

# **THE EFFECT OF SUPPLY CHAIN MANAGEMENT PRACTICES ON THE ORGANIZATIONAL PERFORMANCE (IN CASE OF CARE ETHIOPIA)**

*A Thesis Submitted to the School of Graduate Studies of Jimma University in Partial Fulfillment of the Requirements for the Award of the Degree of Master of Business Administration (MBA)*

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## **ABSTRACT**

*The main objective of this study was to investigate the effects of supply chain management practices on the performance of CARE Ethiopia. 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 and explanatory research method. The primary data was collected from 157 employees of CARE Ethiopia by using Likert scale type questionnaires as measuring instrument for collection of the employees' perception towards the variables then, the collected data were analyzed using descriptive statistics, correlational and multiple regression analysis. The study result of the study indicates that supply chain management practice has statistically significant effect on the organizational performance of CARE Ethiopia. The practice of strategic supplier partnership, customer relationship practice, internal operation and information sharing also needs improvement. To sustain in the organization performance develops multi-skill working capacity, on internal systems automation, framework agreement, create collaboration with business partners and relocate the resource in proper manner.*

**Key Words:** *Supply chain management; SCM Practice; organizational Performance.*

## DECLARATION

I, **Getachew Alemu** the under signed, declare that the research Report entitled “The effect of supply chain management practices on organizational performance; In Case of CARE Ethiopia” **submitted** to Research and Postgraduate Studies’ Office of Business and Economics College is original and it has not been submitted previously in part or full to any university.

Declared by:

**Getachew Alemu**

Date: \_\_\_\_\_

## **CERTIFICATE**

We certify that the Research Report entitled “**The effect of supply chain management practices on the organizational performance: In Case of CARE Ethiopia**” was done by Mr. **Getachew Alemu** for the partial fulfilment of Master’s Degree under our Supervision.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

**CARE** Cooperative for Assistance and Relief Everywhere, Inc.

**SCM** Supply Chain Management

**NGO** Non-governmental organization

**IO** Internal Operation

**SM** Supplier Management

**CM** Customer Management

**IS** Information sharing

# **CHAPTER ONE**

## **INTRODUCTION**

This chapter consists of the background of the study, statement of the problem, research questions, and objectives of the study, significance of the study, and delimitations of the study.

### **1.1 Background of the Study**

From global supply chain management has tremendously gained importance since the past decades due to the global competitive business environment, (M, Christopher 2011) stress on the need of supply chain design for global operations and the researcher argued that the choice of supply chain strategy impacts competitive performance. The internationalization or globalization of supply chains has increased foreign competition in the countries' local markets. For this reason, companies must make quick and wise decisions at strategic and operational levels.

Supply chain is system of organizations, people, technology, activities, information and resources involved in moving a product or service from supplier to customer. Supply chain activities transform natural resources, raw materials and components into a finished product that is delivered to the end customer. The Council of Supply Chain Management Professionals defines supply chain management as follows: "Supply Chain Management encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers (Rostami, Rostami, Jalali, & Nazemi, 2013). Supply chain management is a concept that is gaining in popularity and importance and there is still much to investigate, since there is no universally accepted definition yet. As a result of that, there are not many empirical researches on the benefits of supply chain management and certainly studies and analysis will improve if a single definition would be adopted. The evolution of the recent competitive environment resulted in an even greater interest in the management of the activities external to the production system. The new focus of managers is addressed to the

synchronization of the production system with the upstream and downstream activities of the firms. There are some key factors underlying the transition from a traditional management of the internal activities to an innovative handling of the internal processes in the broader environment of a supply chain (ASCARI, 2015).

Due to the number of rival companies expanding both locally and globally, companies not only have to re-establish themselves to produce higher-quality products and services, decrease waste and are able to respond to the market but also to handle their supply chain management efficiently. Organizations are facing different kinds of challenges in their effort of competing in today's dynamic global markets. To remain competitive, organizations must recognize the importance of supply chain practices that improve not only their own organizational performance, but also coordinate with their supply chain partners to improve their joint performance. Yet, despite the significant advances in research and practices, many organizations continue to struggle to understand the complex issues associated with the coordinated planning and supply activities amongst the members of their supply networks (Cook, Heiser, & Sengupta, 2011).

As global competition increases, manufacturing companies should be more involved in how their suppliers and customers conduct their businesses. To compete successfully in today's challenging business environment manufacturing companies should be able to effectively integrate the internal functions within an organization and effectively link them with the external operations of suppliers and supply chain members. They need to focus on supply chain management practices that have impact on enhancing SCM activities and ultimately performances (Agus, 2011). However, several external factors continue to strive the organization to adopt the new way of conducting businesses i.e. increasing globalization, decreased barriers to international trade, improvement of information availability through information technology and increasing customer demand (Sahay & Mohan, 2003), (Gunasekaran & Ngai, 2003). In order to effective operation organization must be able to reduce cost, improve quality and provide fast response to the customer needs. One of the ways of achieving that competitive edge is through the implementation of SCM practices (Muhammad, 2004) the nature of competition has also changed to the extent that companies no

longer compete against other companies on the bases of quality as traditionally practiced in the 80s (Fawcett, Ellram, & Ogden, 2007). However, the new source of business competition lies outside the walls of an organization, and is determined by how effectively companies link their operations with their supply chain partners; suppliers, distributors, wholesalers, retailers and end costumers (Petrovic-Lazarevic, Sohal, & Baihaqi, 2007). Being able to create business relationships with customers, suppliers and other strategic partners anchored on trust and long term commitment then becomes a crucial competitive parameter (Mattson, 2002). For this, and factors like shorter product lifecycle and customer expectations, businesses have had to invest and re-focus greater attention on relationship with customers and suppliers. Consequently, an organizations supply chain has become a strategic agenda driving decision making at senior management level (F. Chen, Drezner, Ryan, & Simchi-Levi, 2000).

The aim of every SCM is to minimize system-wide costs while satisfying customer service level requirements. Indeed, it is a customer oriented process for integrating business planning and balancing supply and demand across the entire value chain system. SCM structure, suppliers and customers are brought together in one concurrent business process which spans the entire chain from initial source to the ultimate consumer (Lambert & Cooper, 2000),

Non-government organization (NGO) which basically performs towards delivering service to the beneficiaries is needed with the supply chain practices. This is because a non-government organization (NGO) is also welfare work related to improve the life of communities with performing developmental activities and empower the community to sustain in growing. Performing activities in NGO is not worked in the isolated function rather all functions across the organization and outside firm's considered as a party must coordinated to achieve in effective and efficiently. This concept leads us to the supply chain management which is undertaking in each organization to have its best practices aiming to improve the overall organization performance and customer satisfaction by improving delivery to the customers.

Therefore the SCM offers a management philosophy to manage activities and integrate with downstream and upstream partners as well as firms' internal supply chain (Ross, 1998). These state the supply chain management practices includes the supply chain integration through internal operation, customers management, suppliers management and information sharing and

information quality which are undertaking in the organization to assure the whole supply chain activities that could be contributes on the performance of the organization

This study examined the effect of supply chain management practices on the performance of organization in meeting the set objectives. It included the assessment of supply chain management and practices adopted to bring the overall objective of supply chain management channels set in the organization which expected to increase organizational performance in effective manner.

## **1.2 Background of the Organization**

CARE is an international NGO works in more than 90 countries, reaching over 50 million people through over 950 poverty-fighting development and humanitarian aid programs. With the mission of “CARE works around the globe to save lives, defeat poverty and achieve social justice” and its vision “Seek a world of hope, tolerance and social justice, where poverty has been overcome and all people live with dignity and security” CARE started working in Ethiopia in 1984 in response to severe drought and famine that devastated the Population and claimed the lives of nearly one million people. Since then, the organization’s activities have expanded to address the root causes of poverty and vulnerability.

## **1.3 Statement of the Problem**

According to (Haftom, 2014), the study conducted in ethio telecom, argue that Supply chain inefficiencies in the organization lead to incur additional cost and receive many complaints from the customers who lost their trust on the company. Some of these efficiencies mentioned are: longer time lag in the process of delivering the goods to end customers, fragmented contract with suppliers and internal & external integration problem.

In addition studies conducted by (Sukati, Hamid, & Baharun, 2013) concluded that the effective implearementation of the supply chain management practices are viewed to be related to supply chain responsiveness which will increase the supply chain performance and then lead to organizational performance.



CARE Ethiopia is one of the biggest humanitarian organizations in the country, entails effective and efficient logistics coordination towards humanitarian supply chain management. But according to the organization consecutive year's annual reports (2016, 2017 and 2018) indicated that the departmental integration of the organization is poor to meet the expected service delivery and to meet organization mission and vision. Besides the internal audit report 2018 also indicated that the organization has showed the presence of poor internal integration especially unsatisfactory performance in the end-to-end business process. Such gap has also an impact on the moral and motivation of the staff to meet the service delivery requirement for high quality in terms of time efficiency and cost effective manner.

Much of the current theoretical/ empirical research in SCM focuses only on the upstream or downstream side of the supply chain, or certain aspects/perspectives of SCM (Li, Ragu-Nathan, Ragu-Nathan, & Rao, 2006). Topics such as the role of relationships with suppliers in improving supplier responsiveness (R. B. Handfield & Bechtel, 2002), and the antecedence and consequences of buyer-supplier relationship (I. J. Chen & Paulraj, 2004) have been researched on the supplier side. Studies such as those by (Clark & Lee, 2000), and (Alvarado & Kotzab, 2001), focus on the downstream linkages between manufacturers and retailers. A few recent studies have considered both the upstream and downstream sides of the supply chain simultaneously. (K. C. Tan, Kannan, & Handfield, 1998) explore the relationships between supplier management practices, customer relations practices and organizational performance; (Frohlich & Westbrook, 2001) investigate the effects of supplier customer integration on organizational performance; (K. C. Tan et al., 1998) study SCM and supplier evaluation practices and relate the constructs to firm performance; (Min & Mentzer, 2004) develop an instrument to measure the supply chain orientation and SCM at conceptual levels; (Kushwaha, 2012) study operational performance through SCM (Ghatebi, Ramezani, & Shiraz, 2013) study the impact of supply chain management practices on competitive advantage.

However, the relationship of SCM with performance cannot be regarded as conclusive (Squire, Cousins, & Lawson, 2006). Despite the increase of empirical research in the last few years, important differences in research design undermine comparability: lack of consensus about the definition and dimensionality of the SCM practice (s), use of different units of analysis, and

different approaches to performance measurement. As far as the knowledge of the researcher is concerned, there is no empirical study that is conducted in the area of SCM practices and organizational performance (i.e. from perspectives of strategic suppliers partnership, customers relationships, level of information sharing and internal operation on organizational performances) which incorporate upper and down streams on humanitarian organization in Ethiopia particularly on CARE Ethiopia.

Therefore, since the effort to achieve generalization of the causal relationship between SCM practices and Organizational performance calls for empirical confirmation in diverse environments, especially emerging economies,

This paper is to contribute to the debate by testing the effect of SCM practices on organizational performance in the case CARE Ethiopia. And also transform the E2E procurement process to meet service delivery requirements for high quality, on time, cost-effective programming, ensure project beneficiaries receive maximum impact, ensure donor requirements are met, and address audit compliance findings. Build capacity of and empower staff to continuously improve the process. Test the usefulness of the Lean approach for transforming Ethiopia business processes.

## **1.4 Research Questions**

Based on the above statement of the research problem, the following key questions have been addressed:

- ✓ To what extent supply chain management activities are being practiced at CARE Ethiopia?
- ✓ How does the SCM practice related to Organizational Performance of CARE Ethiopia?
- ✓ How does a SCM practice affect the organizational performance of CARE Ethiopia?

## **1.5 Objective of the Study**

In this section, both the general and specific objectives of the study which were analyzed in the results and discussions part are separately elaborated.

### **1.5.1 General objective**

The objectives of the study is about to analyze the effect of supply chain management practice on organizational performance of CARE Ethiopia.

### **1.5.2 Specific objectives**

Specific objectives of the study are:

- I. To determine the extent to which the supply chain management practice implemented in CARE Ethiopia.
- II. To establish the relationship between supply chain management practices and organizational performance of CARE Ethiopia.
- III. To examine the effect of supply chain management practice in terms of Supplier's Management, Consumer Management, Information Sharing and internal operation on the organizational performance of CARE Ethiopia.

## **1.6 Significance of the Study**

Investigating the practices of supply chain management practices and it's on the performance of the organization in this complex and dynamic business world is believed to have the following importance's to the academicians, corporate managers, policy makers; and generally for business practitioners, and specifically, for the case organization, CARE Ethiopia.

Specifically, this study has the following main significances:

It paves the way for educators or training institutions to consider when designing training on the issues relating to the SCM and it also serves as a spring board to conduct further and more detail study in the area; this is because at the current situation there are only few researches were conducted in humanitarian organizations and the related area in Ethiopia, especially in CARE Ethiopia.

## **1.7 Scope of the Research**

SCM encompasses vast areas of managerial practices. However, it is difficult and unmanageable to conduct the study in all areas that summarizes SCM in terms of time, finance, and research manageability. Therefore, the scope of this study is delimited to SCM practices

(SM, CM, IS and IO) and organizational performance of the national office and selected six field offices located at different parts of the country in terms of topic.

The subject scope of this study is also delimited to the organization's point of reference towards the supply chain management practices (strategic supplier partnership, customer relationship, level of information sharing, and internal operation) and the organizational performance was delimited to operational (effectiveness). The area of the study is also delimited to the case organization i.e., CARE Ethiopia.

## **1.8 Limitation of the Study**

Due to time limitation other humanitarian organization practices and variables are not included in the research. It is difficult to cover entire domain of supply chain just in one study. The research sample didn't incorporate all the supply chain participants namely: the suppliers and customers due to time and financial constraint so that it couldn't be generalized/applied to the complete chain of the organization under investigation. On the other hand constructs of SCM are not only limited to SCM practices selected in this study. Therefore it is not representing all constructs that could explain SCM practices.

## **1.9 Organization of the Paper**

This paper was organized into five chapters. The first chapter include introduction which includes background of the study, statement of the problem, objective of the study, basic research questions, significance of the study and scope and limitation of the study. The second chapter deals with review of related literature from different sources. The third chapter involves methodologies applied in the study. The fourth chapter presents data analysis and interpretation. The fifth chapter includes summary of the study, conclusions, recommendation and suggestion.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This chapter focused on the literature review as conducted by the researcher. It includes a review of the various studies that have been conducted by other researchers relating to the effect of supply chain management practices on the performance of both humanitarian and commercial organizations. Among the areas reviewed include: supply chain management practice, performance of humanitarian organizations and effect of supply chain management practice on organizational performance. The chapter also provides the research gaps identified and a comprehensive conceptual framework.

