

***The Effect of Supply Chain Management Practice on Operational
Performance: The Case of Ethiopian Pharmaceutical Supply
Agency (EPSA)***

***A Thesis Submitted to the School of Graduate Studies Of Jimma University In
Partial Fulfillment Of The Requirements For The Award Of Master's Degree
in Logistics and Transport Management***

By: AWOL ABAMECHA



**JIMMA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF MANAGEMENT
LOGISTICS AND TRANSPORT MANAGEMENT PROGRAM**

JIMMA, ETHIOPIA

JULY, 2020

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Under the guidance of:

Mesfin Mekonnen (Phd Scholar)

And

Megersa Wodajo



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DECLARATION

I undersigned declare that this research report is my original work and it has not been presented for a degree in any other university, and all the materials used for this study have been duly acknowledged.

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Thesis Submission Request Form

We, the thesis advisors have evaluated the content of this thesis and found to be well executed. Hence we recommend the thesis to be submitted.

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ABSTRACT

The main goal of supply chain practice is to produce the right product or service, in the right quantity, at the right time and at minimal cost with the purpose of satisfying customer requirement and internal target as efficiently as possible. Supply chain practices are initiatives that influence the whole supply chain. Even though, these practices have great influence on the operational performance of any organization, it is affected by contextual factors such as type of industry, firm size, and length of supply chain. Therefore, the general objective of this study was to investigate the effect of supply chain management practices on the operational performance: the case of EPSA Jimma branch. In order to meet the objectives of this research, the study adopted quantitative method and the relationships proposed in the framework were tested using descriptive research method. The primary data was collected from 97 employees of EPSA. The collected data were analyzed using descriptive statistics, correlational and regression analysis. The major finding of the study indicated that supply chain management practices i.e. strategic supplier relationship management, customer relationship, internal integration, and logistics management have positively affected the operational performance of the organization. However, the organization has expected to improve its supply chain practices in order to improve the operational performance even further. Specifically, EPSA has to improve involvement of suppliers in planning and goal setting, the company should also provide on time and accurate information to its suppliers 'to integrate the external part with the internal one. In addition, the organization should improve its determination to meet the customer needs and demands.

Key words: *supply chain management; SCM practice; operational performance*

Acknowledgements

First and foremost, I thank the Almighty Lord for making this work possible. This thesis would not have been accomplished devoid of the huge prop up I have encountered from different people and institutions. I am incredibly much indebted to my thesis supervisors Mesfin Mekonnin (PhD Scholar) and co-advisor Mr. Megersa Wodajo for their critical professional comment, constructive criticism, regular follow up, devotion, suggestion and useful advice have been invaluable inputs that have improved the quality of my work and also helped my career at large. Without him this study would have never reached its present stage. Hence, I remain grateful and thankful always. Further, I would also like to thank all employees of the selected *EPSA* Jimma Branch those who partakes in facilitating the survey instruments. In addition, I also thank the sub-branches and districts client population and my sample respondents for their kind cooperation. Indeed, it is not possible to list all of those who contributed and cooperated, may I thank all of those who helped me during the research by responding to my questionnaires especially in this year with the problem of covid 19 and who assisted directly or indirectly to acquire the necessary data. Further, thanks are also due to the Jimma University for granting me a study leave. Besides, I also like to say thank you the academic staff member of Jimma University.

Meanwhile, this work furnishes me great pleasure to take this special opportunity to express my sincere and warmest gratitude to my families for your contribution and my love and respect to all of them! I will remain eternally grateful to all my kin, relatives and colleagues...I Thank You All!

Above all Glory is to God for his unspeakable gifts!

Awol Abamecha

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ACRONYMS/ABBREVIATIONS

SCM = Supply Chain Management

SPSS = Statistical Package for Social Science

SSP = Strategic Supply Chain Practice

CR = Customer Relationship

II = Internal Integration

IQ = Information Quality

L = Logistics

OP = Operational Performance

SCMP = Supply Chain Management Practice

TQM = Total Quality Management

SC = Supply Chain

CHAPTER ONE

1. INTRODUCTION

This chapter consists of the back ground of the study, statement of the problem, research questions, and objectives of the study, significance of the study, definition of terms, delimitations of the study and organization of the paper.

1.1. Background of the Study

Supply chain management encompasses the planning and management of all activities involved in sourcing and procurement. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. In essence, supply chain management integrates supply and demand management within and across companies (Council of Supply Chain Management Professionals, 2011).

Supply chain management is one of key activities in Pharmaceuticals sector. To get competitive advantage over rivals, supply chain emerged as a core capability for most pharmaceutical companies. The main purpose of pharmaceuticals logistics is to achieve the six rights (right product, right quality, right quantity, right cost, right time, and right place). Pharmaceutical logistics involves the following main activities, (selection, quantification, procurement, storage, distribution and use. At the center of the cycle management support and logistics management information system is an engine .The primary pharmaceuticals distribution management goal is to maintain a steady state supply of pharmaceuticals and supplies to health facilities where they are needed Lurquin (2007).

In Ethiopia, pharmaceuticals market is increasing from time to time. Most of the pharmaceuticals (75%) are imported; however 25%of the pharmaceuticals are manufactured locally. So the distribution of Pharmaceuticals needs great attention in order to reach the end customers. The pharmaceuticals supply chain passes steps from demand forecasting by health facilities, procurement from international and national suppliers, importing, storage and distribution to health facilities and end users.

Distribution of pharmaceuticals follows integration pharmaceuticals logistics system (IPLS), through which all pharmaceuticals requested, reported, received and managed integrated manner. Therefore Jimma Pharmaceuticals fund and supply agency is responsible for distribution of pharmaceuticals mainly to public hospitals, health centers, Woreda health office and private Pharmacies up to Gambela and Mizan. During distribution of Pharmaceuticals the agency follows mainly three tier distribution system. Therefore, (this study explored towards the effect of supply chain management practices on the operational performance)

1.2. Back ground of the organization

In order to bring efficiency in the Pharmaceuticals Supply chain PHARMID was transformed to pharmaceuticals fund and supply agency (EPSA) in 2007 G.C. which is responsible for managing mainly public Pharmaceuticals. Since then the agency performed several measures, of which; introduce new staffs who work on Pharmaceuticals supply chain, Built ware houses and buy new Vehicles.

Currently the agency is under ministry of health which stands for forecasting, procurement, warehousing and distribution of pharmaceuticals throughout the country. The agency has 17 branches which are found in all regions of Ethiopia. It has more than 2000 employees. The agency has the following directorates; Forecasting, Procurement, warehouse and distribution, Human resource and general service, Plan and program, Information management, Finance and other supporting offices..

The Agency manages both Program (donated and free) and revolving drug fund (purchased) Pharmaceuticals. Distribution of pharmaceuticals is mainly performed by Storage and distribution directorate and general service unit. Currently the Central EPSA has 10 warehouses and 31 functional vans and heavy load Vehicles to distribute pharmaceuticals (PFSA, 2016).

1.3. Statement of the problem

Supply chain management (SCM) links a firm with its customers, suppliers and other members of the supply chain system, including transportation, freight forwarding and warehousing service providing companies. The management of the supply chain is basically management of the relationships and activities among the members of organizations (system) in the supply chain and the goal of supply chain management is for member organizations to work together as a system and build a partnership with each other to gain or create a competitive advantage and improved performance for the supply chain as a whole over competing supply chains (Mentzer, 2001).

Organizations used to view customers, suppliers and other supply chain actors as independent entities in their business process rather than considering them as an integral part of their business as well as their decisive business partner. In the modern business world, competition is no longer between organizations, but among supply chains (Trkman et al., 2010). Companies must compete against one another in order to survive.

World health Organization (WHO) states that access to medicine is a human right. Government of Ethiopia is focusing to avail pharmaceuticals at an affordable price and accessible to all citizens through pharmaceuticals fund and Supply agency. The agency tries to improve delivery of the right medicine at the right time with reduced cost. However still problems are observed due to an increase in the need of pharmaceutical products in the country, and less efficiency of distribution with the existing distribution network (Lissanework, 2013). A crucial component of Pharmaceuticals Supply Chain activities is the efficient and effective warehousing and distribution System.

According to empirical studies, the global economy continues to grow; companies are no longer competing independently but rely on their supply chain systems. Business management has entered the era of inter-network competition. In this emerging competitive environment, the ultimate success of the single business will depend on management's ability to integrate the company's intricate network of business relationships with different supply chain actors. Strictly speaking, the supply chain is not a chain of businesses with one-to-one, business-to-business relationships, but a network of businesses and relationships. However, the Ethiopian pharmaceutical supply chain has several problems including non-availability,

un affordability, poor storage, lack of stock management and weak distribution system including weak fleet management. Health Facilities have problems to get right products; right quantity and right quality are not available at the right time, right place, for the right cost due to poor distribution system (EPSA 2105).

Products which are found at central level may not found in all hubs. Central EPSA uses 8 rental warehouses which are located at different Part of Addis Ababa City. This has high negative impact for Smooth distribution system. (EPSA, report 2015)

As Lissanework, (2013), Referenced, mechanical assistance is low in these warehouses. In addition to this EPSA is constrained by shortage of vehicles, portable cold chains, cold rooms, racks and pallets. The main Challenges that affect EPSA performance are ; its dependency on international suppliers due to lack of local Competitive supplier, very long procurement process, limited vehicle Capacity for distribution, lack of skilled manpower and poor demand forecasting Capacity (Mered,2015). The situation seems higher at hub levels.

