

# The Effect of Supply Chain Management Practices on Organizational Performance; The Case of Derba Cement Factory

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Article History	Abstract
<p><b>Thesis Paper</b></p> <p><b>Received: 15-01-2026</b></p> <p><b>Accepted: 12-02-2026</b></p> <p><b>Published: 19-02-2026</b></p> <p><b>Copyright © 2026 The Author(s):</b> This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.</p> <p><b>Citation:</b> Tessera Malede Teka. (2026). The effect of supply chain management practices on organizational performance: The case of Derba Cement Factory. UKR Journal of Economics, Business and Management (UKRJEBM), Volume 2(2). 129-162.</p>	<p><i>This study was conducted to investigate the effects of supply chain management practices on organizational performance in the case of Derba cement factory. To study the effect of supply chain management practices on organizational performance, six key dimensions of SCM practices (strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean practices and postponement) were used as independent variables, while growth in market share, return on investment, the growth of sales, profit margin on sales and overall competitive position variables were used to measure the organizational performance. This study adopted both descriptive and explanatory types of research designs with a mixed approach. Data for this study was collected using a self-administered questionnaire and structured interview. Since the numbers of employees were small the researcher used census method for questionnaires and purposive sampling method for interviews. The collected data were analyzed using both descriptive statistics (mean and standard deviation) and inferential statistics (correlation and multiple regression analysis) with SPSS 22. The major findings of the study revealed that there was a low level of practical implementation of SCM practices in Derba cement factory and those all-independent variables had a positive effect on organizations performance. Combination of all the six practices studied had a significant impact on organizational performance. Eventually, the researcher recommends that the case company in order to boost the market share, return on investment, the growth of sales, profit margin on sales and overall competitive position should give due attention on the implementation of supply chain management practices.</i></p> <p><b>Keywords:</b> Organizational performance, Supply chain management, Supply chain management practices.</p>



## Table of Contents

CHAPTER ONE.....	130
1.1. Background of the study.....	131
1.2. Statement of the Problem .....	131
1.4. Objectives of the study .....	132
1.4. 2. Specific objectives of the study.....	132
1.5. The Scope of the Study.....	133
1.6. Significances of the study.....	133

1.7. Definition of key terms and concepts .....	133
CHAPTER TWO.....	134
<i>REVIEW OF RELATED LITERATURE.....</i>	134
<i>THEORITICAL RELATED REVIEW OF LITERATURE.....</i>	134
2.1. Introduction .....	134
2.2. Supply Chain Management .....	134
2.2. Supply Chain Management Practices .....	134
2.2.1. Strategic Supplier Partnership.....	134
2.2.2. Customer Relationship.....	135
2.2.4. Lean Practices .....	135
2.2.5. Postponement.....	135
2.2.6. Quality of Information Sharing .....	136
2.3. Organizational Performance .....	136
2.4. Supply chain management practices and organizational performance .....	136
2.5. Empirical Framework.....	136
CHAPTER THREE .....	138
<i>RESEARCH DESIGN AND METHODOLOGY .....</i>	138
3.1. Introduction .....	138
3.2. Research design.....	138
3.3. Research approach.....	138
3.4. Data Collection Instruments .....	138
3.5. Sample Size and Sampling Technique .....	138
3.5.1. Sample size .....	138
3.6. Sources of Data .....	138
3.7. Methods of Data Analysis .....	139
3.8. Validity and Reliability of the Study .....	139
3.8.1. Validity of the Study .....	139
3.8.2 Reliability.....	139
3.9 Ethical Considerations.....	140
CHAPTER FOUR .....	141
DATA ANALYSIS, FINDINGS AND DISCUSSIONS.....	141
4.1 General profile of the respondents.....	141
4.2. Descriptive analysis.....	142
4.2.1. Descriptive analysis of strategic supplier partnership .....	142
4.2.2. Descriptive analysis of customer relationship.....	143
4.2.3. Descriptive analysis of quality of information sharing.....	144
4.2.4. Descriptive analysis of inventory management.....	146
4.2.5. Descriptive analysis of lean practice .....	147
4.2.6. Descriptive analysis of postponement.....	148
4.2.7. Descriptive analysis of organizational performance.....	149
4.3 Results of Inferential Statistics .....	150
4.3.1 Pearson Correlation Analysis.....	150
4.4. Regression assumption test for regression Model .....	152
4.4.1. Multi collinearity assumption Test.....	152
4.4.2 Linearity assumption test .....	152
4.4.3 Normality assumption test.....	153
4.5. Regression analysis .....	154
4.5.1. Model Summary.....	155
4.5.2. Analysis of variance (ANOVA).....	155
4.5.3. Coefficient analysis.....	156
4.5.4. Regression Mathematical Model.....	156
4.6. Hypothesis testing .....	156
CHAPTER FIVE .....	159
<i>SUMMARY, CONCLUSION AND RECOMMENDATIONS.....</i>	159
5.1. Introduction .....	159
5.2. Summary of Findings .....	159
5.3. Conclusions .....	159
5.4. Recommendation.....	160
References .....	160

## INTRODUCTION

Under this chapter the study addressed background of the study, statement of the problem, basic research questions, objectives of the study, scope of the study, definition of key terms, and organization of the study.

