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ADDIS ABABA UNIVERSITY

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**Addis Ababa University, School of Commerce,
Department of Logistics and Supply Chain Management
Graduate Program**

**Employees' Perception on the Effects of Supply Chain Management
Strategy on Firm Performance
(The Case of MOHA Soft Drinks Industry S.C. Addis Ababa)**

**A Thesis submitted
For Partial Fulfillment of the Requirements for Master of Arts in
Logistics and Supply Chain Management**

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GSE/0790/06

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Addis Ababa

**ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE**

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Prepared by: Natnael Gebreyesus

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Declaration

I, Natnael Gebreyesus declare that this thesis is a result of my independent research work on the topic entitled “Employees’ Perception on the Effects of Supply Chain Management Strategy on Firm Performance the Case of MOHA Soft Drinks Industry S.C.” in partial fulfillment of the requirements for the Degree of Masters of Art in Logistics and Supply Chain Management at Addis Ababa University School of commerce. This work is original in nature and has not been presented for a degree in any other University. All the references are also duly acknowledged.

Natnael Gebreyesus

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Date _____

Confirmation

This is to certify that Natnael Gebreyesus has carried out this thesis proposal on the topic entitled “Employees’ Perception on the Effects of Supply Chain Management Strategy on Firm Performance the Case of MOHA Soft Drinks Industry S.C.” under my supervision. Accordingly, I here assure that his work is appropriate and standard enough to be submitted for the partial fulfillment of the requirements for the award of the degree of Masters of Art in Logistics and Supply Chain Management.

Dr. Birhanu Denu (PhD)

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Date _____

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Table of Contents

	Pages
Acknowledgment.....	IV
Table of Content.....	V
List of Table	VIII
List of Figures	IX
Acronyms	X
Abstract	XI
CHAPTER ONE – INTRODUCTION.....	1
1.1.Background.....	1
1.2.Statement of the Problem.....	3
1.3.Objective of the Study	5
1.3.1. General Objective	5
1.3.2. Specific Objectives	5
1.4.Basic Research Questions	5
1.5.Definition of Terms.....	6
1.6.Significance of the Study	6
1.7.Scope of the Study	7
1.8.Organization of the Research Report.....	7
1.9.Limitation of the study.....	8
CHAPTER TWO – LITRATURE REVIEW	9
2.1.Introduction	9

2.2.Evolution of Supply chain	9
2.3.Supply chain Management practice/Measurement.....	11
2.4.Supply chain strategy	13
2.5.Supply chain strategy and Logistics	14
2.6.Supply chain as a strategic asset	17
2.7.Supply chain management practice and firms performance	22
2.8.Supply chain and customer service objective	24
2.9.Organizational performance.....	25
2.10. Empirical review of Studies.....	26
2.11. Conceptual frame work.....	28
2.12. Company Background	29
CHAPTER THREE – RESEARCH DESIGN AND METHODOLOGY	30
3.1.Introduction.....	30
3.2.Research approach	30
3.3.Source of Data.....	30
3.4.Data Gathering tool/Instruments.....	31
3.5.Sample Design	31
3.5.1. Target population	31
3.5.2. Sampling technique.....	32
3.5.3. Sample size	32
3.6.Method of data analysis	34
3.7.Ethical clearance	34
3.8.Validity and Reliability.....	35

CHAPTER FOUR - DATA PRESENTATION AND ANALYSIS.....	37
4.1. Response Rate	37
4.2. Demographic and Respondent Profile	38
4.2.1 Profile of Respondents	38
4.3. Response on SCM Strategy ,SC and Organizational performance.....	40
4.3.1 Responses on SCM Strategy	40
4.3.2 Responses on SC Performance	43
4.3.3 Response on organization Performance	44
4.4. Inferential Statistics	44
4.4.1 Correlation analysis	44
4.4.2 Regression Analysis	52
CHAPTER FIVE - SUMMARY, CONCLUSION AND RECOMMENDATIONS	58
5.1. Summary of Major Findings.....	58
5.2. Conclusion	59
5.3. Recommendations.....	59
5.4. Suggestion for Further Study	61
Reference.....	62
Appendix	

LIST OF TABLES

Table No.	Description of the Table	Page No.
Table 2.1.	Types of manufacturing strategy	18
Table 2.2.	Supply chain contribution to business strategy	20
Table 3.1.	Sample size determination	33
Table 3.2.	Permanent staff composition of MOHA soft drinks industry S.C Addis Ababa	33
Table 3.3.	Sample Size Determination for the study	34
Table 3.4.	Reliability of constructs	35
Table 4.1	Response Rate	37
Table 4.2	Profile of Respondents	38
Table 4.3	Mean and St. Deviation of Responses on SCM Strategy of the firm	40
Table 4.4	Mean and St. Deviation of Responses on SC performance of the firm	43
Table 4.5	Mean and Std. Deviation of Responses on Firm Performance Measures	44
Table 4.6	Correlation matrix between constructs of SCM strategy and SC Performance	45
Table 4.7	Correlation matrix between collective representatives of five building blocks of SCM Strategy and SC Performance	46
Table 4.8	Correlation Matrix between constructs SCM Strategy and Organization performance	47
Table 4.9	Correlation Matrix between collective representatives of five building blocks of SCM Strategy and Organization Performance	49
Table 4.10	Correlations Matrix between SC Performance measures and Organization Performance	50
Table 4.11	Correlation between collective representatives of SC Performance measures and Organization Performance.	51
Table 4.12	Multicollinearity test of independent variables	52
Table 4.13	Regression Model between SCM Strategy building blocks and Supply chain Performance	53
Table 4.14	ANOVA Result between SCM Strategy building blocks and Supply chain Performance	53
Table 4.15	Regression Coefficients between SCM Strategy building blocks and Supply chain Performance	54
Table 4.16	Regression Analysis between SCM Strategy building blocks and Organization Performance (Aggregate)	55

Table No.	Description of the Table	Page No.
Table 4.17	ANOVA Result between SCM building blocks and Organizational Performance	55
Table 4.18	Regression Coefficients between SCM building blocks and Organizational Performance	55
Table 4.19	Regression Model between Supply chain Performance and Organization Performance	56
Table 4.20	ANOVA Result between Supply chain Performance and Organization Performance	57
Table 4.21	Regression Coefficients between Supply chain Performance and Organization Performance	57

LIST OF FIGURES

Figure No.	Description of the Figure	Page No.
Figure 2.1	Market winners- Market qualifiers matrix for Agile Supply versus Lean Supply chain	21
Figure 2.2	Matching supply chain with products	22
Figure 2.3	Conceptual framework of the study	28

Acronyms

CEO:- Chief Executive officer

CO₂:- Carbon di Oxide

GDP:- Gross Domestic product

HR:- Human Resource

ICT: - Information Communication technology

JIT:-Just in time

Mgt:- Management

MOHA:- Mohammed Hussein Ali-Amoudi

OC: - Organizational culture

S.C:- Share Company

SC:- Supply Chain

SCM: - Supply Chain Management

SCOR: - Supply chain operations reference

SCP:- Supply Chain Performance

SPSS:- Statistical Packages for Social Science

WIP:- Work in process

Abstract

Effective supply chain management (SCM) has become a potentially valuable way of securing competitive advantage through enhancing SC and improving organizational performances since competition is no longer between organizations, but among supply chains. This research conceptualizes and develops on five building blocks of SCM strategy (Manufacturing strategy, Outsourcing strategy, Channel Strategy, Customer service strategy and Asset network) and tests the employee prospect on effects of SCM Strategy on SC performance, and organizational performance. The data for the study was collected from 81 employees of MOHA soft drinks industry S.C. The relationships proposed in the framework were tested using Pearson correlation, and the causal relations were analyzed using regression analysis. From the result of the analysis it is concluded that there is strong relationship between SCM strategy, SC performance and organizational performance. Besides, SCM Strategy has an influence both on SC performance and organizational performance. On the other hand, SC performance has also an influence on organizational performance. Therefore, in order to achieve advancement in market share and profitability in the long-run through enhancing organizational performance, it is better for the organization to give due emphasis to the constructs of SCM Strategy and the measures of SC performance.

Keyword: *supply chain management Strategy, Supply Chain performance, Organizational performance*

CHAPTER ONE INTRODUCTION

1.1. Research Background

The best companies around the world are discovering a powerful new source of competitive advantage. It's called supply-chain management and it encompasses all of those integrated activities that bring product to market and create satisfied customers. Supply Chain Management Program integrates topics from manufacturing operations, purchasing, transportation, and physical distribution into a unified program. Successful supply chain management, then, coordinates and integrates all of these activities into a seamless process. It embraces and links all of the partners in the chain. In addition to the departments within the organization, these partners include vendors, carriers, third party companies, and information systems providers. In General a supply chain (SC) can be described as a network linking various entities, from the customer to the supplier, through manufacturing and services, so that the flow of materials, money and information can be effectively managed to meet the business requirements. (Zigiaris, 2000 p.1)

Within the organization, supply chain refers to a wide range of functional areas. These include Supply Chain Management related activities such as inbound and outbound transportation, warehousing, and inventory control. Sourcing, procurement, and supply management fall under the supply chain umbrella, too. Forecasting, production planning and scheduling, order processing, and customer service all are part of the process as well. Importantly, it also embodies the information systems so necessary to monitor all of these activities. (Zigiaris, 2000 p.1)

“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. In essence, supply chain management integrates supply and demand management within and across companies.”

(<http://cscmp.org/AboutCSCMP/Definitions/Definitions.asp>)

“Logistics management is part of supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers’ requirements.”(<http://cscmp.org/AboutCSCMP/Definitions/Definitions.asp>)

Logistics and SCM practices may be defined as a set of activities undertaken to promote effective and efficient management of supply chains. These include supplier partnership, physical movement of goods, meeting customer demands and information sharing throughout the supply chain. Some of the key logistics and SCM practices that impact performance are related to estimation of customer needs, efficient and effective delivery, integration and collaboration throughout the supply chain, sharing of information and vision using ICT as well as informal methods and use of specialists for performing specific jobs across the supply chain. All of these practices impact logistics and supply chain performance. (Srivastava, 2006 p.1)

A few years ago, logistics and SCM were seen as necessary evils, today they are seen as a matter of survival and competitive advantage. As companies look at logistics and SCM strategically, they turn to specialized service providers to cut out non-core activities from within. A rising focus on outsourcing is leading to a surge in business performance for logistics service providers. (Srivastava, 2006 p.1)

In present day there is an assumption that SC’s should compete instead of companies, being the SC’s success mainly determined by the marketplace. Therefore, (SCM) it is considered as a strategic factor for the better attainment of organizational goals such as enhanced competitiveness, improved customer service and increased profitability. However, to ensure a better SCM system it is important to develop a performance measurement system that properly reflects the real SC’s performance. Given a SC perspective, the performance measurement is also strategic and essential because most companies realize that SCM needs not only to be assessed for its performance but also SCM processes must be well-defined and controlled.(Azevedo, Carvalho, and Cruz-Machado, 2011, p.7).

Therefore, the researcher is intended to empirically test the employees’ perception towards identifying the effect and relationships among SCM Strategies, SC performance and organizational performance of the case company.

1.2 Statement of the Problem

Since its introduction in the early 1980s, supply chain management (SCM) has become one of the most popular concepts within management in general and within logistics in particular (Baharanchi, 2009). There is an overall agreement within the scientific community that SCM is a very complex management concept (Persson 1997 and Heusler 2004). Despite twenty years of ongoing research, academia has still not agreed on common terminology. This resulted in specific research endeavors that try to reduce the complexity by offering specific structure (e.g. Kotzab 2001, Bechtel & Jayaram 1997, Cooper et al. 1997). It refers to SCM as the management of customer driven inter-organizational relationship oriented business processes that ensure sustainable performance/competitiveness for all actors in a network (in accordance with Skjoett-Larsen et al. 2005, 37 and Weber 2002, 28). SCM helps to increase the competitiveness and performance of the firm by lowering costs, increasing profits and customer satisfaction.

According to (Kluyver and Pearce, 2006, p. 4), the ultimate goal of strategy is “long-term, sustainable superior performance.” Such superior performance now depends on the ability of a manufacturing organization to become a fully integrated partner within a supply chain context (Cooper et al., 1997), thus all manufacturing organizations required to adopt a supply chain strategy. Such supply chain strategies focus on how both internal and external business processes can be integrated and coordinated throughout the supply chain to better serve ultimate customers and consumers while enhancing the performance of the individual supply chain members (Cohen and Roussel, 2005 as quoted by (Green Jr, Whitten and Inman, 2008)).

According to (Green Jr, Whitten and Inman, 2008) Supply chain performance which is the “bottom line” for supply chain strategies such as customer closeness versus operational excellence and their enabling capabilities. Further, supply chain capabilities eventually devolve into supply chain performance. It has been stated that the choice of a value discipline focus “shapes everything a company does, colors the whole organization, and defines the very nature of a company.

In the Ethiopia case (Arkebe 2015) pointed out that despite government efforts to put the Ethiopian economy on a high growth path, the share of manufacturing in GDP remains low and the sector is characterized by many structural constraints such as low productivity, low value and

lack of international competitiveness. The sector currently employs around 100,000 citizens, plays a vital role in import substitution by saving a significant amount of foreign currency by substituting imported products by locally produced ones. Hence, as the sector creates employment opportunities, saves foreign currency and is one means in transforming the country's economy from agriculture lead to industry lead economy, due consideration should be given to the sector at large.