This also leads to the problem in the operational performer and also affecting profitability and operations of the organization. Due to this the hubs are not sufficient to satisfy the need of clients. Besides to shortage of vehicles there is weak coordination among general internal and external stakeholder.

It is thus critical to explore the existing effect of supply chain management practices on the operational performance of the organization. Therefore based on the above listed problems this paper will answer the following research questions

1.4. Research Questions

The following main research questions will be proposed:

- What are the supply chain practices of EPSA's south western regional branch?
- What is the relationship between supply chain management practice of EPSA and its operational performance?
- How well does internal integration of EPSA relate to operational performance?

1.5. Objectives

1.5.1. General objectives

The general objective of the study was to examine the effect of supply chain management practices on the operational performance of EPSA south western regional Branch.

1.5.2 Specific objectives

- To describe the supply chain management practice of EPSA.
- To explore how the supply chain management practices of EPSA is related to its operational performance.
- To examine how EPSA's internal integration system affects its operational performance

1.6. Significances of the Study

The investigation result will expect to benefit academicians, researchers, policy makers, for business practitioners, and management units in the case company. Specifically, the research helps to identify bottlenecks, waste, problems and improvement opportunities in the supply chain practices and its contribution for the operational performance of EPSA Jimma south western regional branch. This research will also contribute to narrow the gap in the literature on the generalization of the causal relationship between SCM practices and performance.

1.7. Delimitation of the study

SCM has vast areas of managerial practices; it is difficult and unmanageable to study the whole areas of it. Therefore, the scope of the study is delimited to specific context i.e. on SCM practices and their impact on operational performance.

The subject scope supply chain practice are also delimited to the company's point of reference towards strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing and internal lean practice. In terms of firm performance the study was delimited to operational; which was measured by price/ cost, quality, delivery dependability and time to market. On the other hand the study will be conducted in Jimma town located in south west Ethiopia at distance of 345km from Addis Ababa as the 1986 master plan indicated. Descriptive research design is preferred for better describe the group of individuals over the set of variables.

1.8. Organization of the Paper

The paper is organized into five chapters: Chapter one contain the introduction part dealing with back ground of the study, the research problem, objectives of the study, scope and significance of the study and limitation of the study. The second chapter focuses on the literature review about the subject matter. The 3rd chapter presented the research methodologies of the study. The fourth chapter presents data analysis and presentation while the last chapter summarizes the findings, conclusion and recommendation.

CHAPTER TWO

2. RELATED LITERATURE REVIEW

2.1. Introduction

This part of the study provided the outline of literature specific to concepts or ideas of supply chain management practices and operational performance. The relevant conceptual issues, theoretical, empirical literatures' related to the topic of the study are reviewed and based on the literature reviewed, the selected conceptual framework are also presented on this chapter.

2.2. Theoretical Literature Review

2.2.1. Meaning and Objectives of Supply Chain Management

The advent of information technology and intense global computation has enticed many world class manufacturing and service providers into adopting an integrated strategic approach to supply chain management. Although many supply chain management efforts have failed to achieve the desired results, it has become significant strategic tool for firms striving to achieve competitive success. (Tan, 2002)

Deferent scholars have defined supply chain management for instance Chopra defined it as follows "A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request. The supply chain includes not only the manufacturer and suppliers, but also transporters, warehouses, retailers, and even customers themselves. Within each organization, such as a manufacturer, the supply chain includes all functions involved in receiving and filling a customer request. These functions include, but are not limited to, new product development, marketing, operations, distribution, finance, and customer service" (Chopra, 2007)

It also has been argued by (Suhong, et al, 2004) .The concept of SCM has received increasing attention from academicians, consultants, and business managers alike. Many organizations have begun to recognize that SCM is the key to building sustainable competitive edge for their products and/or services in an increasingly crowded marketplace. The concept of SCM has been considered from different points of view in different bodies of literature , such as purchasing and supply management, logistics and transportation, operations management,

marketing, organizational theory, and management information systems. Various theories have offered insights on specific aspects or perspectives of SCM, such as industrial organization and associated transaction cost analysis, resource-based and resource-dependency theory, competitive strategy, and social–political perspective.

According to Martin 1998, as it is cited by Addis (2015), Supply chain management is a philosophy of an integrated approach to manage the total flow of a distribution channel from the supplier to the ultimate customer (Ellram & Cooper, 1990). It is the management of upstream and downstream companies connecting inside and outside the company's operations with suppliers and customers to deliver value to key customers with a low cost supply chain as a whole (Martin, 1998).

In general, regarding the definition of SCM, the key elements of supply chain and its management from these definitions are therefore the upstream parties, the downstream parties and the integration of all the organizations involved, together with the internal function of an organization itself. The objectives of supply chain thus will be, though it is also described differently between different scholars in the area , for example, Chopra (2007), describes the objective of supply chain as “To maximize the overall value generated. The value a supply chain generates is the difference between what the final product is worth to the customer and the costs the supply chain incurs in filling the customer's request. For most commercial supply chains, value will be strongly correlated with supply chain profitability (also known as supply chain surplus), the difference between the revenue generated from the customer and the overall cost across the supply chain.

Tan also classified the objective of the supply in to two i.e. short and long term objective. The short term objective of supply chain management is to increase productivity and reduce cycle time, while the long term strategic goal is to increase customer satisfaction, market share and profit for all members of the virtual organization. (Tan, 2002)

As it is explained by Tan (2002).The evolution of supply chain management continued into the 1990s as organization further extended best practices in managing corporate resources to include strategic suppliers and logistic function. Instead of duplicating non-value adding activities such as receiving inspection, manufacturers trusted suppliers' quality control by purchasing from a handful certified suppliers (Inaman & Hubler, 1992) and retailers

seamlessly integrate with the logistic providers to achieve direct store delivery without the need for receiving inspection (Stonge, 1996).

Furthermore, Mentzer (2001) the significant importance of SCM as” the systematic, strategic coordination of the traditional business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long term performance of the individual companies and the supply chain as a whole”. As cited by Addis (2015) SCM creates value for Organizations and permits the development of important competitive advantages by means of the relationships between suppliers and clients (Bordonaba -Juste and Cambra-Fierro, 2009). From this perspective, several studies have verified that integration and collaboration in the supply chain can provide important benefits to the companies involved Among these benefits are added value, the creation of efficiencies and client satisfaction (Chow et al, 2008; Stock et al, 2010), which are represented by the reduction in inventories, improvements in service delivery and quality and shorter product development cycles (CORBETT *et al*, 1999).

SCM involves the coordination and configuration of different process that is necessary to make products available in a timely, reputable, and suitable condition. The distinctiveness of SCM could be achieved by identifying and making use of SCM practices, in organized way. SCM practices involve a set of activities undertaken by the organization to promote effective management of their supply chain (Faisal, 2011).

Therefore, we can generalize that the basic objective of supply chain management is to “optimize performance of the chain to add as much value as possible for the least cost possible”. In other words, it aims to link all the supply chain agents to jointly cooperate within the firm as a way to maximize productivity in the supply chain and deliver the most benefits to all related parties (Finch 2006).

Despite the importance and theoretical development of supply chain management, there is little empirical research on how practitioners define and incorporate supply chain management practices in to overall corporate strategy. While supply chain management efforts as some companies have resulted in improved competitiveness, similar results in other organization have remained elusive. Little is known about the specific practices or concerns of successful supply chain management implementations (Tan, 2002)

While the lack of successful SCM efforts has been attributed to the complexity of SCM itself, research in the area of SCM has not been able to offer much by way of guidance to help the practice of SCM. This has been attributed primarily to conceptual confusion and the lack of a theoretical framework in researching SCM. It has been pointed out that the SCM phenomenon has not been well understood in the literature (Li, et al. 2005).

2.2.2. Supply Chain Management Practices (SCMP)

SCM Practices are defined as a set of activities undertaken in an organization to promote effective management of its supply chain. SCM practices are multidimensional which affect the performance of partners in the supply chain. These SCM practices were seen and discussed by different researchers from different perspectives.

According to Haque, (2013), SCM practices are a fundamental to firm performance; in today's globalized business all firms get their competitive advantage by managing various challenges within the country and internationally and this devote substantial attention. As effective SCM provides benefits that go beyond the entities or the organization itself on both of its upstream and downstream sides and those firms may comprehend their potential of integrating their external relationship that is the firms external suppliers, the firm itself and the firms customer and also the firms internal operational practices with a view to enhancing their level of competitiveness and performance as well as customer satisfaction.

As it is argued by Krimi & Rafiee (2014), SCM practices have been defined as a set of activities undertaken in an organization to promote effective management of its supply chain. The empirical study include in their list of SCM practices concentrate on core competencies, use of inter-organizational systems such as EDI, and elimination of excess inventory levels by postponing customization toward the end of the supply chain. They Identify four aspects of SCM practice through factor analysis: supply chain integration, information sharing, supply chain characteristics, customer service management, geographical proximity and JIT capability. They use supplier base reduction, long-term relationship, communication, cross functional teams and supplier involvement to measure buyer-supplier relationships (Zhao & Lee, 2009).

