and retailer agents) are more than three thousand one hundred sixteen population. These customers have been daily averaged purchased goods for three branch of AA region of Alle Bejimla is an average demand 7.5 ton per day. The demand variation is 2 to 3 ton, average suppliers lead time 6 days and its lead time variation is 5 to 6 days and the safety stock of Alle Bejimla is 45 ton. The actual data has taken from Alle Bejimla and then we can calculate the reorder lead time by using X+3$\boldsymbol{\sigma}$

$\sigma^2 = L(\sigma_D)^2 + D^2(\sigma_{LT})^2)$, = =6*$3^2$ + 7.5^2*6^2 =176 =2070

$\boldsymbol{\sigma}$ = 45.6

X=D*L=7.5* 6=45 ton

The reorder point of Alle Bejimla to meet the customer require at normal service level is 182 ton (45 + 3*45.6).

Based on the above analysis, if we compared the reorder point of Alle Bejimla with safety stock of inventory is unbalance, so that due to these reasons Alle Bejimla can't achieve the required service quality to its customers. Hence,

- **Recommendation**

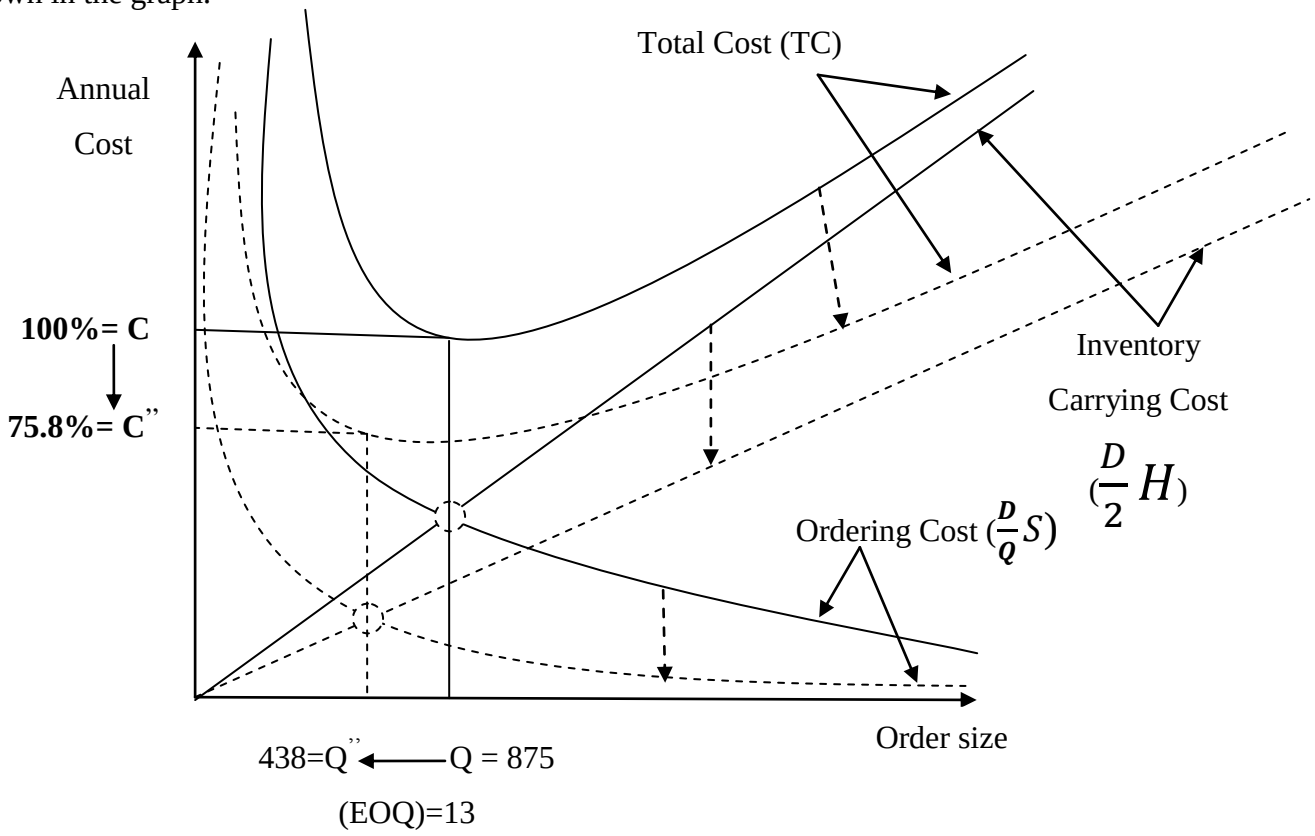
Option 1:

In order to meet the require service level, Alle Bejimla to be reduced the ordering time by half of 875 and meanwhile increased the economic ordering quantity of 13 per lot size. Due this reason the Alle Bejimla can manage carrying cost and optimize transportation cost. But, it will be increased incurring cost of individual ordering costs as it is seen in the analysis. Instead of maintain the increased ordering cost by deal negotiation with suppliers about the price of goods that makes a discount in order to increase the batch ordering quantity. This consequence implies that an integration of goods become cluster collaboration to build strong business relationships based on performance optimization of supply chain systems as win-win appearance.

Option 2:

As it is known in the above analysis data, the individual ordering time is ≈132 tons (annual demand over ordering time =115350/875). In this option make it double the individual ordering time to 264. At that moment the ordering time comes to ≈438, as well as the cost factor will be acknowledged. Based on this principle, Alle Bejimla can manage the inventory carrying cost in order to consider handling goods in weekly review cost is Birr 200. The inventory cost of Alle Bejimla can be reduced by Birr 21,022,727

(27,750,000*200/264). The output comes from discount, inventory review and labour cost as reason of the decrease of ordering times. Based on the analysis we can expressed as it is seen in graphically (the solid line is the original costs and the broken line is the optimized costs as it is shown in the graph). Based on the analysis the original cost is Birr 28,086,000 (27,750,000 + 336,000) and the optimized cost is Birr 21,358,727 (21,022,727 + 336,000). Alle Bejimla can be benefited by Birr 6,727,273. That mean it has optimized by 24.2% as shown in the graph.



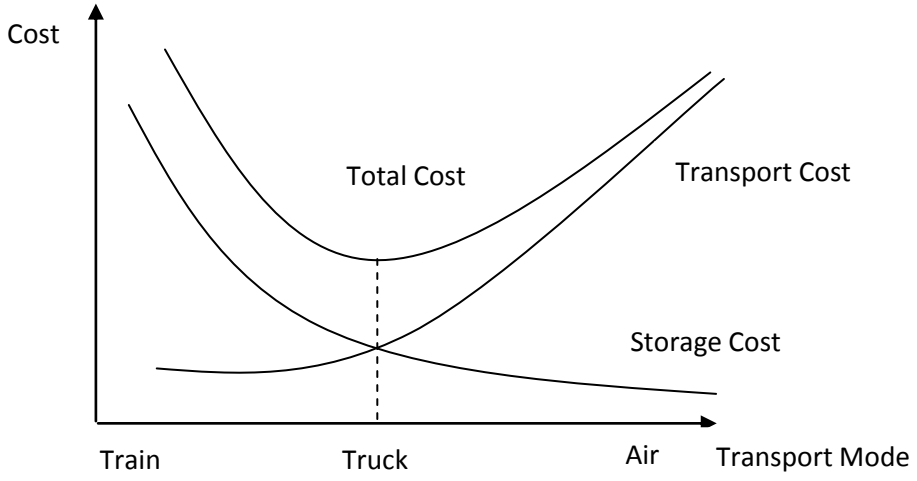
Source: field survey (2018)

Figure 5.5: The most Economical Order Quantity at lowest

5.1.2. Transportation

Transportation is playing major roles in the moving resources from extracting origin to conversion resources into useful goods and then transfer in the final consumer. The useful planning of transportation is moving goods from the departures to destination in order to minimize cost and maximize services to the customers [67]. Transportation is a crucial significant in the manipulation of cash and carry wholesale distribution [68]. So that providing sustainable transportation operation in Ethiopia is important to facilitate the performance optimization of supply chain systems of the companies such as Alle Bejimla cash and carry wholesales towards achieving the targeted services provide to customers.

Alle Bejimla is utilizing both inbound and outbound transportation systems. Inbounded transportation involves the procurement of materials and goods from supplier locations whereas outbound transportation involves the distribution of goods to customers. Therefore, inbound and outbound transportation is a significant important for all companies in Ethiopia circumstance. Transport in Alle Bejimla is important to facilitate the performance optimization of SCM systems which is to facilitate in time delivery of goods, to further tight the business relationships between partners of suppliers and also to deliver goods from door to door services for customers.



Source:[67]

Figure 5.6: Transportation Patterns and Total Costs

Transportation is a key element for performance optimization of SCM systems. Transportation is a form of combination modes and routs that has its own performance uniqueness. Selection of transportation modes are major challenges for supply chain management as optimization of responsiveness and efficiency. Alle Bejimla has been established transportation and facility centers under controlling by procurement department. The department has managed in a limited number of fleets due to that the existing supply chain management systems met serious gaps to manage local transportation modes. In addition, according to [69] the Pareto 80/20 principles are playing major roles in the transportation modes. The Transportation goods delayed from destination points by 20% which impacted 80% of product costs incurred. Based on this analysis, what about the Ethiopian transportation practices? And then, according to the analysis and taking to Ethiopian situational perspective of the annual expenditure are 30 up to 40% of the country GDP [70]. According to World Bank furthers analysis report, the Ethiopian import goods stay at port more than 38 days compared to other East African &

world countries. In east African an average is 11 days, but in the World is 3 days. This data demonstrated and indicated that optimization of transportation is a major issue for performance optimization of SCM systems of Alle Bejimla.

So that, in order to the above exploratory data and graph clearly showed that Ethiopian supply chain management practices strongly magnitude under the impact of truck transportation systems. This happened by what more emphasised that Ethiopian truck transportation system is characterized by poor transportation management system and lack of coordination and collaboration of goods transporting. On other hand, as seen on the graph the railway transportation was not that much expands across the country, but it is too much cheaper than others when it compares to other transportation systems. It was also low level of development the railway transportation infrastructure in Ethiopia but it can load bulky goods. At present the railway transportation has been started construction in some part of the country to expand the accessibility. In addition, air freight transportation is too much expensive for bulk loading goods in Ethiopian situation. Based on the analysis of the graph that indicated the Ethiopian transportation systems need further improvement to facilitate the accessibility of goods across the country.

Alle Bejimla must practice and implement outsourcing transportation to facilitate and accessible the supplied goods to the customers. Outsource transportation is a third party logistics (3PLs) systems that supplied goods from different destination or firms. 3PLs offer a suite and advantageous for quality services and performance optimization of supply chain management in Alle Bejimla. Optimization transportation facilitate is a competitive advantage in today's marketplace and focus on optimizing logistics functions. In order to optimize supply chain management performance outsourcing transportation management is saved businesses time and money.

5.1.3. Sourcing

Sourcing is a set of business process required to buy or sales goods. Source of goods of Alle Bejimla has become supplied from two destination points. The source of goods that is supplied from local suppliers such as sugar cooperation, Nas food complex, Cheralea food complex, Mojo edible oil, coca cola, pepsi cola, awash wine, …etc. and the other source of global supplied from Dubai, Egypt, Chaina, India, Malsia and so on.

Alle Bejimla should be selected suppliers, firms and business partners in the appropriate near geographical proximity to maintain costs, efficiency and responsiveness of the supply chain systems. Supplier selection of sourcing is playing a major role for influence supply

chain performance optimization. Hence sourcing of goods are significant important for optimizing an increasing total profits of Alle Bejimla. In order Alle Bejimla to be optimized total profits, it consider the most significant sourcing that made within a firm selection, such as in house or outsource, procurement and supplier selection. Based on considering key sourcing, Alle Bejimla should be proceeded as allowing for maximizing efficiency of total supply chain profitability and reducing responsibility. To achieve and meet the target goals, Alle Bejimla is monitoring the supporting auxiliary logistic sources, such as transportation cost; sales prices, service time, inventory cost and information cost are to maintain and reducing on the coming risks and based on part of the growth in total supply chain profitability.