#### **2.1 THEORETICAL REVIEW**

This study is based on the social network theory, the resource based theory and relief coordination theory. Social network theory which is also called the Network theory; network analysis (Carrington, Scott, & Wasserman, 2005) has nodes and links as independent construct and node size, density, link strength as dependent constructs. The power of social network theory stems from its difference from traditional sociological studies, which assume that it is the attributes of individual actors whether they are friendly or unfriendly, smart or dumb among others that matter. One of the defining elements of social network theory that differentiates it from other sociological sciences is the weight it gives to the relationships between the nodes, as opposed to the attributes of the nodes themselves. Social networks have also been used to examine how humanitarian organizations interact with each other, characterizing the many informal connections that link executives together as well as associations and connections between individual employees at different humanitarian organizations (Layton, 2006). These networks provide ways for humanitarian organizations to gather information, deter competition, and even coordinate in setting operational policies (Layton, 2006).

According to (Eisenhardt & Martin, 2000), resource-based theory holds that the firm can be considered as a bundle of resources that are heterogeneously distributed across it in this case, humanitarian organizations with enduring differences between them. This theory posits that a company must secure an efficient bundle and flow of the right type of resources from its operating environment to stay relevant and prop up its performance (Rungtusanatham, Salvador, Forza, & Choi, 2003). In this theory, resources refer to physical or tangible assets that include plants, equipment; as well as intangible assets such as knowledge, expertise, and other organizational assets.

According to (Zacharia, Sanders, & Nix, 2011), Resource Based Theory (RBT) is critical to many firms due to its competency in logistics and that it can be expensive if a company opts to invest in it. This is because competency is a source of sustainable competitive advantage that humanitarian organizations can have over a period of time and whose realization is pegged on the practicability of taking advantage of the resources that a company has to achieve efficiency and effectiveness by utilizing even the resources it does not own.

Humanitarian organizations have therefore relied on outsourcing to gain access to other firm's valuable resources in the competitive market. With the growing need for such resources, humanitarian organizations searching and providing such services become reciprocally adapted towards one another and more value dependent. The theory thus suggests that coordination enables firms to be accessible to complementary resources and create much more competitive resource bundles, providing them with a competitive advantage (Zacharia et al., 2011).

(Seybolt, 1997) and; (McEntire, 1997) mentioned relief coordination theory posits that it is possible to orchestrate the efforts of diverse organizations and the orderly and organized direction of activities. (Minear, 2002) indicates that the humanitarianism project offers a more specific and often cited definition of the concept as: managing information; mobilizing resources and assuring accountability; orchestrating a functional division of labor in the field; negotiating and maintaining a serviceable framework with host political authorities; and providing leadership.

Analysts and scholars also often suggest that coordination is important to improve service delivery effectiveness. Indeed, while effectiveness is rarely defined, it is most often given as

the reason why achieving coordination among service providing agencies is important (Minear, 2002). According to (McEntire, 1997) an effort to reduce duplication, often framed as securing or improving organizational efficiency, is also frequently offered as a rationale for why humanitarian organizations should seek to coordinate their assistance operations.

### **2.1.1 CONCEPTS AND DEFINITION OF SUPPLY CHAIN MANAGEMENT**

Supply chain management was defined by different authors, (Simchi-Levi & Kaminsky, 2000) define supply chain management as “the integration of key business processes among a network of interdependent suppliers, manufacturers, distribution centers, and retailers in order to improve the flow of goods, services, and information from original suppliers to final customers, with the objectives of reducing system-wide costs while maintaining required service levels”. The Council of Supply Chain Management Professionals (Wilson, 2005) defines SCM as: “SCM encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities, including coordination and collaboration with suppliers, intermediaries, third-party service providers, and customers”. (Cooper, Ellram, Gardner, & Hanks, 1997) define SCM as the management and integration of the entire set of business processes that provides products, services and information that add value for customers. The term "supply chain management" first appeared in (Oliver & Webber, 1982). Around 1990, academics first described SCM from a theoretical point of view to clarify the difference from more traditional approaches and names (such as logistics), to managing material flow and the associated information flow (Cooper et al., 1997).

The concept of SCM has received increasing attention from academicians, consultants, and business manager's as mentioned by (Feldmann & Müller, 2003); (K. C. Tan, 2002); The concept of SCM has been considered from different points of view in different bodies of literature (Croom, Romano, & Giannakis, 2000) such as purchasing and supply management, logistics and transportation, operations management, marketing, organizational theory, and management information systems.

(K.-C. Tan, Kannan, Handfield, & Ghosh, 1999) attempted to link certain supply chain management practices with firm performance. In particular, they examined the effects of quality management, supply base management and customer relations practices on firm

financial performance. They found that some aspects of quality management use of performance data in quality management, management commitment to quality, involvement of quality department, and social responsibility of management all were positively related to firm performance (Gillyard, 2003). Managing the supply base was found to have a significant impact on firm growth but not on overall performance. The significance of supply chain management highlights the need for companies to actively manage their supply chain to maximize their performance. As (Mentzer et al., 2001) said, a supply chain will exist whether a firm actively manages it or not.

Various theories have offered various insights on specific aspects or perspectives of SCM, such as industrial organization and associated transaction cost analysis (Ellram & Cooper, 1990), resource based theory and its extension relational view theory (Mohammed, 2014),

Even though different things contribute for differences on the concepts of SCM, different researchers tried to describe the concepts of SCM as follows. (Ellram & Cooper, 1990) identify SCM as an integrating philosophy to manage the total flow of a distribution channel from supplier to the ultimate customer. Whereas (BELAYNEH, 2018) view the supply chain quite simply as a “process umbrella” under which products are developed and delivered to customers.

From a structural viewpoint, they argue, the supply chain refers to the complex network of relationships that organizations maintain with trading partners to source, manufacture and deliver products. As (Li et al., 2006) described, SCM is a concept which its goal is to integrate both information and material flows seamlessly across the supply chain as an effective competitive weapon. (Li et al., 2006) also stated that SCM applies to show the collaborative relationships of members of different echelons of the supply chain and refers to common and agreed practices performed jointly by two or more organizations. In addition, according to (Agus, 2011), SCM includes managing supply and demand, sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, and delivery to the customer.

Generally, the SCM concept used in the research in its essence assumes that firms set up alliances with members of the same chain (i.e., upward stream, supplier, and downward stream,



customer) to improve its competitive advantage revealed by superior operational performance of all chain members.

Regarding definitions of SCM, many definitions have also been used to explain the term. The frequency with which the term SCM is used in today's environment would suggest that it is a well understood concept accompanied by an accepted set of managerial practices. However, definitions of and approaches to SCM vary substantially from organization to organization because it is influenced by many different fields and researchers in the area of SCM. (K. C. Tan, Lyman, & Wisner, 2002) defines SCM as the simultaneous integration of customer requirements, internal requirements and upstream supplier performance. Council of Logistics Management (CLM) defines SCM as the systemic, strategic coordination of the traditional business functions and tactics across these businesses functions within a particular organization and across businesses within the supply chain for the purposes of improving the long-term performance of the individual organizations and the supply chain as a whole. SCM has been defined to explicitly recognize the strategic nature of coordination between trading partners and to explain the dual purpose of SCM: to improve the performance of an individual organization, and to improve the performance of the whole supply chain (Li et al., 2006).

Supply chain by (Christopher, 1999) defined as a network of various organizations involved both through upstream and downstream linkages in different kinds of activities and processes. Meanwhile, (Adebayo, 2012) summed up the many definitions of SCM by various authors and researchers as 'the task of integrating organizational units along a supply chain and coordinating materials, information and financial flows in order to fulfill (ultimate) customer demands with the aim of improving competitiveness of the supply chain as a whole'. Thus, in the end produce value whether in the form of products or services to the end user.

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 upstream parties, as being described by (R. B. Handfield & Nichols, 2002) consists of an organization's functions, processes and network of suppliers while the downstream function on the other hand concerns the distribution channels, processes and functions where the product passes through to the end

customer. Where external downstream and upstream functions are concerned, the managers involved in each upstream and downstream supplier and functions are responsible in making sure that the deliveries of products and services are done as scheduled to their destinations. If there are cases where delays are inevitable, the managers are to ensure that the impact of the delays to the supply chain and the value it carries will be minimal.

In general, regarding the definition of SCM, the researcher conceptualize it as the strategic coordination of the traditional business functions (i.e., coordinating the firm/organization with the supplier and customer) and the tactics across these businesses functions within a particular organization and across businesses within the supply chain for the purposes of improving short term and long-term performance of the individual organizations and the supply chain as a whole.

### **2.1.2 SUPPLY CHAIN MANAGEMENT MEASUREMENT**

SCM practices have been 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. (K. C. Tan, 2002) identify six aspects of SCM practice through factor analysis: supply chain integration, information sharing, supply chain characteristics, customer service management, geographical proximity, and just in time capability. (Alvarado & Kotzab, 2001) include in their list of SCM practices concentration on core competencies, use of inter-organizational systems such as elimination of excess inventory levels by postponing customization toward the end of the supply chain. (I. J. Chen & Paulraj, 2004) presented SCM framework/practice that encompassed three dimensions: supply network structure, characterized by strong linkages between members, low levels of vertical integration, non-power based relationships; long-term relationships, managed with effective communication, cross-functional teams, and early supplier involvement in crucial projects, planning processes; and logistics integration. (Min & Mentzer, 2004) identify the practices of SCM as including agreed vision and goals, information sharing, risk and award sharing, cooperation, process integration, long-term relationship and agreed supply chain leadership.

(Agus, 2011) identify SCM dimensions as its encompasses: Strategic Supplier Partnership, developing trust and collaboration among supply chain partners as well as customers; internal operation, is associated with continuous pursuit of improving the processes, a philosophy of eliminating all non-value adding activities and reducing waste within an organization; Postponement Concept, Postponement involves the process of delaying final product configuration until the actual order requirement is specified by the customer. Keeping products in semi-finished would allow more flexibility and customization in completing the final products and also enables a company to respond more quickly to market demand and New Technology and Innovation, New technology and innovation refers to the application of the latest scientific or engineering discoveries to the design of operations and production processes in SCM .

Thus the literature reveals SCM practices from a variety of different perspectives with a common goal of ultimately improving organizational performance. In reviewing and consolidating the literature, four dimensions, including strategic supplier partnership, customer relationship, level of information sharing and internal operation efficiency, are selected for measuring SCM practice. The four constructs cover upstream (strategic supplier partnership) and downstream (customer relationship) sides of a supply chain, information flow and integration across a supply chain (level of information sharing) and the geographical proximity, structural aspect (K. C. Tan, 2002), cross functional teams, logistics integration across the supply chain (internal operation). It should be pointed out that even though the above dimensions capture the major aspects of SCM practice, they cannot be considered complete. Other factors, such as Postponement Concept is also identified in the literature. Though these factors are of great interest, they are not included due to the concerns regarding the length of the survey and the parsimony of measurement instruments. The present study, therefore, proposes SCM practices as a multi-dimensional concept.

#### **2.1.2.1 SUPPLIER RELATIONSHIP MANAGEMENT**

It is defined as the long term relationship between the organization and its suppliers. Strategic supplier partnership emphasizes direct relationship and long-term and encourages mutual planning and efforts to resolve problem. Supplier and organizations can work together more

closely and eliminate useless time and effort. According to (Li et al., 2006), effective partnerships with suppliers can be critical factor to guide supply chain management. (Sadikoglu & Zehir, 2010) also stated that in strategic supplier partnership, suppliers play more direct role in an organization's quality performance.

Through close bonded relationships, supply chain partners are more willing to share risks and reward and be able to maintain the relationship over a longer period of time (Landeros & Monczka, 1989). It is designed to leverage the strategic and operational capabilities of individual participating organizations to help them achieve significant ongoing benefits (Noble, 1997). 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 core raw materials, technology, products, and markets (Yoshino & Rangan, 1995).

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 (K. C. Tan, 2002). Strategically aligned organizations can work closely together and eliminate wasteful time and effort (Blasmeier, 1996). An effective supplier partnership can be a critical component of a leading edge supply chain (Noble, 1997). The main objective of strategic partnerships with suppliers is increasing the functional capability of desired supplier (Rosenzweig, Roth, & Dean Jr, 2003). Therefore, strategically managed long-term relationship with supplier has positive impact on a firm's supplier performance (Cooper & Ellram, 1993).

#### **2.1.2.2 CUSTOMER RELATIONSHIP**

It encompasses 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 (Claycomb, Dröge, & Germain, 1999).

(Noble, 1997) considers customer relationship management as an important component of SCM practices. As pointed out by (Day, 2000), devoted relationships are the most sustainable advantage because of their essential barriers to competition. 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 (Carr & Pearson, 1999).

Besides, the main goals of SCM are customer satisfaction and their loyalty as (Stalk & Hout, 1990), customer relationship management is an important component of supply chain management practices (Noble, 1997). 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 (Wines, 1996). Good relationships with supply chain members, including customers, are needed for successful implementation of SCM programs (Moberg, Cutler, Gross, & Speh, 2002). Besides (Magretta, 1998), noted lose customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers.

As discussed in (Niknia, 2007), the main customer relationship goals are identifying new business opportunities, reduce missed opportunities, reducing customer defection, creating customer loyalty, improve customer service, improve organization performance, reduce costs, and increase revenue. For this research purpose, customer relationship is conceptualized from the literature review and practicability in Ethiopia as the way of building long-term relation with customers through creating customer loyalty, reducing defect products, improving customer services, reducing price/cost, managing customer complaints and working on improving customer satisfaction.

### **2.1.2.3 INFORMATION SHARING**

Information sharing refers to ability of enterprises to share knowledge and information with supply chain partners with effective and efficient manner. Information sharing in interactive system of supply chain includes information between direct partners and all network of supply chain. For effective and efficient use by partners is needed sharing information. The level of information sharing is closely linked with accountability and efficiency (RAHMAN & Afsar, 2008).

According to (Stein, 1998), 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. Effective use of relevant and timely

information by all the functional elements in the supply chain is considered as a competitive factor and distinctive (Ahmadi, 2005).

Failures can occur in case of information delays, shortage or distortion across the supply chain (D. Power, 2005). In this study supply chain information sharing is associated with the amount of information shared among supply chain partners in downstream and upstream side of the supply chain and also the information intensity. In this study, information sharing in supply chain is conceptualized as the extent of sharing business knowledge formally or informally with supply chain partners. Also it is associated with the amount of information shared among supply chain partners in downstream and upstream side of the supply chain and also the information intensity.