At it is cited by Addis (2015), SCM practices as a set of activities carry out in any organization to promote effective management of its supply chains; From this we can see that components of SCM practices includes supply and material management issues, operations, information technology and sharing (Information Communication Technologies) and customer service. Other components such as technology, cost, inventory management, competitiveness and external regulations, according to needs to be managed effectively to

achieve to business goals of each supply chain members. It also leads to value creation to end customer (Charles, Diyuh & Oppong, 2014)

SCM involves the coordination and configuration of different process that is necessary to make products available in a timely, reputable, and suitable condition. The distinctiveness of SCM could be achieved by identifying and making use of SCM practices, in organized way. SCM practices involve a set of activities undertaken by the organization to promote effective management of their supply chain. (Faisal, 2011)

2.2.2.1. Strategic Supplier Partnership (SSP)

As it is constructed by Ibrahim & Hamid (2012) Strategic Supplier partnership is defined as the long term relationship between the organization and its suppliers. It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits. A strategic partnership emphasizes direct, long-term association and encourages mutual planning and problem solving efforts. Such strategic partnerships are entered into to promote shared benefits among the parties and ongoing participation in one or more key strategic areas such as technology, products, and markets. Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product-design process can offer more cost effective design choices, help select the best components and technologies, and help in design assessment. Strategically aligned organizations can work closely together and eliminate wasteful time and effort. An effective supplier partnership can be a critical component of a leading edge supply chain.

Strategic partners in supply chain must realize that the purchasing function is critical link between the source of supply chain and organization itself, with the support coming from the overlapping activities to enhance manufacture ability for both the customer and suppliers. (Tan, 2002)

2.2.2.2. Customer Relationship (CR):

It comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving

customer satisfaction. Someone consider customer relationship management as an important component of SCM practices, as pointed out by them, committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is leading to an era in which relationship management with customers is becoming crucial for corporate survival. Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs. Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers (Ibrahim & Hamid, 2012)

2.2.2.2. *Level and Quality of Information Sharing:*

Information sharing has two aspects: quantity and quality. Both aspects are important for the practices of SCM and have been treated as independent constructs in the past SCM studies.

Level (quantity aspect) of information sharing

It refers to the extent to which critical and proprietary information is communicated to one's supply chain partner. Shared information can vary from strategic to tactical in nature and from information about logistics activities to general market and customer information. Many researchers have suggested that the key to the seamless supply chain is making available undistorted and up-to-date marketing data at every node within the supply chain. (Karimi & Rafiee, 2014)

Supply chain partners who exchange information regularly are able to work as a single entity. Together, they can understand the needs of the end customer better and hence can respond to market change quicker. Moreover, someone consider the effective use of relevant and timely information by all functional elements within the supply chain as a key competitive and distinguishing factor.

The empirical findings of they reveal that simplified material flow, including streamlining and making highly visible all information flow throughout the chain, is the key to an integrated and effective supply chain. (Karimi & Rafiee , 2014)

Quality of the shared information of information sharing:

Literature is replete with example of the dysfunctional effects of inaccurate/delayed information, as information moves along the supply chain. Divergent interests and opportunistic behavior of supply chain partners, and informational asymmetries across supply chain affect the quality of information. It has been suggested that organizations will deliberately distort information that can potentially reach not only their competitors, but also their own suppliers and customers. It appears that there is a built in reluctance within organizations to give away more than minimal information since information disclosure is perceived as a loss of power. Given these predispositions, ensuring the quality of the shared information becomes a critical aspect of effective SCM. Organizations need to view their information as a strategic asset and ensure that it flows with minimum delay and distortion (Karimi & Rafiee , 2014).

2.2.2.3. Internal Lean Practices (LP)

Internal lean practices refer to consume less system resources uses with the same speed mass production and offers greater variety to customers. In other way James and Jones (2003) internal lean practices as Lean production associated with continuous pursuit of improving the processes, a philosophy of eliminating all non-value adding activities and reducing waste within an organization.

One of the fundamental ideas in internal lean practices is removed surplus (Hassan & Jafarian, 2010). The most famous of internal lean practices can be mentioned timely and lean produce. Production of lean and timely is production system that its aims are to optimize processes and production process by reducing waste and other inefficient factors (White, 1993). Internal lean practices understanding for the study is waste elimination regarding to setup time, continuous improvement and just in time. (Mustefa, 2014)

2.2.2.4. Operational Performance

Voss et al., (2012) explains that operational performance refers to aspects of an organizations process which can be quantified .It includes variables such production reliability and defect rates, cycle time, on time delivery, cost of quality and scrap reduction, productivity, and inventory management. (Srinivasan et al. 2011) explained the concept of supply chain performance as the extent of performance of the processes included within the firm's supply chain department. Some of the measures specifically used to determine the supply chain

performance of a firm include supplier performance, customer satisfaction, stock costs, and number of on-time deliveries, product availability performance and lead time.

Performance measurement is defined as the process of quantifying the efficiency and effectiveness of a given process or function. (Gunasekaran and Kobu, 2007). Effectiveness is the level that customer's requirements are met and efficiency monitors usage of a firm's resources when providing a pre-specified level of customer satisfaction (Sheperd and Gunter, 2006). Hence, performance measurement is an important factor that improves supply chains' effectiveness and efficiency (Beamon, 1999). It is the responsibility of the decision-makers to develop metrics for evaluating performance.

Birech (2011) highlighted various performance metrics within operations area which include productivity measures, quality measures, inventory measures, lead-time measures, preventive maintenance measures, performance to schedule, and utilization; Specific measures which include cost of quality, variances, period expenses, safety measured on some common scale such as number of hours without an accident, profit contribution, measured in dollars or some common currency.

Elisa, et al., (2013) explained that organizations that have adopted the Total Quality Management (TQM) approach have depicted a positive relationship with the improvement of general performance, improved operation efficiency and with better financial results. He empirically tested various operational management practices and their effect on performance. Benefits included economic performance derived from improved efficiency in operations; waste reduction and a vision for continuous improvement. Lean systems were found to have a positive effect on organization operational performance. It is therefore management role to involve all the chain members in order to ensure that all activities and functions work together.

2.2.3. Operational Performance Measures

As it is cited by Tewfik & Matiwos (2012), Qualitative supply chain (SC) performance measures include customer satisfaction (pre transaction, transaction, and post-transaction), flexibility, information and material flow integration, risk management, and suppliers'

performance in terms of delivering the right good in the right time. There are also quantitative measures based on cost and on customer responsiveness.

Measures based on cost include cost minimization, sales maximization, profit maximization, inventory investment minimization, and return on investment maximization. Measures based on customer responsiveness include: fill rate maximization, product lateness minimization, customer response time minimization, and lead time minimization (Beamon, 1998). It is summarized by (Suhong, *et al.*, 2004), operational Organizational performance refers to how well an organization achieves its market-oriented goals as well as its financial goals. Financial metrics have served as a tool for comparing organizations and evaluating an organization's behavior over time. Any organizational initiative, including supply chain management, should ultimately lead to enhanced organizational performance. A number of prior studies have measured organizational performance using both financial and market criteria, including return on investment (ROI), market share, profit margin on sales, the growth of ROI, the growth of sales, the growth of market share, and overall competitive position.

The targets of improved operational performance are measured as long term is to increase market share and its short term goal includes reduce cost (Sundram *et al.*, 2011). Supply chain performance is important for company to compete in global market and improve the operational performance. In line with the above literature, the same items will be adopted to measure organizational performance in this study.

2.3. Review of Empirical Studies

The previous researches in the area of the study explained the relationship of supply chain management practices and organizational performance from different perspective/dimensions. Some of these researches finding their methodologies are summarized as follows.

2.3.1. Empirical Literature Review on Operational Performance

The supply chain performance literature has witnessed both conceptual and empirical contributions; Growing complexity in today's supply chain operations and increasing

competitiveness has led the firms to look for key performance indicators, the study attempts to explore the empirical contributions on supply chain performance so as to delve further with a view to find the existing gaps and future research opportunities.

Holmberg (2015) attempted to find how problems are a result of inadequate use of systems methodology to further understand the dynamism. The data was collected from six firms in the home furnishing business in Sweden to analyze its supply chain. This was complemented with extensive review of both management, quality and logistics functions. The study exhibited the presence of a weak relationship between strategy and actions; firms are still putting greater emphasis on financial measures ignoring other variables which cause opposition by some of its employees. Also it was extremely difficult to categorize firms within a supply chain on the basis of a systems thinking.

Lai *et al.* (2002) investigated performance in the field of transport logistics and attempted to develop a measurement instrument for the same. The study based its conceptual background on the SCOR model. Subsequently he came up with a tool for SCP in transport logistics. The outcome suggests that the measurement tool instrument is consistent and good for evaluating supply chain performance in transport logistics. The limitations of the study were: low response rate; one informant per company; hence there may be presence of response bias; the scale may not be applied to SCP measurement in any other sectors.

Chong (2011) developed a management tool which identified the relationships between supply chain management practices, operational performance and innovation on the performance of 163 Malaysian manufacturing and service firms. The results showed that SCM practices have a direct bearing on organizational performance among these firms when measured against a structured model of performance. The findings also revealed that Malaysian firms applied supply chain practices in their operations which confirming that SCM practices are applied across industry.