5.1.4. Price

Price is a sensitive issue for all business players in supply chain management systems. Price becomes a significant factor in customer choice. Customers make their selection from the various choices based on price. So pricing affects the customer segments that choice to buy goods, as well as the customer's expectations. Alle Bejimla should be worked strongly as a business strategy to maintain price fluctuation of the goods. Alle Bejimla to be supplied high quality goods in the right time with excess availability of variety goods at low cost. The established purpose of Alle Bejimla is maintained the market price fluctuation of goods. In order to customer expect low prices with quality goods at right place in the right time. Based on the discussion on previous chapter, to optimize SCM performance activities of Alle Bejimla must decide low pricing strategy to stable customer demands. In addition, all pricing decision made in Alle Bejimla with the objective of increasing its profit. The above discussion of understanding that is the cost structured based on optimizing supply chain performance activities in Alle Bejimla meet at require optimum level to attract customer demand and satisfactory.

5.1.5. Information

Information is a significant tool to manage and optimize SCM performance. Alle Bejimla should be maintained and balanced information in every aspect of business partners to provide quality services for customers. Information consist all data and analysis concerning facilities, inventory, transportation, prices and customers throughout the supply chain. Information is a potential driver of performance optimization of supply chain due to affects other drivers. Sharing information for Alle Bejimla and sharing demand information with supplier, the producer can reduce the amount of inventory need in the

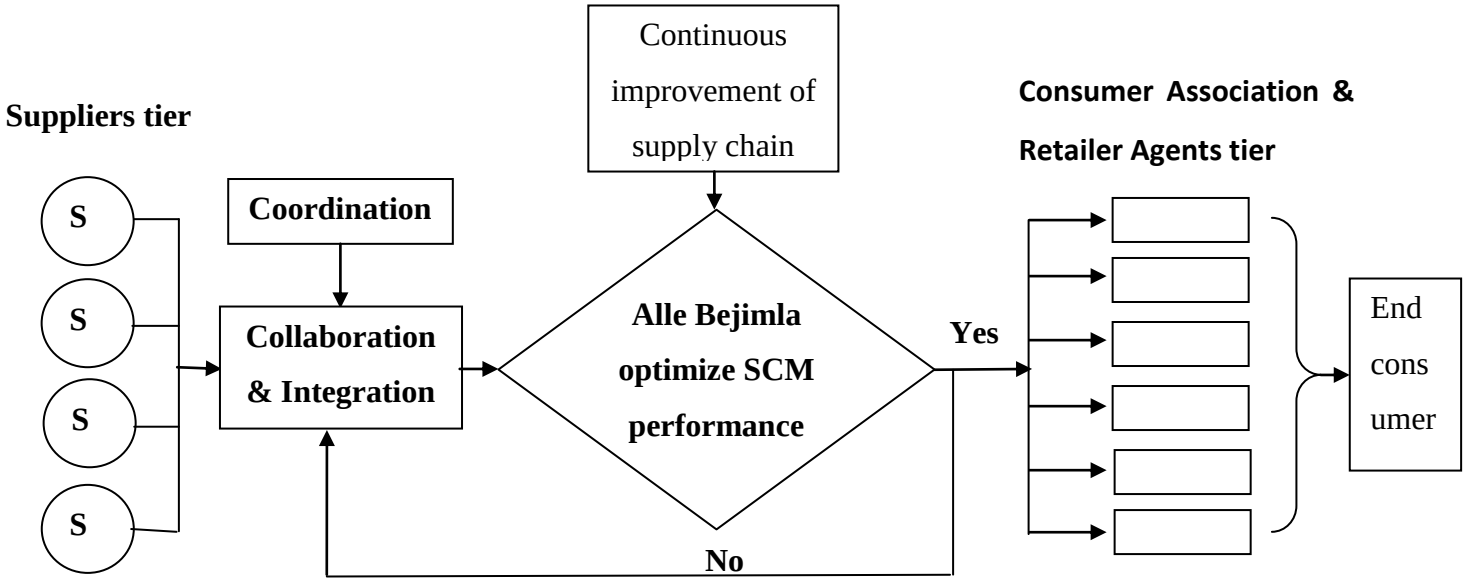
chain, that decreasing overall costs, results benefits all partners by maintain carrying cost. Alle Bejimla should be built up efficient information center. This information center can analysis and interpret the current & future gaps of inflation price of goods in market places. And then based on Alle Bejimla established purpose that controlling and monitoring the inflation price of goods to stabilize the market distortion across the countries. From the researcher questionnaire distribution results indicated that 96% of respondents' responded that Alle Bejimla has serious gaps in demand information as a findings lack of cooperation & collaboration with business partners. The respondents argued that by given simple examples, sugar, edible oil and flour are major consumers' goods for end users, but it isn't accessible in Alle whole sales center. This simple example indicated that Alle Bejimla should be worked strongly in collaborated and integrated with business partners, suppliers, firms and consumer demands with sharing information to maintain the current gaps. Based on these findings, information is a core and key elements for Alle Bejimla supply chain management performance optimization.

5.1.6. Bench marking

Bench marking is a setting goals and meeting them by optimizing operation. It has a key element for performance optimization of SCM systems of Alle Bejimla. Bench marking is contributed to Alle Bejimla ability to achieve competitive benefits by using best practices of supply chain performances in wholesales. Benchmarking is a systematic approach to optimize SCM performance of Alle Bejimla which measures its performance against best competitors of wholesales practices.

Alle Bejimla should be practiced and utilized bench marking efforts to identify the company strength and weaknesses to gain competitive benefits in the markets. Benchmarking is one of best solution for respond customers complained. Benchmarking has taken as a model reference of against best competitors customer relationships to optimize own performance of SCM systems. As a presented distribution questionnaire respondents responded and the previous research proved [12] & [11] indicated that Alle Bejimla wasn't provided quality and effective services to end consumers. However, Alle's competitors such as Alsam, East Africa and Hasset are providing quality services to their customers including door to door services with down payment. The customers have been benchmarking those wholesalers company as competitors of Alle Bejimla who has also put and assigned narrow profit margins, which was restricted the price limit on commodities. "On top of that, the profit margin of Alle gave them are too narrow and did not even cover

the cost what customer paid for the commodities and the cost for loading and unloading of the commodities." But Alle's competitors are providing effective services to the consumer association & retailers by their own transport systems to their door freely and unload the commodities without any payment. According to retailer agents say that Alle Bejimla's best competitors' goods are more sold than compare to Alle Bejimla's goods. Due to the reason of competitors' goods availability in placed with given door to door services without additional payment. So that Alle Bejimla to be optimized accessibility of goods to end consumers. It will supply goods from suppliers and deliver door to door services as a play in win to win games through the markets as soon to optimize SCM performance.



Source: concept development in field survey (2018)

Figure 5.7: Conceptual framework model to optimize SCM performance

Based on our distribution questionnaire outcome 96% of the respondents responded performance optimization in Alle Bejimla is important to provide quality services to the customer. According to the analysis result of respondents, the researcher has been designed conceptual framework model to optimize SCM performance. In order to optimize SCM performance, coordination as a collaboration suppliers and business partners and integration products are significant to encourage customer association and retailer agents as offer price promotion to purchase more goods and pass through the discount to customers. Price sensitive customers can increase their purchase of goods. According to the conceptual framework model using for Alle Bejimla strongly integrated goods from different suppliers and collaborated with stakeholders and business partners to optimize SCM systems. Based on the model framework can perform whole distribution to optimize

SCM as customer loyal satisfaction. Of course the transportation cost and the responsiveness time may increase, but it can maintain the incurred cost by provide and use bulk load transport systems. It can also manage the responsiveness time by using outsource transportation systems. Base on this analysis, Alle Bejimla used the framework properly to gain the expect benefits and also customers more satisfaction on the provide quality services.

5.2. Optimize SCM performance to provide quality services

The main objective of supply chain performance optimization has become to be competitive in the market. The objective of studies more emphasizes how to optimize the overall performance of supply chain through the case company of Alle Bejimla. A supply chain is the set of activities that utilize and deploy resources in the optimize levels across the case company to meet customers need. Performance optimization of SCM can be built and sustained competitive advantage in market and supplied quality services for customers. The systems can practices supply chain performance optimization through sharing information between buyers and suppliers base on cluster collaboration. Because the optimization process identifies the best suppliers in terms of number and quality, the remaining suppliers are often capable of performing additional tasks or providing other products and services that add values to the buyer-supplier relationship. Suppliers can optimization supply bases often develop longer term relationships with buyers which can lead to cluster collaboration in further joint improvement efforts.

The Alle Bejimla SCM groups can be optimized performance of supply chain relationships through managing (strategic supplier partnership, procurement and supply management, transportation management, customer relationship management, level of information sharing, and internal integration practice) with operational and organizational performance. The case company of Alle Bejimla management groups possessed a strong commitment to optimize supply chain performance. It has also optimized service quality of supply chain performance based on their experience and benchmarking others competitors. These management groups will build up customer centric distribution goods through cluster collaboration with suppliers and other stakeholders. They will carry out and deliver wholesale goods in customer base. In order to meet some challenges in supply goods base on customer centric distribution, the leadership committed and recognized an organization future benefit.

However, based on the above brief explanation and in the survey observation, Alle Bejimla has a lot of gaps working in cluster collaboration and integration with business partnerships of local suppliers, farmers, producers and unions. Due to that reason a lot of resources and goods are wasted without get customers' centric distribution. It has also productivity in value add goods discourage in the gaps of market centric distribution across country. Instead of government objectives to establish Alle Bejimla will fill the gaps of market inflation on price goods. It has also assumed that Alle Bejimla to be encouraging local productivity in value add goods by using wide distribution in the market through supply chain systems. But Alle Bejimla wasn't mobilized effectively to fill the gaps and utilize the government objectives to control price goods market inflation across the country.

On the other hand, cluster collaborative is an advantageous to make planning, forecasting and replenishment of goods in order to inventory management practices which aim to radically change within reducing supply chain inventory stock expenses. These practical motivations are encouraged productivity of value add goods base on customer centric distribution and deliver goods in time. Furthermore, it has also tried to increase the customer service quality based on delivering goods to customers' requirement. These are the primary goals delivering goods to customer as motivate with scenario of cluster collaboration. Cluster collaboration between consumer associations, retailers and suppliers can be optimized the supply chain management performance.

5.3. Critical success factor implement through performance optimization

The findings further reveals in order to analysis performance optimization of SCM practices through the existing SCM systems. Based on the previous questionnaire that respondents responded and the researcher observed and findings, it has measured and evaluated the existing supply chain performance. In order to analysis the existing SCM systems by using Likert scale evaluation and identification the critical success factors for implement performance optimization. Based on the analysis of critical success factors through existing SCM results show that monitoring the actual key indicators as implements on the performance optimization of SCM systems through Alle Bejimla. In the same manners, management of Alle Bejimla realized that the performance optimization of SCM systems is significantly to meet customer requirements and satisfaction as well as maximize enterprise profits and employee satisfaction.

Based on these premise, the researcher identified the gaps in Alle Bejimla management groups and also staffs to reveal their opinion and suggestion about performance optimization of SCM systems. Instead of prepared external questionnaires, the researcher measured and evaluated based on the previous respondents' responded questionnaires by Alle Bejimla employees and management groups. These findings from the respondents have been more clarified below in the following table 7.1 and figure 7.7.

The purpose of the questionnaires is measured and evaluated the manager commitment towards practices and implementation of the performance optimization of SCM. On the other hand it has measured & evaluated the internal impression of the staffs on the external drivers of supply and demand uncertainty. And it has also estimated the willingness of Alle Bejimla to adopt SCM performance optimization. So, with the purpose of the researcher discover the facts and understand the existing situation of SCM in Alle Bejimla that is the top level managements actively practices and implementation SCM performance optimization. In order to analysis and evaluation the existing SCM systems in Alle Bejimla as seeing that a top management and staffs motivation and involvement to supply quality services to their customers. In parallel, at the same time the researcher has seen that the internal integration and supply integration that carryout as a cluster collaboration to optimize SCM performance.

Collaboration is an entity unit of teamwork and cultural change in individual employees and management groups to optimize SCM performance throughout in Alle Bejimla to serve quality services to the customers. The combination of internal integration, supply and demand integration, farms and producers' integration become supply chain collaboration. These integration are carryout a suitable collaboration which is a cultural change as a teamwork to facilitate performance optimization of SCM systems. It has also the most important inhibition to practices and implements performance optimization of SCM systems. Based on this analysis and evaluation, the researcher designed and proposed conceptual framework model as seen in figure 7.7 to eliminate the existing challenges and enhance an optimization the existing SCM performance to serve quality services to the customers as well as increase income revenues.