#### **2.1.2.4 INTERNAL OPERATION**

In addition to the upstream and downstream integration, SCM also emphasize on the importance of both effectiveness and efficiency of firm's internal operations on its performance. This is due to a significant element of SCM practice is an internal operations and they are the basis for developing a competitive advantage before embarking into external integrations. Poor internal operations can lead to failure in coordinating with external partners (R. Handfield & Nichols Jr, 1999). Internal operation summarizes all activities related to production system and internal, logistics flow (R. Handfield & Nichols Jr, 1999). To judge the SCM practice as an effective and value adding the internal operation should be flexible in responding to changing market needs, which is expressed on the basis of agility principles. This means that, a production system must be able to perform rapid change over in both order patterns and mass customization (Lambert & Cooper, 2000). (D. J. Power, Sohal, & Rahman, 2001) find that technology utilization, continuous improvement and computer based automation in manufacturing are some of characteristics of agile/flexible organization.

Thus, the effectiveness of SCM can be examined by the ultimate effect it would have on customer satisfaction through responsiveness and lower price resulting from lean internal operations. Automated orders and automated productions are the key enablers to realize the quick response program (Perry & Sohal, 2000).

### **2.1.3 ORGANIZATIONAL PERFORMANCE**

Every organization exists to achieve a particular goal. Organizational performance is the final achievement of an organization and contains a few things, such as the existence of certain targets, has a period of time in achieving these targets and the realization of efficiency and effectiveness (Blowfield & Dolan, 2010). Thus, efficient and effective organizational performance could be achieved through good practice of supply chain management practices with all of the partners in the chain; this study acknowledges the four different dimensions of SCM (supplier partnership, customer relationship, information sharing, and internal operation) as an instrument that might have an impact to measure the organizational performance with respect to key indicators, such as responsiveness, reliability, flexibility, quality and delivery. Performance provides the basis for an organization to assess how well it is progressing towards predetermined objectives, identify areas of strength and weakness and decide on the future initiatives with the goal of how to initiate performance improvement (Van Weele, 2009).

Organizational performance includes multiple activities that help in establishing the goals of the organization, and monitor the progress towards the target (Kopczak & Johnson, 2003). It is used to make adjustments to accomplish goals more efficiently and effectively. Organization performance is what business executives and owners are usually frustrated about. This is because even though the employees of the company are hard- working and are busy doing their tasks, their companies are unable to achieve the planned results. Results are achieved more due to unexpected events and good fortune rather than the efforts made by the employees. However, for any business to be successful, functions must be defined and accomplished. It is important for an organization to develop strategies that are designed around the skills that would enhance the performance of the organization. Organizational performance is affected by myriad factors including: the lines of communication and command connecting these individuals (organizational authority structure and the degree of centralization), the resources and information to which the individuals have access, the nature of the task faced by the individuals, and the type and severity of the crisis under which the individuals operate (Devinney, Richard, Yip, & Johnson, 2005).

Financial measures do not convey the full picture of a company's performance, especially in today's competitive environment where companies are competing in terms of product, quality, delivery, reliability, after-sales service and customer satisfaction. None of these services is measured by the traditional responsibility accounting system, despite the fact that they represent the major goals of world-class manufacturing companies. Many companies are using both qualitative and quantitative non-financial indicators such as; quality, lead time, number of customer complaints and warranty claims, delivery time, non-product hours, and system down time (Bozec, 2005).

Although non-financial measures are increasingly important in decision-making and performance evaluation, companies should not simply copy measures used by others. The choice of measures must be linked to factors such as corporate strategy, value drivers, organizational objectives and the competitive environment. In addition, companies should remember that performance measurement choice is a dynamic process - measures may be appropriate today, but the system needs to be continually reassessed as strategies and competitive environments evolve (Jayachandran, Sharma, Kaufman, & Raman, 2005).

In conclusion, organizations which do not check adequately how well they are performing in their processes, procedures and plans experience low performance and higher customer dissatisfaction and high employee turnover (Artley & Stroh, 2001).

### **2.2.3.1 MEASUREMENT OF ORGANIZATIONAL PERFORMANCE**

Organizational performance is typically refers to the ability of an organization to accomplish its markets and financial goals (Yamin, Gunasekaran, & Mavondo, 1999) measured over the planned outcome and normally it is related to both financial performance and non-financial performance.

(Tracey, Vonderembse, & Lim, 1999) mentioned that whichever firms whose is able to achieve high customer satisfaction may result in enhancing competitive capabilities and further increase market performance that will help in increase organizational performance.(Koufteros, Vonderembse, & Jayaram, 2005) asserted short order cycle time, the high order fill rate,



accurate order and shipment information will further enhance on the organizational performance. (Harison, Cailliet, & Harrison, 2002)in their study found that shorten production cycle time, reducing order cycle time, reducing inventory costs, and reducing delivery costs were important operational factor that determining organizational performance. The traditional way of measuring performance based on cost alone has giving way to more innovative approach incorporating non-cost performance measures like quality, flexibility, time, and the need for customer satisfaction (Ashish, 2006).

### **2.2.3.2 PERFORMANCE OF HUMANITARIAN ORGANIZATIONS**

Humanitarian organizations are at the frontline of a given response whenever disasters strike. When such organizations respond fast enough, they are seen to be efficient and effective in disaster response. As Davidson (2006) states, when such organizations do not however respond fast enough in the eyes of the media and the local government, then the blame that is placed on such organizations tarnishes their names and reputation. This hence affects the organization's base and donors. Without donor funding, a humanitarian organization's entire ability to continue its operations is in serious danger.

The question of how to measure the performance of humanitarian organizations has recently become a hot topic mainly because of the disasters that have occurred and the ever-evolving nature of humanitarian aid. Davidson (2006) continues to argue that the lack of centrally captured data, limited information, organizational culture and lack of coordination are the key factors for the inability to answer such a question.

Humanitarian organizations heavily rely on such SCM functions procurement, logistics, distribution and warehousing in the delivery of the required goods, works and services to the beneficiary. In 2005, Hurricane Katrina flooded New Orleans, LA, leaving residents without access to food or clean water. As a result, a massive rescue of the inhabitants had to be made. During the first weekend of the rescue effort, 1.9 million meals and 6.7 million liters of water were delivered by humanitarian aid agencies and NGOs. (Gravois, 2012).

A humanitarian organization's ability to improve the lives of the world's most vulnerable communities therefore relies heavily upon its ability to integrate and coordinate its SCM functions so as to get the desperately needed goods, works and services to the targeted

communities. Rodman (2004) states that without sustainable, efficient, transparent and well-coordinated procurement and logistics processes, the humanitarian sector is at risk of unnecessary costs and delays which put their vision, efforts and determination to better the lives of the less fortunate, at risk, hence poor performance.

### **2.2.3.3 OPERATIONAL PERFORMANCE /EFFECTIVENESS/**

It measures the degree to which a business achieves its goals or the way outputs interact with the economic and social environment. Usually effectiveness determines the policy objectives of the organization or the degree to which an organization realizes its own goals (Chiang & Zheng, 2010). (Meyer & Herscovitch, 2001) analyzed organizational effectiveness through organizational commitment. Commitment in the workplace may take various forms, such as relationship between leader and staff, employee's identification with the organization, involvement in the decision making process, psychological attachment felt by an individual. (Shiva & Suar, 2010) agree that superior performance is possible by transforming staff attitudes towards organization from lower to a higher plane of maturity, therefore human capital management should be closely bounded with the concepts of the effectiveness.

According to (Heilman & Kennedy-Phillips, 2011) organizational effectiveness helps to assess the progress towards mission fulfillment and goal achievement. To improve organizational effectiveness the management should strive for better communication, interaction, leadership, direction, adaptability and positive environment. This study used effectiveness to measure organization performance. Effectiveness is reflected by using flexibility performance, delivery performance, customer responsiveness, and time to market (Ibrahim & Ogunyemi, 2012)

## **2.1 Empirical literature review**

Empirical studies by (Ross, 1998), confirmed the theory that, SCM practices considerably improve performance of organizations. Moreover, the results specifically highlight that information sharing practice significantly contributes to more performance measures than supplier and customer relationship practice. With regard to the relationship between SCM strategies and operational performance, (K. C. Tan, 2002) observed that the following SCM-related strategies were significantly related to overall product quality and overall customer

service: namely determination of customer's needs, reduction in response time and supplier delivery time, improvement of integration activities, trust among supply chain members, communication of future needs, use of information sharing, internal operation and assistance of suppliers in JIT (just in time) capability.

### **2.3.2. SUPPLY CHAIN MANAGEMENT PRACTICES AND ORGANIZATIONAL PERFORMANCE**

(Delaney et al. 2006) point that organizational performance can be evaluated by quality service and products, satisfying customers, market performance, service innovations, and employee relationships. On the other hand, (Haque & Islam, 2013) in their study of organizational performance based on balanced scorecard, stated that organizational performance can be appraised by return of investment, margin on sales, capacity utilization, customer satisfaction and product quality. In the same way, (Green, Whitten, & Inman, 2008) identified that return on investment, sales and market growth, and profit are important factors that can be measured by organizational performance. In all these performance measures, SCM practices have a positive relationship or generally affects the level of organizational performance.

(Carr & Smeltzer, 1999) have documented how firms with strategic purchasing are able to foster long-term, cooperative relationships and communication, and achieve greater responsiveness to the needs of their suppliers. Although other factors, such as restructuring and governance, and transaction cost economizing are also important for understanding strategic purchasing and its linkage to supply management, they are beyond the scope of this investigation. Strategic purchasing fosters communication, which is critical to achieving effective integration throughout the supply chain.

Eyob (2017) conducted study on SCM Practices of Modern Building Industries in Ethiopia. The general objective of the study was to assess SCM practices implementation in MBI and its effect to the overall organizational performance. Key dimensions of SCM practices as well as operational and market-oriented performance indicators were used for the purpose of investigating the real scenario. Whereas, valid and reliable instruments for assessing study variables were used with the help of scientific methods such as chi square test, Spearman's correlation and Kruskal Wallis test. Thus, from such analysis, the study had empirically

justified and provided a proof to support the conceptual and prescriptive statements made in the previous studies regarding the role of supply chain management practices in enhancing organizational performance.

The results of the survey show that the implementation of modern SCM practices is weak in MBI. Similarly, except degree and quality of information sharing and lean practices, even though in a weak level, no positive relationship was observed between the other SCM practices and organizational performance in this firm. It can, therefore be concluded that the firm is doing business as usual and no attention was given to modern SCM theories and practices in the firm yet. However, the existing literature advocates that the implementation of SCM practices can considerably improve organizational performance.

(Jayaratne, 2011)) Conducts a study on Sustainable Supply and Supply Chain Mapping Sri Lankan Tea industry. This paper looks at the contextual references in supply chain management and the Sri Lankan tea sector. It recognizes the importance of standard supply chain management techniques and preliminary connection to sustainable supply chain management. The researcher suggests that there a huge gap in the understanding of supply chain resilience on sustainable supply chain management. Furthermore, there is a lack of research on Sri Lankan tea supply chain and 17 understanding of the macro level supply in this area. On the other hand, in order to identify the influencing factors on sustainable tea supply in Sri Lanka, it is essential to map the Sri Lankan tea supply chain.

The study identified that supply chain mapping has not been research extensively. This is obvious not only for tea supply chain but also for supply chains in manufacturing sector. Therefore, the research would help to fill the knowledge gap in this area, while the overall results would help to improve the tea supply chain not only in Sri Lanka but also for other tea producing countries. Furthermore, the research findings would also assist other agricultural supply chains and manufacturing sector.

The above empirical studies proof & suggested that a good supply chain management practice increase organizational performance & companies give attention to supply chain management practice for the success of any business & to compute in today's global world.

Based on the detailed analysis, there are four main dimensions of SCM practices widely acknowledged by the researchers as well as suitable to be applied in nonprofit or humanitarian organization. These four service SCM practices are supplier relationship management, customer relationship management, information sharing technology management and internal operation. For the purpose of this study, the effect of SCM practices on organizational performance in the case of Care Ethiopia, humanitarian organization are conceptualized as a multidimensional construct comprising of the four dimensions mentioned above.

### 2.3.3. THE EFFECTS OF SUPPLY CHAIN MANAGEMENT PRACTICES ON ORGANIZATIONAL PERFORMANCE

Although literature of SCM practices vary in different view and perspectives, its stand as a mutual understanding purpose of improving organizational performance. Over the literature of reviewing and consolidating that has been pointed out by different researchers, academicians and consultant, there are seven distinctive dimensions of SCM practices which are widely agreed by researchers and received the most consensuses in the researches. These seven dimensions are outsourcing, strategic supplier partnerships, customer relationships, information sharing, postponement, quality of information sharing and internal operation. Findings from these researchers argued that supply chain management practices can encourage the customer relationship and smooth the information sharing and quality of information sharing flow across the supply chain processes including outsourcing, strategic supplier partnership, lean practices and postponement.

Table 2.1 *Supply Chain Management Practices by Scholars.*

<b>Scholars</b>	<b>Supply Chain Management Practice Variables</b>						
	Supplier management	customer relationship	Level of info. sharing	Quality Info. sharing	Outsourcing	postponement	Internal Operation
Donlon (1996)	X		X		X		
Tan et al. (1998)	X	X	X				
Tan (2001)	X		X			X	
Li et al. (2005)	X	X	X	X		X	X
Charles R Gowen (2002)	X	X			X		

Chee and John (2005)			X			X	X
Lenny and Mehmet (2007)	X	X			X		X
Suhong Li (2004)	X	X	X	X		X	
Ashish (2007)	X	X	X		X	X	X
Sufian (2010)	X	X	X	X		X	X
Zhao and Benton (2007)			X	X			X
Chong et al. (2010)	X	X	X				X
<b>Total sum</b>	<b>10</b>	<b>8</b>	<b>10</b>	<b>4</b>	<b>4</b>	<b>7</b>	<b>7</b>

Source: Researcher 2020

Moreover, such SCM practices were said to create the conducive environment for enhancing organization performance. The following section will discuss on each of the selected SCM practices including strategic supplier partnership, customer relationship, level of information sharing and internal operation and how each of them relates to organizational performance.