Charan *et al.* (2008) aimed to determine the key variables for an effective supply chain performance measurement system (SCPMS) which organizations should emphasize, so as to improve their supply chain. An important finding of this modeling approach was that awareness was that the existence of a performance measurement system (PMS) in supply chain which is a very critical factor (enabler) of performance. Therefore top management should prioritize on improving the awareness of PMS by their workers and customers. They should also align this with their goals, Invest in the implementation of this practice and devise effective information systems.

Chia et al. (2009) tested the perception of senior supply chain managers on measurement using a balanced scorecard (BSC) model. The survey population for this study included organizations in logistics, manufacturing and retailing spread across Singapore, to determine the extent of performance measurement as perceived and practiced by these different parties within the supply chain. The survey was designed from the parameters of BSC which include the following key drivers; financial, customer, internal business and innovation and learning. These findings clearly indicate that despite the increased awareness of the need for a balanced approach as an alternative measure of performance, firms are still dependent on existing traditional financial tools.

Awino and Gituro (2009) in their study of SCM practices for large private manufacturing firms in Kenya tested the applicability a statistical model on 52 large private manufacturing companies' using 39 variables to assess the extent of use among those firms. The variables were further analyzed using factor analysis procedure to achieve a simple and practical structure. From the study, 11 critical factors were identified as the best practices. These included the application of operating policies, linkages within supply chain firms, improved performance, improved information systems, strategic alliances, performance measures, goal orientation, customer relationships, guidelines and procedures, supplier selection and supplier evaluation. When compared against best practices globally, they showed some similarities.

Srinivasan *et al.* (2011) investigated the relationship between buyer and supplier partnership quality and supply chain performance with minimum risk of demand, supply and environmental uncertainty on this relationship. The findings indicate a positive relationship. The study also revealed that this positive relationship is moderated significantly by demand side risk and environmental uncertainty thereby highlighting the need for supply chain managers to form close relationships with their suppliers based on mutual trust and transparency as the same will enable to ward off the demand side risk and will also lead to better preparation for meeting any contingency arising from the environment.

2.4. Identified Literature Gap

Even though the measures of operational performance and supply chain management vary from organization to organization, they are essential for effective management of any organization. Supply chain management practices are affected by the global operations, the

real challenge for managers of this new enterprise environment is to develop suitable performance measures and metrics to make right decisions that would contribute to an improved supply chain practices, competitiveness of the organization and its operational performance. Some of the empirical studies only focus on upper tier supply chain i.e. suppliers (Addis, 2015) and some only focus on the lower level supply chain i.e. customers. Some studies (Karimi & Rafiee , 2014; Mutuerandu, 2014; Suhong, *et al.*, 2004; and Mustefa, 2014) focus on both supplier and customer but the variables used as supply chain practices are varied depending on the organization selected on their study. However, it is absence of complete agreements using the supply chain practice variable and its effect on the performance of the organization. Most of the literature survey shows and suggests for future research on the selected topic which show the antecedences and consequences of supply chain practice.

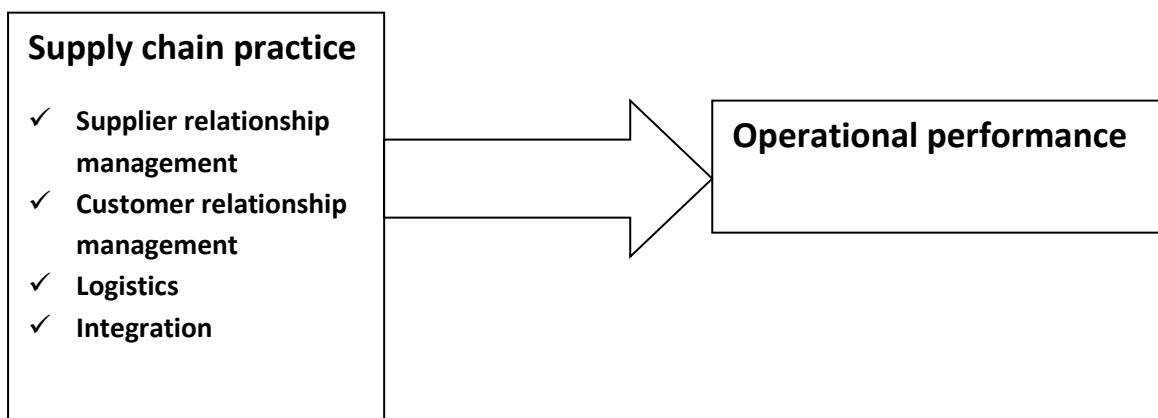
2.5 Conceptual frame work

The framework adopted for this research shows that supplier relationship management, customer relationship management, information sharing, logistics and Integration on operational performance.

Independent Variables

Dependent Variables

Figure:- 1



Source: own survey 2020

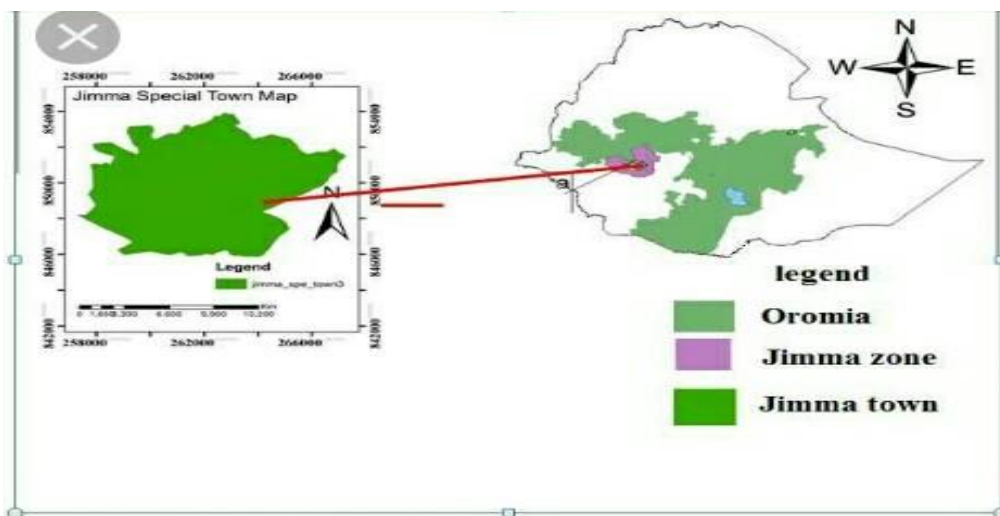
CHAPTER THREE

3. METHODOLOGY OF THE STUDY

This part describes the methodologies used in the study; the choice of particular research approach and designs, unit of analysis for the study, data type and data source, data gathering techniques and data analysis techniques along with appropriate justification associated with each approach. The pilot study result for the measuring instrument is also presented on this chapter.

3.1. Description of the Study Area

The study was conducted in Jimma town located in south west Ethiopia at distance of 345km from Addis Ababa as the 1986 master plan indicated. Jimma town has area of 46.23km² (4623 hectares) and have a sub-tropical climate with an attitude of 1704-2000meter above sea level and temperature range of 2.7°C to 31°C the amount of rainfall range from 1450-1800mm which 70% precipitation is in summer (may-September) (JCASP,2006). In 2005 the population of Jimma town is more than 155,000 and during 2008 estimated to be 220,000 (According to Jimma town planning and program offices,) which consisted 49.5% male and 50.5% female (BFEDO, 2004),the majority people in the town was engaged in more than 4500 business entities or trade and commerce which created jobs for 20,000 peoples. About 280 people engaged in transportation sector and 7500 employed on agricultural sectors. Whereas the industry sectors hold small share, majority of the peoples employed in government and private sectors (JCASP, 2006).The local rural exchange in Jimma and its surrounding has contributed significant role for town business activity.



Source: Jimma Town Municipality

3.2. Research Design

Research design is the framework that has been created to find answers to research questions. One type of non-experimental form of research is the correlational design in which investigators use the correlational statistic to describe and measure the degree or association (or relationship) between two or more variables or sets of scores. These designs were elaborated into more complex relationships among variables found in techniques of structural equation modeling, hierarchical linear modeling, and logistic regression. (Creswell, 2005).

The other type of quantitative research design is the survey research which provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. It includes cross-sectional studies using questionnaires or structured interviews for data collection with the intent of generalizing from a sample to a population (Fowler, 2008).

Therefore, the research designs have been employed in this study are descriptive and causal methods. Descriptive research design is preferred for better describe the group of individuals over the set of variables. Correlation will be applied to investigate the association of variables and the regressions used to show the cause and effect relationship between the dependent variables and the independent variables. The rationale behind selection of this method is to get an accurate representation of characteristics of a particular situation and group.

3.3. Data Source and Type

Primary and secondary data will be used for the analysis of the study. The primary data were gathered using survey questionnaire from the selected sample respondents/employees of PFSA Jimma south western regional branch and secondary data were collected from the company oracle data base, from the different online and off-line literatures mainly on Journals, Books, and Report and Proceedings

3.4. Description of the Study Population and Sampling

3.4.1. Population

The target populations of the study constituted the total of 101 employees. The populations were selected based on its reliability for the sources of data required and its convenience for data collection.

3.4.2. Sample Frame

A list of those within a population who can be sampled, are optioned from the company oracle data based on December, 2019. The summary list is presented on the following table.