Table 5.2: Critical success factors (CSF) for performance optimization of SCM systems

Ordinal correlation		Management leadership commitment	Marketing & sales management	Local procurement management	Foreign procurement management	Logistics & transport facilitation management	IT operation	Warehouse & inventory operation management	Customer focus	Employee training & education	Supply uncertainty	Demand uncertainty	
Strong agreement	1	1	3	1	2	3	8	5	2	5	30		14%
Agreement	2	4	5	8	7	5	6	9	5	8	7		15%
Neutral	3	3	8	5	4	2	5	2	3	15	2	6	13%
Disagreement	4	11	14	11	10	8	11	16	13	6		8	25%
Strong disagreement	5	20	9	14	16	21	9	7	16	5		25	34%
		39	39	39	39	39	39	39	39	39			100%
		83%	71%	75%	76%	80%	64%	66%	78%	59%	26%	90%	

Key: Strong disagreement>=80, Disagreement>=70, Neutral>=60, Agreement>=50 & Strong agreement<50

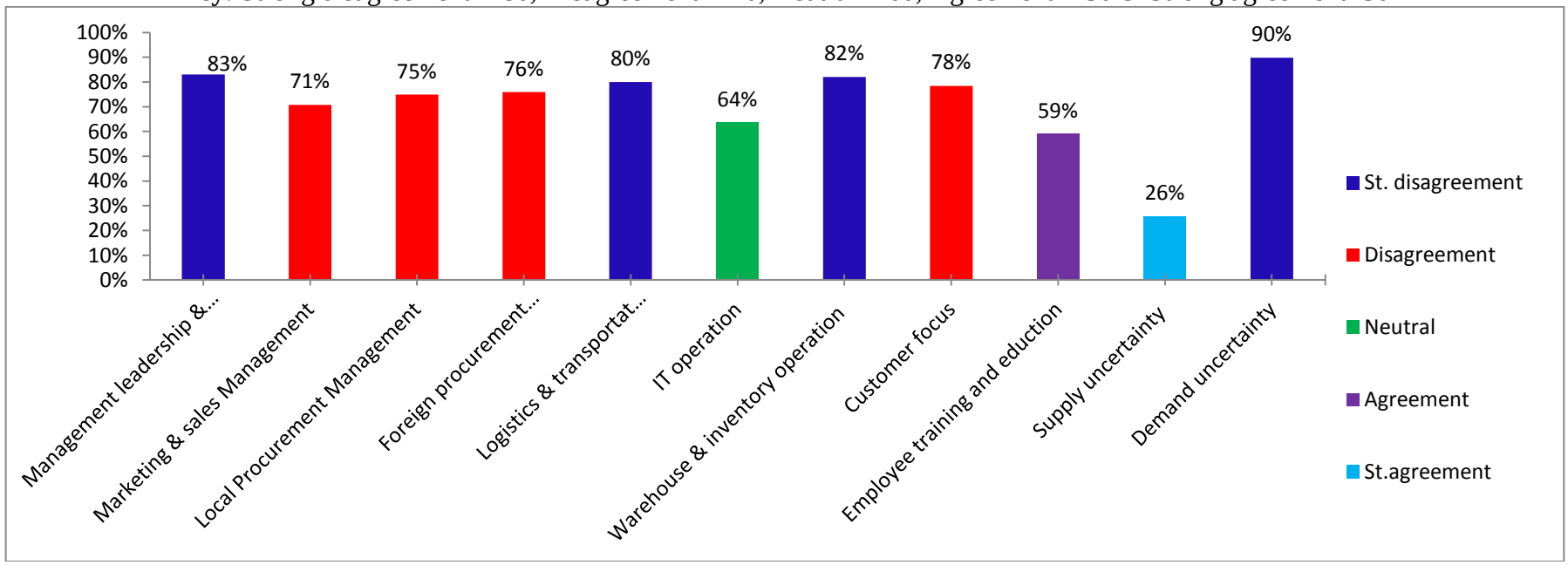


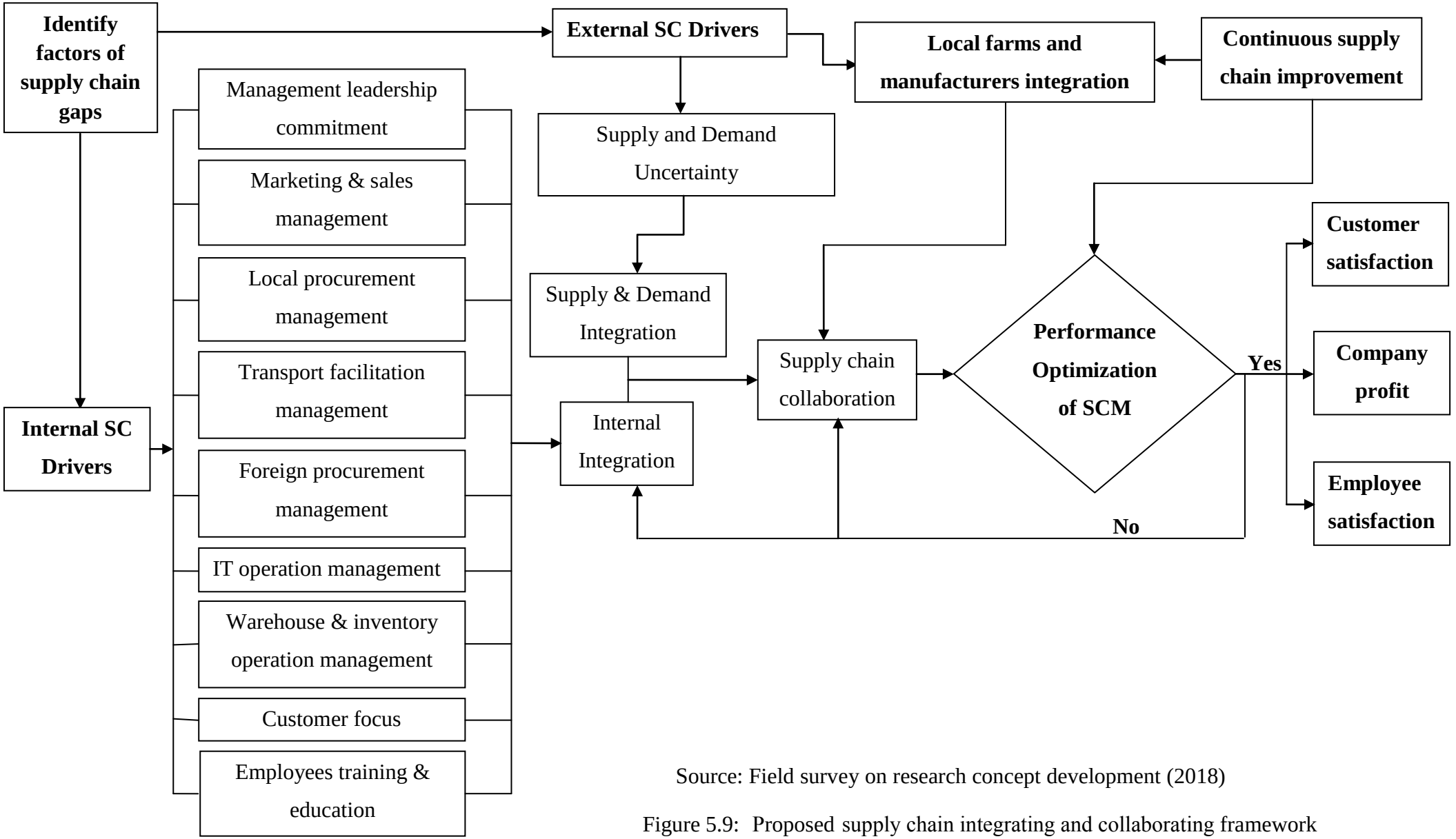
Figure 5.8: critical success factor on performance optimization of SCM systems

5.4. The Proposal conceptual framework of performance optimization of SCM systems

The proposal conceptual framework shows that the relationship between independent and dependent variables that measures and evaluates performance optimization of SCM systems. The independent variables in the left sides are internal drivers and external drivers. The internal drivers consist in individual departments' that carry out an internal integration & the external drivers consist in supply and demand integration. Both internal and external are collaborated as a teamwork operation to optimize SCM practices. Collaboration in this conceptual model is to share knowledge, skills, trust, work together, respect and intelligence commitment to optimize SCM performance. These independent variables are significant integration since then for supply chain collaboration as teamwork to supply products, finances, and information transaction to optimize SCM performance.

The supply chain collaboration doesn't have doubt to achieve performance optimization of SCM that focuses on customer requirements and generate income profits. Furthermore, the proposal conceptual framework model has succeeded the performance optimization of SCM systems as a factor related to customer and employee satisfaction. The combination of internal and external integration to be found as supply chain collaboration, in order to assure the key objective of customer satisfaction by applying the right goods at the right place in the right time with lowest prices.

Based on the analysis the management groups of Alle Bejimla are more responsible and accountable to manage the buyers and sellers relationships. It has more responded to confirm the way of supply FMCG as a continuous smooth flow of market price stability throughout the country as establish objectives. To meet the market stable the management groups work mutually with internal and external drivers as collaboration to optimization supply chain performance. At the same time the management groups are more responsible to make internal cultural changes on employees in the way of customer handling and quality services. Towards the employees are practiced and implemented performance optimization of SCM systems in Alle Bejimla to meet and exceed the customers' requirements. And also the dependent variables on the right sides are expected outputs from the performance optimization of SCM implementation which includes company profits, customer satisfaction and employee satisfaction.



Source: Field survey on research concept development (2018)

Figure 5.9: Proposed supply chain integrating and collaborating framework

5.5. Discussion on the proposal framework model to optimize SCM performance

According to the proposal framework model, the research has discussed from the top- down approach of the prime actors of supply chain operation systems. First the research identified the major role factors of supply chain gaps in Alle Bejimla. These major factors are internal drivers and external drivers of supply chain gaps. These main drivers are significant factors for performance optimization of supply chain management systems. It has also major role players for performance optimization of SCM systems in Alle Bejimla. Internal and external drivers are integrated to change and carryout the way of traditional motivation as teamwork to enhance supply chain collaboration. Integration is either interrelationship or external-relationship among departments, partnership within the firms "source, make and deliver goods" including the network of direct suppliers. Integration is in brief a flow of goods and information to maximize competitive benefits. Collaboration is working together to carry out the overall performance optimization of SCM systems. Supply chain collaboration is a face to face discussion between decision maker to share information, knowledge, resources and build up trust through operational perspective. Based on supply chain collaboration which is the chain member arranged and passed certain decision to optimize SCM performance. The researcher is identified and understood the different perception and impression about quality services in order to meet customer requirements in Alle Bejimla. And then further analysis and understand the existing challenges, it has proposed conceptual framework model to optimize SCM performance. As well as based on the model, the researcher has made further discussion about the individual management groups, supply & demand uncertainty as a major role players of performance optimization of SCM systems in Alle Bejimla.

a) **Operation Management**

In Alle Bejimla all the departments concerned to optimize supply chain management mainly on procurement, marketing and sales, IT and inventory controls are more responsible on their share to the performance optimization of SCM systems in the Alle Bejimla. As per the latest management review report and the researcher's observation of the existing SCM is being carried out in such a way that the wholesales being fulfilled to customer satisfaction. Moreover, Alle Bejimla's wholesale structures are needed a change that could be created cope with the new demanding business environment. Optimize opportunities have been extremely significant in the supply chain to perform operational usefulness. Based on the prospect of existing SCM systems, the researcher has identified a potential risk in managing time utilization that is a number of customers have queued in long line. This could increase

the cost of facility operation which actually impacts directly or indirectly the price of the FMCG with dissatisfaction customers. Therefore, based on this analysis the researchers gave attention to measure quality of services of Alle Bejimla by distribution questionnaires to internal customers as score of 78% of customers are dissatisfied with attainment services in Alle Bejimla. So that based on the analysis of the respondents responded that performance optimization of SCM of Alle Bejimla is extremely significant to carry quality services to their customers.