Yet limited researches has been accomplished in the area of SCM strategy and firms performance in the Ethiopian manufacturing companies (i.e. from perspectives of Manufacturing strategy, Outsourcing strategy, Channel Strategy, Customer service strategy, Asset network on Supply chain and organizational performances). Scientific study on such knowledge gap is needed and this deficiency that the study seeks to fill. Furthermore, this research has been motivated by existing gaps, namely lack of adequate knowledge of managers in supply chain management the trend of managing supply chains from suppliers to customers being traditional which is not more than just a buy and sale (Transactional) relationship. In addition to this, to find out the effectiveness and efficiency of the existing Supply chain system and to know the existing problems and hindering factors in the product manufacturing and distribution processes. To determine whether SCM Strategy affect firm's performance and to assess the relationship between supply chain management strategy and performance company is necessary since, to select and use the most efficient and effective Supply chain in which to place a product in to the hands of the customer is very important for such market leading manufacturer like Moha soft drinks industry S.C.

Accordingly, to conduct assessment and analysis on the effects of SCM Strategy on organizational performance of manufacturers, taking as case such manufacturer as Moha soft drinks industry S.C, is very essential. Therefore, since the effort to examine the effects and relationship between SCM practices and performance calls for empirical confirmation of their effects on the company, hence this paper aimed to contribute to the debate by testing the effect and relationship between SCM strategy and supply chain and organizational performance in the case company.

1.3. Objectives

1.3.1 General objectives

The main objective of this study is to test the effects of Supply Chain Management Strategy on Performance of Moha soft drinks industry S.C through identifying the relationships among SCM strategy practices and performance of the S.C and the organization performance.

1.3.2 Specific objectives

The specific objectives of this research are to:-

- ✓ Collect and analyze data on the current practice of SCM strategy of the company, in order to evaluate their current status;
- ✓ To assess how the supply chain management practices are currently managed by the manufacturing firms.
- ✓ Show the effects of SCM strategy on Supply chain performance;
- ✓ Show the effects of SCM strategy on organizational performance;
- ✓ To suggest recommendations based on research findings.

1.4. Research question

Based on the research background and motivation, this research attempts to address the following research questions:

- ✓ What are the current supply chain management strategy practices in Moha soft drinks industry S.C?
- ✓ How are the SCM practices currently managed by the firm?
- ✓ Are the supply chain management strategies affects the overall firm supply chain performance?
- ✓ Do the SCM strategies affect the organizational performance?

1.5. Definition of Terms

Supply Chain (SC): A group of interconnected participating companies that add value to a stream of transformed inputs from their source of origin to the end products or service that are demanded by the designated end consumers. (DeweiLu, 2011p. 9)

Logistics: is the process of strategically managing the procurement, movement and storage of materials, parts and finished inventory (and the related information flows) through the organization and its marketing channels in such a way that current and future profitability are maximized through the cost-effective fulfillment of orders. (Christopher, 2011p. 2)

Supply Chain Management (SCM): The management of upstream and downstream relationships with suppliers and customers in order to deliver superior customer value at less cost to the supply chain as a whole. (Christopher, 2011p. 3)

1.6. Significance of the study

Primarily, this is a study undertaken in an environment where the practice of supply chain Management has yet to mature. In Ethiopia, where there are limited bodies of extant knowledge in the area as well as the growing importance of the sector in the country. Hence, this research will contribute for the development of the discipline in this environment.

More specifically, research endeavors are limited within MOHA soft drinks industry S.C. This study, which is undertaken in the area of the effects of supply chain management strategy on performance of MOHA soft drinks industry S.C, will contribute to the development and effective implementation of supply chain management strategies by Moha Soft drink company also underline the importance of sufficient and relevant information for planning and making successful decisions about a marketing strategy.

Additionally, this research will serve as a point of departure for further research by academicians because the concept of this research is new for the country.

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 the effects of SCM strategy on firm performance of MOHA soft drinks industry S.C. To manage the research flow only MOHA soft drinks industry S.C branches located in Addis Ababa were subjects of the study.

The subject scope of this study is also delimited to the company's point of reference towards manufacturing strategy, customer relationship, channel strategy, outsourcing strategy and companies Assets network. In terms of organizational performance the study was delimited to operational (which was measured by market share, return on investment, the growth of market share, the growth of sales, growth in return on investment, profit margin on sales and overall competitive position) and supply chain performance (which incorporate reliability, responsiveness, flexibility, cost and Asset management).

The area of the study is also delimited to the case company i.e., MOHA soft drinks industry S.C branches located in Addis Ababa, through assessing how the company interact with their down streams of the supply.

1.8. Organization of the Research Report

This study is organized into five chapters, Chapter one contains background of the study, statement of the problem, basic research questions, objective of the study, definition of terms, significance of the study, delimitation/scope of the study and limitation of the study. The second chapter deal with the literatures relevant to the study and conceptual frame work adapted from previous studies. Under the third chapter, the type and design of the research, the subjects/participants of the study, the sources of data, the data collection tools, the procedures of data collection, and the methods of data analysis used are described. Chapter four summarizes the results/findings of the study and interprets and/or discusses the findings. Finally chapter five comprises four sections, which includes summary of findings, conclusions, recommendations and suggestions for future study.

1.9. Limitation of the study

Since the supply chain management strategy of the company is peculiar to itself, it is difficult to generalize the findings of the study to other firms in the soft drink industry in Ethiopia. Besides the study assessed the effects of supply chain strategy practices from the stand point of the focal company (Moha soft drinks industry s.c) it did not involve the other members of the supply chains (customers and suppliers) reaction or responses towards the company in addition the research is limited on Moha soft drinks industry s.c offices Addis Ababa area this is due to time and resource limitation. Finally, the supply chain performance measures presented in the study are only a proportion of the potentially relevant variables that might have been included these measures only serve as examples and special attention is rather paid for structuring the vast major of measures. And therefore it is important to note that the findings of this study can only be used for comparative purposes not to generalize.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1. Introduction

These days, competitive global market has high influence on business activities whether they are local or international on their own. Apparently, supply chains as the key part of global business are needed to be considered in particular. In supply chain management, it is necessary for industries to develop and organize networks of activities involved in procurement, production, delivery of production and delivery of products globally. Since its introduction in the early 1980s, supply chain management (SCM) has become one of the most popular concepts within management in general and within logistics in particular (Baharanchi, 2009). Most of definitions of SCM are related to integration: “the entire concept of SCM is really predicated on integration” (Carter, 2009).

The literature review of this study is composed of basic theories which provide evolution, definition and explanation about supply chain management, supply chain strategy, performance and related works which is presented by different scholars and finally the conceptual framework of the study which is constructed based on the theoretical framework.

2.2. Evolution of Supply Chain Management

In the 1950s and 1960s, most manufacturers emphasized mass production to minimize unit production cost as the primary operations strategy, with little product or process flexibility. New product development was slow and relied exclusively on in-house technology and capacity. Bottleneck operations were cushioned with inventory to maintain a balanced line flow, resulting in huge investment in work in process (WIP) inventory. Sharing technology and expertise with customers or suppliers was considered too risky and unacceptable and little emphasis appears to have been placed on cooperative and strategic buyer supplier partnership. The purchasing function was generally regarded as being a service to production, and managers paid limited attention to issues concerned with purchasing. In the 1970s, Manufacturing Resource Planning was introduced and managers realized the impact of huge WIP on manufacturing cost, quality, and new product development and delivery lead-time. Manufacturers resorted to new materials

management concepts to improve performance within the “four walls” of the company (Tan, 2001).

The intense global competition in the 1980s forced world-class organizations to offer low cost, high quality and reliable products with greater design flexibility. Manufacturers utilized just in time (JIT) and other management initiatives to improve manufacturing efficiency and cycle time. In the fast-paced JIT manufacturing environment with little inventory to cushion production or scheduling problems, manufacturers began to realize the potential benefit and importance of strategic and cooperative buyer-supplier relationship. The concept of supply chain management emerged as manufacturers experimented with strategic partnerships with their immediate suppliers. In addition to the procurement professionals, experts in transportation and logistics carried the concept of materials management a step further to incorporate the physical distribution and transportation functions, resulting in the integrated logistics concept, also known as supply chain management (Tan, 2001).

The evolution of supply chain management continued into the 1990s accompanied by increasing logistics and inventory costs and the trend toward market globalization, the challenges associated with improving quality, manufacturing efficiency, customer service, and new product design and development also increased. To deal with these challenges, manufacturers began purchasing from a selected number of certified, high- quality suppliers with excellent service reputations and involved these suppliers in their new product design and development activities as well as in cost, quality, and service improvement initiatives. This is done so by reducing the supply base as much as a single supplier and enter in to a long term agreement as strategic alliance in doing their business. As companies began implementing supply chain management initiatives, they began to understand the necessity of integrating all key business processes among the supply chain participants enabling the supply chain to act and react as one entity. (Ensermu,2013).

Several scholars in the discipline of supply chain management have tried to define and provide an in depth reflection on supply chain. A supply chain consists of all parties involved, directly or indirectly, in fulfilling a customer request. The supply chain includes not only the manufacturer and suppliers, but also transporters, warehouses, retailers, and even customers themselves (Chopra &Meindl, 2007:4,Mentzer et al. 2001:4, as quoted by Green et. Al 2008:318) define a

supply chain as “a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from source to customer.”

All the definitions provided by these scholars have seemingly raised similar perceptions in terms of the constituents of an ideal supply chain in one way or another. The definitions put the importance of value creation among interdependent entities (organizations) for the flow of materials, fund and information in an efficient and effective manner from source to end. The prevalence of integrated business processes of a chain is also important for a well synchronized and functioning supply chain.

All in all, the prevalence of a supply chain is unthinkable without the integration of its business functions, value creation for customers at all levels and a collaborative business thinking and practice.

2.3. Supply Chain Management Practices/Measurements

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. (Donlon 1996) describes the evolution of SCM practices, which include supplier partnership, outsourcing, cycle time compression, continuous process flow, and information technology sharing.

(Tan et al. 1998) use purchasing, quality, and customer relations to represent SCM practices, in their empirical study. (Tan et al. 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 and 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.

(Chen and 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 and 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.

(Arawati 2011) identify SCM dimensions as it encompasses: Strategic Supplier Partnership, developing trust and collaboration among supply chain partners as well as customers; Lean Production, 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, five dimensions, including strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing and internal lean practice, are selected for measuring SCM practice. The five constructs cover upstream (strategic supplier partnership) and downstream (customer relationship) sides of a supply chain, information flow across a supply chain (level of information sharing and quality of information sharing), and internal lean practice (waste minimization). 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 geographical proximity, structural aspect (Tan et al., 2002), cross-functional teams, logistics integration (Chen and Pauraj, 2004), agreed vision and goals, and agreed supply chain leadership (Min and Mentzer, 2004) are 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.

2.4. Supply chain strategy

Supply chain strategy of a firm influences the nature of supply chain activities, the efficiency and effectiveness of the supply chain, and relationships with other members within the entire supply chain (Chi et al,2009). Unlike competitive strategy, Supply chain strategy does not have varied classifications, however several authors have commented on types of Supply chain strategy such as. (Gunjan and Rambabu 2011)

Author Dimensions of competitive strategy/priority

- 1 Porter (1998) Specialization, brand identification, push vs pull, channel selection, product quality, technological leadership, vertical integration, cost position, service, price policy, leverage, relationship with parent company, relationship to home and host government
- 2 Krajewski et al. (2009) Cost (low cost operations), quality (top quality, consistent quality), time (delivery speed, on-time delivery, development speed) and flexibility (customization, variety, volume flexibility)
- 3 Bozarth and Handfield (2006) Quality (performance, conformance, reliability), delivery (speed, reliability), cost and flexibility (mix, volume)
- 4 Flinch (2007) Cost, quality, dependability of delivery, flexibility and response time
- 5 Chase et al. (2003) Cost, product quality and reliability, delivery (speed, reliability) and flexibility (demand, new product)
- 6 Gaither and Frazier (2007) Low production costs, delivery performance, high-quality product/services, customer service and flexibility
- 7 Mahadevan (2007) Cost, quality, value and flexibility
- 8 Heizer and Render (2007) Differentiation, cost leadership and response
- 9 Russell and Taylor (2003) Cost, quality, flexibility and speed
- 10 Buffa (2007) Overall cost leadership, differentiation and market segmentation
- 11 Chi et al. (2009) Low cost, quality, delivery performance and flexibility.