### 2.3.2.1 Effect of Supplier Management on Organizational performance

Supplier relationship implies that companies will tend to work with fewer suppliers. As such, cost of supplied materials will be reduced due to economies of scale for suppliers (Zhao, Huo, Sun, & Zhao, 2013). Supplier integration also minimizes the inspections of incoming materials as the customer firm will have an impetus to assist and certify suppliers on quality management resulting in improved productivity and quality and better design of parts (De Toni & Nassimbeni, 2000). Furthermore, integrating suppliers in new product development activities result in improved product quality, reduced development time and engineering changes, reduced costs, and early resolved potential problems of the supplier (De Toni & Nassimbeni, 2000). Generally, supplier relationship positively affects lead time performance, integration performance (Vachon & Klassen, 2008), delivery performance, customer service, and competitive advantage (Gimenez & Ventura, 2005).

As an argument of (Stuart, 1997) strategic partnership involves continuous improvement activities, sharing information and joint problem solving effort encourage suppliers to

participate to the success of organizational performance. Against this backdrop, strategic supplier partnership is then conceptualized as the predictor of organizational performance.

### **2.3.2.2 Effect of Customer Management on Organizational performance**

Customer relationship allows companies to enhance customer responsiveness due to increased ability to anticipate and track customer complaints, demands, and needs (Hausman & Stock, 2003). (Kratochvíl & Carson, 2005) argued that customer relation leads to reduced steps in a business process and minimized losses by eliminating misunderstanding in the order process, which subsequently result in lower costs, improved quality and delivery, and increased customer responsiveness. Companies are forced to identify customer needs and wants in a timely manner in order to be able to respond to their varying preferences. Integrating customers allows companies to identify their needs and address them through SC tasks such as continuous replenishment, flexibility and stock management, and on time delivery (Cox et al., 2003). Customer relationship enables companies to differentiate their products from rivals and considerably enhance the provided value to customers and increase customer satisfaction and loyalty (Cox, 2004).

Besides, Carson in his study further suggest that customer relationships are included customer services, delivery performance and customer satisfaction which enable an organization to improve it product design to meet customer requirement as well as expectations that will overcome the customer satisfaction. (Bommer, O'Neil, & Treat, 2001) in his study also recognized that customer relationship can be used as organization's marketing strategy to gain extra sales and profits. As a result, close and good customer relationship will definitely help in improving organizational performance.

### **2.3.2.3 Effect of Information Sharing on Organizational Performance**

(Moberg et al., 2002) asserted that timely and shared information in the SC results in more accurate decisions and can be regarded as a pillar of superior performance. Shared information enables companies to enhance inventory control and management and increase inventory turnover. Furthermore, shared information among SC partners improves delivery performance, logistics communication, and SC planning (Trevile et al., 2004). Additionally, information sharing significantly reduces costs (Wang et al., 2006), shortens cycle time (Lin et al., 2002),

and improves overall performance (Zhao et al., 2002). Hence, information sharing enable the right information available for the right time, right place and right trading partner which will contribute to greater organizational performance.

#### **2.3.2.4 Effect of Internal Operation on Organizational Performance**

Internal operation allows companies to meet and improve production scheduling through cross-functional integration, supply and demand planning, production scheduling and planning, and customer demand management (Stratman & Roth, 2002)). Internal operation minimizes conflicts and misinterpretations, facilitates the flow of information among different functions, and focuses all the efforts towards fulfilling customer orders and requirements in a timely manner. Well integrated functions result in reduced inventories, enhanced delivery speed, and increased customer responsiveness. Therefore, internal operation is then conceptualized as the predictor of organizational performance.

### **2.3 HYPOTHESIS**

Supply chain management practice is expected to increase an organization's market share, return on investment (Shin, Collier, & Wilson, 2000), and improve overall performance (Person, Gardella, Theroux, & Oberlander, 1999). Previous studies have indicated that various components of supply chain management practices have an effect on the performance of the organization; supplier partnership can improve supplier performance, reduce time to market (Ragatz, Handfield, & Scannell, 1997), and increase the level of customer responsiveness and satisfaction (D. J. Power et al., 2001). Information sharing leads to high level of supply chain integration (Jarrell, 1998) by enabling organizations to make dependable delivery and introduce products to the market quickly.

Several statements of supposition can be made in view of the effect and relation of supply chain management practice on organizational performance in the case of CARE Ethiopia humanitarian organization. In light of the research objective the study has designed the following directional hypothesis.

- ✓ **Ha1:** Supplier's relationship management has significant effect on organizational performance in the case of CARE Ethiopia.



- ✓ **Ha2:** Customer relationship management has significant effect on organizational performance in the case of CARE Ethiopia.
- ✓ **Ha3:** Information sharing practice has significant effect on organizational performance in the case of CARE Ethiopia.
- ✓ **Ha4:** Internal operation has significant effect on organizational performance in the case of CARE Ethiopia.

## 2.4 RESEARCH FRAMEWORK

The motive behind the literature review is to collect and generate structure reference related to the research problem from research articles, books and other reliable and valid sources of information which was published in recent past. Various articles have been published in the recent past in reputed journals which have relationship with the proposed research work. For example, (Li et al. 2005), (Chow et al. 2006), (Cohen and Mallik 1997), (Chong et al. 2010), (Larry et al. 2008) , (Ashish 2007) and (K. C. Tan, 2002) have provided a strong base for this research work.

The proposed framework for this research is illustrated in Figure 2.1. The framework shows the effect of SCM practices; supplier relationship management, customer relation management, information sharing practice and internal operation practice on organizational performance of CARE Ethiopia.

**The independent variables:** - are the supply chain management dimensions which include:

**I) Relationship with suppliers:** The variable is measured or indicators are continuous improvement activities, sharing information, joint problem solving effort and the supplier's participation level.

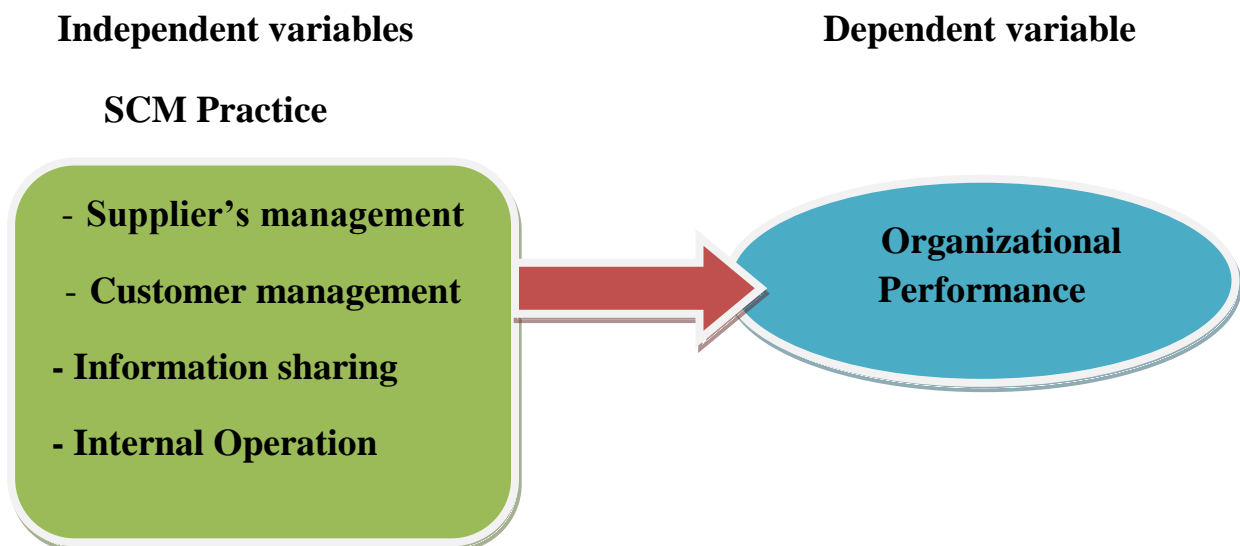
**II) Customer relation management:** - Indicators for the variable, reduced steps in a business process, minimized losses, improved quality and delivery, and increased customer responsiveness.

**III) Information sharing:** - Indicators are right information available for the right time, right place within the organization and right trading partner

**IV) Internal operation:** - Indicators are cross-functional integration, supply and demand planning, production scheduling, planning, and customer demand management

**Dependent Variable:** - is the Organizational Performance through the operational effectiveness. Organizational performance are represented through: delivery on time, compliant handling and improving responsiveness, minimizing inventory cost, departmental integration and team works within the organization.

**Figure 2.1: Conceptual Framework Developed by the Researcher**



*Source: adopted from (Li et al. 2005); (Sufian, 2010) modified by the researcher.*

## **2.5 IDENTIFIED LITERATURE GAP**

On the above empirical review, the researcher observed and understands that all previous studies related to the effect of supply chain management practices on organizational performance was concentrated on the same type of organization. But still the researcher could not get any researches that directly align with supply chain practices of humanitarian organization or non-profit making organizations like CARE Ethiopia. So, the researcher encountered to fill the gaps on this study, the effect of supply chain management practice on organizational performance in the case of CARE Ethiopia, humanitarian organization and also the researcher focused on four supply chain dimensions i.e. Suppliers relation Management,

Consumers relation Management, information sharing and internal operations of the organization.

## **2.6 SUMMARY OF LITERATURE REVIEW**

From theoretical perspective the study assesses different books & articles that discuss the relationship between supply chain management practice & organizational performance. These literatures indicate supply chain management practices are a fundamental to organizational performance in today's globalized business all firms get their competitive advantage by managing various challenges. Effective SCM provides benefits that go beyond the entities or the organization itself and those firms may comprehend their potential of integrating their external relationship with external suppliers, customer and also the firm's internal operational practices. Strategic supplier partnership is creating a long-term relationship with suppliers, collaborating & working together for mutual benefit.

Information sharing is an important aspect in achieving seamless integration in the supply chain. Good practice of information follow leads the organization towards a success, on the other hand poor practice of information sharing leads to many serious problems. The practice of internal operation is the other component of organizational performance. Internal operation is pillar point to develop effective organizational performance through increasing supply chain integration & minimize operational cost of the organization

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHEDODOLOGY**

This chapter describes the research design and methodologies used in this study. It includes, the choice of particular research approach, research design, data type and source of data, data gathering techniques and instruments, sampling and sampling techniques, methods of data analysis techniques.

#### **2.1 RESEARCH APPROACH**

Both quantitative and qualitative study approach was conducted in order investigate humanitarian logistics coordination role, practice and challenges aligning with the relationship with organizational performance in SCM practices of the organization. Quantitative research technique was employed in order to obtain the logistics and supply chain team perceptions on logistics coordination and supply chain practices in the organization. Qualitative research method allows the use of historical analysis.

According to Creswell (2013), mixed research method is suitable for the development of concepts which help us to understand social phenomena in natural (rather than experimental) settings, giving due emphasis to the meanings, experiences and views of the participants. It is generally used to gain an understanding of underlying reasons as well as to uncover the implementation of supply chain management practices and their effect on the performance as well as to find answers to the research problem.

Structured questionnaire was employed as a data collection tool. Information was collected from the logistics, procurement and supply chain department and those who provide related service to the program. Therefore, employees of CARE Ethiopia staff who are engaged in logistics activities and supply chain management were included in the data collection process.

## **2.2 RESEARCH DESIGN**

Descriptive and causal research design was used in this particular study. Descriptive research design was used in order to understand and systematically examine the implementation level of humanitarian supply chain management practice. More so, a descriptive study was conducted in order to ascertain and be able to describe the characteristics of the variables of interest in a situation. The design was used to identify the most influential variables that affect SCM efforts and its relationship with organizational performance. A causal research design can be used for studying a cause and effect relationship between dependent and independent variables and regression analysis (whether simple or multiple) is termed as causal analysis between two or more variables. In quantitative studies, researchers advance the relationship among variables and pose this in terms of questions or hypotheses. Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity. A case study method can deploy cross sectional data collection technique in a given organization or organizations (Kothari, 2004).

## **2.3 POPULATION AND SAMPLING TECHNIQUES**

### **2.3.1 POPULATION**

The population of the study is the employees who work in CARE Ethiopia head office and field offices of the organization which has a total of 1031 employees. Population is defined as the entire set of individuals or other entities to which study findings are to be generalized (Schutt, 2011). The target population for this study comprised of 300 employees of CARE Ethiopia, who have engaged in supply chain related activities and who have the knowhow about supply chain management practices and organizational performance.

### **2.3.2 SAMPLING FRAME**

The sampling frame was consists list of 300 employees of CARE Ethiopia; employees working on the supply chain department found at national office, employees working on area program which found under each field offices and head office and employee of six field offices found at different locations by taking data from human resource department of the organization.

### **2.3.3 SAMPLING TECHNIQUES**

A sample is the number of items selected to represent the whole population (Kothari, 2004). For the purpose of this study probability sampling particularly stratified sampling technique was adopted. According to (Kothari, 2004), a stratified sample is a probability sampling technique in which the researcher divides the entire target population into different sub-groups, or strata, and then randomly selects the final subjects proportionally from the different strata. This type of sampling is appropriate when the researcher wants to highlight specific subgroups within the population. The target population for the study was classified into four strata based on the sectional division of the organization. Then the researcher takes samples from each stratum according to their proportion to the total population. Since the information required for the study needs different people who have knowledge and awareness about different supply chain management practices/dimensions, and organizational performance of the organization, stratified sampling technique was adopted to have the right proportion of people from every concerned department or section. The departments considered as stratum were: supply chain management (Strata<sub>1</sub>), finance and property management (Strata<sub>2</sub>), logistic & facilities management (Strata<sub>3</sub>) and ICT department (Strata<sub>4</sub>).

### **2.3.4 SAMPLE SIZE DETERMINATION**

The target population for this study is 300 employees; they were directly engaged in supply chain related activities. A sample size of 171 employees was selected since the entire population of interest could not be selected. To arrive at the desired sample size this study used the formula given by (Toro, 1967).

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

Where, n = the sample size

N = the population size

e =Margin of error acceptable or measure of precision is 0.05

Therefore, by using the above parameters the researcher has obtained the sample size as follows:

$$n = \frac{300}{(1+300)(0.05)^2} = 171 \text{ Respondents}$$

*Table 3.1: Number of sample units, sample ratio and sample for each stratum*

Item no	Strata to be sampled	Sampling unit of each strata	Sample ratio for each strata	Sample from each strata
1	Strata <sub>1</sub>	85	85*100%/300=19%	28% of 171=48
2	Strata <sub>2</sub>	72	72*100%/300=19%	24% of 171=41
3	Strata <sub>3</sub>	65	65*100%/300=19%	22% of 171=37
4	Strata <sub>4</sub>	80	80*100%/300=19%	26% of 171=45
<b>Total population</b>		<b>300</b>	<b>100%=100</b>	<b>171</b>

*Source: Own author's 2020*

## 2.4 SOURCES OF DATA

To achieve the specified objective, both primary and secondary data sources were used. The primary data was collected from respondents who are related to the program or supply chain management and logistics activity through questionnaire designed by the researcher. They include program managers, area office logistics supervisors, logistics officers, transportation managers, IT managers, warehouse managers and SC officers. In addition to the primary data, secondary data was gathered from published and unpublished sources.