Therefore, in order to meet high quality services through the Alle Bejimla, the operation management is an owner of operation as internal integrated and collaborated to other management staffs as teamwork to become more competitive Alle Bejimla in the market. Hence, the operation management works as teamwork as an approach of integration of goods at right place in the right time and collaboration with other management groups and employees as a level of lowers its cost of operations and increases its productivity of services to maximize the existing SCM performance. As seen in the figure 6.3 of the conceptual framework model, the operation management works as a team to achieve highest standard in customer satisfaction. It is also provide quality services with internal integration and collaboration through employee participation. The employees work culture can emphasis on the provide quality services to meet external and internal customers' requirements and expectations. Based on this approach operation management can contribute and attribute to optimize the overall SCM systems as competitive services become to increase customer satisfaction, increase margin of profits and employee satisfaction.

b) **Management Leadership and Commitment**

According to the researcher observation and the respondents responded about Alle Bejimla management leadership and commitments is 83% strongly disagreement on the existing SCM systems. The management needs premise of commitment to continuously and consistently satisfy customer requirements through the enterprise supply chain policy. Moreover, the management to be approved leadership commitment by periodically reviewed its strategic planning and forecasting of supply chain demand. It is also making a management reviews to address issues like the extent to meet supply chain objectives of Alle Bejimla. It needs a progressive effort to optimize operational performance and conventionality service qualities by supplied FMCG in Alle Bejimla. The management leadership must monitor stock inventory as replenishment on time. Based on that the suppliers' can be evaluated their performance optimization on time delivery goods. It has also reviewed of adequacy of

internal resources; effectiveness of actions which taken to address risks and opportunities based on customer complaints and handlings systems.

In order to the review results the management must be committed to optimize supply chain management performance. To optimize SCM performance by using proper operation and distribution FMCG with the best placement of inventory as a maximize supply chain motivation and minimize costs of transportation operation and holding inventory expenses. According to conceptual framework model, the variable of supply chain management final output is maximized profit margin, customers and employees satisfaction. The management must be performed the supply chain optimization that is to be maximized the profitable operation of wholesale distribution through Alle Bejimla. And also the management take responsibilities and accountabilities to optimize SCM performance as a maximizing customer satisfaction as well as profit income generating by providing quality services through the overall systems of Alle Bejimla's.

Therefore, the management leader committed to apply and implement internal integration as supply and facilitate goods through Alle Bejimla. This internal integration is straightforward with external integration to form collaboration. The integration parts are utilized resources of goods, information and manpower to operate the overall supply chain performance. Then after this integration becomes collaboration to optimize SCM performance through Alle Bejimla's. The management collaboration between different business partnerships is to optimize supply chain performance. Hence, based on the conceptual framework model in figure 6.3:

- First, all function inside Alle Bejimla, including all department management groups' work as integrated & collaborated as teamwork to optimize their output.
- Second, each department management level has to focus on meet quality services as integrate their own resources and collaborate as their own manpower effectively and efficiently utilize on target objectives of performance optimization of SCM systems.
- Third, each and every department motivation motto as provide on time quality services to customers requirement and expectation as ever time based on performance optimization of SCM in Alle Bejimla.
- Fourth, each department management levels must strive to optimize SCM performance in consistency and continuously.
- Fifth and the last to success the objectives, the entire workforce integrated and collaborated as motivated and involved as empowered to make a decision on the

performance optimization of SCM in Alle Bejimla to meet at the level of customer satisfaction and generate income profit.

c) Customer Focus

According to the analysis data results show that 78% of respondents responded on disagreement in the existing supply chain management systems. Of course, the respondents were the internal staff of Alle Bejimla and some of selective external customers. The respondents supposed that performance optimization of SCM systems for Alle Bejimla is an extremely significant as endeavour. The existing service qualities of Alle Bejimla which supplied FMCG's are poor and not effective access to response customer requirements. For that reason, the existing supply chain management needs performance optimization in order to meet both internal and external customer requirements.

Based on the survey results of Alle Bejimla and respondents graph in figure 6.2 indicated that the existing SCM strategies need improvements to meet customer satisfaction. Improvements in sense directing activities toward quality services abounding in good ways by optimize SCM performance in Alle Bejimla. These activities of performance optimization of SCM are gained efficiencies, effectiveness, and competitiveness through the markets.

According to the respondents further responded and the researcher of this paper were responded that customer satisfaction attempts to much less as the level of expectations and perceptions of customers from Alle Bejimla's. The management groups of Alle Bejimla to be committed to optimize supply chain performance as provide quality services and meet customer requirements. In order to the approach of research and different research papers suggested that Alle Bejimla management should be worked jointly in collaborated and integrated with internal and external business partnerships and suppliers to maximize customer satisfaction by optimize supply chain performance.

As per the practical application of performance optimization of SCM can achieve significant benefits in order to increase facilitation of customer handling, reduced overall supply chain costs as well as maximized Alle Bejimla profits, increased both internal and external customer satisfaction. Customer satisfaction in sense of the research that involves keeping customers happiness both in day to day interactions with Alle Bejimla staffs. However, an assessment of the customer perceptions, Alle Bejimla didn't supplied enough FMCG in its warehouse stores. When you requested customers about the required goods, most of the time said out of stock. But, based on the objective of Alle Bejimla's, it doesn't have recommended and expected this type of responded out of stock FMCG. So, the quality of services has become failed as an aspect of customer satisfaction. Hence, based on above brief synthesis

analysis, service quality is always related to customer satisfaction. From the above point of view, Alle Bejimla management groups to be focused on quality services by supplied FMCG on time deliver to customer as per their requirements.

To keep consistency of continuous improvement the service quality at optimize levels the management groups of Alle Bejimla must be integrated and collaborated with supply chain business partnerships. So that collaboration is a fundamental requirement to optimize SCM performance in Alle Bejimla. Based on that performance optimization of supply chain is extremely important to meet customer satisfaction. Of course customer needs and requirements unlimited that depends on the purchasing experiences and behaviours. Obviously, customers' performance experience is challenged to manage and serve in a good ways. But, it is essential to note that the degree of expectation of any customer will depend on their own behaviours'. So, Alle Bejimla management groups and staffs are working as teamwork to optimize SCM performance by using an internal and external integration with collaboration to meet customer satisfaction.

d) Training and Education

Supply chain consists of all parties that involved directly or indirectly in fulfilling customers' requirement. To meet the customer requirements well trained manpower is important. The roles of well-trained human resource are significant for supply chain activities. It is a rational well trained human being which runs all activities, and whose results depend on the knowledge, abilities, skills, and motivation. Education and training will play a key role in every aspect of profession. Based on the initiative of training can change individual behaviours and altitudes that leads to strengthening the performance optimization of SCM systems as organization's culture.

From the analysis data result indicated that both internal and external trainings should be needed for employees to optimize supply chain performance. Training is a vital to controls and monitors the internal and external resources. Training and education are important to serve supply chain quality services for customers. However, based on the observations of Alle Bejimla employees training is not that much gives attention in the management groups. Training is created working quality culture to change human behaviour as a competent personnel's both theoretically and practical skills. However, the customer claim report shows that there is a gap in workers skill, due to that reasons a lot of claims become from customers. Based on the analysis data 59% of respondents responded as disagreement on the current training approaches which were not give attention yet. Therefore, the researcher recommends

that Alle Bejimla should give attention to the importance of well-trained manpower resources to skills up their abilities on performance optimization of SCM systems.

Besides that Alle Bejimla's staffs and management groups should be internal integrated and collaborated to carryout culture of teamwork and cooperation to develop throughout an entity of organization. The improvement results to keep up as consistency & continuous customer satisfaction as supplied the require goods within lead time schedules. Based on this, training and education can bring the internal integration and collaboration working atmosphere that will be changed by trust and sharing knowledge and skills through employees in each other's. In addition, the motivation of employees utilize and develop appropriate tools to optimize SCM performance by using willingly participate in every aspect of activities without hesitate to meet customer satisfaction. The positive effects can carry out in all departments as internal integration and collaboration based on willingness and volunteer participation in every aspect of operational activities to meet performance optimization of SCM systems in order to achieve customer satisfaction and maximize income profits in Alle Bejimla.

e) Local and foreign supply management

Local and foreign supply management is a continuous process, not only one time process; it is always keep as the focus on continuous benchmarking and optimize supply performance improvements. Local and foreign supply is continuous performance motivations to optimize SCM operation at require levels. These performance motivation processes are optimizing operational performance of SCM which identifies and address weak links to manage the overall costs and reduce regulatory risks. Reduce supply regulatory risk by means of getting visibility to measure actions on time and serve as early warning supply chain management systems. These measure challenges meet for potential supply interruption, product quality issues and price fluctuations. To avoid these risks, Alle Bejimla management to be internal integrated with supply integrated for smooth flow of goods and information to defend against challenges. The integrated results which carryout as collaboration as teamwork with business partners to increase organization wide alignments on key operational objectives. However, Alle Bejimla must be able to not only select the appropriate suppliers, but also to monitor and manage performance of these partners over time to meet the target goals of performance optimization of SCM.

According to the measuring and evaluating data 75% of the respondents responded that Alle Bejimla is not supplying enough fast moving consumer goods (FMCG) as lead times to consumer association and retail shops. Alle Bejimla has a major gap in supply chain

collaboration and integration between local firms, local suppliers, business partners, distributors and customer demands. Furthermore, the existing situation of the country has met foreign exchange barriers. Alle Bejimla is a governmental enterprise which is an established objective to monitor and stable goods price inflation in the market. The second objective is to supply and access FMCG at low cost to end consumer. The third objective of Alle Bejimla is to fill the gaps of foreign exchange barriers requested for foreign suppliers' goods by replace with local suppliers. The fourth objective is an integrated and collaborated with local manufacturing firms, agricultural unions and farms to maximize value add goods. However, Alle Bejimla has a serious lack of motivation to encourage local firms and also solve the existing impact of foreign exchange barriers by taken options to supply commodity as integrating with local firms and business partnerships. Based on these complain evaluation, Alle Bejimla's existing supply chain management has a serious gap to identify target and actual performance to utilize the complaint information. To reply the complaint response by making proper analysis of demand planning and forecasting according to generating demand orders based on holding stock in the warehouse and lead times. To meet these target goals an internal integration and collaboration are important in order to optimize the capacity of local and foreign supply management. It has also integrated and collaborated with external suppliers and producer firms to meet the target goals.

f) Local and foreign procurement optimization

When we are talking about Supply chain optimization, there are two types of optimization i.e. local procurement optimization and global procurement optimization. Based on these concepts as optimizing we mean here balancing the supply chain efficiency and responsiveness at lowest operational cost. Supply chain as procurement is a complex interaction of different functions that carryout based on performance optimization to provide quality services. Based on that in order to analysis local optimization means one function is optimized with regards to how it affects the entire supply chain systems. For example, transportation is a function that decides to transport full truckloads in order to get discounts; however, these causes can increase inventory holding costs.

As you can see from these examples, efficiency is traded off for responsiveness. Based on the above analysis and the respondents responded that 75% of the participants' disagreement on existing local supply chain systems in Alle Bejimla. So that it needs local supply chain optimization to provide quality services. In order to optimize local supply chain in Alle Bejimla, the management groups are integrated and collaborated with local suppliers of

FMCG such as local firms, producers, food complex firms, agricultural farms, fruit farms, fish farms, farm unions, farmhouses, cattle and dairy farms. Integration and collaboration with farms can optimize local supply chain as well as maximize value add productivities across the country. It has also minimized the impact of foreign exchange barriers as utilize for global supplied goods. Beyond that supply chain overall integration may proceed by Alle Bejimla management to carry out a creative of jobs for labor employees across the country.

With global optimization, the researcher focused on what the supply chain seeks to find a balance between desired responsiveness and efficiency at the lowest total cost. This might mean that costs may increase for some supply goods, but for the overall supply chains the costs are decreased. All the purpose that collaborate and integrate with each other's, share information and data among supply chain partners and work together as a corporation to find that balance at the lowest cost. In order to analysis the circulation questionnaires; there are several ways with which you can manage your supply chain continuous optimization. Based on this continuous global optimization of supply chain operation, the respondents' response 76% of Alle Bejimla's operation should be optimized supply chain management performance to meet customer requirement and satisfactory.

g) Transportation

As seen from performance framework model of performance optimization of SCM, the transport facilitation are determines the optimizing of moving FMCG. The progressive effort of management optimize the moving load, delivery speed, service quality, operation costs, the usage of facilities are a crucial parts in the manipulation of transportation. According to the data analysis initiatives as rendering to the meaning of transport which is concerning with an integrating management of transportation, warehousing and inventory stock activities. Transportation planning is a vast field as well as involves as a complex decisions on it. Discussion about transportation modes, carriers, vehicles scheduling and routing are a major activities that serve to move FMCG through Alle Bejimla's supply chain. Based on this transport facilitation is a crucial issue to optimize SCM performance. Therefore, regarding to the analysis data are obtained 80% of the respondents disagreed on the existing transportation facilitation in Alle Bejimla. Based on the respondents responded that in general performance optimization of SCM systems in Alle Bejimla is a serious question to meet the customer requirements. Performance optimization of SCM can be successfully practices and implements through Alle Bejimla which solves the existing SCM problems in the Alle Bejimla.

h) Inventory operation management

According to the data analysis and Alle Bejimla's warehouse stores may hold inventories of FMCG for a variety of reasons. Inventories can serve to hedge against the uncertainties of supply and demand. It has also essential for seasonal demands or promotional sales. Inventory operation management is significant for eliminating the uncertainties that make them necessary to optimize SCM performance. Inventory management inconveniences are categorized by holding costs, shortage costs, and demand distributions for products specified at a detailed store keeping unit level decisions.