(As Quoted by Gunjan and Rambabu,2011)

According to those authors, it is evident that responsiveness and efficiency are dominant Supply chain strategy's (Chase et al., 2003; Russell and Taylor, 2003; Mahadevan, 2007). While the classification suggested by (Heizer and Render 2007) are convergent in many senses. Unlike

efficiency and responsiveness they do not form parallel and non-convergent domains. But the dimensions given by (Ballou 2004) added „capital reduction“ as separate dimension, defined as a strategy directed towards minimizing the level of investment in the logistics system. Maximization of return on logistics assets is the motivation for this strategy. While other two dimensions i.e. „cost reduction“ is about minimizing the variable costs associated with movement and storage, and „service improvement“ is about responding to customer. (Gunjan and Rambabu, 2011)

According to (Chorn 1991), research in the USA, Europe and Australia revealed that superior performance (measured on different performance measures) is associated with high degrees of alignment between competitive situation, strategy, organization culture and leadership. On the similar lines literature reveals that an important corollary of achieving alignment is presumed to be enhanced business performance of a firm, just as misalignment is expected to undermine its performance (Chopra et al., 2007). It was empirically proven by Randall et al. (2003) that the fit between business environment and firms' supply chain selection affects overall performance. It is thus imperative to link business performance with the fit between competitive strategy and Supply chain strategy. Typically, firm's business performance is measured using financial metrics (Chi et al., 2009), but only financial measures cannot give measures of supply chain performance as a whole. Several other metrics related to inventory, customer satisfaction, etc. must also be included. The scale used by (Higginson and Alam 1997) uses financial and SCM-related measures in their survey, which are perceived customer satisfaction, quality of outgoing products, total revenue, net-after tax income, average inventory levels and average production cost. (Gunjan and Rambabu 2011)

2.5. Supply Chain Strategies and Logistics

According to de (Kluyver and Pearce 2006, p. 4), the ultimate goal of strategy is “long-term, sustainable superior performance.” Such superior performance now depends on the ability of a manufacturing organization to become a fully integrated partner within a supply chain context, thus all but requiring that manufacturing organizations adopt a supply chain strategy. Such supply chain strategies focus on how both internal and external business processes can be integrated and coordinated throughout the supply chain to better serve ultimate customers and

consumers while enhancing the performance of the individual supply chain members. Examples of business processes that must be integrated include manufacturing, purchasing, selling, logistics, and the delivery of real-time, seamless information to all supply chain partners. Managing at the supply chain level requires a new focus and new ways of managing. Manufacturing managers must learn to communicate, coordinate, and cooperate with supply chain partners. (Green Jr, Whitten and Inman, 2008)

According to the “unionist” perspective on the relationship between supply chain management and logistics this perspective holds that supply chain management incorporates logistics as a key supply chain focused function (Council of Supply Chain Management Professionals, 2007). Organizational managers are asked to focus attention and resources directly on supply chain functions such as logistics to bolster the competitiveness of the supply chains. The managers are, however, ultimately judged on the marketing and financial performance of their organizations. Does a supply chain focus lead to improved logistics performance, which, in turn, results in improved organizational performance? (Green Jr, Whitten and Inman, 2008)

Logistics is an important component of supply chain management. The (Council of Supply Chain Management Professionals, 2007) defines logistics management as “part of Supply Chain Management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers” requirements. (Both Stank et al. 2002 and Lin 2006) describe the importance of integrating the logistics processes of all supply chain partners to better serve the needs of ultimate customers.

(Rodrigues et al. 2005, p. 1) identify logistics as “one of the largest costs involved in international trade.”

(Rabinovich and Knemeyer, 2006) identify a new breed of logistics-related firms: logistics service providers that support internet supply chains. These logistics service providers help internet sellers integrate with the myriad of available logistics firms to fulfill customer orders more effectively and efficiently (Rabinovich and Knemeyer, 2006). Logistics service providers establish relationships with both internet sellers and third-party logistics providers and integrate

the selling and flow processes throughout the supply chain through the provision of what (Rabinovich and Knemeyer, 2006, p.90) call “hub functionalities.” (Vaidyanathan 2005) describes a similar role for fourth-party logistics providers in more traditional supply chain configurations such as those that link manufacturers with ultimate customers. (Lai and Cheng 2003) discuss the importance of a supply chain focus on the part of transport logistics service providers as they function to link suppliers, manufacturers, sellers, and customers throughout the supply chain. They argue that transport logistics service providers must focus on supply chain performance in addition to organizational performance. (Morash and Clinton 1998) investigated the creation of customer value through the supply chain integration alternatives of collaborative closeness and operational excellence. They illustrated models identifying logistics as the unifying link intra-organizationally between the production and marketing functions and inter organizationally between suppliers and customers. Analyzing data from almost 2,000 firms in the USA, Australia, Japan and Korea, they found that efficient supply chains exhibit operational excellence and responsive supply chains exhibit collaborative closeness. Japanese and Korean firms were more likely to integrate supply chains based on operational excellence, while US and Australian firms were more likely to integrate supply chains on the basis of collaborative closeness. (Green Jr, Whitten and Inman, 2008)

To develop effective logistics strategy, it is necessary to understand such factors and characteristics. Successful negotiation requires a full understanding of transportation economics. An overview of transportation economics and pricing builds upon four topics: (1) the factors that drive transport costs, (2) the cost structures or classifications, (3) carrier pricing strategy, and (4) transportation rates and ratings.

Transportation costs are driven by seven factors. While not direct components of transport tariffs, each factor influences rates. The factors are: (1) distance, (2) volume, (3) density, (4) stowability, (5) handling, (6) liability, and (7) market. In general, the discussion sequence reflects the relative importance of each factor from the shipper’s perspective. Keep in mind that the precise impact of each factor varies based on specific product characteristics.

The second dimension is cost structures or classifications concerns the criteria used to allocate cost. Cost allocation is primarily the carrier’s concern, but since cost structure influences

negotiating ability, the shipper's perspective is important as well. Transportation costs are classified in to a number of categories.

Carrier Pricing Strategies when setting rates to charge shippers, carriers typically follow one or a combination of two strategies. Although it is possible to employ a single strategy, the combination approach considers trade-offs between cost of service incurred by the carrier and value of service to the shipper.

Rates and Rating the above discussion reviewed key strategies used by carriers to set prices. Building on this foundation, this presents the pricing mechanics used by carriers. This applies specifically to common carriers, although contract carriers utilize a similar approach. (Bowersox, Closs, Cooper, 2002)

2.6. Supply Chain as a strategic Asset

When companies view supply chain as a strategic, supply chain strategy is part of the overall business strategy, designed around a well-defined basis of competition (innovation, low cost service, quality). It is integrated with marketing strategy and with customer's needs, product strategy as well as power position. On the other hand, supply chain strategy must adapt as market conditions and competitive advantages change.

In that way, supply chain strategy designs a unique supply chain configuration that drives strategic objectives forward. A supply chain strategy consists of five building blocks (Cohen, 2004, p.10) as quoted by (Klemencic, 2006)

1. Manufacturing strategy.
2. Outsourcing strategy.
3. Channel strategy
4. Customer service strategy.
5. Asset network.

2.6.1. Supply Chain Strategy Building Blocks

Manufacturing strategy means deciding, how to produce products or services. Will products be made to stock, to orders or some combination of it? Will some of the manufacturing be outsourced or production moved to low cost countries? Will final configuration be completed outside the manufacturing plant, closer to customer?

Changing the manufacturing strategy can be a key source of competitive advantage. Sometimes, it can also be an advantage to choose different manufacturing strategies for different products of different markets. The key drivers of manufacturing strategy are product life cycle, demand changes, and the number of product variants. Types of manufacturing strategies appropriate for different product are shown in figure below. (Klemencic, 2006)

Table 2.1: Types of manufacturing strategy

Strategy	When to choose this strategy	Benefit
Make to stock	For standardized high volume products	Low manufacturing cost, meeting customer demands quickly
Configure to order	For products requiring in many variations	Customization, reduced inventory, improved service levels
Make to order	For customized products with infrequent demand	Low inventory levels, wide range of product options, simplified planning
Engineer to order	For complex products that meet unique customer needs	Enables response to specific customer requirements

Source: (cohen, et al., 2004, p.12as quoted by Klemencic, 2006)

Channel strategy defines how products or service will be delivered to buyers of end users. It needs to answer questions such as: will the product be sold via distributors? Which market and market segments will be served, which channel for strategic partners to keep? The decisions regarding company's assets and cost performance must be part of the channel strategy, including pricing, promotions, financing and other term and conditions.

Anderson (1999, p.5) suggests the set of strategies that deal more with tighter collaboration with the channel, the customer, and/or the end consumer:

- **Consumer customizer:** uses mass customization to build and maintain close relationships with end consumers through direct sales.

- **Trade focused:** like logistics optimization, this strategy put a priority on ``low price, best- value`` for the consumer, but it focuses less on brand than on dedicated service to trade customers.
- **Logistics optimizer:** emphasizes a balance of supply chain efficiency and effectiveness.

The decisions regarding **outsourcing** are important sources of flexibility. Through outsourcing, the companies can focus on core competences and enhance their competitive positioning. Outsourcing of activities, with low strategic importance, or activities that outsourcing partners can do: better, faster, or cheaper, are the areas to be considered. If the product, process, or technology is the source of a company's differentiation, it should not be outsourced. Nevertheless, before any final decision is made, risks and strategic implication should be evaluated.

Customer service strategy should be based on two things: the overall customer volume and profitability, and understanding, what customers really want. Should the company aim for different service levels depending on customer importance? Tailoring customer service strategy to deliver the best cost/service performance by customer segment can have a high yield.

The final decision concerns the supply chain network, factories, warehouse, production equipment, order desks, and service centers. Location, size, and mission of these **Assets** have a major impact on performance. Depending on business size, customer service requirements, tax advantages, supplier base, labor cost companies can choose among: global, regional, or country manufacturing model. The company can chose different models depending on the type of demand for their products. High volume products can be produced in low cost countries for a global demand. Another option is also with use of different ``in market`` postponement strategies. This means that the standard product is produced in a low cost production center but final configuration and packing are done at distribution point, close to global customer. Another aspect is the product life cycle. In the beginning of the life cycle a global model can be used to develop manufacturing processes, later on a regional model should be used to improve customer service. (Klemencic, 2006)

2.6.2. Key Criteria for a Good Strategy

Supply chain strategy supports and drive **business strategy** forward. Effective business strategy begins with the core strategic vision that lays down the framework for the business. Business strategy defines what the company is, what it does, and what it doesn't do (cohen, et al., 2004, p.20 as quoted by Klemencic, 2006). In that way it also defines basis of competition in terms of: innovation, cost, service, and quality. Leading edge companies are focusing just on one of the four.

Good business strategy is very important from the supply chain perspective, as each basis of competition requires a different network structure, processes, information, systems, and skills as shown in table 3-1. If the cost is the source of competitive advantage, the focus is on efficient operations, the basis of competition are the lowest prices in the product category and supply chain can contribute to achieving competitive advantage by low cost and efficient infrastructure.

Table 2.2: supply chain contribution to business strategy

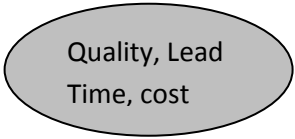
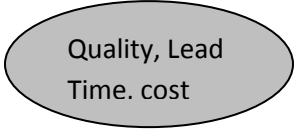
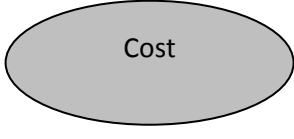
Primary strategy	Source of advantage	Basis of competition	Key supply chain contributor
Innovation	Brand and unique technology	Desirable and innovative products	Time to market and time to volume
Cost	Cost efficient operations	Lowest prices in the product category	Efficient low cost infrastructure
Service	Superb service	Tailored to meet customer specific needs	Designed ``from the customer in``
Quality	Safest, most reliable product	Products you can count on	Supply chain excellence and quality control

Source: (cohen, et al., 2004, p.22 as quoted by Klemencic, 2006)

As cohen stated, good supply chain strategy must meet **four criteria**. It has to be **aligned with business strategy, customer needs, and power position** and it should be **adaptive**. (Klemencic, 2006)

Companies need to know what customers really want. Thus, the strategy needs to be **aligned with customer needs**. Lean principles need to be applied where cost is the market winner and agility principles need to be applied in markets where availability is the market winner.

Figure 2.1: Market winners- Market qualifiers matrix for Agile Supply versus Lean Supply chain

Agile Supply chain		
Lean Supply chain		
Market qualifier	Market winners	

Source: (Mason Jones., 2000, p.65as quoted by Klemencic, 2006)

Depending on market requirements, there are actually three dimensions: product characteristics, demand characteristics, lead time characteristics.

According to these, we can group supply into (corsten, longitudes 04, 2004, p.10):

- **Lean supply chain** has high fixed assets and the focus is on high capacity utilization and efficiency (e.g. automotive).
- **Agile supply chain** has low fixed assets, shorter innovation cycle, assembly is often modular, and flexibility is a key due to rapidly changing product requirements.
- **Fast supply chains** can be found in consumer products industries, as innovation cycles and shelf are very short, and speed is crucial.
- **Linked supply chain** is typical for industries with long innovation cycles such as pharmaceutical or chemical industry, where raw materials go through a sequence of steps.

Fisher (1997, p. 114) has classified supply chains into functional or innovative with reference to the type of demand for product. According to the type of demand, companies must design processes that focus on efficiency or responsiveness. Functional products require an efficient process, while innovative products on the other hand a responsive one.

According to Fisher (1997, p.114), companies are very often found in the right upper corner in the figure below. The core reason lies in the fact, that companies have difficulties in accepting uncertainty as inherent to an innovative product. They can employ three coordinated strategies to reduce uncertainty. One of them is to increase demand. They can also avoid uncertainty by reducing lead-times or hedge against remaining uncertainty by buffers of inventory or excess capacity.

Figure 2.2: matching supply chain with products

Functional Product	Innovative Product
Match	Mismatch
Mismatch	Match

Source: Fisher, 1997, p.109

For good chain strategy, it is very important that the company understands the power and influence relative to customers and suppliers. Therefore, it needs to be aligned with its power position. Companies with high power and influence can leverage their volume to get things cheaper, have better control over the supply chain, its structure, customers. The impact of power position is biggest on the cooperation with customers. The impact of power position is biggest on the relationship management in supply chain. The company can either control supply chain partners or collaborate with carefully selected partners, depending on their real strategic impact. (Klemencic, 2006)

2.7. Supply Chain Management Practice and Firms Performance

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

needs to be managed effectively to achieve to business goals of each supply chain members. It also leads to value creation to end customer. (Charles et.al, 2014)

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

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

2.7.1. Supply chain performance indicators

Supply chain performance is a two dimensional definition which consists of effectiveness & efficiency (David *et al.* 2006).

Effectiveness is about „doing the right things“ & efficiency is about „doing things right“. Supply chain effectiveness relates to the preference of the end-consumer & the sole indicator is consumer satisfaction.

Conversely, supply chain efficiency relates to the objective performance of processes. Efficiency indicators measure an output level against an input level (Wang & William 2007).