## 2.5 DATA COLLECTION PROCEDURES

In order to investigate the SCM practice role on performance, in case of CARE Ethiopia, both primary and secondary sources were used as a supply of data. The primary data was collected from CARE Ethiopia (both head and field office) by distributing questionnaire. The secondary

data was collected from different article reviews, books, and documents from the organization data base were reviewed to supplement the primary data.

Based on the research conceptual model addressed in the literature review section, 4 constructs were determined as the supply chain management dimensions. 28 items from these constructs are obtained from the literature of which the questionnaire was adapted to address the supply chain management practice in the organization. The questionnaire consists of four sections so as to cover objectives of the research including: introduction, respondents' profile, implementation practices of supply chain management, supply chain management practice and performance. An organization based case study cross-sectional study design using quantitative methods of data collection was employed. To determine the performance of humanitarian organization, 1 construct and 6 items were adapted. Furthermore a total of 28 items were used to investigate the implementation level of SCM practice in the organization.

Close- ended questions were used to collect data from selected respondents (staff of the organization) that work with logistics provision and supply chain. The question for both questionnaires were short, precise and clear in a manner that they were understandable to get necessary information from the respondents.

Nominal scale was designed to get information on respondent profile which composed of mutually exclusive category. A five point Likert scale was designed to ask respondents for scoring items ranging from 1 = to strongly disagree to 5 = to strongly agree in which the subjects indicate their degree of agreement or disagreement with each of a number of statements to get answer for the research objectives. Modification of the questions was done based on the experts' advice and respondents' feedback to increase reliability of the instrument.

The questionnaire was addressed to CARE Ethiopia staff that has direct relationship with logistics activity through email and personally by the researcher. The questionnaire was prepared in English language since all the respondents know the language well as CARE Ethiopia working language is English.



## **2.6 ETHICAL CONSIDERATION**

Each discipline should have its own ethical guidelines regarding the treatment of human research participants (Johnston & Vanderstoep, 2009). Research ethics deal with how we treat those who participate in our studies and how we handle the data after we collect them. The researcher had kept privacy (that left any personal questions), anonymity (protecting the identity of specific individuals from being known) and confidentiality or keeps the information confidential (Saunders, 2007). In addition, the questionnaire distributing to voluntary participants and have a clear introduction and instruction parts regarding the purpose of the research.

## **2.7 VALIDITY AND RELIABILITY**

### **2.7.1 ASSESSING RELIABILITY**

According to (Bell & Bryman, 2007), reliability analysis is concerned with the internal consistency of the research instrument. As multiple items in all constructs were used, the internal consistency/reliabilities of SCM practices and organizational performance were assessed with Cronbach's Alpha and the reliability values for all constructs are confirmed as greater than 0.7, which are considered acceptable (Nunnally & Bernstein, 1978).

### **2.7.2 ANALYSIS OF VALIDITY**

(Compbell, 1960) identified the most commonly used methods for demonstrating validity are referred to as content-related, criterion related, & construct-related validity. Validity refers to the test or measurement strategy measures and how well it does so. This study addressed content validity through the review of literature and adapting instruments used in previous research. It refers to the relevance of the instrument or measurement strategy to the construct being measured. On the other hand (Groth-Marnat & Baker, 2003) define content validity the extent to which the test or measurement strategy measures a theoretical construct or trait.

## CHAPTER FOUR

### RESEARCH FINDINGS AND INTERPRETATIONS

This chapter presented the results of the analysis of the data obtained from the respondents through questionnaires and has three main sections. In the first part discussed about demographic related results, on the second section also discussed about the descriptive result and at the end the inferential analysis (correlation and multiple regression) results were presented and discussed.

#### 4.1.1 RESPONSE RATE

A total of 171 questionnaires were distributed to the respondents and the response rate is presented in Table 4.1.

**Table 4.1: Response Rate**

Category	Frequency	Percentage
Response	157	91.8
Non-response	14	8.2
<b>Total</b>	<b>171</b>	<b>100</b>

**Source: Research Data (2020)**

The results in Table 4.1 show that out of 171 questionnaires administered 157 responded giving a response rate of 91.8% while those respondents who failed to respond accounted for 8.2%. According to (Mugenda & Mugenda, 2003), a response rate of 50% is adequate for analysis and reporting rate of 60% is good and a response rate of 70% and above is excellent.

Based on this assertion, the overall response rate of 91.8% was practiced satisfactory to make conclusions for the study as it acted as a representative.

#### 4.1.2 RELIABILITY OF THE RESEARCH INSTRUMENT

Pilot study (preliminary test) was carried out using convenient sampling method and having the same characteristics with the participants of the main study. The advantage of doing a pilot study include; it helps to detect potential defects in the measurement procedures, it assists in identifying ambiguous items, and it allows the researcher to become aware of nonverbal behavior that may occur due to the wording question. Therefore, the researcher tried to insures the reliability and validity of the questionnaire.

To carried out the reliability analysis, Cronbach’s Alpha ( $\alpha$ ) is the most common measure of scale reliability and a value greater than 0.700 is very acceptable (Field, 2009; Cohen and Sayag, 2010) and according to Cronbach’s (1951), a reliability value ( $\alpha$ ) greater than 0.600 is also acceptable.

**Table 4.2: Reliability Test of Constructs**

	No. of Items	Cronbach’s Alpha if Item Deleted
Supplier management practice	8	.861
Customer management	8	.852
Information sharing practice	6	.880
Internal operation practice	6	.842
Organizational performance	6	.844
Over all variables	34	.860

Source: Survey result, 2020

The results showed on table 4.2, the Supplier management practice (SMP) had a coefficient of 0.861, Customer management practice (CMP) 0.852, the Information sharing practice (ISP) 0.880, the Internal operation practice (IOP) 0.842, and the Organizational performance (OP)

0.844. All of the scales were above the suggested value 0.5 (Nunnally & Bernstein, 1978). Therefore, the reliability value ( $\alpha$ ) for all items were greater than 0.700, then the responses generated for all of the variables' used in this research were reliable enough for data analysis.

### **4.1.3 DATA PROCESSING**

The completed questionnaires were coded in excel and inserted into SPSS version 21. This software program was used to analyze the data. Descriptive statistical analysis used to reduce large amount of data to summarize frequencies, means and standard deviations. Based on the descriptive statistics the collected data for each question and respondents were summarized and addition to this to the researcher used multiple regression and correlation analysis with the support of this software package.

## **4.1. 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 perceptions and the feeling of the respondents towards supply chain practices i.e. strategic supplier partnership, customer relationship, information sharing and internal operation practices in the organization and also focuses on the perceptions of the employees towards the operational performance of the CARE Ethiopia. Therefore, for the analysis frequencies, percentage and standard deviation are used to describe the findings.

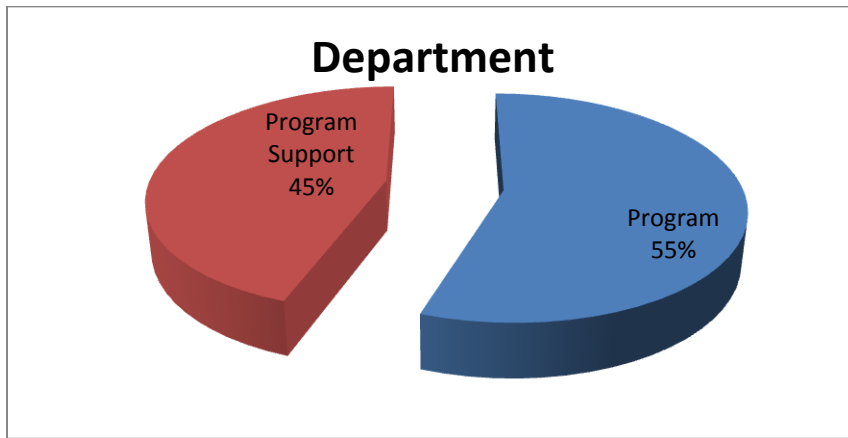
### **4.2.1 DEMOGRAPHIC DATA OF THE RESPONDENTS**

The profiles of the respondents' in the selected department (SCM and relate departments) of CARE Ethiopia are summarized in to four parts in this survey. The first one is about the respondents' department, the second is about their employee level (job position) in the organization, the third is about respondent's level of education, and the fourth is about their experience in the selected departments.

### 2.2.1.1 DEPARTMENTS OF THE RESPONDENTS IN THE ORGANIZATION

The employee of CARE Ethiopia is broadly categories in two units, the program employees and program support unit. Due to the employees detail involvement for the organization supply chain operational activity, the researcher has selected both two unites of employees for this survey as the respondent. The following figure shows the frequency and the percentage of response in the selected departments.

Figure 4.1: The percentage of the respondents' in each unit



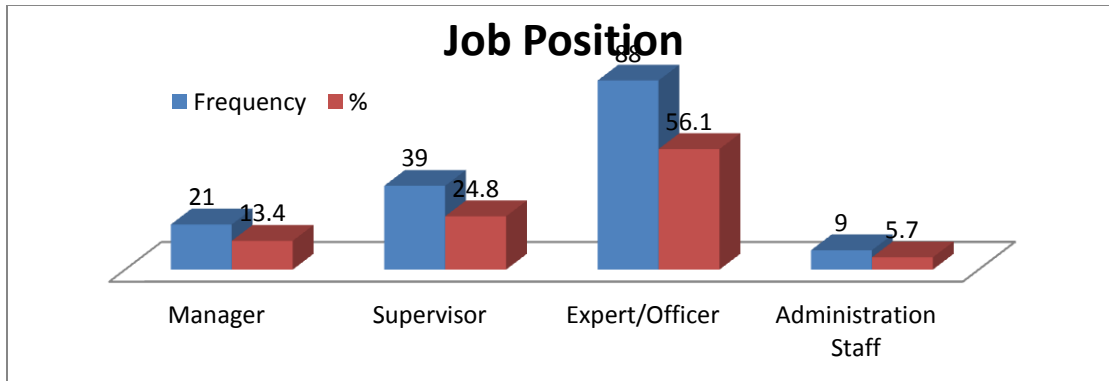
Source: Research Data (2020)

As it can be seen on the figure 4.1, the number of respondents' on the two selected unit is proportionate. 55% of them are form program unit and the remaining 45% is form program support unit. This implies that the responses collected from them acquire detail and end to end information for the survey. Therefore, the findings can be generalized for the organization.

### 2.2.1.2 EMPLOYEE JOB POSITION OF THE RESPONDENTS IN THE ORGANIZATION

The other important factor on the respondents' demographic variable is the respondents' level of employment (job position) in the organization. In CARE Ethiopia, there are different levels of employment and job positions starting form expert level (officer) to the managerial level of ranking. The following graph shows the respondents' employment level and position in the organization.

Figure 4.2: Position of the Respondents' in the organization



Source: Research Data (2020)

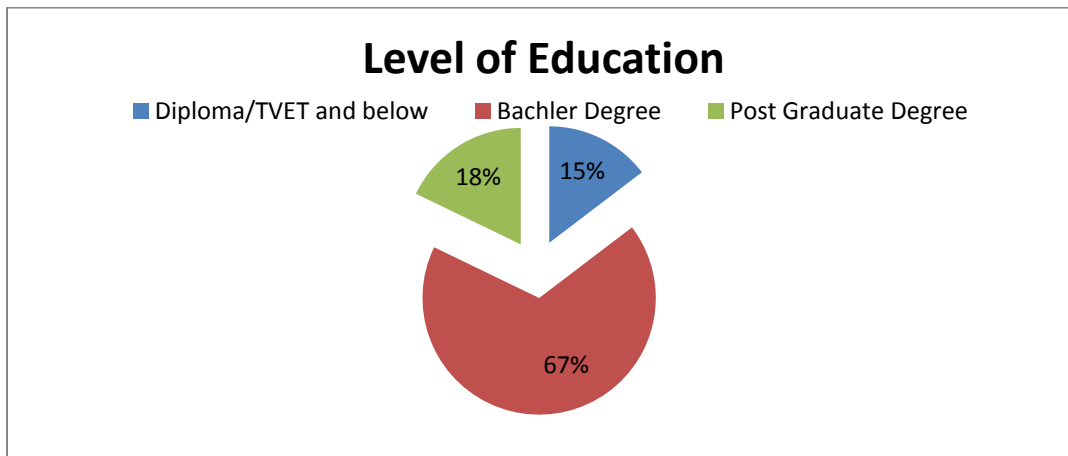
The study found it essential to establish on the area of operation or work unit of the respondents in their organization. This data was intended for the purpose of establishing on the respondents awareness and level of understanding over the operational and organizational performance. Within these departmental category most of the respondents were categorized under Expert Officer (56.1 %). Section head or supervisor (24.8 %), Managers (13.4 %) and the remained (5.7 %) were the Administrative staff officer of the total valid respondents. With this kind of distribution, the researcher was satisfied that all areas were covered.

Figure 4.2 shows that the very few (6%) administration staffs were respond for this survey. However, managers, supervisors, and staff level employees on the selected departments of the organization proportionally respond well to this survey. Out of the 157 valid responses on the survey, 56.1% of the questioners were form expert (officer) staff level of employees, 24.8% are from the supervisors and 13.4% are from the manger level of the employees. This implies that due to their detailed involvement on logistic and supply chain activity of the organization, the information gathered from them are accurate and relevant for the study.