Based on inventory operation management data analysis indicated that 82% of respondents have been responded that Alle Bejimla has met up series barriers within an approach for integrating inventory decisions with other supply chain decisions. So that inventory is important for performance optimization of SCM in the case company to maintain the existing SCM systems. Based on this perspective supply chain optimization is sometimes overlooked by managers responsible for controlling inventories, is crucial because holding costs are only one element of total supply chain cost. As we shall see, incorporating inventory decisions in supply chain optimization as a model is difficult because they involve parameters and relationships, such as variances of market demands and delivery times and their impact on stock outages, which are not easily represented in optimization of SCM performance, but it can minimizing the impacts by optimize SCM performance.

i) Information

The main purpose of performance optimization of SCM in the case company of Alle Bejimla is supplied and accessed the right FMCG goods at the right place in the right time to end consumers. To meet the study objective, information is a significant tool for SCM performance optimization. An integrated both information and FMCG goods flows with seamlessly across the supply chain management in order to obtain more competitive in the market to optimize profit and continues customers satisfactory. Based on this principle 72% of the respondents' responded with the intention of information is a significant important for performance optimization of SCM systems. Information is a strategic tool for both direct and indirect optimization of supply chain operation of Alle Bejimla. Without information integration with FMCG, Alle Bejimla can't be achieved supply of the targeted food & fast moving consuming goods accessibility to end consumers.

In general overview, the conceptual framework model in figure 6.3: and summary result of data presentation of the respondents table 6.4, performance optimization of SCM is a

management initiative that needs to be sustainable since it provides a fundamental basis for measuring, analyzing and optimizing Alle Bejimla's performance. Hereafter, Alle Bejimla must be practicing and implementing using a knowledge platform, so it is repeatable and consistent, scalable to support growth, and transportable from producers to end consumers operate able. As a supplier performance optimization management initiative supplied FMCG as a critical basis for optimizing operational performance, reducing supplier risk, reducing component costs and optimizing supply chain efficiency and as optimizing customer satisfaction, maximizing company profits and also employee satisfaction.

j) Supply and Demand uncertainty

In general overview, the main purpose of supply chain management is to supply high quality goods with computable prices and accessible at the right place with accelerated speed to deliver an end customers. So, performance optimization of SCM can be facilitated the existing SCM systems of Alle Bejimla fruitfully utilize for the targeted objectives by using collaborating business partners and integrating goods with relevant information to provide an uninterrupted and precisely timely flow of goods to the end consumers. However, when it becomes to the case company of Alle Bejimla SCM, it shows clear that unplanned customer demand oscillation, including those caused by stock outs. This is occurred in the Alle Bejimla due to the reason of the existing supply chain execution process create distortion which can demolish disorder up and down the supply chain systems. Supply chain distortion has become known as the Bullwhip effects that subsequently the effect of inventory inaccurate and distorted information with other activities. The bullwhip effect has been viewed as one of the forces that paralyze supply chain management. The major consequences of bullwhip effects are**:**

- Inefficient production or excessive inventory,
- Low utilization of the distribution channel,
- Necessity to have capacity far exceeding average demand,
- High transportation costs,
- Poor customer service due to stock outs.

➢ **Uncertainty is one of the major impacts of SCM systems**

SCM basically comprises of suppliers, manufacturers and customers. Manufacturers usually enter into a very complex relationship with suppliers in a supply chain that involve numerous sources of uncertainty. According to [71] identified the major sources of uncertainty supply chain systems: manufacturing, demand and supply uncertainty:

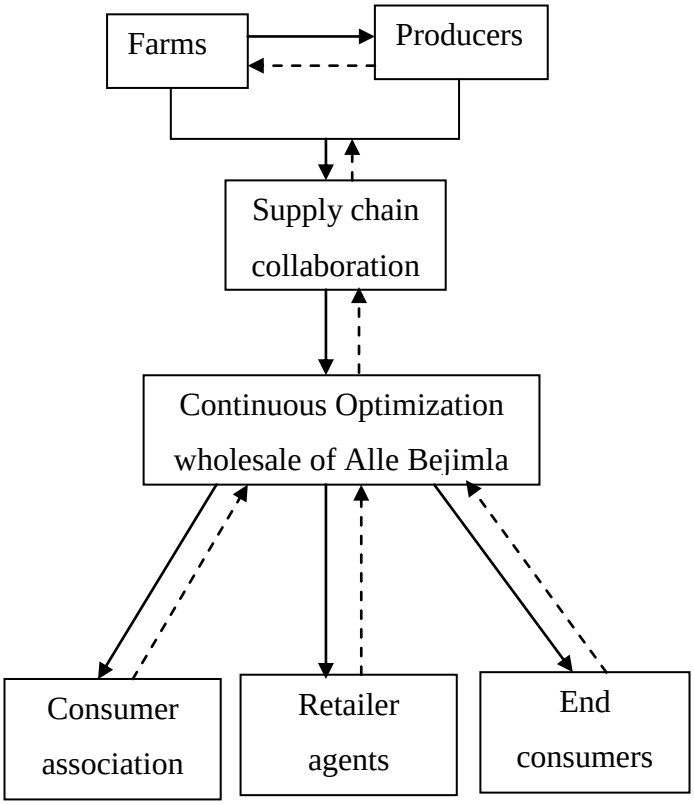
1. Manufacturing uncertainty**:** Machine breakdowns that lead to the postponement of production, poor process design that causes a bottleneck in production or produces product of poor quality, are the manufacturing variables accounting for the late delivery and reduction in customer satisfaction.
2. Demand uncertainty**:** Irregular orders from inconsistent customers may easily mislead manufacturers to make wrong forecasts, which cause excess inventory or insufficient supply.
3. Supply uncertainty: Normally, suppliers fail to commit to promised dates, possibly due to poor material quality, machine breakdowns or deficiency in natural resources and so forth.

The major source of supply chain uncertainty is the demand forecast, which may be influenced by several factors such as competition, prices, technological development, customers' confidence, and more other uncertainties are exist in delivery times which depend on several factors ranging from machine failures to road conditions and traffic jams that may interfere with shipments. According to [72] states that some factors hinder to uncertainty with emphasize the challenge of matching supply and demand. The impact of inventory, demand and supply forecast are the final major factors that except those embrace demand as a source of uncertainty; including delivery lead times, manufacturing yields, transportation times, and commodity availabilities have the significant supply chain impacts. Whatsoever, in the case company of Alle Bejimla can manage this uncertainty demand and supply by practicing in advance demand and lead time manages. Because the Alle's customer demands are already licensed, constant in figure & known in advance except rare occasional end customer. So that it can easy to calculate the reorder time and quantity. But; off course, demand and lead time may vary; the first step is to study the likely distribution of demand during the lead time. Specifically, we must accurately estimate the mean and standard deviation of demand during lead time. However, here in Alle Bejimla is known the customer demand in advance, so it can maintain supply chain systems by utilizing performance optimization of SCM systems.

k) Continuous supply chain optimization

Supply chain has become one of the most important drivers in local and global market competition. According to conceptual framework model continuous supply chain optimization can be a successful development of farm and producers integration to carryout performance optimization of SCM that focus on customers' expectations and requirements. Continuous improvement of performance optimization of supply chain can affect customer satisfaction. According to the model hypothesis continuous supply chain improvement can

reduce supply uncertainty and demand uncertainty. Based on supply and demand integration have met the need of customer expectation by supplying the right goods at the right place in the right time at low price.



Source: Field survey on research concept development (2018)

Figure 5.10: continuous optimization supply chain

The continuous supply chain improvement has become a solution of supply collaboration with sharing information to carryout performance optimization of SCM in order to customer satisfaction. Based on the analysis Alle Bejimla has become some gaps about continuous supply chain optimization as integrated goods and cluster collaborated with business partners to achieve the setup targets. One of the major gaps is inventory controlling based on demand of customer requirements. In order to fill the gaps, the Alle Bejimla wholesaler always buy commodity goods in large quantities from farms and manufacturers and supply them to consumer association, retailer agents and end consumer (including small shops and big supermarkets). It has also controlled the flow of goods and monitored the duty of staffs in wholesale to optimize supply chain performance. It will be utilized computerize scheduling to monitor and control the warehouse management. It will be negotiated face to face discussion with suppliers, farms, producers to get the best deal possible to hold enough stocks. Then after the wholesale of Alle Bejimla ultimately responsible for the receipt goods, stock control systems, sales and dispatch of goods at the right time and in the right quantities to deliver the customers.

l) Supply chain collaboration

According to the conceptual framework model development, collaboration is a significant implement for performance optimization of SCM. Based on conceptual model development collaboration becomes from result of internal integration, supply integration, producers, firms and farms integration to optimize SCM performance. On the topic of this concept customer satisfactory requires a good vertical performance optimize supply chain between suppliers and customers in order to supply and respond customer expectation. The main target of collaboration is to optimize SCM performance as result to meet the needs of customer by supplying the right goods at right place within right time and at competitive cost.

Further analysis of collaboration is a core combination of internal and external integration of business partnerships in order to ensure satisfying customer requirement at the lowest possible cost. However collaboration in Ethiopian situation is serious challenge through supply chain members to do collaborative in the chain network. This happened due to lack of free and competitive markets that much for establish across the country. For that reasons in Ethiopian supply and demand unbalance position to compete in local and global markets. To maintain the gaps suppliers, producers, firms and farms union can be done face to face meeting and virtual discussion which becomes cluster collaboration. So, in brief cluster collaboration is teamwork with partners in order to share information, commitment, trust and respect, skills and knowledge to optimize SCM performance. Based on cluster collaboration as teamwork is becoming more establish in performance optimization of supply chain relationships because of their capability can reduce uncertainty of supply and demand. So that supply chain cluster collaboration can provide benefits for all chain members and also optimize supply chain performance to meet and affect customer satisfaction. Therefore, based on this analysis Alle Bejimla to be worked as cluster collaboration with concerned business partnerships to optimize supply chain systems on provide quality services to customers.

5.6. Summary of major findings

Optimization in supply chain management is differentiated to maximize the profitable and minimize overall operational costs through stakeholders and business partners. Performance optimization of supply chain management is the outcome of internal integration, farmers and manufacturer’s integration, supply and demand integration in order to cluster collaboration with channel of business partners that synchronize each other’s in the supply of consumables goods. These integration and cluster collaboration are major role players for performance optimization of SCM systems case of Alle Bejimla. To optimize the supply chain activities,

Alle Bejimla should minimize supply chain process lead time in order to serve end consumers within a short time. Lead time in supply chain is dominated by interface delays either between suppliers & manufacturer, between distributors and retailers, shortage of inventory levels, or customer demand increments.

Of course, the increasing demand of consumables goods wherever growing through the country that carries on the consequence effect of shortage of supplied food and fast moving consumables goods and unexpected price increments. Regarding to shortage of consumables goods and price increment will maintain by surplus harvest farmers' products, manufactures produce efficient consumables goods, and facilitate supply goods in time to markets. Based on this, supply chain is a function of several different performances in order to fill customer requirements. To fill the customers need, it is inspire all stakeholders to produce value add goods by encouraging technical and financial supports to maintain and stable shortage of consumable goods. At the same time, it will support to supply consumables goods with more affordable and reasonable price to low-income consumers. In order to maximize customer service level, Alle Bejimla should maximize order fill rate instead of stockouts rate and backorder levels. To achieve these activities integration of goods and cluster collaboration with business partnerships are significant concern to optimize SCM performance in the case company.