Summary of sample frame from each department

Position	Logistics	Other departments	Target population
Staffs	20	41	61
Logistics supervisors	5	14	19
Managers	5	3	8
Officers	5	8	13
Total	33	47	101

Source; from the organization personnel department

3.4.3. Sampling Technique

In order to find the appropriate number of respondents for the survey, the researched divide the target population in to two i.e. staff level and managerial level employees of organization. Since the above managers, employees, officers and logistics supervisors number is small and they are more experienced, the researcher has been used census method.

3.5. Research Approach

The study was used a deductive research approach which is closely related to quantitative research. Therefore, in terms of methods, this research has been employed mixed method while conducting the study i.e. to collect, to organize and to analyses the data.

3.5.1. Measurement Instruments

As the measuring instrument, close-ended Likert type questionnaires were used. This questionnaire type is selected because it is easy to administer to groups of people simultaneously; it is less costly and less time consuming than other measuring instruments.

Likert scale is a widely used rating scale which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements or questions i.e. from (1) strongly disagree to (5) strongly agree. The questionnaires were also including some questions about educational back ground of respondents, employee level of the respondents, and experience of the respondents at their current position.

3.6. Data Collection and Analysis Procedure

In the data collection and analysis of the study, the following procedures were used:

1. Briefing on the questioners were given to the selected respondents before the distribution of the questioner and then questioner were distributed to the respondents,
2. Depending on the distribution time, the questions were collected from the respondents after three days,
3. A reminders were made for the non- responding employees and lagged questioners were collected,
4. The questioners will be coded and analyzed for usability of the questioners' was made. Finally, the analysis of the data using different statistics on SPSS version 20 will made and this paper is produced.

a. Data Analysis Techniques

Before analyzing, the data has been collected using questionnaire were cross checked for its completeness and consistency. Then, descriptive statistics, numbers, percentage, mean and median has been used in order to analyze the data. Finally correlation and linear regression model was used to see the effect of the Independent Variables to Dependent Variables

The regression model used follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \text{ Where:}$$

Y = operational performance

β_0 = the intercept of the model

X₁ = extent to which Supplier relationship management are adopted by the organization

X₂ = extent to which CRM practices are adopted by the organization

X₃ = extent to which internal integration practices are adopted by the organization

X₄ = extent to which logistics management practices are adopted by the organization

ε = Error term

$\beta_1, \beta_2, \beta_3$ = coefficients of the model

b. Quality Criteria

The close-ended Likert type questionnaires were selected from similar studies in the area. This questionnaire type is selected because it is easy to administer to groups of people simultaneously; it is less costly and less time consuming than other measuring instruments.

Likert scale is a widely used rating scale which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements or questions i.e. from (1)

strongly disagree to (5) strongly agree. The questionnaires were also including some questions about educational back ground of respondents, employee level of the respondents, and experience of the respondents at their current position.

In order to cross check its completeness the researcher was used SCM literature and empirical review of the previous researches on the area of the study and additional content on the framework are included based on it. However, according to the research texts, in survey based research, before the questioners administrated, it is important to validate the scales used for reliability and validity. Though, the questionnaire has been used for this survey is adopted form previous research with minor customization and its validity and reliability tests. The researcher made a pre pilot and pilot survey to test the questioner validity and reliability on current survey situations. Therefore, the test result presents on the following topics.

i. Face Validity Test

Even if most of the questioners were adopted form the similar researches (Solomon Kindie Bezabh JUNE 2017) on the area of the study and its validity previously tested, to cross check its face validity after its customized questions as the measuring instrument, the questionnaire gives to academicians for their comment. In addition, the questioner also distributed to some employee in different employment level on the selected departments. Then, based on the observation of feedback of the academicians and respondents, the redundant and ambiguous items were either modify or eliminated.

CHAPTER FOUR

4. DATA ANALYSIS AND PRESENTATION

1.1. Introduction

This chapter presents the data analysis and result interpretation part of the research. In order to presents the findings of this research on the effect of supply chain management practices on the operational performance, the collected data using quantitative method tabulated and analyzed using descriptive analysis statistical tools.

1.2. Data Processing

Only 97 questioners are collected out of 101 distributed questioners to the selected respondents that make 96% response rate and 4% non-response rate. However, in order to reduce the possible errors in the data administration, immediately after the collection of data the researcher has cleanses the outlier, missing values and discrepancies. Finally, 97 complete respondents' data are used for the survey analysis.

1.3. Descriptive Analysis

In this part of analysis, the researcher has divided and describes it in to two parts. The first part focuses on the demographic information of the respondents so frequencies and percentage used for the analysis. The second part focused on the basic questions which are intended to acquire the effect of supply chain management practices on the operational performance i.e. Strategic supplier partnership, customer relationship, level of information sharing, level of information quality and lean practices in the organization and also focuses on the perceptions of the employees towards the operational performance of the company. Therefore, for the analysis mean, median, mode, skewedness and kurtosis are used to describe the findings.

1.3.1. Demographic Data of the Respondents

The profile of the respondents' in the selected department of EPSA Jimma branch is summarized in to five parts in this survey. The first one is about the respondents' gender, the

second is about their experience in the organization, and the third is about their qualification in the selected departments and age.

Under Table 4.1. Age categories of respondents include less than 30 years, between 31 and 40, and between 41 and 50. Largest numbers of respondents were between 31 years to 40 years and followed by age category of less than 30 years. This category comprises 61(63%) of the respondents. 24(24.4%) of the respondents were with age less than 30 years. But only 12(12.3%) of the respondents are in an age category of years between 41 and 50. This shows that 87.4% of the respondents are at age of less than 40 years. This is an indication that majority of employees in organization are at younger age. Although the researcher intended to identify response from age above 50 years, he could not find any respondent in this category.

On the other hand, under Item two below presents gender and age of respondents with their respective frequencies and percentages. Total of 97 respondents participated in the study. Out of this respondents 91(93.8%) of the respondents were male and remaining 6(6.18%) of the respondents were females, this implies that large proportion of employees in the organization are male.

The researcher collected data about education and experience of the respondents and analyzed in table 4.1. Under item three below. So 57(58.7%) of the respondents have educational qualification of bachelor's degree. In addition to this, 23(23.7%) of the respondents have Post Graduate degree. But only 17(17.5%) of the respondents have educational qualification of certificate/diploma and finally none of them were Doctorate degree. this implies that the employees of company have educated background that makes the company competitive. Educational Qualification of Respondents Education is paramount in enabling the respondents to conceptualize issues related to resource utilization. This finding was in line with Katz (1992) finding that those with higher education are more successful as they have more knowledge and have modern managerial skills making them more conscious of the reality of the business work.

As shown in the table 4.1 under item four, 66(68%) of responds have worked in the organization for 6 to ten years. Respondents that worked for 2 to 5 years constitute 17(17.5%) of the respondents. 7(7.2%) of respondents have worked in the organization for above ten years. finally 7(7.20%) of the respondents have a work experience of less than 2 years in the company. This implies that the organization is on the good position in case of employees handling.

Analysis of Departments

According to table 4.1 under item five, 36(37%) of the respondents have an educational qualification of management and 32(33%) with health 13(13.4%) with accounting and 16(16.5%) other fields of study. This implies that employees who have indirect fields of studies were dominated the organization and it shows that such problems were needs attention of the whole stalk holders in general.

Table 1. Demographic characteristics of respondents

No	Questions		Frequency	Percentage
1	Age	Under 30	24	24.7
		31-40	61	63
		41-50	12	12.3
		Total	97	100
2	Gender	Male	91	93.8
		Female	6	6.18
		Total	97	100
3	Educational qualification	Certificate/diplomas	17	17.5
		Bachelor's degree	57	58.7
		Post Graduate degree	23	23.7
		Doctorate degree	0	0
		Total	97	100
4	Experience	Under two Years	7	7.2
		2-5 Years	17	17.5
		6-10 Years	66	68
		Above 10 years	7	7.2
		Total	97	100
5	Qualification	Health related	32	33
		Management	36	37
		Accounting	13	13.4
		Other	16	16.5
		Total	97	100

Source: Own Survey, 2020

1.4. Descriptive Analysis

This study used descriptive, correlation and regression analysis to identify the effect of supply chain management practices on the operational performance the case of EPSA Jimma SW branch.

The descriptive analysis was intended to identify within its weakness the existence of supply chain management practice in the organization. The researcher presented about practices of the supply chain management in the organization with their respective sub practices by using responses from employees in different departments, analyzed by using mean and standard deviation and presented by tables.

1.4.1. Supplier relationship management

The supplier relationship management provides the structure for how relationships with suppliers are developed and maintained (Croxtton et al., 2001). Cross-functional teams tailor product and service agreements with key suppliers (Lambert et al., 2005). Supplier relationship management macro process aims to arrange for and manage supply sources for various goods and services. Supplier relationship management processes include the evaluation and selection of suppliers for various products; negotiation of pricing and delivery terms with suppliers; the placement of replenishment orders; sharing of demand and supply plans with suppliers; and communication regarding new products and orders with suppliers. Level of practices of Supplier relationship management is presented in the following table by using mean of the responses and standard deviation.

According to respondents of the organization, they were regularly solving problems jointly with their suppliers as a team and individually, which was evaluated the higher mean of 3.90. This shows that the organization has a good culture to sustain their supply chain network by working as a team. On the next way, respondents moderately agree that quality is their number one criterion in selecting suppliers with mean of 3.81.