The supply chain operations reference (SCOR) model was introduced in 1996 by the Supply-Chain Council, which is a global organization of firms interested in SCM.

The SCOR model advocates hundreds of performance metrics used in conjunction with five performance attributes: reliability, responsiveness, flexibility, cost, and asset metrics. (Theeranuphattana & Tang 2008) (Hausman,2004) states that in modern SCM, quality is taken as a given and that factors in quality management and improvement are somewhat separate from

those in SCM development. (Hausman 2004) Supply Chain Council (2006) presents five attributes of SC performance (Theeranuphattana & Tang 2008) As quoted by (Sillanpää, 2010)

1. **SC reliability.** The performance of the SC in delivering the correct product to the correct place, at the correct time, in the correct condition and packaging, in the correct quantity, with the correct documentation, to the correct customer.
2. **SC responsiveness.** The speed at which a SC provides products to the customer.
3. **SC flexibility.** The agility of a SC in responding to marketplace changes to gain or maintain competitive advantage.
4. **SC costs.** The costs associated with operating the SC.
5. **SC asset management.** The effectiveness of an organization in managing assets to support demand satisfaction. This includes the management of the both assets: fixed and working capital. (Sillanpää, 2010)

2.8. Supply chain and customer service objectives

Customer value can be defined quite simply as the difference between the perceived benefits that flow from a purchase or a relationship and the total costs incurred.

„Total cost of ownership“ rather than „price“ is used here because in most transactions there will be costs other than the purchase price involved. For example, inventory carrying costs, maintenance costs, running costs, disposal costs and so on. In business-to-business markets particularly, as buyers become increasingly sophisticated, the total costs of ownership can be a critical element in the purchase decision. „Life-cycle costs“, as they are referred to in the military and defense industries, have long been a critical issue in procurement decisions in those markets.

In the same way that the total cost of ownership is greater than the initial purchase price so too the benefits that are perceived to flow from the purchase or the relationship will often be greater than the tangible product features or functionality. For example, there may be little difference between two competitive products in terms of technical performance, but one may be superior to the other in terms of the customer support that is provided. One way to define „competitive advantage“ is simply that the successful companies will generally be those that deliver more customer value than their competitors. In other words, their ratio of benefits to costs is superior to other players in that market or segment.

Regarding this as (Christopher, 2011) described the whole purpose of supply chain management is to provide customers with the level and quality of service that they require and to do so at less cost to the total supply chain. In developing a market-driven logistics strategy the aim is to achieve „service excellence“ in a consistent and cost-effective way.

The definition of appropriate service objectives is made easier if we adopt the concept of the perfect order. The perfect order is achieved when the customer's service requirements are met in full. Clearly such a definition is specific to individual customers, but it is usually possible to group customers into segments and then to identify, along the lines described earlier, the key service needs of those segments. The perfect order is achieved only when each of those service needs is met to the customer's satisfaction.

The measure of service is therefore defined as the percentage of occasions on which the customer's requirements are met in full. Normally this percentage would be measured across all customers over a period of time. However, it can also be used to measure service performance at the individual customer level and indeed at any level, e.g. segment, country or by distribution center. (Christopher, 2011)

2.9. Organizational Performance

Organizational performance refers to how well an organization achieves its market oriented goals as well as its financial goals (Li et al., 2006). The short-term objectives of SCM are primarily to increase productivity and reduce inventory and cycle time, while long-term objectives are to increase market share and profits for all members of the supply chain (Tan et al., 1998). Financial metrics have served as a tool for comparing organizations and evaluating an organization's behavior over time (Holmberg, 2000). Any organizational initiative, including supply chain management, should ultimately lead to enhanced organizational performance. A number of prior studies have measured organizational performance using both financial and market criteria, including return on investment (ROI), market share, profit margin on sales, the growth of ROI, the growth of sales, the growth of market share, and overall competitive position (Vickery et al., 1999; Stock et al., 2000; and Li et al., 2006). In line with the above literature, the same items adopted to measure organizational performance in this study.

Market share, return on investment, the growth of market share, the growth of sales, growth in return on investment, profit margin on sales and overall competitive position are adapted as organizational performance measures in this study.

2.10. Empirical Review of Studies

According Shah *et al.* (2002), much of the current theoretical/ empirical research in SCM focuses on only the upstream or downstream side of the supply chain, or certain aspects/perspectives of SCM. However, there are certain previous researchers which have devoted a great deal of attention to the relationship of supply chain management practices and certain aspects of overall organizational performance from different perspective/dimensions or overall supply chain. Some of these researches finding are discussed as follow:

(Salazar, 2012) conducted a study The Effect of SCM process on competitive advantage and organizational performance. This research conceptualizes and develops three dimensions of SCM practice (supplier relationship management, manufacturing flow management, and product development and commercialization) and tests the relationships between these SCM practices, competitive advantage, and organizational performance. Data for the study was collected from prominent organizations and the relationships proposed in the framework were tested using rigorous statistical techniques. The results indicate that higher levels of SCM practice can lead to enhanced competitive advantage and improved organizational performance.

A study on Supply chain performance measurement in the manufacturing industry conducted by (Sillanpää, 2010). The main aim of this study is to create a supply chain measurement framework for manufacturing industry, define what data should be measured and verify the measurement framework in the case company's supply chain. This study presents the main theory framework of supply chain performance measurement. The key elements for the measurement framework were defined as time, profitability, order book analysis and managerial analysis. The measurement framework is tested by measuring case supply chain performance. The measurement framework is a valid framework for supply chain performance measurement in manufacturing industry. It is stated that supply chain performance measurement is extremely important in developing supply chain. The measurement framework in this study offers guidelines for measuring the supply chain in manufacturing industry but the measurement framework could be used in different areas of industry as well.

Klemencic. (2006) conducted study on management of Supply chain the case of Denmark Manufacturing Company called Danfoss Heating District Business Area by viewing the supply chain as a strategic asset the study tried to highlight theoretical frameworks that improve supply chain performance especially in service level and logistics cost. The study analyzed SCM practice dividing them in to building blocks a described in (Cohen, 2004) Model it continued with evaluating SC strategies, process, organization, Collaboration model and also evaluated the performance of SC on the basis of the current performance indicators by dividing in to four critical success areas time, service, quality and cost. The analysis of good supply chain strategy the researcher concluded that all building blocks, as defined by Cohen (2004, P. 18), are present in the supply chain strategy today and they actually support overall Vision very well, but they have not been revised and structured in one document. The Study also concluded from the analysis of collaboration model with external partners that it is also an area for improvement especially in terms of defining key collaboration partners, to whom operational activities can be outsourced or insourced (talking about joined demand planning efforts with key customers) or better utilization of e-commerce to improve efficiency of operational processes (e.g. order placement). In general the researcher concluded that implemented concepts and strategies are contributing significantly to the business result.

Supply Chain Management, Product Quality and Business Performance in case of Malaysian manufacturing companies conducted by Arawati (2011) and the study specifically investigates relationships between SCM, product quality and business performance and these associations are analyzed and the result demonstrates that SCM dimensions namely „lean production“, „new-technology and innovation“, „strategic supplier partnership“ and „postponement concept“ appear to be of primary importance and exhibit significant effects on product quality and business performance.

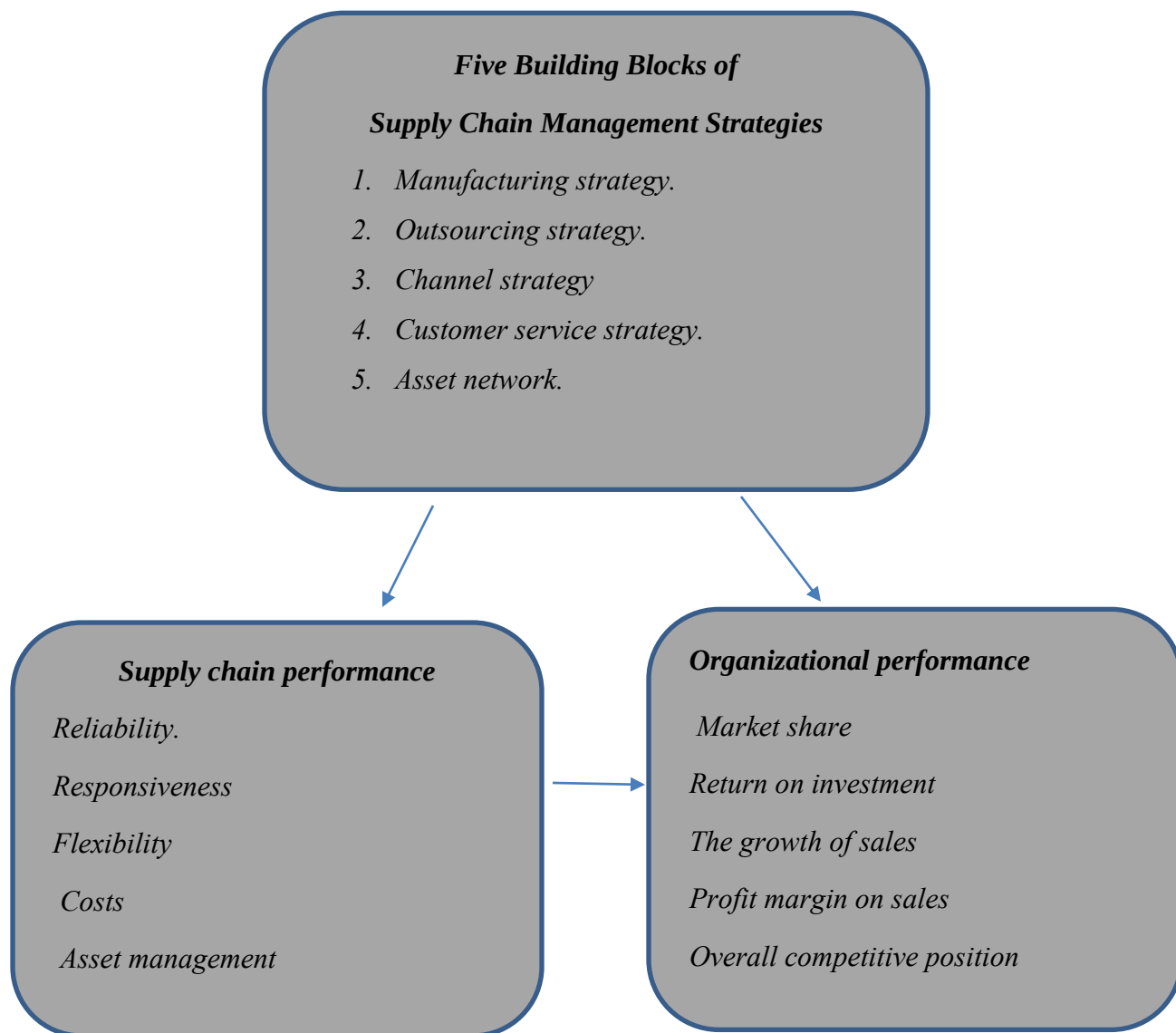
Generally, from above literature reviews it can be easily understandable that the work on supply chain management measurements/ practices and its influences on different perspectives of the organization and overall supply chain partners increasing and yields good backgrounds. However, the relationship of SCM with performance cannot be regarded as conclusive (Cousins, *et al.*, 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 construct, use of different units of analysis, and different approaches to performance measurement.

2.11. Conceptual Framework

Based on overall review of related literature and particularly from the work of (Sillanpää, 2010),(Klemencic, 2006), (Salazar, 2012) and (Mohammed, 2014) the following conceptual framework in which this specific study governed was developed:

Figure 2.3: Conceptual framework for the study



Source : (Sillanpää, 2010),(Klemencic, 2006), (Salazar, 2012) and (Mohammed, 2014).

2.12. Company Background

The company which is now known as MOHA soft drinks industry S.C was established in 1965GC which was then known as Pepsi cola factory and later named “Abbay- Mesk Soft Drinks Factory”.

There were two factories in Addis Ababa Nefasilk and T\Haimanot Plant. The Nefasilk plant was a property of two Ethiopians and one foreigner and named as Pepsi cola factory and started to operate with 88 employees. The T/Haimanot plant was first established to produce and export the traditional Ethiopian drink which is known as “Yemartej” in modern style but the product’s first aim was failed because it cannot compete in the market and because of its higher price which have led the company to bankruptcy. To overcome this, the management decided to change the company’s product to soft drinks and started to produce drinks like lemonade, tangerine, and Canada dry, and Pepsi cola.

After the company started to produce soft drinks, the government of Ethiopia at the time decided to merge the two companies together to achieve a better result, so they collaborated together with the capital of Birr 1,114,605.00 under the trade name of “Abbay- Mesk Soft Drinks Factory”.

Following the change of the government and privatization policy of public enterprises in 1991GC, Abbay- Mesk Soft Drinks Factory was sold to an Ethiopian investor called Sheik Mohammed Hussein Ali-Amoudi and named after him as “Moha Soft Drinks Industry S.C”. It was formed and registered under the commercial code of Ethiopia on the 15th of May 1996. The transfer of the companies was finalized on the 4th of April 1996. Now a days the company has a total of Eight branches throughout Ethiopia from this Eight three of them are in Addis including the newly added Summit plant and the rest are in Awassa, Desse, Gonder, Mekelle and Bure from all the Nifasilk plant is the largest of all.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

The main purpose of the research methodology is to explain how the research is accomplished, what knowledge is required, what information is needed and how information is collected.

Research methodology consists of research approach, sample design-sampling technique, sample size, source and instruments of data collection, methods of data analysis, ethical issues, validity and reliability of the study.

3.2. Research Approach

The study adopted empirical investigation with descriptive research design since the major focus of the research is the Effects of supply chain management strategy in MOHA soft drinks industry performance.

Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group. Studies concerned with specific predictions, with narration of facts and characteristics concerning individual, group or situation are all examples of descriptive research studies (Kothari, 2004, p37). The independent variable refers to the antecedent phenomenon, while the dependent variable relates to the consequent phenomenon. Therefore, in order to accurately describe the effect & relationships between the independent variables and the dependent variable Descriptive research studies are employed.

3.3. Sources of Data

The required data for the study collected using both primary and secondary data collection methods

Primary data:-primary data collected from employees of the company by using a self-administered questionnaire that consist both open and more of closed ended questions that is designed to collect responses for qualitative and quantitative analysis respectively. Different empirical studies used five point likert scales for measuring effects of supply chain on firm

performance (Sabry 2015, Koh et al 2007, Benito 2010). It is an ideal measurement approach since it helps to ask respondents to rate their opinion for the items of various dimensions. The standard questionnaire is used to collect the necessary information regarding the study is adopted from the work of other studies from (Salazar, 2012) and (Mohammed, 2014).

Secondary data: - The source of secondary data for this research is annual report and journals as a stepping board for the research.

3.4. Data Gathering Tools/instruments

For the data collection purposes, two basic instruments namely, questionnaire and document analysis has been used.

Questionnaire: It is prepared based on the review of the related literature. Because the numbers of respondents are large, this tool is appropriate to gather the necessary data. The items are close ended supplemented with few open-ended items to get more opinions of the respondents. The questionnaire carefully developed in a way that measure the impact of the proposed independent variables on the dependent variable. The type of questions, form, wording and sequences considered carefully.

Document Analysis: With this data gathering tools, reports, journals and relevant document has been reviewed and gathered from HR department and Marketing & sales. This data gathering tool is used to enrich the data which is obtained through questionnaire method.

3.5. Sample Design

3.5.1 Target Population

The target population is said to be a specified group of people or object for which questions can be asked or observed made to develop required data structures and information. Therefore, for this study, the target populations are employees of MOHA soft drinks industry S.C Addis Ababa area branches and the head office, particularly those 2028 Employees of the company are the target of the study.

3.5.2. Sampling Technique

For the purpose of this study, the researcher used probability sampling particularly stratified sampling technique since the total population of the study is large and heterogeneous in type stratified sampling technique was preferred. The target population for the study was classified into six strata based on the departments and section in the firm. Then the samples are selected 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 strategy/dimensions, performance and organizational performance of the firm, stratified sampling technique is used to have the right proportion of people from every concerned department or section. The departments considered as strata, from which data were collected are:

Manufacturing department (Co₂ plant, Production control & scheduling and quality control), Technique Department (Technique and Vehicle maintenance), Marketing & Sales, Procurement & Store Mgt, Administration (CEO, Managements, Human resource, Corporate Planning, Legal Affairs), Finance Departments are considered in the sample.

3.5.3. Sample Size

Malhortra and Peterson (2006) and Zikmund (2003) stated that, the larger the sampling size of a research, the more accurate the data generated. However, due to time and financial limitations and the nature of the population, sample determination method developed by (J Carvalho,1984), "Archival application of mathematical sampling techniques", (1984). (Quoted by national Archive report Richmond, 2005) was preferred to be used by researcher as a method to determine a sample size.

Table 3.1: Sample size determination

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

Source: (Carvalho ,1984) as quoted by (national Archive report Richmond, 2005)

Table 3.2: Permanent staff composition of MOHA soft drinks industry S.C head office and three branches located in Addis Ababa.

Departments	Head Office	N/Silk Branch	T/haimanot Branch	Summit Branch
CEO	4	-	-	-
Administration	20	116	81	87
Corporate Planning	10	-	-	-
Legal Affairs	-	8	-	-
Manufacturing	-	271	135	143
Co ₂ plant	-	21	-	10
Quality Control	5	25	22	45
Technique	3	48	33	46
Vehicle Maintenance	-	27	14	13
Marketing & Sales	4	305	225	126
Purchasing& Procurement	6	21	18	24
Finance	8	33	26	21
Cafeteria	-	-	-	24
Total	60	875	554	539

Source: (Moha Soft Drink Industry S.C HR Reports)

Table 3.3: Sample Size Determination for the study

Strata (Departments)	Total Population of each Stratum	Target Population of each Stratum	Sample size of each Stratum
Administration	350	120	20
Manufacturing Department	677	52	13
Technique Department	184	-	-
Marketing & Sales	660	468	50
Purchasing & Procurement	69	69	13
Finance Department	88	88	13
Total	2028	797	109

Source: (Moha Soft Drink Industry S.C HR Reports)

3.6. Methods of Data Analysis

The data collected through questionnaire presented in table form and descriptive statistics is employed. After making the necessary coding, to analyze the usable data collected from respondents Statistical Package for Social Sciences (SPSS) is used. Both descriptive and inferential are applied in order to come up with a better result. Descriptive statistics is used to describe a set of data in terms of its frequency of occurrence, its central tendency, and its dispersion. Regression analysis, correlation analysis and reliability test examined through employing inferential statistics.

3.7. Ethical Clearance

A formal letter was written from Addis Ababa University, School of Commerce, Department of Logistics and Supply Chain Management to Moha soft drinks industry s.c and concerned authorities of the company. The data collection only started after getting consent from the parties mentioned above. In addition to this, name of the employees (selected for the sample) were not included to maintain confidentiality.

3.8. Validity and Reliability

3.8.1. Assessing Reliability

Validity is the most critical criterion and indicates the degree to which an instrument measures what it is supposed to measure while reliability has to do with the accuracy and precision of a measurement procedure (A measuring instrument is reliable if it provides consistent results. As multiple items in all constructs were used, the internal consistency/reliabilities of SCM Strategy, Supply chain performance, 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 ideal (Pallant 2005). The following table shows the summary of reliabilities of all constructs.

Table 3.4: Reliability of constructs

Variable	Reliability
A) Five Building Blocks of Supply Chain Management Strategies	-
Manufacturing strategy.	.744
Outsourcing strategy.	.786
Channel strategy	.888
Customer service strategy.	.816
Asset network.	.784
B) Supply chain performance	
Reliability.	.783
Responsiveness	.836
Flexibility	.726
Costs	.757
Asset management	.723
C) Organizational performance	.889

Source: (SPSS Output, 2016)

3.8.2 Analysis of Validity

Malhotra (2010) mentioned about three types of validity in his study: content validity, predictive validity, and construct validity. This study addressed content validity through the review of literature and adapting instruments used in previous research.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

INTRODUCTION

As discussed in previous chapter, this study attempted to examine the Relationship between supply chain management strategy and Moha soft drinks industry s.c performance. Therefore, the findings of the study are presented and discussed in this chapter. The questionnaire were developed in five scales ranging from five to one; where 5 represents Strongly agree, 4 agree, 3 Neutral, 2 disagree, and 1 strongly disagrees. In order to assess the relationship between supply chain management strategy and supply chain & firm"s performance, Correlation and regression analysis were conducted for scale typed questionnaire. A total of 109 questionnaires were distributed to employees and 81 (74%) questionnaire were obtained valid and used for analysis. The collected data were presented and analyzed using SPSS (version 17.0) statistical software. The study used correlation analysis, specifically Pearson correlation to measure the degree of association between different variables under consideration. Regression Analysis was also used to test the effect of independent variable on dependent variable.

4.1. Response Rate

A total of 109 questionnaires were distributed to employees and 81 (74%) questionnaire were obtained. The remaining 28 questionnaires were not collected due to unwillingness to provide information and some respondents were in absence of leave. Based on these, the response rate is 74%.

Table 4.1 – Response Rate

No.	Name of the Firm	No. of Questionnaire Distributed	No. of Questionnaire Collected	No. of Questionnaire Uncollected
1	Head Office	15	9	06
2	N/Silk Branch	35	28	07
3	T/haimanot Branch	30	21	09
4	Summit Branch	29	23	06
Total		109	81	28

Source: (Survey Data, 2016)

4.2. Respondent Profile

Table 4.2 – Profile of Respondents

Educational Qualification	Frequency	Percent
college Diploma	22	27.2
First degree	56	69.1
Second degree and above	3	3.7
Total	81	100.0
Job Title	Frequency	Percent
Director	3	3.7
Manager	8	9.9
Other/Sales, Marketing ,Procurement, Production, Finance, HR, Supervisors/	70	86.4
Total	81	100.0
Work Experience	Frequency	Percent
under 2 year	8	9.9
2-5 Year	11	13.6
5-10 Year	22	27.2
Over 10 Year	40	49.4
Total	81	100.0
Departments/Work Units	Frequency	Percent
Director of Tech Service and GM	1	1.2
Cost and Budget	1	1.2
Director Cen Procurement & Logistics	1	1.2
Director of Corporate planning &MIS	1	1.2
Finance	18	22.2
Human resource	1	1.2
Manager	1	1.2
Marketing and Sales	28	34.6
Marketing Manager	1	1.2
Operation Manager	1	1.2
Procurement and Store Mgt	14	17.3
Production	12	14.8
Quality Control & Food Safety	1	1.2
Total	81	100.0

Source: (SPSS Output, 2016)

The analysis of the respondents profile in terms of their Educational qualification, Job title, work experience and department/work units in line with Table 4.2 is presented as follows.

Educational Level: 56 respondents (69.1%) have 1st degrees (BA/BSc Degree), 3 respondents (3.7 %) have 2nd Degree (MSc/MA Degree) and the remaining 22 respondents (27.2%) are Diploma holders. From the educational background of respondents, 59 respondents (72.8%) are 1st and 2nd degree holders. According to the response, the respondents provide relevant and reliable information needed for the study and they are fit in line with the response of the questionnaire.

Job Title: 3 respondents (3.7%) of them are Directors of the company, 8 respondents (9.9 %) are Managers of the company, The rest 70 respondents (86.4 %) are sales/marketing officers, Procurement and supply officers and supervisors, Production unit workers and supervisors, Finance officers and different department heads . According to the response, all the respondents are directly and indirectly involved in the supply chain practices of their firm and hence, their information can be considered as reliable and relevant for the study.

Work Experience: From the total respondents, 8 respondents (9.9%) fall at a work experience of less than 2 years, 11 respondents (13.6 %) fall at a work experience level of 2-5 years, 22 respondents (27.2%) are with 5-10 years" experience and the rest 40 respondents (49.4 %) are at a work experience of more than 10 years. From this it can be concluded that the majority of respondents, 62 respondents (76.6%) fall at a work experience above five years. This implies the fact that most of the respondents have sufficient knowledge and experience about their firm and the subject matter of the study.

Department/Work Units: 28 respondents (34.6%) are from sales/marketing department, 18 respondents (22.2%) of them are from finance departments, 14 of respondents (17.3%) are from supply/purchasing/procurement and store management department, 12 respondents (14.8%) are from production/operations department and the rest 9 (11.1%) respondents are Company directors, Company managers. This implies the fact that all the respondents are directly and indirectly involved in the operations of supply chain management of their firm and hence, their information can be considered as reliable and relevant for the study.

4.3 Response on Supply Chain Management Strategy and Organizational Performance

4.3.1 Five Building Blocks of Supply Chain Management Strategy

Table 4.3 – Mean and St. Deviation of Responses on SCM Strategy of the firm

Five Building Blocks of Supply Chain Management Strategy	Mean	Std. Deviation	N
Manufacturing Strategy			
Our firm has examined how our corporate strategy influences the manufacturing process	4.1728	.91910	81
Our firm has a formal process for evaluating the Expertise that will be needed to use future technologies or fulfill future market needs	3.7531	.92912	81
Our firm cannot offer different degrees of manufacturing flexibility to different customers	2.6076	1.06720	79
Manufacturing flexibility requirements are determined by a cross –functional team	3.3704	.90062	81
Our firm does not plan for capacity growth for the future	2.2500	1.17463	80
Manufacturing capabilities are formally communicated internally	3.7821	.89221	78
Manufacturing capabilities are formally communicated with key customers	3.0375	1.11881	80
Manufacturing capabilities are formally communicated with key suppliers	3.4198	1.08241	81
Our firm has formal metrics focused on the manufacturing process	4.3086	1.14719	81
Our firm has formal performance goals relating to the manufacturing process	4.5432	.85219	81
Our firm has communicated performance goals relating manufacturing throughout the firm	4.3210	.93310	81
Outsourcing Strategy			
Has MOHA Soft Drinks Industry S.C ever outsourced any business function?	1.1375	.34655	80
The type of business function that MOHA Soft Drinks Industry S.C ever outsourced			
Transportation Services	1.3924	.49141	79
Warehouse Services	1.3671	.48509	79
Information Management	1.4231	.49725	78
Inventory Management	1.7722	.42212	79
Human resource Management	1.8462	.36314	78
Training and Counseling Services	1.3000	.46115	80
Maintenance and Repair Services	1.3867	.49027	75
Legal Services	1.3462	.47882	78
Security Services	1.6835	.46806	79
Janitorial Services	1.8987	.30361	79
Criteria to outsource			
Previously Cooperated	3.0500	1.21071	80
Lower Costs	3.0506	1.11974	79
High Quality of Services	3.5949	1.23537	79