Based on the above brief explanation, the main objective of this study is achieved performance optimization of SCM systems case of Alle Bejimla. In order to achieve the targets, the study has identified the supply chain gaps. And then it has set direction to resolve existing supply chain gaps by proposed model in order to optimize SCM performance in the case company. In order to reach the destination goal, the study focused on the existing supply chain of the Alle Bejimla. Besides that the research conducted an extensive literature review. In addition, it has distributed questionnaires for respondents to response with regard to Alle Bejimla supply chain management systems. Furthermore, the research observed Alle Bejimla SCM systems internally and externally in order to provide quality services to customers. It has also made further assessment and evaluation on the inventory management systems of Alle Bejimla based on customers handling systems.

As it has seen the inventory evaluation indicated that the annual supplied goods were declined by 24% from 2015/16 to 2016/17 budget year. It has also annual sold volume of goods declined by 10% from 2015/16 to 2016/17 budget years. Inventory holding costs increased by 3% and 11% on beverages, snacks and sweet goods respectively. According to the inventory survey indicated that Alle Bejimla should reduce the ordering time as well as

increases the batch ordering quantity based on integration and cluster collaboration with business partnerships. Further discussion result showed that the overall inventory cost decreased by 24.2% from the current operation costs. Therefore, it is a fundamental to optimize the percentage of the inventory review performed every week, monthly and annually to meet customer requirements and also to manage carrying cost and reorder points. It can also manage and increase the customers' service by combine stakeholders in order to supply consistency of the inventory goods.

In order to data analysis of the respondents response and the researcher observed through SCM practices and operational performance in Alle Bejimla that intended to interpret positively and genuinely to optimize SCM performance. In general the data analysis of cumulative output results indicated that performance optimization is a significant concern in supply chain management systems. Despite the fact that performance optimization of SCM build up by interrelationships between sharing information, integration goods and cluster collaboration with stakeholders, business partnerships, suppliers, farmers, unions and manufacturers. Based on the proposed conceptual model, Alle Bejimla should be working together with stakeholders in order to meet customer requirement. It will also work jointly with retailer and consumer association to forecasting and demand analysis systems. it can also achieved significant advantages in both business partnerships such as competitiveness in the market, reduced costs, increased efficiency, greater satisfaction both internally and externally customers, exceeding customers expectation, increased income generations and all leading to better performance optimization for the case company.

CHAPTER SIX

Conclusion and Recommendations

6.1. Conclusion

From the previous discussion we conclude that Alle Bejimla is more responsible to integration and collaboration suppliers, farmers, unions and manufactures in order to provide quality services to end consumers. It is also work together with stakeholders to maintain market price inflation of goods. In order to optimize supply chain performance, Alle Bejimla should inspire local manufacturer, unions and farmers to produce surplus goods. It is also supporting business partners with given technical training to improve and optimize their skills, to encourage productivities, and grant encouragement to produce local value add goods. When it increased productivity and value add goods in the market, all business partners' benefit will be large enough in every aspect such as supply chain and order to delivery lead time decrease, Stockout rate decrease, service performance and expectation increase, expected profit margins increase, price of goods and its inflation in the market decrease, inventory cost decrease, in general service levels increased and customers satisfaction.

Besides that Alle Bejimla can be filled up and contributed to the gaps of current situation of foreign exchange barriers by supporting and encouraging productivities of value add goods in the manufacturing industries, farmers yielding/harvesting external cash crop goods, unions gather and supply process finished goods for export level to generate foreign exchange. However, due to these lacks of motivation, Alle Bejimla can't achieve internal and external service qualities to meet and exceed customers' requirements up to dates. After all, based on propos conceptual framework model, Alle Bejimla should be worked toughly to achieve its missions, visions and values in customer satisfaction.

In order to achieve the respondents response and researcher objectives who think that performance optimization of SCM systems in the case of Alle Bejimla is all about competitiveness in the market to generate profits as well as to exceed customers need and satisfaction in time delivery with low costs. Based on this understanding the researcher attempted to present a new proposed method to optimize supply chain management performance and it implements the functions satisfactory.

6.2. Recommendations.

Based on the major findings of the research which are discussed in the previous chapters, the following suggestions have been drawn in order to optimize existing supply chain systems.

- In order to optimize existing supply chain systems, Alle Bejimla should start supply chain integration and cluster collaboration with stakeholders and business partners as performance improvement approach.
- Top management should sustain commitment to optimize supply chain at require level base on initiative active role playing internally and externally integrate in the form of cluster collaborate with stake holders, business partnerships, suppliers, farmers and manufacturers. In all activities top management committed in high level to optimize supply chain performance throughput in the organization and provide that much need motivation in the internal lower level employees.
- On job education and training are playing essential roles in the developing and implementing performance optimization of SCM systems. In order to achieve the objective of optimization supply chain performance, top level managers learn the methods of performance optimization of supply chain through organization and then teach these lower level employees.
- A culture of teamwork in the appearance of integration and cluster collaboration must be developed throughout the organization to success performance optimization of SCM systems. An atmosphere of trust build up between internal employees, business partners and also sharing information must be developed for mutual benefits become in the thinking of win-win business relationships.
- The appropriate monitoring methods implement to optimize supply chain performance as become continuous throughput to optimize service excellence of Alle Bejimla, both internal and external customers' advantageous through market competitiveness & benefits.
- Create overall performance optimization culture through employees to adopt and practice in work place by focusing cultural traits in the company. These continuous practice cultural traits can brought teamwork and trust each other as cluster collaboration and integration through company.

6.3. Future works

This study more emphasis on the concern of performance optimization of SCM systems case of Alle Bejimla. The concept of performance optimization of SCM is significant in every aspect of multidiscipline of supply chain industries. Hence one can extend a further study in the performance optimization of the service or manufacturing industries. On the other hand, potential further studies area that is deeply look for either quantitative performance optimization measure elements (such as delivery lead time, customer response time reliability and availability of goods) or qualitative performance optimization measure (such as customer satisfaction, flexibility, information and product flow integration and collaboration). Based on this study forwarded further investigation should be carried out in the performance optimization of SCM systems.

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The purpose of this questionnaire is to collect data for the consumption of academic research paper entitled '' **Performance optimization of supply chain management systems: Case of 'Alle' Bejimla Wholesale Enterprise in Ethiopia''** as partial fulfilment of the requirement for MSc Degree. The information you are going to provide will be used for only academic purpose. If any hesitation or questionnaire please feel free to contact university academic of mechanical & industrial engineering centre of AAiT. For further questions pertaining to this thesis, please contact Dr. Shewit Woldegebriel (Addis Ababa University phone: 011-1-232439). So, you are kindly requested to give genuine response.

Thank you

Desalegn Wubet

Appendix I: Questionnaires-I

- Background of the case company of AA City of Alle Cash & Carry wholesales survey questionnaires

Name of the warehouse		***Akaki Kality Warehouse***			***Megenagna Warehouse***			***Mercato Warehouse***		
		M	F	Total	M	F	Total	M	F	Total
Total Employee with their education level	MBA/ MSC									
	BA									
	Diploma									
	High school level									
	Under Grade 8 level									
Total employees										
Current Capital in Birr (2016/17)										
FMCG	Foreign supply/tone									

Supplied per ton (2015/16 & 2016/17)	Local supply/tone			
	Total supplied/tone			
Annual sales volume reports in millions for 2015/16 & 2016/2017 budget years				
Categories in their cluster of varieties		Birr in Million	Birr in Million	Birr in Million
1. Beverages (20 –types goods)				
2. Commodities (31- types)				
3. Groceries (31-types)				
4. Home Care (34- types)				
5. Personal Care (64-types)				
6. Snacks & Sweet (8-types)				
7. Stationery (3-types)				
Total annual sales volume				

	Please list some local supplier of FMCG		Please list some foreign supplier of FMCG
1		1	
2		2	
3		3	
4		4	
5		5	

Appendix II: Questionnaire-II

Questionnaires distribution to supply chain management of FMCG stakeholders of Alle Bejimla

Sr.	Items	Respondents rate		
		Yes	No	No response
1	Is Alle Bejimla provided high quality services, fast delivery goods to customer and positive relationships with customers and suppliers?			
2	Do you believe Alle Bejimla exceed customer expectations within supply of goods by continuous optimize supply performance?			
3	Do you have effective communications with your suppliers?			
4	Do you have share any relevant information with your business partners through internet or other internet supported real time information sharing mechanisms.			
5	Is there an effective utilized of electronic corresponding system that connects your institution with all relevant trade facilitation stakeholders (including government agencies, importers and other stakeholders)?			
6	Can goods importers like Alle and other interested parties easily find information related to your institutions service they need on the internet?			
7	Is Alle Bejimla supplied food & fast moving consuming goods from national and international markets that is checking goods in quality inspection?			

8	Are sufficient and qualified staffs available to your daily task of trade facilitation and handling customer enquiries?			
9	Is it your company gives fast replay for rising claims?			

Appendix III: Questionnaires-III

- Alle Bejimla staffs awareness of supply chain management systems

Questions		Respondents rate				
		1	2	3	4	5
10	Do you believe an improvement needs on existing SCM systems of Alle Bejimla					
11	Do you suppose Performance optimization of SCM is significance for Alle Bejimla to supply & facilitate FMCG on time to customers					
12	Supply and demand integration is significant for Performance optimization of SCM in Alle Bejimla.					
13	Internal integration with management and staffs are significant for performance optimization of SCM systems					
14	Collaboration & information sharing with partners are significant for performance optimization of SCM systems					
15	Transportation and facilitation are significant important for performance optimization of SCM					
16	Do you believe pricing and sourcing of goods are significant factors for performance optimization of SCM systems					
17	Are you believe inventory controls of FMCG are playing significant roles for performance optimization of SCM systems of Alle Bejimla					
Key: 1=Strong agreement, 2=Agreement 3=Neutral, 4=Disagreement, 5=Strong disagreement						

Questions		Respondents' rate			
		1	2	3	4
18	How frequently does your company work long lasting with customer relationships to optimize SCM performance?				
19	How important is supply chain performance optimization of the company as a criterion for evaluating senior executive in Alle?				
20	How much significant important does your company place on customer satisfaction in strategic planning?				
21	How frequent do you incorporate customer expectations in to the design of performance optimization of SCM systems				
22	How significant important is the application of performance optimization of SCM in your company to meet customer satisfaction?				
Key: 1=extremely important, 2=important, 3= somewhat important & 4=not important					

	Supply chain responsibility in Alle Bejimla	Respondents rate
	Questions	
23	Which division or departments are the most responsible for SCM?	
	• Procurement & logistics	
	• Sales and commercial	

	• Both department
24	What is your company of Alle Bejimla optimal relation to choose suppliers
	• Price of goods
	• Location proximity
	• Quality of goods
	• Credit facilities
	• Availabilities of variety goods at one stores
	• Other reasons
25	Which criterions are used to select supplied of goods
	• Long term contracting
	• Vendor location
	• Capacity allocation
	• Local regulation
	• Quality of goods
	• Local market implications
	• Price of goods
	• Tax implementation
26	What do you observe from other local suppliers (competitors of Alle Bejimla)
	• Price discount
	• Providing credit facilities
	• Door to door delivery services
	• Transport services provides for all customers
27	Indicate the factors that could made proper decision of inbound logistics
	• Warehouse location
	• Warehouse holding capacity
	• Contract carriers
	• Local regulations
	• Number of carriers
	• Number of warehouse
	• Tax implementation
28	Indicate the factors that could made proper decision of outbound logistics
	• Warehouse location
	• Warehouse holding capacity
	• Contract carriers
	• Local regulations
	• Number of carriers
	• Number of warehouse
	• Tax implementation

Appendix IV: Questionnaire-IV **ተጨማሪ አባሪ ፬፡ መጠይቅ ፬**

አዲስ አበባ ዩኒቨርሲቲ

አዲስ አበባ ቴክኖልጂ ኢንስቲትዩት

የሜካኒካል እና ኢንዱስትሪያል ምህንድስና ትምህርት ቤት

ኢንዱስትሪያል ምህንድስና የድህረምረቃ ፕሮግራም

ርዕስ: ‘‘የአለ በጂምላ አቅርቦት ሰንሰለት አስተዳደር ስርዓት አፈፃፀም ማሻሻያ "