This implies that while quality may not have the utmost priority, it is still the number one criterion and the company is giving fairly high focus to quality when selecting the supplier.

Since the company is in a franchise business and the main ingredient/ supply is procured from the mother company, other suppliers may not get due attention to the point of being a strategic supplier. The mean of the responses indicate that the problems of supplies are jointly solved with supplier. This implies that the company provides assistance in solving problems

of supplies by a continuous managerial activity. Product quality of the supplier has an effect on quality of product of the company.

The responses for support of company to suppliers to improve their product quality with mean value of 3.83 indicates that the company supports suppliers to improve their product quality. Responses are neutral for involvement of suppliers in continuous improvement programs. This implies that the employees lack awareness about involvement of the suppliers in improvement programs. The responses for involvement of suppliers in planning and goal setting activities with mean of 2.24 indicate that the suppliers are not included in the goal setting and planning activities. Finally, as the responses for involvement of key suppliers in new product development with mean of 2.21 indicate the suppliers are not involves in the new product development. Generally, in average practice of supplier relationship management in the EPSA is partially implemented. This implies that when we see from the entire result the company hasn't been giving much attention for supplier relationship management.

Table 2 . Descriptive analysis of Supplier relationship management

N_o	Question	N	Mean	St. Deviation
1	We consider quality as our number one criterion in selecting suppliers.	97	3.80	.579
2	We regularly solve problems jointly with our suppliers.	97	3.90	.751
3	We have helped our suppliers to improve their product quality	97	3.83	.623
4	We have continuous improvement programs that include our key suppliers.	97	3.19	.701
5	We include our key suppliers in our planning and goal-setting activities.	97	2.23	.804
6	We actively involve our key suppliers in new product development processes.	97	2.20	.498
7	There is a strategic Supplier relationship management	97	3.19	.347
Aggregate			3.19	.61

1.4.2. Customer Relationship management of the organization

According to the following table 3:- employees in the organization frequently interact with customers to set reliability, responsiveness, and other standards for them were evaluated the higher mean value of 3.958, on the other hand they were frequently measure and evaluate customer satisfaction it was a mean value of 3.618 . The remaining were with mean value of 3.9381, 3.546 and 3.948 questions like frequently determine future customer expectations, facilitate customers' ability to seek assistance from employees and periodically evaluate the importance of the

relationship with their customers respectively. This implies that, the company has frequent interaction with customers. The company has some way to go in giving much attention in measuring and evaluating customers because it achieving the sales target easily. Seasonal change in demand the company determines future expectations.

According to JOELD.WISNER on his book Principles of Supply Chain Management, the intense competitive environment in most markets today, CRM has become one of the leading business strategies and potentially one of the most costly. Most executives who haven't already implemented CRM applications are planning on investing in them soon. And while investments in CRM are in the billions of dollars each year as previously stated, it appears that much of this investment is not fundamentally improving customer relationships, making customers more loyal, or resulting in positive returns for many of the companies implementing CRM. As a matter of fact, in recent U.S. retail industry survey, 85 percent of retail consumers who considered themselves "loyal" would be willing to shop elsewhere if properly enticed. In one industry survey, only 25 percent of the respondents reported significant improvements in performance after implementing CRM. In another survey, while many CRM projects made money for the firms and met expectations, 70 percent of the projects either resulted in business losses or created no bottom-line improvements

Table 3. Descriptive analysis of customer relationship management

No	Question	N	Mean	St. Deviation
1	We frequently interact with customers to set reliability, responsiveness, and other standards for us.	97	3.958	.865
2	We frequently measure and evaluate customer satisfaction.	97	3.6180	.636
3	We frequently determine future customer expectations	97	3.9381	.658
4	We facilitate customers' ability to seek assistance from us.	97	3.546	.500
5	We periodically evaluate the importance of our relationship with our customers.	97	3.948	.782
Aggregate		97	3.80	.69

1.4.3. Logistics

As Lambert discusses "Logistics is the process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from the point of origin to the point of consumption for the purpose of conforming the customer requirements". So according to the response of respondents of EPSA Jimma branch, quality

of logistics is number one creation and it is approved by their response which is a mean value of 3.758, the same is true for the knowledge behind logistics which was a mean value of 3.518, and the organization have quality warehouse, have a working plan to manage to their products, employees familiar to logistics related bus models and finally, bus models evaluated a mean value of 3.6381, 3.346, 3.248 and 3.602 respectively.

Table 4. Descriptive analysis of Logistics management

No	Question	N	Mean	St. Deviation
1	We consider quality as our number one criterion	97	3.758	.855
2	We know the knowledge behind logistics	97	3.5180	.646
3	We have quality warehouse to our materials	97	3.6381	.668
4	We have a working plan to manage to our products	97	3.346	.565
5	Our employees familiar to logistics related bus models	97	3.248	.772
6	Our employees familiar to logistics related bus models	97	3.602	.8367
Aggregate			3.52	.72

1.4.4. Internal Integration of the organization

In a survey of senior logistics and supply chain executives from the Council of Logistics Management (currently CSCMP), Stank et al. (2001) determined that internal collaboration between departments within a firm directly impacted logistics service performance. The authors also found that external collaboration did not share significant, direct relationship with logistics service performance. However, external collaboration with supply chain entities influenced increased internal collaboration. The authors concluded a firm should focus on internal and external collaboration because of the direct and indirect benefits each could have on logistics service performance.

Roath (2004) surveyed logistics managers of companies in Great Britain that also outsourced certain supply chain processes or services to third party logistics providers. Contrary to Stank et al. (2001b), the authors did not find a direct relationship between any form of collaboration and logistics performance. However, Roath (2004) found a positive, significant relationship among external supply chain collaboration and market performance.

Felde (2005) utilized research from Switzerland buyer/supplier relationships to show a connection between supplier collaboration and both buyer innovative capability and firm

financial performance. Perhaps more importantly, the authors looked to establish trust and dependence as moderators to the collaboration/performance links. The authors concluded that collaboration in the presence of high trust had buyers experience different (i.e. better) innovative capabilities than those relationships which existed in the presence of low trust. Buyers which experienced low dependence with their supply chain partner experienced better innovative capabilities than highly dependent counterparts. Trust and dependence did not statistically significantly moderate the collaboration to firm financial performance link.

Therefore the following result shows this argument in a positive way. business models have played an important role internally to max the integration on the right way which was valued a mean of 3.358 lateral communication with community of the organization also valued a mean of 3.318, working with a team is al so a rule for the organization is a mean value of 3.338 and finally Integration is accounted as value of the organization is a mean value of 3.248 respectively.

Table 5. Descriptive analysis of Internal Integration of the organization

N_o	Question	N	Mean	St. Devia tion
1	We are used business models to max our integration	97	3.358	.855
2	We are using lateral communication with our workers	97	3.3180	.646
3	There is a rule in the organization to work with each other	97	3.3381	.668
4	Integration is a paper work only	97	2.240	.565
5	Integration is accounted as value of the organization	97	3.248	.772
Aggregate			3.10	.70

Table 6:- Adoption of the effect of supply chain management practices on the operational performance.

Variables	Mean	St.Diviation	Rank
<i>Supplier Relationship Management</i>	3.191	.6147	3
<i>Customer Relationship Management</i>	3.801	0.6882	1
<i>Logistics Management</i>	3.518	0.723	2
<i>Internal Integration</i>	3.100	0.701	4

Source :-research data 2020

From Table 4.6, it can be observed that the effect of supply chain management practices have been adapted to appreciable levels as shown Customer Relationship Management by its mean of 3.801. Logistics Management ranked as the second most adopted supply chain management practices by EPSA Jimma South western branch with a mean score Of 3.518. The third most adopted supply chain management practices by EPSA is Supplier Relationship Management with a mean score of 3.191, followed by Internal Integration (3.100).

1.4.5. Operational Performance of the organization

Operational Performance is used as a dependent variable in the study. Table 6 presents descriptive analysis for operational performance of the organization by using opinion of the respondents. Respondents indicated with a mean of 4.267 that the company has Market performance in the country. Sales of the country are growing due to the sales strategies of the company. This is confirmed by the responses with mean of 4.18. Continuous growth of market share a mean value of 4.103, return on investment 4.03, profit margin 3.577, and competitive position 3.256 and finally an increase social responsibility valued a mean value of 3.288 respectively. The responses indicated that competitive position is lowest when compared to other performance measures. On overall, the company is performing very well especially in sales performances.

So when we see the social responsibility, as mentioned above, there is increased interest given to the topic of environmental Sustainability due to globalization, technology advancement, social media and availability of information. The increase in the number of countries entering the World Trade Organization has also made GSCM to be practiced in many manufacturing companies (Olfat, 2013). In addition, the knowledge of the consumer about issues of saving the environment has driven them to demand and prefer environmentally friendly products. This has resulted in manufacturers being interested in green marketing to give them competitive advantages (Beske et al., 2014)

Mydock (2014) states that the green marketing model involves product alterations, packaging modification, and transformed processes and improved advertising. He indicates that green

advertising is of principal importance, whereby a company's advertisement presents a corporate image of environmental responsibility and green culture with or without highlighting a product. Furthermore, it is stated that the advertisement often addresses the relationship between a product and the biophysical environment.