Five Building Blocks of Supply Chain Management Strategy	Mean	Std. Deviation	N
Criteria to outsource			
Good Reputation	3.4675	1.31374	77
Advanced Technology and Management Experience	3.2125	1.23958	80
Minimum Organizational bid process requirements	2.8500	1.03239	80
The outsourcing practice has enabled the organization concentrate on its core business and therefore achieve improved customer satisfaction	3.1125	1.07907	79
Our firm has formal metrics focused on the outsourcing practice	3.2278	1.22944	80
Our firm has formal performance goals relating to the outsourcing practice	3.1125	1.19061	80
The outsourcing practice has enabled the organization to excel from the previous performance	3.1875	1.06846	81
Channel strategy			
Does your company has a strategy to select the distribution channel members	4.0494	.94738	80
Distribution channels are located in such a way that they fulfill demand of customers at the right place and the right time when it is needed by the customers	4.0864	.91101	81
There is a strategy that channels members managed, monitored and motivated, once they are selected	3.6875	.77286	80
There is a feedback mechanism from the Distribution centers towards the company and from the company towards DCs	4.2840	.84016	81
Do you think your DCs perform effectively according to the schedule and target of the company	3.5625	.86922	80
Does the channel member has adequate warehouse and distribution facilities	4.1235	.87153	81
Do you think DCs sales performance (against targets) accomplished effectively	3.9753	.92162	81
Customer service strategy.			
Our customer service strategy is executed well throughout the firm	4.0370	.71492	81
Our customer service representative respond to Customer service issues with formally developed response procedures	3.8765	.82739	81
Our firm does not understand the internal Coordination required to respond to customer service events	2.8354	1.01817	79
Our firm has mechanisms in place for responding to customer service issues prior to the customer being impacted	3.7037	.76558	81
Our firm understands the external coordination Required to respond to various customer service events	3.9753	.68875	81
Our firm responds to customer service issues Before the customer is impacted	3.6000	.80505	80
Our firm uses information systems to aid with the information flow related to customer service management	3.4250	.97792	80
Our firm has developed formal CSM metrics	3.1127	.88720	71
Our firm does not have formal performance goals relating to CSM	3.3836	.92241	73
Asset Network			
Our manufacturing plants are strategically located	4.2346	.81043	81
Our distribution channels are strategically located	4.1750	.68943	80
Supply chain management has been identified as a key area to develop in our business model	3.7432	.84498	74
We have fully standardized processes in manufacturing	4.5570	.79658	79

Source: (SPSS Output, 2016)

The research questionnaire designed using 5 point Likert scale to collect appropriate responses, in relation to this the respondents indicated the extent they agree with the statements by choosing: 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree and 1-Strongly Disagree. Based on the response of the respondents Mean computed on the above table 4.3.A mean (M) score of 0-1.5 means that the respondents strongly disagreed, between 1.50 to 2.50 means they disagreed, 2.50 to 3.50 means the respondents were neutral, 3.50-4.50 means they agreed and a mean above 4.50 means the respondents strongly agreed. Based on the findings on Table 4.3, Majority of the five building blocks of Supply chain management Strategies (Manufacturing strategy, Channel Strategy, Customer service strategy, Asset network) scores greater than 3.5, which imply the respondents agreed to the fact that SCM practices are in their respective firms in addition , on the out sourcing strategy respondents evaluated their choice using 1–Yes and 2-No, Based on the findings on Table 4.3 the mean score showed above one which means majority of the respondents believe the company has a little practice of out sourcing.

4.3.2 Responses on Dimensions of Supply chain performance

Table 4.4 - Mean and St. Deviation of Responses on SC performance of the firm

Supply Chain Performance	Mean	Std. Deviation	N
Reliability			
We are dependable and consistent in solving customers' complaints	4.1728	.98476	81
We offer products that are highly reliable.	4.4074	.86281	81
We offer products that are very durable.	4.0506	1.13113	79
We offer high quality products to our customer.	4.6125	.66549	80
Responsiveness			
We deliver the kind of products needed.	4.2750	.65555	80
We deliver customer order on time.	4.1000	.83590	80
We provide dependable delivery.	4.1500	.84344	80
Time to solve customer complaints is short.	4.1750	.83855	80
Flexibility			
We deliver product to market quickly.	4.3580	.63853	81
We have time-to-market lower than industry average	3.5694	.83626	72
We are first in the market in introducing new products.	3.5062	.88209	81
We have fast product development.	3.8272	1.12683	81
Cost			
We are able to offer prices as low or lower than our competitors.	3.2785	1.04926	79
Our capacity utilization is very good.	4.2400	.67464	75
Our Inventory turnover is high.	4.0123	.69810	81
We run operation with less Production cost.	3.8243	.88144	74
Asset management			
It is important that our top management is fully located where our corporate HQ is	3.5823	.81031	79
Knowledge sharing between our business units is poor	2.6543	1.03876	81
Our organization is centrally managed	3.6625	1.06668	80
We have a centralized profit distribution	3.5205	1.09430	73
Our manufacturing sites have a clear definition of roles	4.1250	.75263	80

Source: (SPSS Output, 2016)

According to the responses of the respondents the 5 point Likert scale indicate the extent they agree with the statements that is: 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree and 1-Strongly Disagree. A mean (M) score of 0-1.5 means that the respondents strongly disagreed, between 1.50 to 2.50 means they disagreed, 2.50 to 3.50 means the respondents were neutral,

3.50-4.50 means they agreed, and a mean above 4.50 means the respondents strongly agreed. Based on the findings on Table 4.4, imply that majority of respondents agreed to the fact that the company supply chain performance is moderately good.

4. 3.3. Response on Firm Performance Dimensions

Table 4.5 – Mean and Std. Deviation of Responses on Firm Performance Measures

Firm Performance Measures	Mean	Std. Deviation	N
Market share.	3.8108	1.22391	74
Return on investment.	4.0135	.92889	74
The growth of market share.	3.9595	1.14005	74
The growth of sales.	4.2877	.79021	73
Growth in return on investment.	4.1096	.69844	73
Profit margin on sales.	4.2432	.59244	74
Overall competitive position.	3.9054	1.12468	74

Source: (SPSS Output, 2016)

Based on the findings on Table 4.5, all the performance dimensions had mean scores greater than 3.5, which imply the respondents agreed to the fact that their business performance is good.

4.4. Inferential Statistics for SCM Strategy and Firm Performance

4.4.1 Correlation Analysis

Correlations are the measure of the linear relationship between two variables. A correlation coefficient has a value ranging from -1 to 1. Values that are closer to the absolute value of 1 indicate that there is a strong relationship between the variables being correlated whereas values closer to 0 indicates that there is little or no linear relationship. As described by (Pallant 2005), the correlation is a commonly used measure of the size of an effect: values of ± 0.1 represent a small effect, ± 0.3 is a medium effect and ± 0.5 is a large effect.

In this section, correlation analysis conducted in the light of each research objectives and hypotheses developed. The relationship between supply chain management strategy and firm performance was investigated using correlation analysis. This provided correlation Coefficients

which indicated the strength and direction of relationship. The p-value also indicated the probability of this relationship's significance.

4.4.1.1 Correlation Analysis between five building blocks of SCM Strategy and Supply Chain Performance (SCP)

Table 4.6 Correlation matrix between constructs of SCM strategy and SCP

		Manufacturing Strategy	Outsourcing Strategy	Channel Strategy	Customer Service Strategy	Asset Network	Supply Chain Performance
Manufacturing Strategy	Pearson Correlation	1	.143	.395**	.281*	.318**	.343**
	Sig. (2-tailed)		.206	.000	.011	.004	.002
	N	81	80	81	81	81	81
Outsourcing Strategy	Pearson Correlation	.143	1	.301**	.235*	.236*	.423**
	Sig. (2-tailed)	.206		.007	.036	.035	.000
	N	80	80	80	80	80	80
Channel Strategy	Pearson Correlation	.395**	.301**	1	.373**	.486**	.542**
	Sig. (2-tailed)	.000	.007		.001	.000	.000
	N	81	80	81	81	81	81
Customer Service Strategy	Pearson Correlation	.281*	.235*	.373**	1	.217	.583**
	Sig. (2-tailed)	.011	.036	.001		.052	.000
	N	81	80	81	81	81	81
Asset Network	Pearson Correlation	.318**	.236*	.486**	.217	1	.523**
	Sig. (2-tailed)	.004	.035	.000	.052		.000
	N	81	80	81	81	81	81
Supply Chain Performance	Pearson Correlation	.343**	.423**	.542**	.583**	.523**	1
	Sig. (2-tailed)	.002	.000	.000	.000	.000	
	N	81	80	81	81	81	81

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source: (SPSS Output, 2016)

The five building blocks of SCM strategy (Manufacturing strategy, Outsourcing strategy, Channel Strategy, Customer service strategy, Asset network) their relation with supply chain

performance was computed in the above table. The result of correlation matrix between each building blocks and SC performance are analyzed as follow:

As it is indicated in the table, there is significant positive correlation between Manufacturing strategy and supply chain performance with a correlation coefficient of 0.343 ($r=0.343$) and significance is 0.002. Therefore, manufacturing strategy and supply chain performance are genuinely correlated. Table 4.6 also depict that as there is moderate and positive relationship between Outsourcing strategy and supply chain performance with a Pearson correlation coefficient of 0.423 ($r=0.423$) and significance value is less than 0.001. This significance tells that there is genuine relationship between the two. Additionally Pearson correlation test indicated in the table 4.6 also described that there is significant positive correlation between Channel Strategy and SCP. In other words Channel Strategy and supply chain performance are Correlated in high relationship ($r=0.542$) with level of significance less than 0.001.

In addition, the correlation test conducted on Customer service strategy and supply chain performance depicted on the table 4.6 indicate that there is strong and positive relation between Customer service strategy and supply chain performance showing correlation coefficient of 0.583 ($r=0.583$) and significance value less than 0.001. Furthermore the correlation test on Asset network supply chain performance also revealed that strong and positive relation with correlation coefficient of 0.523 and significance value less than 0.001. The finding is consistent with the work of (Klemencic, 2006): also showed that the five building blocks of SCM Strategies (Manufacturing strategy, Outsourcing strategy, Channel Strategy, Customer service strategy, Asset network) has strong relation with the better performance of SC in the case of DHS

Table 4.7 Correlation between collective representatives of five building blocks of SCM Strategy and SC Performance

		Supply Chain Performance	SCM Strategy Building Blocks
Supply Chain Performance	Pearson Correlation	1	.673**
	Sig. (2-tailed)		.000
	N	81	81
SCM Strategy Building Blocks	Pearson Correlation	.673**	1
	Sig. (2-tailed)	.000	
	N	81	81

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

Source:(SPSS Output, 2016)

As indicated on the above the Pearson correlation test was conducted between SCM Strategy (collective representative of five building blocks of SCM Strategy) and SC Performance, the results shows that there is significantly strong correlation between SCM Strategy and SC Performance. In other words SCM Strategy and SC Performance has positive relationship with correlation coefficient of 0.673 ($r=0.673$) and significance value less than 0.01. Also (Gunjan Soni and Rambabu Kodali, 2011) mentioned on their finding that there is a causal relationship between SC Strategy and SC Performance.

4.4.1.2 Correlation Analysis between five building blocks of SCM Strategy and Organizational Performance.

Table 4.8 Correlation Matrix between constructs SCM Strategy and Organization performance

		Manufacturing Strategy	Outsourcing Strategy	Channel Strategy	Customer Service Strategy	Asset Network	Organizational Performance
Manufacturing Strategy	Pearson Correlation	1	.143	.395**	.281*	.318**	.289*
	Sig. (2-tailed)		.206	.000	.011	.004	.013
	N	81	80	81	81	81	74
Outsourcing Strategy	Pearson Correlation	.143	1	.301**	.235*	.236*	.156
	Sig. (2-tailed)	.206		.007	.036	.035	.186
	N	80	80	80	80	80	73
Channel Strategy	Pearson Correlation	.395**	.301**	1	.373**	.486**	.471**
	Sig. (2-tailed)	.000	.007		.001	.000	.000
	N	81	80	81	81	81	74
Customer Service Strategy	Pearson Correlation	.281*	.235*	.373**	1	.217	.358**
	Sig. (2-tailed)	.011	.036	.001		.052	.002
	N	81	80	81	81	81	74
Asset Network	Pearson Correlation	.318**	.236*	.486**	.217	1	.315**
	Sig. (2-tailed)	.004	.035	.000	.052		.006
	N	81	80	81	81	81	74
Organizational Performance	Pearson Correlation	.289*	.156	.471**	.358**	.315**	1
	Sig. (2-tailed)	.013	.186	.000	.002	.006	
	N	74	73	74	74	74	74

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source: (SPSS Output, 2016)

Based on the above table the result of correlation matrix between each five building blocks of SCM Strategy and Organizational performance are analyzed as follow: As per the table 4.8 above, manufacturing strategy positively related to organizational performance with a Pearson correlation coefficient of 0.289 ($r=0.289$) and significance value is 0.013. This significance tells that there is genuine and positive relationship between manufacturing and organizational performance.

Table 4.8 also depict that as there is positive relationship between Outsourcing strategy and organizational performance with a Pearson correlation coefficient of 0.156 ($r=0.156$) however the significance value is higher which is 0.186. This significance tells that there is weak relationship between customer relation and organizational performance as compared to others. On the other hand the Pearson correlation test indicated in the table 4.8, also show that there is significant positive correlation between Channel Strategy and organizational performance with a Pearson correlation coefficient of 0.471 ($r=0.471$) and significance value is less than 0.001. This significance tells that there is genuine relation of Channel Strategy and organizational performance.

According to the above table the correlation test conducted between Customer service strategy and organizational performance, table 4.8 clearly indicates that there is moderate and positive relation. The result of correlation coefficient showed 0.358 ($r=0.358$) and significance value is 0.002 which indicates as there is genuine relation between them. The correlation test on last building block Asset network and Organizational Performance also shown a positive and significant correlation with a Pearson correlation coefficient of 0.315 ($r=0.315$) and significance value is 0.006. This significance tells that there is genuine relation between Asset network and Organizational Performance. In relation to this facts (Klemencic, 2006) also proved that the five building blocks has significant relation to improvement of the organizational performance.