### 2.2.1.3 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.

Figure 4.3: Educational level of respondents



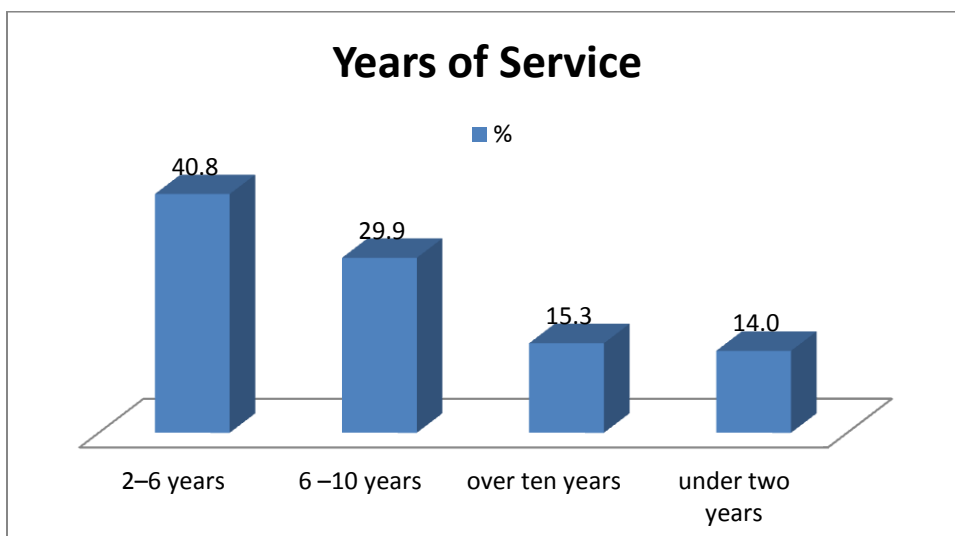
Source: Research Data (2020)

Concerning of the respondents level of education, majority (67.5%) of the respondents had attained a bachelor degree level of education, (17.2%) respondents attained a Master's Degree, (14.6%) respondents were attained a Diploma/TVET and below level of education and very few (0.6%) were doctorate degree level. This is an indication the respondents are well educated to understand what is happening in the organization, hence able to provide the right information. The result shows that majority of the employees are well educated and thus understand the effects of supply chain management practice on organizational performance in CARE Ethiopia humanitarian organization.

#### ***2.2.1.4 SERVICE YEAR OF THE RESPONDENTS'***

It is also important to note the experience level of the respondents on the area of the study for the successful implementation of the survey. The following figure presents the respondents' experience on selected departments.

Figure 4.4: Respondents Work experience/years of service



Source: Research Data (2020)

Based on the Fig 4.4, almost 86% of the respondents have more than two year experience on the companies logistic and supply chain department. Specifically, 40.8% of respondents' have two up to six year experience, 29.9% have six to ten years' experience and 15.3% of them have more than ten years' experience. However, only 14 % of them have experience less than 2 year. Therefore, we can conclude that they can understand the supply chain practices their response will be taken as dependable result.

#### **4.2.2 SUPPLY CHAIN MANAGEMENT PRACTICES**

The first research objective sought to examine the implementation practice of supply chain management in CARE Ethiopia organization. Different organizations adopt different supply chain management practices depending on the activities that they are engaged in and also



which supply chain practice will yield better competitiveness to the firm. Accordingly the perception of respondents on the SCM practices described in view of supplier strategic partnership management, customer relationship, internal operation and information sharing practices of CARE Ethiopia humanitarian organization.

The respondents were asked about their practice of Supply chain management practices implemented within the organization. As described in the below table 4.4, shows the grouped responses of all four dependent variables mean and standard deviation result for each variable. These four variables indicate the extent of CARE Ethiopia organization supply chain management practice in terms of supplier and customer relationship, way of information sharing within the supply chain and the organization internal operation efficiency capacity.

According to (Kumer, 2014) ,the ,mean score below 3.39 is considered as low; the mean score from 3.40 up to 3.79 is considered as moderate and the mean score above 3.8 is considered as high as it shown in the table below .

**Table 4.3: Mean and Standard deviation Descriptive statistics result**

<b>Variables</b>	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Supplier management practice	157	2.00	4.88	3.5234	.78190
Customer management practice	157	2.00	4.80	3.3994	.79845
Information sharing practice	157	2.00	4.88	3.5076	.65971
Internal operation practice	157	2.00	4.88	3.4680	.75784
<b>Average Mean</b>				<b>3.47</b>	

**Source: Research Data (2020)**

As presented in Table 4.4 it is understood that the mean values of all variable were between 3.3994 and 3.5234. Of the four independent variables supplier relationship management has the highest mean (3.52) which is followed by 3.51 mean score for information sharing practices of the organization. However, internal operation practice and customer relationship management practices of the organization has the lowest, which is 3.47 and 3.39 respectively.

The average mean value of the all variables is 3.469 and this showed as there is a moderate and implies that half and above respondent agreed that supply chain management practices

positively implemented and giving the advantage to the improvement of organizational performance through implementing supplier partnership, good customer relation, building and using internal operation properly and good information sharing follow both downstream and upstream within the supply chain. As stated in the literature review section selecting the right suppliers, implementing good customer relationship and, forming strategic supplier partnership with firms are keys to success.

## 4.2. CORRELATION AND REGRESSION ANALYSIS

### 4.2.3 CORRELATION ANALYSIS OF VARIABLES

The second objective of this study is to examine the relationship between supply chain management practice and the performance of organization, to do so this correlation test was conducted. Correlation test is show the strength of the association or the relationship between the variables involved the dependent and independent variables. Correlations coefficients (r) were calculated by means of Pearson’s product moment and Pearson’s correlation was used to investigate the relationship amongst the dependent and independent variables.

According to Andy (2006), the measure of correlation value from 0.1 to 0.29 small or weak correlations, from 0.3 to 0.49 medium or moderate correlations, the value < 0.5 is large or strong correlation & the value which zero indicated there is no correlation between variables. To determine whether there is a correlation between supply chain management practices and organizational performance in CARE Ethiopia Organization. In order to test this Pearson’s correlation coefficient were used.

**Table 4.4: Correlations among variables**

		Supplier management	Customer management	Information sharing	Internal operation	Organizational performance
SM	Pearson Correlation	1	.627**	.433**	.661**	.662**

	Sig. (2-tailed)		.000	.000	.000	.000
	N	157	157	157	157	157
CM	Pearson Correlation	.627**	1	.600**	.612**	.689**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	157	157	157	157	157
IS	Pearson Correlation	.433**	.600**	1	.591**	.641**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	157	157	157	157	157
IO	Pearson Correlation	.661**	.612**	.591**	1	.741**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	157	157	157	157	157
OP	Pearson Correlation	.662**	.689**	.641**	.741**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	157	157	157	157	157

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

Source: Own survey result, 2020

As per the above table 4.6 correlation among variables indicates that all correlation result positive this implies that among variables they have positive relationship. As per the above table correlation result the relation between and among variables is above 0.5 this implies that there is a strong relationship between or among variables.

The result indicates there is strong relationship between supplier management and organizational performance with a Pearson correlation coefficient of 0.662 ( $r=0.662$ ), customer management and organizational performance with a Pearson correlation coefficient of 0.689 ( $r=0.689$ ), information sharing and organizational performance with a Pearson correlation coefficient of 0.641 ( $r=0.641$ ) and internal operation and organizational performance with a Pearson correlation coefficient of 0.741 ( $r=0.741$ ) with the significance level 0.000 is below

0.01. This significance value tells that there is a genuine relationship between all independent variables & organizational performance of CARE Ethiopia humanitarian organization.

#### **4.2.4 REGRESSION ANALYSIS**

##### **4.2.4.1 ASSESSMENT OF ORDINARY LEAST SQUARE ASSUMPTIONS**

Before using multiple regressions, part of the process involves checking to make sure that the data can actually be analyzed using multiple regressions. Therefore, it is important to do because it is only appropriate to use multiple regressions if the data "passes" five assumptions that are required for multiple regressions to give us a valid result.

##### **a) Linearity assumption**

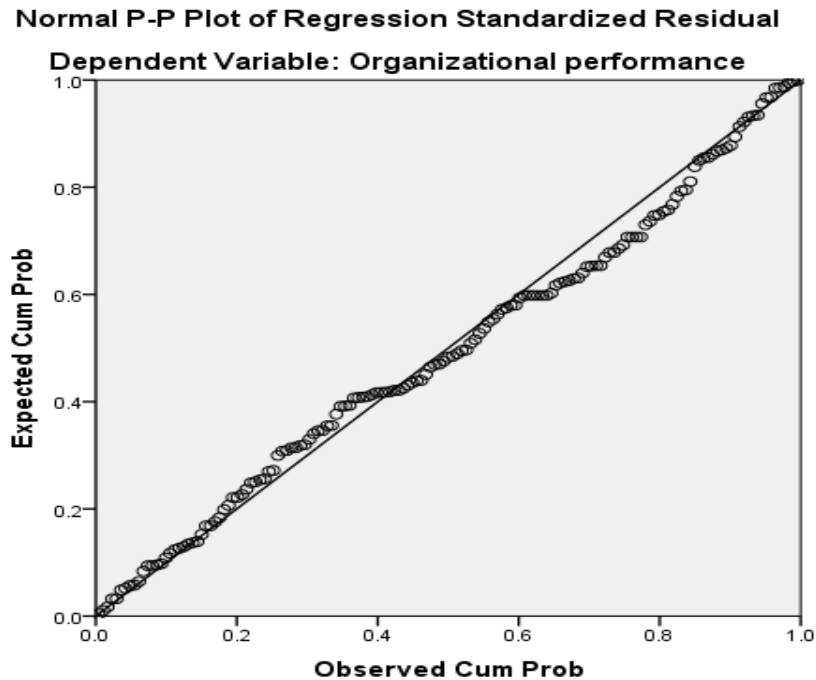
Linearity assumption states that the residuals should be linear relationship with the predicted dependent variables scores. Linear relationship between independent variables and dependent variable

This set of assumption can be examined to a fairly satisfactory extent simply by plotting scatter plots of the relationship between each explanatory variable and the outcome variable. It is important to check that each scatter plot is exhibiting a linear relationship between variables (perhaps adding a regression line to help you with this). Alternatively, you can just check the scatter plot of the actual outcome variable against the predicted outcome. The term residual considered is the difference between outliers and influential cases a bit further (J, 2010).

The simple outlier influences the line to a far lesser degree but will have a very large residual (distance to the regression line). The influential case outlier dramatically alters the regression line but might be harder to spot as the residual is small - smaller than most of the other more representative points in fact. To examine the scatter plot, you can also use influence statistics (such as the Cook's distance statistic) to identify points that may unduly influence the model (Wang, Rosner, & Goodman, 2016).

If it is looked at the scatter plots below, the plot of the below graph indicates that the residuals are normally distributed. Non-normal if points substantially deviate from the diagonal line.

**Figure 4.5: Linear Multiple Regression Assumption**



*Source: Survey data, 2020*

**b) Multicollinearity**

Multicollinearity assumption states that independent variables should not be related to each other. If they are highly correlated, then multicollinearity exists. High predictor-predictor correlation ( $r > .85$ ) results in unstable regression model (J, 2010). The table 4.7 below shows that the relationships between explanatory variables, Supplier Management, Customer Management, Information Sharing, and Internal Operation, are below the correlation boundary line (i.e., .85) for all of the independent variables.

**Table 4.5: Multicollinearity Correlation Matrix**

		SM	CM	IS	IO
SM	Pearson Correlation	1	.627**	.426**	.654**
	Sig. (2-tailed)		.000	.000	.000
CM	Pearson Correlation	.627**	1	.603**	.611**
	Sig. (2-tailed)	.000		.000	.000
IS	Pearson Correlation	.426**	.603**	1	.601**
	Sig. (2-tailed)	.000	.000		.000
	N	157	157	157	157
IO	Pearson Correlation	.654**	.611**	.601**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	157	157	157	157

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

Source: Survey data, 2020

A more precise approach to check whether or not a given explanatory variable has a strong relationship with the other explanatory variables (an issue of multicollinearity exist in the model), Tolerance and VIF (variance inflation factor) is the good indicators. For example, Tolerance less than .1 (10%) hint at multicollinearity, and VIF (variance inflation factor) > 10 also implies multicollinearity. So that VIF must be between 1-10, otherwise VIF < 1 or > 10 indicates multicollinearity existence (Ge, 2013). The table 4.8 below describes that both the tolerance and variance inflation factor (VIF) are greater than 10%, and below 10 respectively.

**Table 4.6: Multicollinearity statistics**

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Supplier management practice	.481	2.079
	Customer management practice	.462	2.165

	Information sharing practice	.556	1.799
	Internal operation practice	.437	2.289

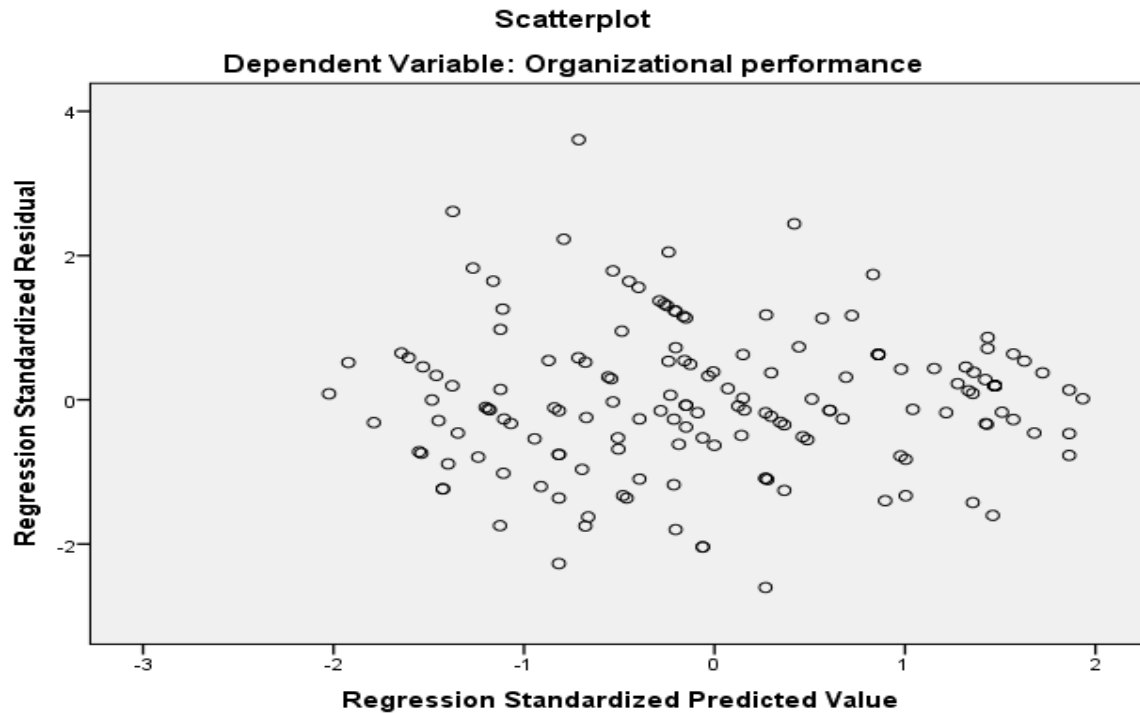
Source: Survey data, 2020

### c) **Homoscedasticity**

In Homoscedasticity assumption, the variance of error terms is similar across the independent variables. At each level of the predictor variable(s), the variance of the residual terms should be constant. This just means that the residuals at each level of the predictor(s) should have the same variance (homoscedasticity); when the variances are very unequal there is said to be heteroscedasticity (Field, 2009). According to the statistical solution (2021), to test the linear relationship assumption, Intellect's in the statistics plot the standardized residuals verses the predicted Y' values can show whether points are equally distributed across all values of the independent variables or not. Biased standard errors lead to biased inference, so results of hypothesis tests are possibly wrong. For a basic analysis, we first plot \*ZRESID (Y-axis) against \*ZPRED (X-axis) on SPSS because this plot is useful to determine whether the assumptions of random errors and homoscedasticity have been met (Field, 2009).