According to Gandhia et al.(2015),including green in a company policy can assist in building the company's brand image in the market, thus food companies can use green marketing to attract more customers and gain more competitive advantage

Others authors were argues on that, the time frame here is weekly or daily, and during this level companies make decisions regarding individual customer orders. At the operational level, supply chain configuration is considered fixed, and tactic policies are already defined (Chopra and Meindl, 2010). The goal of supply chain operations is to handle in coming customer orders in the best possible manner.

During this level, operational decisions made by low level managers include allocate inventory or production to individual orders, set a date that an order is to be filled, generate pick lists at a warehouse, allocate an order to a particular shipping mode and shipment, set delivery schedules of trucks and place replenishment orders (Gunasekaran et al., 2004). Because operational decisions are being made in the short term (minutes, hours, or days), there is less uncertainty about demand information. Given the constraints established by the configuration and tactic policies, the goal during the operational level is to exploit the reduction of uncertainty and optimize performance.

The strategic, tactical and operational decision making levels of a supply chain have a strong impact on overall profitability and success. It is fair to state that a large part of the success of firms can be attributed to their effective supply chain strategic, tactical, and operational decision making levels (Kobu, 2007). The reason for studying the performance measurement system and performance measurement factors at the strategic, tactical, and operational levels is to make the right decisions so that they can support each other in achieving the overall goals and objectives of an organization. The success of strategy formulation depends upon the degree of alignment of strategies at different levels.

Table 7: Operational Performance

Operational Performance		N	Mean	St. Deviation
1	Market performance increase	97	4.268	.6537
2	Return on investment increase	97	4.030	.7423
3	Continuous growth of market share	97	4.103	.7969
4	Sales growth	97	4.185	.6179
5	Profit margin on sales	97	3.577	.5368
6	Competitive position increase	97	3.256	.4778
7	Increased social responsibility	97	3.288	.770

1.5. Regression Analysis

In addition to descriptive and correlation analyses, the researcher used regression analysis to identify effect of supply chain management practices on the operational performance. This section of the study presents the results and discussions of the regression analysis. So far, the study established a framework of literature review and data analysis of descriptive statistics was described for the effect of supply chain management in selected company. To investigate the significant factors of supply chain management, multiple regression model were computed. The multiple regression model of the study was estimated by linear regression model by using ordinary least square (OLS) method.

Table-8. Regression Analysis

MODEL	R	R	Adjusted Square	R	Std. Error Of The Estimate
1.	.721 ^A	.5240	.4894		.03578
a. Procedures	Constant	SRM,CRS	II.L		OP

As stated in the model summary table 9 above R squared in the model is 0.52 that indicates that 52 percent of variability in operational performance of the organization is explained by the changes in the independent variables used in the model.

Table 9: ANOVA table

MODEL		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.0775	5	.01938	15.1440	.007 ^b
	Residual	0.7042	91	.00128		
	Total	0.1479	96			
a. Dependent variables is operational performance						
b. Constant variables: SRM,CRS,II,L						

Source:- survey 2020

The overall significance of the model presented in ANOVA table 10 above, when measured by F statistics of 15.14 and P-values of 0.007 indicates that the model is well fitted at 1percent significance level. This implies that the model used for the study is appropriate.

Table 10: table of coefficients

<i>Model</i>	<i>Unstandardized coefficients</i>		<i>standardized coefficients</i>	<i>t</i>	<i>Sig.</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>		
<i>(Constant)</i>	<i>.880</i>	<i>.092</i>		<i>9.565</i>	<i>.070</i>
SRM	<i>.642</i>	<i>.093</i>	<i>.651</i>	<i>6.903</i>	<i>.001</i>
CRS	<i>.540</i>	<i>.082</i>	<i>.577</i>	<i>6.585</i>	<i>.002</i>
II	<i>.506</i>	<i>.097</i>	<i>.507</i>	<i>5.216</i>	<i>.042</i>
L	<i>.707</i>	<i>0.073</i>	<i>.746</i>	<i>9.685</i>	<i>.000</i>

➤ Here the Dependent Variables Is Operational Performance

Source; survey of 2020

Therefore the researcher identified the effect of supply chain management practices on performance by using multiple regression models.

The independent variables used to identify effect of supply chain management are SRM, CRM, II, and L. This study was conducted with an objective of identifying Effect of supply chain management on operational performance of an organization in the case of EPSA .The researcher used effect of supply chain practices such as SRM, CRM, II, and L. as independent variables.

As a result of regression analysis shows, there is positive relationship between SRM and operational performance with coefficient of 0.642 and significance level of 1%. This implies that the partnership with the SRM is highly contributing to operational performance of the organization by increasing the effectiveness of the organization. According to Tan et al., (2002) strategic supplier partnership enables an organization to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product-design process can offer more cost effective design choices, help select the best components and technologies, and help in design

assessment. Chau (2007) reached the conclusion of strategic supplier partnership has been reported to yield organization-specific benefits in terms of financial performance. Advanced design and logistic links with suppliers are related to better-performing plants.

Strategically aligned organizations can work closely together and eliminate wasteful time and effort. Customer relationship is significantly affecting the operational performance of the organization. Effect of the customer relationship is positive and significant on the performance at significance level of 1%. The finding of this study is consistent with the work of Carr and Pearson (1999) which describe that focusing and maintaining the customer relationship will enable the organizations to be more responsive towards customers' needs and will result creating greater customer loyalty, repeat purchase and willing to pay premium prices for high quality product that will guaranty in increasing market share. (Whang, 2007) also identified that customer relation practices lead to significant improvement in organizational performance. It enables to manage customer complaints, building long-term relationships with customers, and improving customer satisfaction. Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers.

Another practice of supply chain management is Internal Integration is one which has strong positive effect on organizational performance with coefficient 0.506 and significant at 5%. This result is consistent with the work of Lalonde (1998) which describes sharing of information as one of five building blocks that characterize a solid supply chain relationship and have an impact on the performance of organizations in supply chain. Kroes & Ghosh (2010) stated that the higher level of information sharing is associated with the lower total cost, the higher-order fulfillment rate and the shorter-order cycle time. Simplified material flow, including streamlining and making highly visible all information flow throughout the chain, is the key to an integrated and effective supply chain.

Logistics management practice has positive significant impact on Operational performance of the organization with significance level of 1% and coefficient of 0.707. This finding is consistent with the work of Child house and Towill (2003). The empirical findings of the study reveal that simplified material flow, including streamlining and making highly visible all information flow throughout the chain, is the key to an integrated and effective supply chain.

Supply chain partners who exchange information regularly are able to work as a single entity. They can understand the needs of the end customer better and hence can respond to market change quicker. Unlike other components internal lean practice has positive but insignificant effect on performance of the organization. But White (1993) describes that production of lean and timely is a production system that aims to optimize processes by reducing waste and other inefficient factors. This has an impact on the organizational performance in long term. But in the case of the company this has insignificant effect because the company used mass production.

CHAPTER FIVE

2. SUMMARY OF MAJOR FINDINGS, CONCLUSION, AND RECOMMENDATIONS

2.1. Summary of Major Findings

This study was conducted with objective of identifying effect of supply chain management on operational performance of organization in the case of EPSA Jimma branch.

Majority of EPSA employees (respondents) are male (about 94%) having bachelor and master's degree holders constituting 84% of the total EPSA staff profile. About 50% or half of the employees (respondents) studied business fields, followed by health-related fields (33%). More than 3/4th (or 75%) of the respondents have 10 and above years of experience.

Generally, the SCM practice of the company (EPSA) was positively rated on all of the four indicators. The result indicates that the company is better in terms of Customer Relationship (M=3.8) & Logistics Management (M=3.5) practices than supplier relationship & internal integration, which remained marginal (around average on the 5-point scale, whose mean is 3.0). Some aspects of SR which was rated below average (M=2.2) include actively involving key suppliers in planning and in new product development processes.

The overall Operational Performance rating of EPSA is above average ($M=3.8$), and even better on some of the indicators such as Market performance. Return on investment, Sales and market share growths.

This study found that SRM has significant positive effect on operational performance of the organization through selecting few but very important suppliers that makes cost effective. In addition to this, the company has customer relationship that positively and significantly affects operational performance of the company by creating greater customer loyalty, repeat purchase and willing to pay additional prices for new product forms that will guaranty in increasing market share. As integration is great asset to company performance, it is positively and significantly contributing to the operational performance of the company by lowering total cost through the higher-order fulfillment rate and the shorter-order cycle time.

This study found the level of logistics management is positively and significantly affecting performance of the company by integrated and effective supply chain.

2.2. Conclusion

Based on finding of the study the researcher reached at the following conclusions.

Generally EPSA is performing better in terms of SCM & OP practices. One of the reasons could be higher profile of its staff in terms of qualification and experience as shown in the findings of this study.

Supply chain management practice in general is positively and significantly related to operational performance of the organization. That is, increase in SRM is found to be strongly associated with higher operational performance of an organization. The model is fit at 0.1 P-value (or 1% error). That is, the variables used in the study are appropriate to estimate OP. The result which is measured by R-Squared = 0.524 indicates that 52 % of variations in operational performance of the organization is explained by the 4-independent variables (SRM, CRS, LM, II.).

Individually (from coefficients table) LM is strongly related to OP ($\beta=.746$) followed by SRM ($\beta=.651$), while the other two variables CRS & II are moderately related to OP with $\beta=.577$ & $.507$ respectively.