ስም፡ ደሳለኝ ዉበት

አድራሻ፡ አ.አ ስልክ፡ 0911 41 96 95 ኢ-ሜል፡ wubet10@gmail.com

ቀን፡ የካቲት 2010 ዓ.ም

ይህ መጠይቅ የተዘጋጀው የሁለተኛ ዲግሪ ጥናታዊ ጽሁፍ መረጃ ለማጠናቀር ሲሆን ከመጠይቁ የሚገኙት ምላሾች በጥንቃቄና ሚስጢራዊነቱ በተጠበቀ መንገድ የሚሞላና የሚቀመጥ ነው፡፡ ይህንንም ግምት ውስጥ በማስገባት መጠይቁን ሲሞሉ በነጻነትና በትክክለኛ መንገድ እንዲሞሉ በአክብሮት ስጠይቅ ጥናቱን በተመለከተ ማንኛውንም አይነት ጥያቄ ካላችሁ የሜካኒካል እና ኢንዱስትሪያል ምህንድስና ትምህርት ክፍሉን ማነጋገር እንደምትችሉ እየገለጽኩ መጠይቁን በመሙላት ለምታደርጉት ቀና ትብብር በቅድሚያ በራሴና በትምህርት ክፍሉ ስም አመሰግናለሁ፡፡

ደሳለኝ ዉበት

<u>አለ በጂምላ ለሚያከፋፍላቸው የምርት ውጤቶችን ለመግዛትና ለማከፋፈል ለተመዘገቡ ሸማቾች ማህበርና ለቸርቻሪ የሱቅ ባለንብረቶች የተዘጋጀ መጠይቅ፡፡</u>

መመሪያ/ ትዕዛዝ

- ለጥያቄ ከቀረቡት ጥያቄዎች ዉስጥ በእያንዳንዱ ጥያቄ ቁጥርን በመለየት (በመምረጥ) እያከበቡ ሀሳበዎትን እንዲያካፍሉ ተጠይቀዋል.
- በተጠቀሰው ጥያቄ ውስጥ ለሚገኙ በርካታ መልሶች አንድ ምርጫን ከአንድ ቦታ በላይ መምረጥ ይቻላል.
- ክፍት ለሆኑ ጥያቄዎች አስተያየትዎን በተሰጠው ክፍት ቦታ ላይ ይጻፉ፡፡

አስቀድሜ አመሰግናለሁ

1. ዕድ .... ወንድ፣ ..... ሴት፤ የትምህርት ደረጃዎ ከ.....፣ ከ..... ፣ ኮሌጅ ዲፕሎማ .....፤ ያለዎት የሥራ ድርሻ ምንድን ነው ..... ግሸር፣ ..... ሽያጭ፣ ..... ጸሐፊ፤ ምን ያህል ጊዜ በዚህ የንግድ ሥራ ውስጥ አሳልፈዋል..... ከዓንድ ዓመት በላይ፣ ..... ሁለት ዓመት፣ ..... ሦስት ዓመት::
2. ተጠቃሚዎች እጅግ በጣም ከሚያስፈልጉዋቸዉ ዕቃዎች ውስጥ የትኛው እቃ ብዙ ጠያቂ አለው? ሀ. ስኳር ለ. ዘይት ሐ. ዱቄት መ. ሀናለ ሠ. ከላይ የተጠቀሱት በሙሉ ረ . ተጨማሪ ሌሎች

'ሠ' ን ከመረጡ ከዚህ በታች በ "ሰርዝ" ውስጥ ቢያንስ ሦስት ከላይ ያሉትን ዝርዝር ይጻፉ

I. ሳሞና ና ኦሞ ii. ሰዉነት ማስዋቢያ ቅባቶች iii. የቤት ማጽጃ እቃዎች

3. በቀን ውስጥ ስንት ደንበኞች በአማካይ ያገለግላሉ / ያስተናግዳሉ?

ሀ. ከ50 በታች ለ. 50 እስከ 100 ሐ. ከ 100 እስከ 150 መ. ከ 150 በላይ

4. ከሚከተሉት ውስጥ አንዱ ከእርስዎ አቅራቢዎች የመምረጥ መስፈርቶች ምንድነው?

ሀ. ዋጋ ለ. የመገኛ አካባቢ ቅርበት ሐ. የዕቃዎች ጥራት መ. የብድር አገልግሎት መኖር ሠ. በአንድ ሱቅ ውስጥ ልዩልዩ አይነት ምርቶች መኖር ረ. የመጓጓዣ አገልግሎቶች ሰ. ሀናለ ሸ. ሀናሠ ቀ. ሀናረ

5. በአል በጂምላ ያሉት ዕቃዎች የዋጋ ሁኔታ ምንድን ነው? ሀ. ከጊዜ ወደ ጊዜ ዋጋ እየቀነሰ ይሄዳል ለ. ዋጋ ተለዋዋጭነት የለዉም ሐ. ከጊዜ ወደ ጊዜ ዋጋ እየጨመረ ነው

6. ከላይ በተጠቀሰዉ ጥያቄ የዕቃዎች ዋጋ በ 2008 ዓ.ም እና በ 2009 ዓ.ም ከዋጋ እይታ ጋር በማወዳደር አስተያየትዎ ምንድን ነው? ሀ. 2008 ዓ.ም ርካሽ ነው ለ. 2008 ዓ.ም ውድ ነው ሐ. 2009 ዓ.ም ርካሽ ነው መ. 2009 ዓ.ም ውድ ነው ሠ. ሀናሐ አንድ ናቸው ረ. ለናመ አንድ ናቸው

7. ለምን የአለ በጂምላ አከፋፋዮች መሆን ፈለጉ? ሀ. ዋጋው ከሌሎች አከፋፈዮች ጋር ሲነጻጸር ዋጋው አነስተኛ ለ. ሁሉንም ዕቃዎች በአንድ ሱቅ ውስጥ ስለሚገኙ ሐ. በቅርበት ምክንያት

8. የአለ በጂምላ ራተኞች መደብርዎን ይጎበኙና ዋጋውን በተመለከተ ይጠይቁዎታል? ሀ. አዎ ለ. አይ

- መልስዎ «አዎ» ከሆነ ምን ያህል ጊዜ ነው ሀ. አንዴ በሳምንት ውስጥ ለ. በወር አንዴ ሐ. በዓመት አንዴ ከዚያ በላይም

9. ከአለ በጂምላ በስተቀር ሌሎች አቅራቢዎች አሉዎት? ሀ. አዎ ለ. አይ

- «አዎ» የሚል ከሆነ ምን ዓይነት ምርቶች ከአቅራቢዎች ይገዛሉ? ሀ. እንደ አለ በጂምላ ተመሳሳይ ምርቶች ለ. ከ አልለ ምርቶች ሁሉ የተለየ ሐ. ከሁለቱም ዓይነቶች

10. ለጥያቄ 9 የምንሰጠው ምርጫ ‘‘ሀ " ከሆነ ለምን ተመሳሳይ ምርቶችን ከሌሎች አቅራቢዎች ትገዛላቹሁ?

ሀ. አለ በጂምላ ውስጥ አለመኖና የደንበኞችን ፍላጎት ለማሟላት ለ. ምክንያቱም ዋጋው አንድ ነው

11. የአለ በጂምላ ወኪል ከሆኑ በኋላ ከሌሎች አቅራቢዎች ጋር የሚኖረዉን ንፅፅሮሽ ታስተውላላቹህ?

ሀ. የዋጋ ቅናሽ ለ. የብድር አገልግሎት መስጠት ሐ. ጥራት ያለዉ ምርትአቅርቦት መ. የመጓጓዣ አገልግሎቶች ከበር እስከ በር ተደራሽነት መኖር ሠ. ሐ ና መ ረ. ሀ ና ሐ

12. ሁሉም ሽቀጦችና ዋና ዋና ቁሳቁሶች በአለ በጂምላ ውስጥ ይገኛሉ? ሀ. አዎ ለ. አይ አይገኙም

13. ለጥያቄ 12 'መልስ' አይ አይገኙም ብለዎ ከሆነ ምን ያህል ጊዜ ነው የሚከሰተው?

ሀ. አንዳንድ ጊዜ ለ. አብዛኛውን ጊዜ ሐ. በጣም አልፎ አልፎ

14. አለ በጂምላን ሁሌ ላለመነብኘት ብዙ ጊዜ የሚያቀርቡት ዋነኛ ምክንያት ምንድን ነው?

ሀ. ትራንስፖርት ወጪ ለመቀነስ ለ. የካፒታል እጥረት ሐ. ከፍተኛ የዋጋ ለውጥ መኖር

15. ከሸቀጦቹ ላይ ዕቃዎችን ሲገዙ ለትራንስፖርት እና የጉልበት ሥራ ገንዘብ እያወጡ ነው?

ሀ. አዎ ለ. አይ

- አዎ ከሆነ እንዴት ነው የሚከፈሉት?

ሀ. ለቸርቻሮ የዋጋ ወጪውን በመክፈል ለ. ለሁሉም በጫኑትና በአጓጓዙት በመክፈል (100%)

ለትብብርዎ በጣም ከልብ እናመሰግናለን

Appendix V: Questionnaires-V

Survey responses to questionnaires for Consumer association that registered in Alle Bejimla cash and carry wholesales

Sr.	Questions	Respondents' rate				
		1	2	3	4	5
1	Are you satisfying in Alle Bejimla provide services?					
2	Performance optimization of SCM is important for Alle Bejimla to facilitate & provide FMCG on time to customers.					
3	Are you believe inventory controls of FMCG are playing important roles for performance optimization of SCM systems of Alle Bejimla?					
4	Transportation facilities are significant important for performance optimization of SCM.					
5	Collaboration & information sharing with partners are important for performance optimization of SCM systems.					
6	Coordination & integration goods suppliers are important for performance optimization of SCM systems.					
Key: 1=Strong agreement, 2=Agreement 3=Neutral, 4=Disagreement, 5=Strong disagreement						
	More attention and responsibility for performance optimization of supply chain in Alle Bejimla					
7	How is SC Pertaining to economic benefits?					
	• Job opportunity					
	• Cooperation and collaboration relation ships					
	• Purchasing goods in categorize of as integrated form					
	• Price of goods compare to other competitive					
8	Do you have effective discussion with Alle Bejimla Management groups on					
	• Goods quality					
	• Goods price					
	• Sales margin on your shops					
	• Information sharing					
	• inventory status					
	• Order lead time					
9	What do you recommend to optimize SCM?					
	• FMCG suppliers collaborated with local producer					
	• FMCG suppliers supported local producer with information, knowledge sharing and training					
	• FMCG supplier integration with suppliers, farmers, producers and customer					
10	What is the major factors that disappointed customers?					
	• Product / service poor quality					
	• Goods inaccessibility					
	• Lack of door to door services					
	• External load & unload payment					

Appendix VI: Questionnaire-VI ተጨማሪ አባሪ ፮፡ መጠይቅ ፮

Key informant interview guide Questionnaire

The purpose of this questionnaire is to collect data for the consumption of academic research paper entitled '' Performance optimization of supply chain management systems: Case of 'Alle' Bejimla Wholesale Enterprise in Ethiopia'' as partial fulfilment of the requirement for MSc Degree. The information you are going to provide will be used for only academic purpose. So, you are kindly requested to give genuine response.

1. What is the rational for the establishment of the company by the government?
   - የመንግሥት ኩባንያው መቋቋሙ ምክንያታዊነት ምንድነው?
2. What was the Process of establishment and what was the source of fund?
   - የመቋቋሙ ሂደት ምን ነበር ፣ የገንዘብ ምንጩስ ማነዉ?
3. What does the governing structure and organization set up look like?
   - የአስተዳደር መዋቅርና ድርጅት ምን ይመስላል?
4. What are the overall objective, mission and vision of the enterprise?
   - ድርጅቱ አጠቃላይ አላማ, ተግባር እና ራዕይ ምንድን ነው?
5. How do you evaluate the effectiveness of the enterprise from the following point of view?
   - ከታች ከተመለከተው አመለካከት አንጻር የድርጅቱን ውጤታማነት እንዴት ይገመግሙታል?