It could be checked that residuals do not vary systematically with the predicted values by plotting the residuals against the values predicted by the regression model. And looking for any evidence that residuals vary in a clear pattern. Look at the following figure 4.6, the data points appeared fairly randomly distributed with a fairly even spread of residuals at all predicted values.

**Figure 4.6: Homoscedasticity Multiple Regression Assumption**



*Source: Survey data, 2020*

This scatter plot is a result of what a scatter plot might look like if the assumption of homoscedasticity is met. The data points seem to funnel towards both the negative of the x-axis, and also toward the positive of x-axis indicating that there is equal variability in the residuals at higher predicted values and at lower predicted values. This suggests that our model is equal accurate in estimating both lower values and higher values.

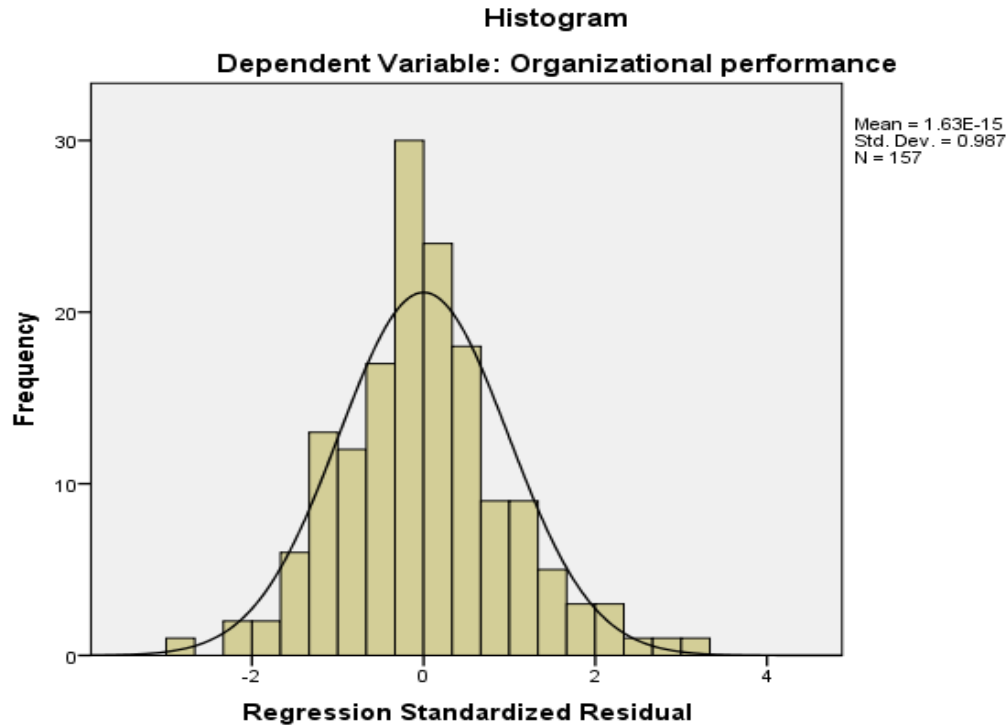
#### **d) Normally Distributed Residuals**

A histogram of the residuals (errors) in a model can be used to check that the residuals are normally distributed about the predicted dependent variables scores. However, it is often good to tell if the distribution is normal from just a histogram, and additionally, a P-P plot should be used as shown below figure 4.7.

As it could have been seen from the below figure, the expected and observed cumulative probabilities are matched perfectly. This suggests that the residuals are seamlessly normally distributed. So in this survey result, the assumption of normality is not violated.

**Figure 4.7: Normality Distribution Histogram**





Source: Survey data, 2020

**e) Autocorrelation Assumption Test**

The Durbin-Watson statistic is a number that test for autocorrelation in the residuals from a statistical regression analysis .The Durban-Watson statistics always between 0 and 4 .The value 2 means that there is no autocorrelation in the sample of the study. Values approaching 0 indicate positive auto correlation and values toward 4 indicates negative autocorrelation (Bryman, 1988).

*Table 4.7: Durban-Watson [Auto correlation assumption Test result]Table 4 1 Response Rate*

<b>Model</b>	<b>Durbin-Watson</b>
1	1.848
a. Predictors: (Constant), Internal operation practice, Information sharing practice, Supplier management practice, Customer management practice	
b. Dependent Variable: Organizational performance	

Source: Own survey result, 2020

From the above table 4.10 indicates that the value Durbin-Watson Statistic result 1.848. Thus, this study has tested for assumption of autocorrelation and there is no autocorrelation from the above result .Hence, the autocorrelation assumption is fulfilled.

#### ***4.2.4.2 THE REGRESSION RESULTS AND HYPOTHESIS TESTING***

The multiple liner regression model that were obtained by regressing organizational performance (OP) by the supply chain management practice those comprises four independent variables, supplier management (SM), customer management (CM), information sharing (IS), and the internal operation (IO) were analyze and reported. Finally, the hypothesis tests were undertaken based on the proposed hypothesis and the regression output results.

#### ***4.2.4.3 THE EFFECT OF SCM ON ORGANIZATIONAL PERFORMANCE***

The third objective of this study is to examine the effect of supply chain management on the performance of organization, since correlation cannot determine existence of cause and effect due to there may be a number of other unmeasured variables which could be interrelated and responsible for the relationship found. Multiple regression is not just one technique, but a family of techniques that can be used to explore the effect between one continuous dependent variable and a number of independent variables or predictors (Beech, 2006).

A multiple regression analysis was conducted to predict the relationship between the supply chain management practices (supplier relation management (SM), the customer relation management (CM), information sharing (IS), and the internal operation (IO)) and organizational performance (OP) using regression analysis. The Model Summary table shows how much variance is explained by each model. Whether the independent variables are a significant predictor of dependent variable will be indicated by the value in the Sig. F Change for this model. Note that the value for the next model reflects all independent variables entered.

R is the population correlation coefficient, and it takes on values between -1 and +1; 0 indicates no linear association; 1 indicates a perfect positive linear relationship; -1 indicates a perfect negative linear relationship (Ge, 2013).

The multiple correlation coefficient (R) is a measure of the strength of the relationship between Y (in this case the organizational performance) and the four predictor variables selected for

inclusion in the equation as the supply chain practices i.e. SM, CM, IS and IO. Large values of the multiple R represent a large correlation between the predicted and observed values of the outcome. R is the population correlation coefficient, and it takes on values between -1 and +1; 0 indicates no linear association; 1 indicates a perfect positive linear relationship; -1 indicates a perfect negative linear relationship (Ge, 2013).

Adjusted R<sup>2</sup> is a measure of the loss of predictive power or shrinkage in regression. The adjusted R<sup>2</sup> tells us how much variance in the outcome would be accounted for if the model had been derived from the population from which the sample was taken Adjusted R-squared is always smaller than R-squared, but the difference is usually very small unless you are trying to estimate too many coefficients from too small a sample in the presence of too much noise.

**Table 4.8: Regression Model summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.825 <sup>a</sup>	.680	.672	.37091	1.848
a. Predictors: (Constant), Internal operation practice, Information sharing practice, Supplier management practice, Customer management practice					
b. Dependent Variable: Organizational performance					

Source: Survey result, 2020

Based the finding on SPSS generated data above table 11, implies that there are an association of 82.5% between observed and predicted organizational performance. Therefore; from this result, it can be interpreted as there is a strong correlation between observed organizational performance and predicted performance of the organization. R<sup>2</sup> is called the coefficient of determination, it is the proportion of the variance in the dependent variable (organizational performance) explained by variations in the independent variables, it shows the level of variance explained by the model; which indicates how the organizational performance varies with variation in supply chain management practices, supplier relation management, the customer relation management, information sharing and the internal operation.

The finding shows that, the independent variables (supplier relation management, the customer relation management, information sharing and the internal operation) that were studied, explain only 68% the performance of the organization, in case of CARE Ethiopia humanitarian

organization as represented by the  $R^2$ . Therefore, this means that another supply chain management factors not studied in this research contributes 32% of the organizational performance. Therefore, further research should be conducted to investigate the others supply chain management dimensions (32%) that have an effect for the performance of the organization.

**Table 4.9: ANOVA Output SPSS**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.498	4	11.125	80.861	.000 <sup>b</sup>
	Residual	20.912	152	.138		
	Total	65.410	156			
a. Dependent Variable: Organizational performance						
b. Predictors: (Constant), Internal operation practice, Information sharing practice, Supplier management practice, Customer management practice						

Source: Survey result, 2020

The findings of the above table 4.12 indicated that the significance value of the model is  $p < .0005$ ; which is less than the significance level of 0.05 at a confidence level of 95%, thus the model is statistically significant in predicting how supplier management (SM), the customer management (CM), information sharing (IS) and internal operation (IO) affect the performance of the organization. Since this value of F calculated is greater than the F critical (value = 80.9), at 5% level of significance, this shows that the overall model is significant.

**Table 4.10: Coefficients Output SPSS**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.749	.177		4.232	.000
	Supplier management	.167	.055	.202	3.048	.003
	Customer management	.180	.055	.222	3.289	.001

	Information sharing	.214	.060	.218	3.536	.001
	Internal operation	.294	.059	.344	4.951	.000
a. Dependent Variable: Organizational performance						

Source: Survey result, 2020

The regression coefficient is the independent variable associated with it is contributing significance to the variance accounted for in the dependent variable.

$$Y = B_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \dots + \beta_k X + e_i$$

Where:

Y = Organizational Performance of CARE Ethiopia

B<sub>0</sub> = Point of Intercept

X<sub>k</sub> = Supply chain management practices element in CARE Ethiopia

B<sub>k</sub> = Slope of the line

e<sub>i</sub> = Error term

From the findings in the above table 4.13, the regression equation is:

$$Y = 0.749 + 0.167*SM + 0.180*CM + 0.214*IS + 0.294*IO + e_i$$

Where, SP= Supplier relationship management, CR= Customer Relationship management, IS = information sharing and IO= Internal operation efficiency

Based on linear regression analysis, the table above reveals the Effect of each supply chain management element, i.e. the Effect of Supplier relationship management; Customer relationship management, internal operation, and information sharing practice on organizational performance of CARE Ethiopia are 0.167, 0.180, 0.214 and 0.294, respectively. By examining this β weight of data analysis result and level of significant, the finding shows that, internal operation and information sharing have greater effect on the organizational performance of CARE Ethiopia on the other hand customer relationship and supplier relationship management was not that much effect on organizational performance. And this

implies that the predicted change in the dependent variable for every unit increase in that particular predictor.

This signifies a one percent increase in the value of Supplier relationship management; the organizational performance of CARE Ethiopia will increase by 16.7 percent provided that other variables remain constant the same is true for other variables for Customer relationship, information sharing and internal operation of CARE Ethiopia. Therefore we can conclude that Supplier partnership, Customer relationship and information sharing and internal operation have statistically significant Effect on CARE Ethiopia organizational performance. On the other hand, the  $\beta$  value of Supplier relationship management, Customer relationship management, information sharing and internal operation is 0.167, 0.180, 0.264 and 0.294 respectively and the significance level is greater than 0.05. Therefore we can conclude that these independent variables have a significant effect on organizational performance of CARE Ethiopia.

Generally, the main purpose of this study is to analysis the effect of supply chain management element on the organizational performance of CARE Ethiopia. From the above data analysis, Supply chain management elements which are, Supplier relationship management, Customer relationship management, information sharing and internal operation has effect on organizational performance at 5 % level of significance.

#### **4.2.4.4 HYPOTHESIS TEST**

The regression analysis whose results are in the regression model provides a more comprehensive and accurate examination of the research hypothesis. Therefore, the regression results obtained from the model were utilized to test these hypotheses. The following hypotheses test were conducted based on the regression results of Supplier relationship, Customer relationship, information sharing and internal operation on organizational performance obtained from the regression output.

**Ha1: Supplier Relationship Management has significant effect on organizational performance in CARE Ethiopia.**

The result of multiple regression analysis of the table 4.13 above clearly indicates that Supplier Relationship Management has significant effect on Organizational Performance ( $p < 0.05$ ).

Besides, the value of beta ( $\beta = 0.167$ ) and  $t = 3.048$ , shows that there is a direct effect of Supplier Relationship Management on Organizational Performance. This implies that one percent increase in Customer Relationship Management results 16.7 percent increase in Organizational performance. (Li et al., 2006) wrote effective suppliers' partnership can be critical factor to guide supply chain management & supplies play more direct role in organizations performance. The main objective of strategic supplier partnership is increasing the capability of supplies (Rosenzweig et al., 2003). There for create a long-term relationship & partnership with reliable supplies is a key factor for organization performance. Thus, the above proposed hypothesis is accepted.

**Ha2: Customer Relationship Management has significant effect on organizational performance in CARE Ethiopia.**

The result of multiple regression analysis of table 4.13 above clearly indicates that Customer Relationship Management has significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.180$ ,  $t = 3.289$ ) shows the positive effect of Customer Relationship Management on Organizational Performance. This implies that one percent increase in Customer Relationship Management results 18 percent increase in Organizational performance. This result supported by findings of (Noble, 1997) argued Customer relationship management is an important factor in supply chain management practice. Customer relationship have been recognized as an internal component of an organizations marketing strategy to increase sales & profit (Bommer et al., 2001). Thus, the above proposed hypothesis is accepted.