Table 4.9 Correlation Matrix between collective representatives of five building blocks of SCM Strategy and Organization Performance

		SCM Strategy Building Blocks	Organizational Performance
SCM Strategy Building Blocks	Pearson Correlation	1	.410**
	Sig. (2-tailed)		.000
	N	81	74
Organizational Performance	Pearson Correlation	.410**	1
	Sig. (2-tailed)	.000	
	N	74	74

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

Source : (SPSS Output, 2016)

Based on Pearson correlation test between SCM strategy (collective representative of five building blocks of SCM Strategy) and Organizational Performance conducted on the above table 4.9, the results shows that there is significantly medium correlation between SCM Strategy and organization Performance with correlation coefficient of 0.410 ($r=0.410$) and significance value less than 0.01. As the results, obtained from (Bavarsad , Azizi and Alesadi, 2013) statistical analysis, the correlation test showed that supply chain management strategy has significant Relationship with the organizational performance

4.4.1.3 Correlation Analysis between SC Performance and Organization Performance

Table 4.10: Correlations Matrix between SC Performance measures and Organization Performance

		Reliability	Responsiveness	Flexibility	Cost	Asset Mgt	Organizational Performance
Reliability	Pearson Correlation	1	.583**	.305**	.154	.121	.170
	Sig. (2-tailed)		.000	.006	.170	.282	.149
	N	81	81	81	81	81	74
Responsiveness	Pearson Correlation	.583**	1	.583**	.419**	.366**	.408**
	Sig. (2-tailed)	.000		.000	.000	.001	.000
	N	81	81	81	81	81	74
Flexibility	Pearson Correlation	.305**	.583**	1	.675**	.604**	.433**
	Sig. (2-tailed)	.006	.000		.000	.000	.000
	N	81	81	81	81	81	74
Cost	Pearson Correlation	.154	.419**	.675**	1	.690**	.440**
	Sig. (2-tailed)	.170	.000	.000		.000	.000
	N	81	81	81	81	81	74
Asset Mgt	Pearson Correlation	.121	.366**	.604**	.690**	1	.365**
	Sig. (2-tailed)	.282	.001	.000	.000		.001
	N	81	81	81	81	81	74
Organizational Performance	Pearson Correlation	.170	.408**	.433**	.440**	.365**	1
	Sig. (2-tailed)	.149	.000	.000	.000	.001	
	N	74	74	74	74	74	74

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

* . Correlation is significant at the 0.05 level (2-tailed).

Source: (SPSS Output, 2016)

The above table shows the matrix of correlation between SC performance measures (i.e., reliability, responsiveness, flexibility, cost and Asset management) and organizational

performance. The analysis of correlation matrix between each measures of SC performance and organizational performance is given as follows:

As shown in table 4.10 above, Pearson correlation test was conducted for reliability and organizational performance the results indicates that there is positive and weak correlation between reliability and organizational performance with correlation coefficient of 0.170 ($r=0.170$) and significance value less than 0.149. On the other hand, as it is shown in the table 4.10 above there is moderate and positive relationship between responsiveness and organizational performance with a Pearson correlation coefficient of 0.408 (0.408) and significance value is less than 0.001. This significance tells that there is genuine relationship between the two. Also for flexibility and organizational performance Pearson correlation test was conducted and the results shown in above table 4.10, there is moderate and positive significant correlation. In other words flexibility and organizational performance have genuine relationship with correlation coefficient of ($r=0.433$) at significance value less than 0.001. correlation test between cost and organizational performance was also conducted as mentioned in table 4.10 above, the result shows that cost positively related to organizational performance with a Pearson correlation coefficient of 0.440 ($r=0.440$) and significance value is less than 0.001. This significance tells that there is genuine relationship. Furthermore, the correlation test conducted between Asset management and organizational performance also revealed that there is moderate and positive relationship since Pearson correlation coefficient is 0.365 and significance value showed 0.002. (Deshpande, 2012) also confirmed in his study findings like in the current study finding his study supported positive relationships between SCM performance measures and organizational performance measures.

Table 4.11 Correlation between collective representatives of SC Performance measures and Organization Performance

		Supply Chain Performance	Organizational Performance
Supply Chain Performance	Pearson Correlation	1	.475**
	Sig. (2-tailed)		.000
	N	81	74
Organizational Performance	Pearson Correlation	.475**	1
	Sig. (2-tailed)	.000	
	N	74	74

** . Correlation is significant at the 0.01 level (2-tailed). Source: (SPSS Output,2016)

According to Table 4.11 it can be concluded that the Supply chain performance and organizational performance has a moderate and positive relation based on Pearson correlation coefficient of 0.475($r=0.475$) significance value is less than 0.001. This significance tells that there is genuine relationship between Supply chain performance and organizational performance. In relation to this (IshtiaqIshaq, Khaliq, Hussain, Waqas, 2012) based on their finding described that organizational success depends on supply chain success.

4.4.2. Regression Analysis

This regression analysis is conducted to know by how much the independent variable explains the dependent variable. The regression was conducted between supply chain Strategy building blocks (independent variable) and SC performance (dependent variable) in the first regression. The second regression was made between supply chain management practices (independent variable) and organizational performance (dependent variable). Finally, the third regression was made between SC performance (independent variable) and organizational performance (dependent variable). The results of the regression analysis are presented as follows.

4.4.2.1 Multicollinearity Test

Table 4.12: Multicollinearity test of independent variable s

Model	Collinearity Statistics		Model	Collinearity Statistics	
	Tolerance	VIF		Tolerance	VIF
(Constant)			(Constant)		
Manufacturing Strategy	.787	1.254	Manufacturing Strategy	.787	1.271
Outsourcing Strategy	.883	1.133	Outsourcing Strategy	.844	1.185
Channel Strategy	.629	1.589	Channel Strategy	.524	1.908
Customer Service Strategy	.822	1.216	Customer Service Strategy	.712	1.404
Asset Network Strategy	.739	1.353	Asset Network Strategy	.622	1.607

a. Dependent Variable: Supply chain Performance

a. Dependent Variable: Organizational Performance

Source: (SPSS Output, 2016)

The result in table 4.12 show that the collinearity between independent variables has no series problem Since the value of tolerance for all independent variable is greater than 0.1 and all VIF

is less than ten ($VIF < 10$) (Pallant 2005). From the above table hence, we can conclude that there is no co linearity within the data of the study.

4.4.2.2. Regression Analysis between SCM Strategy building blocks and Supply chain Performance

Table 4.13: Regression Model between SCM Strategy building blocks and Supply chain Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760 ^a	.577	.549	7.81075

a. Predictors: (Constant), Asset Network Strategy, Customer Service Strategy, Outsourcing Strategy, Manufacturing Strategy, Channel Strategy

Source: (SPSS Output, 2016)

As shown in the table 4.13, there is causal relationship between SCM Strategy building blocks and Supply chain Performance. The adjusted R Square is .549, which implies that SCM Strategy can account for 54.9% of the variation in Supply chain Performance. Although there might be many factors that can explain the variable on SC performance, nearly 54.9% of it is explained by SCM strategy. This means that the remaining 45.1% of the variation in Supply chain Performance cannot be explained by those dimensions of SCM Strategy. The R^2 value of .577(57.7%) Implies relative contribution of SCM Strategy in interpreting the Supply chain Performance of the firm, the remaining 42.3% of the changes in the change can be attributed to other factors.

Table 4.14 ANOVA Result between SCM Strategy building blocks and Supply chain Performance

ANOVA ^b					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	6164.108	5	1232.822	20.208	.000 ^a
Residual	4514.580	74	61.008		
Total	10678.687	79			

a. Predictors: (Constant), Asset Network Strategy, Customer Service Strategy, Outsourcing Strategy, Manufacturing Strategy, Channel Strategy

b. Dependent Variable: Supply Chain Performance

Source: (SPSS Output, 2016)

Table 4.15 Regression Coefficients between SCM Strategy building blocks and Supply chain Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	2.779	8.417		.330	.742	-13.993	19.552
Manufacturing Strategy	.079	.171	.039	.466	.643	-.260	.419
Outsourcing Strategy	.293	.116	.203	2.517	.014	.061	.525
Channel Strategy	.432	.233	.176	1.850	.068	-.033	.897
Customer Service Strategy	.892	.189	.394	4.729	.000	.516	1.268
Asset Network Strategy	1.263	.381	.292	3.317	.001	.504	2.022

a. Dependent Variable: Supply Chain Performance

Source: (SPSS Output, 2016)

Table 4.14 shows the ANOVA results of the multiple regression analysis. The significance value of 0.000 indicates that the regression relationship is significant in predicting the effects of the five building blocks of the independent variables (Manufacturing strategy, Outsourcing strategy, Channel Strategy, Customer service strategy, Asset network) on Supply chain performance of the firm. The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The F value shows 20.208 which is greater than the F critical it shows the model is significant.

Table 4.15 describes the only independent variables are Outsourcing Strategy with significance value of 0.014, Customer service strategy with significance value of 0.000 and Asset network with significance of 0.001 which is less than 0.05 which has a positive effect on the dependent variable SC performance of the organization. The B-value for Outsourcing Strategy is .293 at tolerance level 2.517 above tolerance level of 0.1, for Customer service strategy the B-value 0.892 at tolerance level 4.729 above tolerance level of 0.1, for Asset network the B-value 1.263 at tolerance level 3.317 also above level of tolerance 0.1. The other two SCM Strategy independent variables Manufacturing strategy and Channel Strategy are insignificant to predict dependent variable SC performance. On the study conducted by (Gunjan Soni and Rambabu

Kodali, 2011) It was also found that choice of SC Strategy affects business and supply chain performance.

4.4.2.3 Regression Analysis between SCM Strategy building blocks and Organization Performance (Aggregate)

Table 4.16: Regression Model between SCM building blocks and Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.410 ^a	.168	.157	4.79954

a. Predictors: (Constant), SCM Strategy Building Blocks

Source: (SPSS Output, 2016)

Table 4.17: ANOVA Result between SCM building blocks and Organizational Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	335.982	1	335.982	14.585	.000 ^a
Residual	1658.559	72	23.036		
Total	1994.541	73			

a. Predictors: (Constant), SCM Strategy Building Blocks

b. Dependent Variable: Organizational Performance **Source: (SPSS Output, 2016)**

Table 4.18: Regression Coefficients between SCM building blocks and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	9.846	4.842		2.033	.046	.192	19.499
SCM Strategy Building Blocks	.114	.030	.410	3.819	.000	.054	.173

a. Dependent Variable: Organizational Performance

Source: (SPSS Output, 2016)

As shown in the table 4.16, there is causal relationship between SCM Strategy building blocks and Organizational Performance. The adjusted R Square is .157, which implies that SCM Strategy can account for 15.7% of the variation in Supply chain Performance. Although there

might be many factors that can explain the variable on SC performance, nearly 15.7% of it is explained by SCM strategy. This means that the remaining 84.3 % of the variation in Organizational Performance cannot be explained by those dimensions of SCM Strategy. The R^2 value of .168 (16.8%) Implies relative contribution of SCM Strategy in interpreting the Organization Performance of the firm, the remaining 83.2 % of the changes in the change can be attributed to other factors.

Table 4.17 shows the ANOVA results of the multiple regression analysis. The significance value of 0.000 indicates that the regression relationship is significant in predicting the effects of supply chain strategy on organizational performance of the firm. The F-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. The F value shows 14.58 which is greater than the F critical it shows the model is significant.

Table 4.18 describes the independent variable Supply chain strategy with significance value of 0.000 which is less than 0.05 has a positive effect on the dependent variable organizational performance of the organization. The positive B-value of .114 at tolerance level 3.819 also implies that SCM Strategy has a positive influence on organizational performance. This finding is consistence with (Bavarsad , Azizi and Alesadi,2013) in the multiple regression results, they found that (financial performance and marketing performance) Organization performance feels the highest effect from implementation of supply chain management strategy. So, it can be understood that organizational performance is increased as a result of implementation of supply chain management strategy

4.4.2.4. Regression Analysis between Supply chain Performance and Organization Performance (Aggregate)

Table 4.19: Regression Model between Supply chain Performance and Organization Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475a	.225	.214	4.63288

a. Predictors: (Constant), Supply Chain Performance

Source: (SPSS Output,2016)

Table 4.20: ANOVA Result between Supply chain Performance and Organization Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	449.165	1	449.165	20.927	.000 ^a
	Residual	1545.375	72	21.464		
	Total	1994.541	73			

a. Predictors: (Constant), Supply Chain Performance

b. Dependent Variable: Organizational Performance

Source: (SPSS Output, 2016)

Table 4.20: Regression Coefficients between Supply chain Performance and Organization Performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	10.154	3.985		2.548	.013	2.211	18.098
	Supply Chain Performance	.222	.048	.475	4.575	.000	.125	.318

a. Dependent Variable: Organizational Performance

Source: (SPSS Output, 2016)

As per the above tables there is causal relationship between Supply chain Performance and organizational performances. The value of adjusted R Square is .214, which implies that SC performance can account for 21.4% of the variation in Organizational Performance. Although there might be many factors that can explain the variable on organizational performance, approximately 21.4% of it is explained by SC performance. This indicates that the remaining 78.6% of the variation in organizational performance cannot be explained by Supply chain Performance. The P value and positive β coefficient also implies that SC performance have a positive and significant influence on organizational performance. In relation to this finding Adebayo (2012) also Confirmed that Supply chain Performance has positive influence on organizational performances by stating the prime aim of realizing the enhancement of organizational performance in supply chain is to perform better in the supply chain.

CHAPTER FIVE

SUMMARY OF MAJOR FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary of Major Findings

According to the data analysis in the previous section, summary of the findings presented as follows.