   5.1. Stabilizing prices , regulating inflation and monopoly
   - ዋጋዎችን ማረጋጋት, የዋጋ ግሽበትን እና ብቸኛ መዋዕለ ንዋይ ማፍሰስ

   5.2. Fostering modern trade ዘመናዊ ንግድን ከማጠናከር አኳያ

   5.3. Distribution consumable commodities at reach ለተጠቃሚዎች ሸቀጦች ተደራሽነታቸዉ
6. How does the competition with others competitors'
   - ከሌሎች ተፎካካሪ ድርጅቶች ጋር ያለው ውድድር እንዴት ነው?
7. What is the overall performance of the enterprise in terms of :
   - ድርጅቱ አጠቃላይ አፈጻጸም ምን ይመስላል:

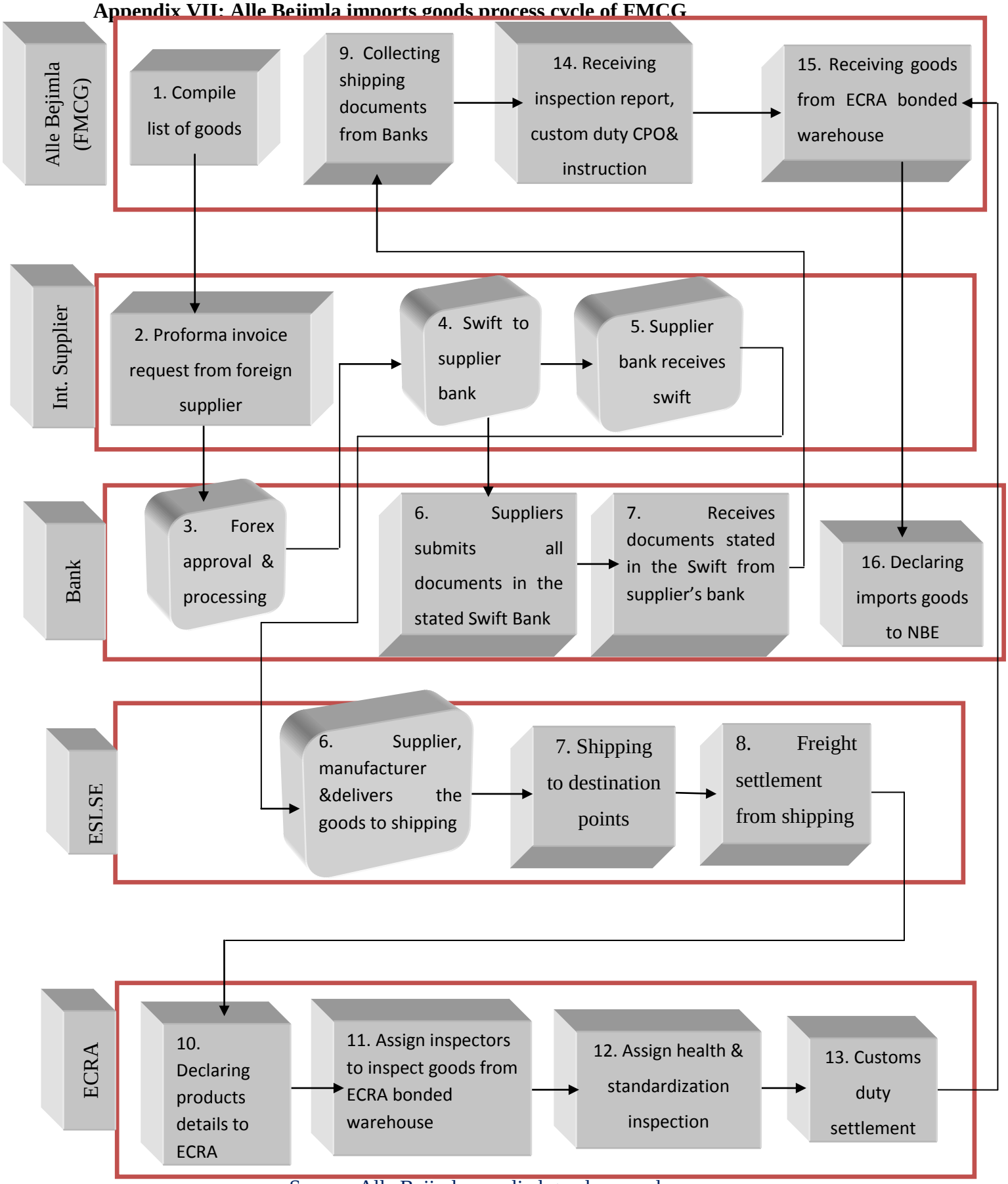
   7.1. Finance and sale ፋይናንስ እና ሽያጭ

   7.2. Distribution coverage የሽያጭ ሽፋን

   7.3. Number of retailers የችርቻሮዎች ቁጥር
8. If impact assessment has been done by your enterprise would you explain what were the major impacts exhibited in the study?
   - በድርጅትዎ ተፅዕኖ ግምገማ ተካሂዶ ከሆነ በጥናቱ ውስጥ ዋና ተጽዕኖዎች ምን እንደሆኑ ሊገልጹልኝ ይችላለ?
9. How do you monitor and trace the retailing price of your agents?
   - የእርስዎ ወኪሎች የችርቻሮ ዋጋን እንዴት ይከታተላሉ ?
10. What is the awareness level of your product consumers /public/retailers and the retailers about your products and services?
   - ስለ ምርቱና እና አገልግሎቶች ምርቱና ለሚገዙ ደንበኞች / ለሕዝብ / ቸርቻሪዎችና አከፋፋየዎች የግንዛቤ ደረጃ ምንድነው?

ለትብብርዎ በጣም ከልብ እናመሰግናለን

Appendix VII: Alle Bejimla imports goods process cycle of FMCG



Source: Alle Bejimla supplied goods procedure

Appendix VIII: type of products which supply by Alle Bejimla which categorized as follows:

1. Beverages

1.1 7-Up
1.2 Ambo Flavored Water
1.3 Ambo Sparkling Water
1.4 Cheers Still Water
1.5 Coca Cola
1.6 Dasani Still Water
1.7 Fanta
1.8 Jiva Soft Drink
1.9 Merti Guava Nectar
1.10 Merti Tomato Juice
1.11 Mirinda
1.12 Origin Still Water
1.13 Oros Juice Powder
1.14 Pepsi
1.15 Piko Juice
1.16 Schweppes Tonic Water
1.17 Snap Juice
1.18 Sprite
1.19 Vimto Squash
1.20 XXL Energy Drink

2. Commodities

2.1 Abyssinia Berbere
2.2 Abyssinia Mitmita
2.3 Abyssinia Shiro
2.4 Alem Coffee
2.5 Amole Iodized Table Salt
2.6 Black Lion Tea
2.7 Blue Girl Vegetable Ghee
2.8 Brown Sugar
2.9 Ceralia Macaroni
2.10 Ceralia Wheat Flour
2.11 Chewaka Tea
2.12 Dana Basmati Rice
2.13 Golden Soya Oil
2.14 Good Morning Tea
2.15 Gumaro Tea
2.16 Huruta Wheat Flour
2.17 KOJJ Wheat Flour
2.18 Lemlem Berbere
2.19 Lemlem Coffee
2.20 Lemlem Mitmita
2.21 Lemlem Shiro
2.22 Nyala Wheat Flour
2.23 Saba Wheat Flour
2.24 Selecta Parboiled Indian Rice
2.25 Shadi Lega Vegetable Ghee
2.26 Sheno Lega Vegetable Ghee
2.27 Sunlite Sunflower Oil
2.28 White Sugar
2.29 White Sugar Cubes/Sticks
2.30 Woff Iodized Table Salt
2.31 Wush Wush Tea

3. Groceries

3.1 Abay Milk Powder
3.2 Almina Instant Noodles
3.3 Avena Tomato Paste
3.4 Bella Spaghetti
3.5 Cerealia Spaghetti
3.6 Cerifam Baby Supplements
3.7 Enrich Corn Flakes
3.8 Faffa Corn Flakes
3.9 Golden Goodness Tasty Soya Tofu
3.10 Indomie Instant Noodle
3.11 Legador Vegetable Ghee
3.12 Loyal Dost Tomato Paste
3.13 Maggi Seasoning
3.14 Melda Spaghetti
3.15 Melody Milk Powder
3.16 Melody Tomato Paste
3.17 Melody Tomato Paste
3.18 Merti Marmalade
3.19 Merti Tomato Paste
3.20 Nido Milk Powder
3.21 Prima Macaroni
3.22 Prima Spaghetti
3.23 Raha Marmalade
3.24 Saf Yeast
3.25 Safa Ketchup
3.26 Special Vinegar
3.27 Supermi Instant Noodle
3.28 Suprima Spaghetti
3.29 Vega Canned Tuna
3.30 Vera Spaghetti
3.31 Zat Vinegar

4. Home Care

4.1 555 Liquid Detergent
4.2 Ajax Detergent Bar
4.3 Crown Detergent Powder
4.4 Diva Bar Soap
4.5 Euro Kitchen Towel
4.6 Euro Table Napkins
4.7 Fab Liquid Detergent
4.8 Fab Liquid Dish Wash
4.9 Fresca Air Fresheners
4.10 Goal Detergent Powder
4.11 Inno Bar Soap
4.12 Jet Detergent Bar
4.13 Largo Liquid Detergent
4.14 Nice Table Napkin
4.15 O2 Scouring Powder

4.16 Peacock Detergent Powder
4.17 Polar Laundry Soap
4.18 Rol Detergent Powder
4.19 Rotana Dish Wash Liquid
4.20 Rotana Window Cleaner
4.21 Royal Dish Wash Liquid Soap
4.22 Scissors Safety Matches
4.23 SEDE Vegetable Cleaning
4.24 SEDEX Bleach
4.25 Shemu Laundry Soap
4.26 Shemu Liquid Detergent
4.27 Silk Dish Wash Liquid Soap
4.28 Solar Laundry Soap
4.29 Star Bar Soap
4.30 Sun Bright Laundry Soap
4.31 Twins Kitchen Towel
4.32 Twins Table Napkins
4.33 Vim Bleach
4.34 Zahara Detergent Powder

5. Personal Care

5.1 Amla Hair Oil
5.2 Amla Hair Treatment
5.3 Avenas Beauty Soap
5.4 Euro Facial Tissue
5.5 Euro Sanitary Pad
5.6 Euro Toilet Paper
5.7 Euro Wet Wipes
5.8 Florida Beauty Soap
5.9 Florida Creme Lotion
5.10 Florida Glycerin Moisturizer
5.11 Gaea Hair Food
5.12 Gaea Hair Pomade
5.13 Glo Beauty Soap
5.14 Hiwot Trust Condoms
5.15 Hobby Aftershave
5.16 Hobby Baby Towels
5.17 Hobby Body Wash
5.18 Hobby Conditioner
5.19 Hobby Face & Body Cream
5.20 Hobby Hair Gel
5.21 Hobby Liquid Hand Soap
5.22 Hobby Mask Treatment
5.23 Hobby Shampoo
5.24 Hobby Skin Care Cream
5.25 Hobby Styling Gel
5.26 Lanosine Petroleum Jelly
5.27 Mas Beau Soap
5.28 Miracle Hair Food
5.29 Monica Hair Food
5.30 Nice Facial Tissue
5.31 Nice Toilet Paper
5.32 Nunu Baby Lotion
5.33 Nunu Baby Oil
5.34 Nunu Baby Petroleum Jelly
5.35 Olivera Hair Oil
5.36 Organza Shower Gel
5.37 Pampers Baby Diapers
5.38 Rose Liquid Hand Soap
5.39 Rotana Conditioner
5.40 Rotana Liquid Hand Soap
5.41 Rotana Shampoo
5.42 Royal Beauty Soap
5.43 Royal Liquid Hand Soap
5.44 Samra Hair Food
5.45 Samra Hair Oil
5.46 Sara Sanitary Pad
5.47 Savannah Beauty Soap
5.48 Savannah Shampoo
5.49 Sensation Condoms
5.50 Silk Beauty Soap
5.51 Silk Liquid Hand Soap
5.52 Solo Petroleum Jelly
5.53 Twins Facial Tissue
5.54 Twins Toilet Paper
5.55 Vatika Conditioner
5.56 Vatika Hair Cream
5.57 Vatika Hair Oil
5.58 Vatika Hot Oil Treatment
5.59 Vatika Shampoo
5.60 Viola Cream Lotion
5.61 Vitex Hair Oil
5.62 Zenith Glycerin Moisturizer
5.63 Zenith Hair Food
5.64 Zenith Hair Oil

6. Snacks & Sweet

6.1 Abu Walad Sandwich Biscuits
6.2 Glucose Milk & Honey Biscuits
6.3 Hip Hop Biscuits
6.4 Knick Knack Biscuits
6.5 Lucy Dabo Kolo Snacks
6.6 Ora Biscuits
6.7 Twisty Snacks
6.8 Waka Waka Snacks

7. Stationery

7.1 Alle Exercise Books
7.2 Elite Pencils
7.3 Linc Pens