**Ha3: Information sharing practice has significant effect on organizational performance in CARE Ethiopia.**

The result of multiple regression analysis of table 4.13 above clearly indicates that Information Sharing practice has significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.264$ ,  $t = 3.536$ ) shows the positive effect of information sharing on Organizational Performance. This implies that one percent increase in information sharing

results 26.4 percent increase in Organizational performance. In line with the result Information sharing is an important factor in achieving perfect integration with in the supply chain. Delivery of on time information by all the functional elements in the supply chain is considered as a competitive factor and distinctive (Ahmadi, 2005). (Li et al., 2006) also notes that information sharing must be accurate, so that the best supply chain management solution will be obtain on time. Therefore the above proposed hypothesis is accepted.

**Ha4: Internal Operation has significant effect on organizational performance in CARE Ethiopia.**

The result of multiple regression analysis of the table 4.13 above clearly indicates that internal operation practice has significant effect on market performance ( $p < 0.01$ ). Besides, the value of beta in ( $\beta = 0.294$ ,  $t = 4.951$ ) respectively shows that the positive influence of Internal operation on Organizational Performance. This implies that a one percent increase in internal operation results in 29.4 percent increase in Organizational Performance.

As mentioned by (R. Handfield & Nichols Jr, 1999) Internal operation summarizes all activities related to production system & internal activities including logistics flow When supply chain management is effective, internal operation should flexible and respond change for market need. Internal operation is a means able to perform rapid change for order pattern & mass customization (Lambert & Cooper, 2000). Hence, the above proposed hypothesis is accepted.

### **4.3. DISCUSSION OF THE RESULTS**

The purpose of this study was to examine the effect of implementing supply chain management practice on the organizational performance using statistical analysis; both descriptive and inferential statistics.

A survey instrument tool (questionnaire) was developed and distributed to employees of CARE Ethiopia organization. Then the result of descriptive analysis implies that the organization is implementing supply chain management practices (supplier relationship management, customer relationship management, information sharing and internal operation practices).



The inferential analysis results of this study support that the independent variables, supplier relationship management, customer relationship management, information sharing and internal operation practices have significant correlation with organizational performance when calculated using Pearson correlation coefficients. This result is supported by (Salazar, 2012) from five hypotheses (supplier relationship management practices, customer relationship management, information sharing and internal operation practices) are positively related to the performance within an organization.

While, the other inferential analysis, the regression analysis results of this study support the entire hypotheses that supplier relationship management, customer relationship management, information sharing and internal operation practices have positive and significant effect on organizational performance in the case of CARE Ethiopia humanitarian organization.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

This chapter summarized and concluded the entire study. It presented recommendations and the direction for future research. The purpose of the research was to examine the effect of supply chain management practice on organizational performance in CARE Ethiopia humanitarian organization. It is important that some of the recommendations made can help implement the SCM practices which could be employed to bring improvement in the performance of the organization. Primary data was collected by the use of questionnaire from a population of 171 respondents, employees of the organization; however 157 of the questionnaire were retrieved from the respondents and analyzed through descriptive statistics, mean, correlation and multiple regression analysis.

#### **5.1. SUMMARY OF FINDINGS**

The main objective of this study was to assess the effect of supply chain on the organizational performance of CARE Ethiopia and also it is to assess the implementation of supply chain practices (Supplier relationship, customer relationship, level information sharing, and internal operation) in the organization. In line with the objectives the following are the major finding of the study:

The demographic characteristics of respondents of the organization show that the majority of respondents are male (52.2 %). Also most of the respondents are from the program department (55.4). All of the respondents are well educated with majority of the respondents having degree and above. Moreover, the results of the study reveal that the respondents have been working in the organization more than 2 years and majority of them in the experts and supervisory position. From the descriptive analysis result, SM has mean of 3.52 and S.D 0.78, CM has mean of 3.34 and S.D 0.8, IS has mean of 3.51 and S.D 0.66 and IO has mean of 3.45 and S.D 0.76. The mean results of all variables are low and moderate level for contributing the improvement of organizational performance. The customer management and the internal operation practices are relatively Implemented lower level.

From the correlation analysis result there were significant positive and strong relationship between the entire independent variables (supplier relationship management, customer relationship management, information sharing and internal operation) and organizational performance at ( $p < 0.01$ ). Therefore, there is significant positive relationship between the supply chain management practices and organizational performance in CARE Ethiopia humanitarian organization.

From the regression analysis result, the whole variables supplier relationship management, customer relationship management, information sharing and internal operation practices have positive and significant effect on organizational performance, therefore the hypothesis (Ha1), (Ha2), (Ha3) and (Ha4) hypothesis are accepted.

From the finding the detail results on correlation results are:

- ❖ The correlation between supplier relationship management and organizational performance is positive and significantly correlated at ( $r=0.662$ ,  $P < 0.01$ ), this shows that the relationship between the two variables is strong.
- ❖ The correlation between customer relationship management and organizational performance is positive and significantly correlated at ( $r=0.689$ ,  $P < 0.01$ ), this shows that the relationship between the two variables is strong

- ❖ The correlation between information sharing and organizational performance is positive and significantly correlated at ( $r=0.641$ ,  $P<0.01$ ), this shows that the relationship between the two variables is strong.
- ❖ The correlation between internal operation and organizational performance is positive and significantly correlated at ( $r=0.741$ ,  $P<0.01$ ), this shows that the relationship between the two variables is strong.

The independent variables selected for the model, (supplier relationship, customer relationship, internal operation, and information sharing), and 68 % of the variation on organizational performance, but the rest variations 32% are from extraneous variables. This result implies Supply chain Management practices factors accounted 68 % of the variance in organizational performance. So, Supply chain management elements variables explained the organizational performance of CARE Ethiopia by 68 %.

The finding of hypothesis 1 (Ha1) shows that the path between Supplier relationship management and organizational performance is insignificant, that is, ( $\beta=0.167$   $p<0.05$ ). In other word, Supplier relationship management has positive effect on organizational performance. Hence, the hypothesis is supported. (Li et al., 2006) wrote effective suppliers' partnership can be critical factor to guide supply chain management & supplies play more direct role in organizations performance. The main objective of supplier partnership is increasing the capability of supplies (Rosenzweig et al., 2003). There for create a long-term relationship & partnership with reliable supplies is a key factor for organization performance.

Regards to hypothesis 2, the result shows that the path between Customer relationship and organizational performance is significant, that is, ( $\beta=0.180$ ,  $p<0.05$ ). Simply put, Customer relationship association has positive effect on organizational performance. Hence, the hypothesis is supported. Applying good customer relationship practice helps organizations build long term relationship with their customers. Close customer relationship allows organizations differentiate their product from competitors, sustain customer loyalty and extend the value it provides to customers Bratic 2011 cited by Eyob (Mengesha, 2017). Customer

relationship has been recognized as an internal component of an organizations strategy to increase sales & profit (Bommer et al., 2001).

According to the finding of hypothesis 3, information sharing and organizational performance is significant, that is, ( $\beta=0.264$ ,  $p<0.05$ ). Simply put, information sharing association has a strong positive effect on organizational performance. Information sharing is an important factor in achieving perfect integration with in the supply chain. Delivery of on time information by all the functional elements in the supply chain is considered as a competitive factor and distinctive (Ahmadi, 2005).(Li et al., 2006) also noted that information sharing must be accurate, so that the best supply chain management solution will be obtain on time. Hence, the hypothesis is supported.

The finding of hypothesis 4, shows that the path between internal operation and organizational performance is significant, that is, ( $\beta=0.294$ ,  $p<0.05$ ). In other word, internal operation has a strong and significant positive effect on organizational performance. Internal operation summarizes all activities related to production system & internal activities including logistics flow (R. Handfield & Nichols Jr, 1999). (Rodman, 2004) states that without sustainable, efficient, transparent and well-coordinated procurement and logistics processes, the humanitarian sector is at risk of unnecessary costs and delays which put their vision, efforts and determination to better the lives of the less fortunate, at risk, hence poor performance. Hence, the hypothesis is supported.

In General on the above Hypothesis finding and result, internal operation, information sharing, customer relationship and supplier relationship in CARE Ethiopia happens to be the first, second, third and fourth from supply chain dimension that has a significant positive effect on organizational performance respectively.

## **5.2. CONCLUSIONS**

The study used four dimensions of independent variables (supplier relationship, customer relationship practice, internal operation & information sharing) with one dependent variable of organizational performance of CARE Ethiopia humanitarian organization & for the purpose of

this issue a comprehensive, valid & reliable instruments used for accessing supply chain practice. The study was conducted by using quantitative method, descriptive survey & questioners were disseminated. Instruments were used to support by scientific methods such as Pearson correlation & multiple regression analysis and support by empirical reviews. Based on the research objectives, analysis of the data and finding of the study the following conclusion are drawn:

The result of the study showed that the practice of supply chain management in CARE Ethiopia humanitarian organization is moderate and creating partnership with suppliers, customer relationship, information sharing & internal operation also not well implemented & give attention in the organization. The organization experience that is close coordination of departments is poor experience than from other sub variables. The practice of information exchange, lower operating cost & flexibility with business environment is very low. So, the organization gives attention to modern supply chain management practices to sustain in competitive business world.

The correlation result of all variables is moderately positive & internal operation shows the highest correlation result, which indicates the performance of the organization, is highly affected by internal operation activity. The regression result also shows customer relationship; internal operation & information sharing have a strong and significance relationship with organizational performance in CARE Ethiopia humanitarian organization.

### **5.3. RECOMMENDATIONS**

The study sought to assess the effect of SCM practices on the performance at CARE Ethiopia humanitarian organization. From the above conclusions, some recommendations are proposed to alleviate the problems encountered.

- Humanitarian organizations have to work on supply model strategies to attract and collaborate with local market suppliers specially suppliers of emergency items and establish strategies to alleviate supply challenges. Therefore, CARE Ethiopia should

involve suppliers in planning stage in order to meet the customer needs and to improve the supplier partnership and the level of information sharing.

- CARE Ethiopia has to advance and invest on information technology to enable and ensure efficient delivery of aid services as well as goods. That will help for fast information exchange, tracking commodities, services and control the supply line so as to increase service delivery.
- Institutional learning, internal integration and good communication have to be the culture of the organizations so as to provide enhanced and fastest aid responses. Therefore CARE Ethiopia has to build or invest on capacity building of logistics staffs so as to get more experienced staffs.

In general, CARE Ethiopia humanitarian organization can improve organizational performance by implementing integrated supply chain management practice, evaluating and proactively implementing change in dynamics business environment.

#### **5.4. DIRECTION FOR FUTURE RESEARCH**

The present study's geographical scope was limited to country office and six field office in Ethiopia; so that the future studies should have to consider expanding this scope to cover the whole countries nongovernmental organization. Moreover, the study was also limited to the CARE Ethiopia only, future studies should have to incorporate partner organizations, such as supplier, customer, and intra-organizations.

Finally, I would like to suggest that the future studies have to focus on the other supply chain management dimensions (variables that were not considered on this study).





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## **ANNEX 1-QUESTIONNAIRE OF THE SURVEY**

**JIMMA UNIVERSITY**



**COLLEGE OF BUSINESS & ECONOMICS DEPARTMENT OF MANAGEMENT  
FOR PARTIAL FULFILLMENT OF THE DEGREE OF MASTER IN MASTERS OF BUSINESS  
ADMINISTRATION**

**QUESTIONNAIRE**

Dear respondents, the purpose of this questionnaire is to gather data on the effect of supply chain management practices on the organizational performance: In the case of CARE Ethiopia. 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 CARE Ethiopia performance, 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

**General Instructions**

- There is no need of writing your name
- Where answer options are available please tick (√) in the appropriate box.

**Contact Address**

If you have any query, please do not hesitate to contact me and I am available as per your convenience at (Mobile: 0912-715702 or e-mail: chachewa33@yahoo.com)

Thank you for spending your precious time in advance!

**PART I: Demographic and Related variables,**

1. Gender:

Male [1]      Female [2]

2. Your Department in the organization
  - 1). Program
  - 2). Program Support
3. Employee Level/ job position
  - 1). Manager
  - 2). Supervisor
  - 3). Expert/Officer
  - 4). Admin Staff
4. Highest level of Educational attained
  - 1). Certificate/diplomas
  - 2) Bachelor degree
  - 3) Master’s degree
  - 4) Doctorate degree
5. Years of service in this organization
  - A) Less than 2Year
  - B) 2-6 years
  - C) 6-10years
  - D) more than 10years

**Part II: 1. Instruments of Supply chain management practice**

<b>I. Supplier’s management</b>	(1)	(2)	(3)	(4)	(5)
We entered into long term contract arrangement with suppliers					
We consider quality as our number one criterion in selecting suppliers.					
We regularly solve problems jointly with our suppliers.					
We have helped our suppliers to improve their product quality					
We include our key suppliers in our planning and goal-setting activities.					
We actively involve our key suppliers in new product development processes.					
Our suppliers are critical to the success of our organization.					
There is trust between our firm and suppliers					

<b>II. Customer management</b>	(1)	(2)	(3)	(4)	(5)
The Organization gives its customers pay facilities after checking their financial status					

We frequently determine future customer expectations					
CARE facilitates customers' ability to seek assistance from us.					
CARE employees follow-up procedures for customer inquiries and complaints					
CARE frequently measure and evaluate customer satisfaction and retention					
CARE have frequent interaction with customers to achieve reliability, responsiveness, and improving basic standards for the organization					
We entered into long term contract arrangement with reliable customers					
We include our key customers in our planning and goal- setting					

<b>III. Information sharing (IS)</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
CARE inform supply chain partners in advance of forecast of demands					
The information flow between our firm and supply chain partners is reliable and complete					
Information exchange between our supply chain partners and us is adequate					
We used web-based data exchange with our supply chain partners					
Information exchange with our supply chain partners is timely					
CARE often share delivery scheduling data with our most important suppliers					

<b>VI. Internal Operation</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
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1	Monitoring stock movement has been made easier as a result of the collaboration between procurement, logistics and warehouse/ inventory management.					
2	There are internal integration of functions and activities in the organization.					
3	Due to information and technology integration, there is access of tracking performances of SC partners.					
4	Our operations system rapidly reallocates resources to address demand changes					
5	Our department works in close coordination and integration with other departments within the organization					
6	We consult other departments when making our work decisions					

## 2. INSTRUMENTS OF ORGANIZATION PERFORMANCE

Organizational Performance		(1)	(2)	(3)	(4)	(5)
1	The organization has maintained Responsiveness and Flexibility of deliveries.					
2	Uncertainty has been minimized in the receiving of products and services.					
3	Cycle time reduced for some goods like that of assembled.					
4	Reduced Inventory level in the organization.					
5	Shorter lead times needed for delivery of orders					
6	There is sharing of key information, skills and incentive realignment and teamwork along the supply chain network.					

**Thank You**