- The majority responses on the five building blocks of SCM Strategy, Supply chain performance and organizational performance mean scores greater than 3.5, which imply the respondents agreed to the fact that the company actually practice supply chain management.
- The respondents' replies on Supply chain and firm performance imply that majority of respondents agreed to the fact that the company supply chain performance is moderately liquid and the current performance of the company also good.
- The result from the study shows that there is significantly strong correlation between SCM Strategy (collective representative of five building blocks of SCM Strategy) and SC Performance, with correlation coefficient of 0.673 ($r=0.673$) with significance value less than 0.001. and In other way, SCM strategy has also contributed 54.9% for the variability of SC performance.
- The finding from correlation test between SCM strategy (collective representative of five building blocks of SCM Strategy) and SC Performance show that there is significantly moderate correlation between SCM Strategy and organization Performance with correlation coefficient of 0.410 ($r=0.410$) and significance value less than 0.01 on the other hand Regression analysis confirm that 15.7% of variability of organizational performance explained by SCM strategy.
- Concerning Supply chain performance and organizational performance from the study it can be concluded that Supply chain performance and organizational performance has moderate and positive relation based on Pearson correlation coefficient of 0.475

($r=0.475$) significance value is less than 0.001. This significance tells that there is genuine relationship between Supply chain performance and organizational performance. Moreover, the regression result of SC performance and organizational performance indicates that SC performance can explain approximately 21.4% of organizational performance.

5.2 Conclusion

Based on the results of the study and the summary of findings the following conclusions are given.

Based on the responses majority of respondents agreed to the fact that the company supply chain performance is moderately good and there is a good supply chain management practice however, the majority of the respondents also confirmed that the company has a little practice of out sourcing. Moreover, from the results it can be concluded that there is strong and positive relationship between the five building blocks of SCM Strategy and supply chain performance and moderate and positive relation with organizational performance. In addition, SCM Strategy has moderate influence on both SC performance and organizational performance. As far as their causal relationship is concerned, SC performance has some influence on organizational performance.

Furthermore, the study also revealed that knowledge about outsourcing activities are limited and the company has no organized body to manage SCs of organization which is functioning by default.

5.3 Recommendation

Based on the study results and conclusions drawn above, some recommendations are proposed as a means of alleviating the problems found.

- The analysis of supply chain strategy we can conclude that all building blocks, gained good response from the respondents, but as can be seen from HR report of the company the company has no organized body or department to manage the SC. However in the current complex market organizations need to include SCM strategically since SCM

becoming a matter of survival in the current increasingly competitive market besides a clear SCM Strategy enable the company to predict the future and to excel from the current performance.

- From the evaluation of the organization we can conclude that the strength of it is that most of the business operations of the company are processed in side workers of the company. However business requirements have changed over past years, competitors are becoming fierce and customers' needs are becoming vast. Therefore, the company needed to review the critical activities and processes needs to achieve the objectives and the organization needs to adapt to new solutions. In respect of the company needs to cut out non-core activities from within and practice outsourcing of non-core activities to outside service providers. This would assure coordinated management of activities as well as better efficiency of processes.
- As the study clearly indicate the effect of SCM Strategy and Supply chain performance on organization performance the firms should give due attention in properly implementing SCM Strategy practices for efficient delivery service, effective production control and better Inventory management.
- Structured SCM contribute in managing operational effectiveness of supply chain and the use of it can contribute in achieving goals and are also effective tool for good decision making process, when they are designed properly. The fact that the current complexity of market make it also harder to carry out the key supply chain activities of the company to deliver products to the customers when they want them in the most efficient way. However proper strategic supply chain framework can cope up with the changing market situations, customer demands and overcoming the various challenges.
- So as to be competitive enough, it is better for the organization to give due attention on SCM practices for more improvement of their operational performance.
- In order to achieve advancement in marketing and financial performance in the long run through enhancing organizational performance, it is better for the organization to give due emphasis on SCM practices.
- In order to foster organizational performance, it is also better for the organization to give due emphasis to Supply chain performance measures.

- As many studies indicated, the concept of SCM is new for the country. Firms are always facing many obstacles in importing their inputs to their factory, producing them and availing the product to the final market. Hence, all parties from government to firms should commit their responsibility in creating proper infrastructure that improves the country's poor supply chain performance.

5.4. Suggestion for Further Study

The present study used only Moha soft drinks industry s.c offices Addis Ababa area future studies should consider expanding their scope to include the whole company in Ethiopia. Furthermore the evaluation of implementation of SCM is limited to internal processes and downstream supply chain distribution network therefore further studies should be conducted on external factors.

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Appendix



ADDIS ABABA UNIVERSITY
SCHOOL OF COMMERCE
DEPARTMENT OF LOGISTICS AND SUPPLY CHAIN MANAGEMENT
GRADUATE PROGRAM

QUESTIONNAIRE

Dear respondents, the purpose of this questionnaire is to gather data on the effect of supply chain management strategy on the performance of MOHA Soft Drinks Industry S.C. in order to fulfill the University's (Addis Ababa University) requirement set for awarding of a Masters Degree in Logistics and supply chain Management. 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.

General Instructions

- There is no need of writing your name
- Where answer options are available please tick (✓) in the appropriate box for part I and part II.

Contact Address

If you have any query, please do not hesitate to contact me and I am available as per your convenience at (Mobile: 09-11-11-37-08 or e-mail: gnati08@gmail.com / gnati27@yahoo.com)

Thank you for scarifying your precious time in advance!

PART I: Demographic Information

1. Educational Qualification:

- ☐ Grade 12 completed ☐ Certificate ☐ College Diploma

☐ First Degree

☐ Second Degree and above

2. Job title

☐ CEO/President /Vice President

☐ Director

☐ Manager

Other _____

3. Years stayed at the organization:

☐ Under 2 year ☐ 2–5 years ☐ 6–10 years

☐ over 10 years

4. Your department/work unit _____

Part II: Instruments for Supply chain management Strategy, Supply chain Performance and Organizational Performance

Section one: Supply chain management Strategy

With regard to SCM Strategy of your firm, please `thick the appropriate box to indicate the extent to which you agree or disagree with each statement. The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 =agree, 5 = strongly agree, 6 = not applicable.

S.N	Manufacturing Strategy	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable
		1	2	3	4	5	6
1.1.	Our firm has examined how our corporate strategy influences the manufacturing process	1	2	3	4	5	6
1.2.	Our firm has a formal process for evaluating the Expertise that will be needed to use future technologies or fulfill future market needs	1	2	3	4	5	6
1.3.	Our firm cannot offer different degrees of manufacturing flexibility to different customers	1	2	3	4	5	6
1.4.	Manufacturing flexibility requirements are determined by a cross –functional team	1	2	3	4	5	6
1.5.	Our firm does not plan for capacity growth for the future	1	2	3	4	5	6
1.6.	Manufacturing capabilities are formally communicated internally	1	2	3	4	5	6
1.7.	Manufacturing capabilities are formally communicated with key customers	1	2	3	4	5	6

1.8.	Manufacturing capabilities are formally communicated with key suppliers	1	2	3	4	5	6
1.9.	Our firm has formal metrics focused on the manufacturing process	1	2	3	4	5	6
1.10	Our firm has formal performance goals relating to the manufacturing process	1	2	3	4	5	6
1.11	Our firm has communicated performance goals relating manufacturing throughout the firm	1	2	3	4	5	6
2	Outsourcing Strategy						

2.1. Has MOHA Soft Drinks Industry S.C ever outsourced any business function?

☐Yes ☐No

If your answer for question 2.1 is yes, please specify the type of business function that MOHA Soft Drinks Industry S.C ever outsourced (multiple answers are possible)

Services	Yes (outsourced)	No (Never outsourced)
Transportation Services		
Warehouse Services		
Information Management		
Inventory Management		
Human resource Management		
Training and Counseling Services		
Maintenance and Repair Services		
Legal Services		
Security Services		
Janitorial Services		
Others		

What criteria are used by MOHA Soft Drinks Industry S.C to outsource? Please state the extent to which criteria are used. Use the scale of:

1. Not at all 2. Small extent 3. Moderate extent 4. Great extent 5. Very great extent

Criteria for to outsource	1	2	3	4	5
1. Previously Cooperated					
2. Lower Costs					
3. High Quality of Services					
4. Good Reputation					
5. Advanced Technology and Management Experience					
6. Minimum Organizational bid process requirements					

Other criteria (if any).....

Use the scale of: 1. Not at all 2. Small extent 3. Moderate extent 4. Great extent 5. Very great extent						
		1	2	3	4	5
2.2.	The outsourcing practice has enabled the organization concentrate on its core business and therefore achieve improved customer satisfaction					
2.3.	Our firm has formal metrics focused on the outsourcing practice					
2.4.	Our firm has formal performance goals relating to the outsourcing practice					
2.5.	The outsourcing practice has enabled the organization to excel from the previous performance					

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, 6 = not applicable.							
3	Channel strategy	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable
		1	2	3	4	5	6
3.1.	Does your company has a strategy to select the distribution channel members	1	2	3	4	5	6
3.2.	Distribution channels" are located in such a way that they fulfill demand of customers at the right place and the right time when it is needed by the customers	1	2	3	4	5	6
3.3.	There is a strategy that channels members managed, monitored and motivated, once they are selected	1	2	3	4	5	6
3.4.	There is a feedback mechanism from the Distribution centers towards the company and from the company towards DCs	1	2	3	4	5	6
3.5.	Do you think your DCs perform effectively according to the schedule and target of the company	1	2	3	4	5	6
3.6.	Dose the channel member has adequate warehouse and distribution facilities	1	2	3	4	5	6
3.7.	Do you think DCs" sales performance (against targets) accomplished effectively	1	2	3	4	5	6

4	Customer service strategy.	1	2	3	4	5	6
4.1.	Our customer service strategy is executed well throughout the firm	1	2	3	4	5	6
4.2.	Our customer service representative respond to Customer service issues with formally developed response procedures	1	2	3	4	5	6
4.3.	Our firm does not understand the internal Coordination required to respond to customer service events	1	2	3	4	5	6
4.4.	Our firm has mechanisms in place for responding `to customer service issues prior to the customer being impacted	1	2	3	4	5	6
4.5.	Our firm understands the external coordination Required to respond to various customer service events	1	2	3	4	5	6
4.6.	Our firm responds to customer service issues Before the customer is impacted	1	2	3	4	5	6
4.7.	Our firm uses information systems to aid with the information flow related to customer service management	1	2	3	4	5	6
4.8.	Our firm has developed formal CSM metrics	1	2	3	4	5	6
4.9	Our firm does not have formal performance goals relating to CSM	1	2	3	4	5	6
5	Asset Network						
5.1.	Our manufacturing plants are strategically located	1	2	3	4	5	6
5.2.	Our distribution channels are strategically located	1	2	3	4	5	6
5.3.	Supply chain management has been identified as a key area to develop in our business model	1	2	3	4	5	6
5.4.	We have fully standardized processes in manufacturing	1	2	3	4	5	6

Section two: Supply chain performance

With regard to supply chain performance of your firm, please thick the appropriate box to indicate the extent to which you agree or disagree with each statement.

The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, 6 = not applicable.

1	Reliability	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Not Applicable
		1	2	3	4	5	6
1.1.	We are dependable and consistent in solving customers'' complaints	1	2	3	4	5	6
1.2.	We offer products that are highly reliable.	1	2	3	4	5	6
1.3.	We offer products that are very durable.	1	2	3	4	5	6
1.4.	We offer high quality products to our customer.	1	2	3	4	5	6
2	Responsiveness						
2.1.	We deliver the kind of products needed.	1	2	3	4	5	6
2.2.	We deliver customer order on time.	1	2	3	4	5	6
2.3.	We provide dependable delivery.	1	2	3	4	5	6
2.4.	Time to solve customer complaints is short.	1	2	3	4	5	6

3	Flexibility						
3.1.	We deliver product to market quickly.	1	2	3	4	5	6
3.2.	We have time-to-market lower than industry average	1	2	3	4	5	6
3.3.	We are first in the market in introducing new products.	1	2	3	4	5	6
3.4.	We have fast product development.	1	2	3	4	5	6
4	Cost						
4.1.	We are able to offer prices as low or lower than our competitors.	1	2	3	4	5	6
4.2.	Our capacity utilization is very good.	1	2	3	4	5	6
4.3.	Our Inventory turnover is high.	1	2	3	4	5	6
4.4.	We run operation with less Production cost.	1	2	3	4	5	6
5	Asset management						
5.1.	It is important that our top management is fully located where our corporate HQ is	1	2	3	4	5	6
5.2.	Knowledge sharing between our business units is poor	1	2	3	4	5	6
5.3.	Our organization is centrally managed	1	2	3	4	5	6
5.4.	We have a centralized profit distribution	1	2	3	4	5	6
5.5.	Our manufacturing sites have a clear definition of roles	1	2	3	4	5	6

Section three: organizational performance

Regarding organizational performance, please tick appropriate box which best indicate your firm's overall performance. The item scales are five-point Likert scales with 1 = Significant Decrease, 2 = Decrease, 3= same as before, 4=Increase, 5=Significant increase, 6 = Not applicable.

S.N	Organizational Performance	Significant Decrease	Decrease	Same as Before	Increase	Significant Increase	Not Applicable
		1	2	3	4	5	6
1	Market share.	1	2	3	4	5	6
2	Return on investment.	1	2	3	4	5	6
3	The growth of market share.	1	2	3	4	5	6
4	The growth of sales.	1	2	3	4	5	6
5	Growth in return on investment.	1	2	3	4	5	6
6	Profit margin on sales.	1	2	3	4	5	6
7	Overall competitive position.	1	2	3	4	5	6