Efficient supply chain management helps an organization to achieve better operational performance by practicing better supply chain management. Individually, SRM helps organizations in increasing their operational performance by focusing on only few and very important supplier.

On the other hand Supplier management process would include the goal of ensuring supplies at the best cost and terms, depending on whether it is a tactical purchase, a strategic buy, a negotiated purchase, or an engineered item. Each of these would have a different process.

By and large, the process would include analyzing information on supplier capabilities and pricing. Strategic buying and engineered buying would have more activities in the process of evaluation, especially at the initial stage of collaboration. It must be clearly understood that the entire supplier management process is driven by the nature of purchase and linked to the product manufactured.

Customer relationship is another factor in increasing operational performance of the organization by creating good relationship with customers which then creates loyalty, increased purchase and accepting premium prices that result in higher market share. Logistics management in general positively and significantly affects operational performance of the organization by lowering cost of doing business and increase responsiveness to dynamisms in the market and the general environment.

Another important macro process is customer relationship management. As mentioned earlier, the purpose of a supply chain network is to serve an ultimate customer of the focal organization. The focal organization orients itself to synchronize its role agents and processes to serve a customer at a right price. Customer delight happens only if the product meets the customer's satisfaction in terms of time, quantity, responsiveness, and cost. Also aspects like warranty, service support, and parts availability are critical.

Customer retention and up gradation would be key expectations of the focal organization, which could happen only if financial, informational and product flows are managed effectively. The interdependence among processes and role agents must be well-appreciated and synchronized for effective and efficient supply chain network. Customer relationship management from supply chain management perspective must take care of responsiveness, reliability, and flexibility. These could be possible only when the focal organization seamlessly integrates all processes.

Internal supply chain process includes a number of activities with respect to receiving, conversion, and dispatch of finished goods. During this process, goods are internally value added through in-plant logistics operations like stores management, movement and storage, and so on.

All these activities are heavily linked to supplier collaboration like joint inventory taking (JIT), kanban (a technique of inventory management discussed later in the book), and design collaboration, and also with channel partners and customers. One may note that automated information flow and physical movement are synchronized for supplier-maintained inventory at the plant. The same would be true if one were to consider the importance of information flow from the customer's end to plant operations, especially with regard to changes in the weekly production as per the change in market conditions.

Financial flows are fundamentally essential in these. Hence the functional approach to manufacturing would be limited to excellence in manufacturing but may lack supply chain synchronization unless it is explicitly pursued.

Finally, Long-term competitiveness therefore depends on how well the firm meets customer preferences in terms of service, cost, quality, and flexibility, by designing the supply chain, which will be more effective and efficient than the competitors'.

2.3. Recommendations

Based on the findings and conclusions, the researcher forwards the following recommendations.

- The study implied the need to consider involvement of relevant stakeholders in order to elicit feedback on the companies supply management practices as well as its operational performances.
- The organization, at large, has to focus on supply chain management practices in order to increase their operational performance by establishing the practices at company, department and staff levels.
- In order to make supply chain management of the company efficient and effective, companies have to develop strong supplier relationship management strategies by focusing on key and very important suppliers.
- Efficiency is measured by delivery performance, product quality, backorders and inventory level, whereas effectiveness is measured by service quality and the service needs; so paying attention to this point have a great reward for the organizations.

References

- Addis, T., (2015): *The Impact of supply chain management practices on performance of pharmacies in governmental health facilities in Addis Abeba.*, Addis Ababa University School of Commerce: Unpublished Master's Thesis.
- Chopra, S. & Meindl, P., (2007): *Supply Chain Management Strategy, Planning and Operation*. 3rd ed. New Jersey: Prentice Hall.
- Fantazy KA, Kumar V & Kumar U, (2010): *Supply management practices and performance in the Canadian hospitality industry*. *Int. J. Hosp. Manage.*, 29(4), pp. 685-693.
- Fanuel, (2013): *Prospects and challenges of supply chain management in ethio Telecom.* , St. Mary's university: Unpublished Master's thesis.
- Haftom, (2014): *Challenges of supply chain management in ethio telecom*, Addis Abeba University School of commerce: Unpublished Master's thesis, .
- Hailemickael, (2011): *Supply Chain Performance of selected leather Footwear firms in Addis Ababa.*, Addis Abeba University School of commerce: Unpublished Master's thesis .
- Ibrahim & Hamid, (2012); *Supply Chain Management Practices and Supply Chain Performance Effectiveness*. *International Journal of Science and Research (IJSR)*, 3(8)
- Ibrahim, D. S. B. & Hamid, A. A., (2012); *Supply Chain Management Practices and Supply Chain Performance Effectiveness*. *International Journal of Science and Research (IJSR)*, 3(354), pp. ISSN (Online): 2319-7064
- Mustefa, M., (2014): *Supply Chain Management Practices and Firm Performance in Case of Awash Tannery Plc.*, Addis Abeba University School of commerce. Un published Master's thesis.
- Narasimhan R & Kim SW, (2007): *Effect of supply chain integration on the relationship between versification and performance: Evidence from Japanese and Korean firms*. *J. Operation .Management*, Volume 20, pp. 303- 323.
- Shin H,, Collier DA, & Wilson DD., (2000): *Supply Management orientation and supplier/buyer performance.. Oper. Manage.* 3(18), p. 317–333.
- Tan, K., (2002): *Supply chain management: Practices, concerns, and performance issues.. Journal of Supply Chain Management*. ABI/INFORM Global, 38(1), p. 4.

- Tan, Kannan.R, Handfield B. & Ghos, (1999): Supply chain management: an empirical study of its impact on performance.. International Journal of Operations & Production Management, 10(199)*
- Tewfik & Matiwos , (2012): Supply chain management practices and performance at Faffa Food Sh.Co. JBAS, 4(2).*
- Wagnera, S.M., Grosse-Ruykena & P.T. and Erhunb, F, (2012): The link between supply chain fit and financial performance of the firm.. Journal of Operations Management. 30(4), pp. 340-353.*
- Yohannes, A., (2014): An assessment of supply chain management practices and its challenges on competitiveness: the case of mugher cement, s.l.: Unpublished Master's thesis, Addis Abeba University School of commerce*

APPENDIX
JIMMA UNIVERSITY
DEPARTMENT OF MANAGEMENT
MASTERS OF LOGISTICS AND TRANSPORTATION MANAGEMENT
FOR PARTIAL FULFILLMENT OF THE DEGREE OF MASTER
IN
LOGISTIC AND TRANSPORTATION MANAGEMENT
QUESTIONNAIRE

Dear respondents, the purpose of this questionnaire is to gather data on the effect of supply chain management practices on the operational performance: in the case of PFSA Jimma branch. The study is purely for academic purpose and thus not affects you in any case. So, your genuine, frank and timely response is vital for successfulness of the study. Therefore, i kindly request you to respond to each items of the question very carefully.

In order to investigate the effect of SCM practices on PFSA Jimma branch, the researcher prepared the following questions, please tick (√) on the appropriate question number to indicate the extent to which you agree or disagree with each statement.

The item have five-point likert type scales, the scales have the following meaning

1. Strongly Disagree
2. Disagree,
3. Neutral,
4. Agree,
5. Strongly Agree

Thank you for spending your time in advance!

PART I: DEMOGRAPHIC INFORMATION

1. Gender
 - a. Male
 - b. Female
2. **Educational Qualification:**
 - A. Certificate/diplomas
 - B. Bachelor's degree
 - C. Post Graduate degree
 - D. Doctorate degree

3. Experience

- A. Under two Years
- B. 2-5 Years
- C. 6-10 Years
- D. Above 10 years

4. Your qualification

- A. Health related
- B. Management
- C. Accounting
- D. Other state it _____

Part II: Instruments of Supply chain management operation

I. Supplier relationship management		Strongly Disagree (1)	Dis-agree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1.1	We consider quality as our number one criterion in selecting suppliers.					
1.2	We regularly solve problems jointly with our suppliers.					
1.3	We have helped our suppliers to improve their product quality					
1.4.	We have continuous improvement programs that include our key suppliers.					
1.5	We include our key suppliers in our planning and goal-setting activities.					
1.6	We actively involve our key suppliers in new product development processes.					
Customer relationship (CR)						
2.1	We frequently interact with customers to set reliability, responsiveness, and other standards for us.					
2.2	We frequently measure and evaluate customer satisfaction.					
2.3	We frequently determine future customer expectations					
2.4	We facilitate customers' ability to seek assistance from us.					
2.5	We periodically evaluate the importance of our relationship with our customers.					
II. Logistics						
3.1	We consider quality as our number one criterion					
3.2.	We know the knowledge behind logistics					
3.3.	We have quality warehouse to our materials					
3.4.	We have a working plan to manage to our products					
3.5.	Our employees familiar to logistics related bus models					

3.6	Our employees familiar to logistics related bus models					
Integration						
4.1	We are used business models to max our integration					
4.2.	We are using lateral communication with our workers					
4.3.	There is a rule in the organization to work with each other					
4.4.	Integration is a paper work only					
4.5.	Integration is accounted as value of the organization					

Operational Performance		Strongly Disagree (1)	Dis-agree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
3.1	Market performance increase					
3.2	Return on investment increase					
3.3	Continuous growth of market share					
3.4.	Sales growth					
3.5	Profit margin on sales					
3.6	Competitive position increase					
3.7	Increased social responsibility					