### 1.1. Background of the study

To compete successfully in today's challenging business environment manufacturing companies should be able to effectively integrate the internal functions within a company and effectively link them with the external operations of suppliers and supply chain members (Toyin 2012). Supply chain term was first coined in the early 1980s to describe the range of activities coordinated by an organization to procure and manage supplies (Sharma and Agarwal 2012). A supply chain is made up of several business entities (suppliers, manufacturers, wholesalers, distributors, retailers and customers) concerned with ensuring the flow of raw materials, component parts or finished goods from the source to the final destination, organizations can no longer stand distant from these business entities. The concept of supply chain encompasses all the activities and processes associated with the flows of merchandise, services, information and capital from origin to the end customer (Florian & Gioara, 2013).

SCM practices have been defined as the set of activities undertaken in an organization to promote effective management of its supply chain (Li *et al.*, 2006 cited in Mutuerandu 2014). Yap and Tan (2012) citing Koh et al., 2007 notes that SCM practices involve a set of activities undertaken in an organization to promote effective management of its supply chain. The short-term objectives of SCM are to enhance productivity, reduce inventory and lead time and the long-term objectives of SCM are to increase market share and integration of supply chain (Koh et al., 2007 cited in Yap and Tan, 2012).

According to (Mutuerandu 2014) in the current competitive business environment applying supply chain management is essential to gain competitive advantage and to reduce business uncertainties. Supply chain is complex entity which consists of various echelons, for instance, suppliers, manufacturers, distributor and consumers (Deshpande 2022). The new source of business competition lies outside the walls of the firm; it is determined by how effectively these organizations implemented supply chain management.

Nevertheless, in the recent competitive business era undertaking business needs better skills in management since the race among business organizations is comprehensive or all inclusive. To alleviate such challenges adopting supply chain management and implementing its practices within an organization contributes a lot for the overall organizational performance and business success. The researcher identified problems of the company related to organizational performance that is declines time to time especially the current market share, profit margin and overall competitive positions as compared to other similar companies and these issues instigated the researcher to conduct this study. So, the researcher intended to investigate the effect of supply chain management practices on organizational performance on Derba cement factory.

### 1.2. Statement of the Problem

Nowadays, organizations situated in developing countries like Ethiopia are facing various types of business challenges as they are operating in a dynamic and competitive global market due to the lack of the necessary knowledge and skills in management, shortage of capital, weak infrastructural development, low governmental support and absence of coordination among business partners (Demisse, 2011). Thus, creating strong interlinking among suppliers, organizations, distributors, retailers and consumers in line with advanced technological developments and managerial skills have a pivotal role for successful business achievements. Consequently, organizations supply chain management is a key for its survival and competitiveness.

Supply Chain Management changes the boundaries of the organization and hence, success in the establishment and maintenance of long-term collaborations along the supply chain, has an impact on competitive advantage and profitability (Jamal & Tayles, 2014).

According to Ittmann (2015) Supply Chain Management (SCM) is one of the most effective ways that many organizations like Wall-Mart have managed to achieve best organizational performance. In the Ethiopian business context, especially in Basic Metal and Engineering Industries (BMEIs), the concept of SCM should be well understood and practiced because these industries are the backbone of other growing industries

in the country (Woldmichael 2011). In addition, there were some literatures which were concentrated on the current supply chain management implementation in the Ethiopian textile, footwear, food share, and tannery and alcohol industries. Yet, the researcher attempts a lot to find out sufficient related review literature on the current supply chain management practices practical implementation in the Ethiopian gypsum industry but he hardly finds it. Hence, the researcher makes an effort to fill this knowledge gap.

Indeed, many authors have tried to address the issue of supply chain management from different perspectives in Ethiopia. For instance, Shemsu (2014) has investigated “the relationship between information sharing, inventory management and customer satisfaction in the downstream chain of textile industry” and found a significant positive relationship between information sharing, inventory management and customer satisfaction, Balda (2011) has investigated “study on supply chain practices” from the five SCM practices perspectives ( Supplier and customer relationship, internal operations, information sharing, information technology and training) and reached on a conclusion that, most supply chain management practices are moderately practiced within the company.

As the researcher observed in spite of having many studies undertaken on supply chain management in Ethiopia, there is little empirical study that is conducted on the impact of SCM practices on organizational performance (i.e. from perspectives of strategic suppliers’ partnership, customer relationship, quality of information sharing, inventory management, lean practices and postponement on organizational performances) which incorporate upper and down streams on Derba cement factory PLC. In addition, many of the formerly researchers internationally and locally addressed the influence of supply chain management practices on firm performance through either qualitative or quantitative method only. Almost all former researchers were conducted their analysis only descriptive ways ignoring the inferential analysis sides.

However, unlike that the researcher investigated the issue in a more comprehensive way particularly based on six SCM perspectives basically by adding quality of information sharing, postponement, which is not sought in the past studies basically which conducted domestically. Besides to the researcher used both qualitatively and quantitatively (mixed method) in order to generate the advantage of both approaches like: to

address different objectives of the study, which cannot be achieved by a single method.

Therefore, the researcher needs to study on SCM practices used to strategic supplier partnership, quality of information sharing, customer relationship, inventory management, lean practices and postponement effect on organizational performance of Derba cement factory by utilized descriptive and inferential analysis method and used both that qualitative and quantitative approaches.

### **1.3. Research Questions**

Basically, this study would answer the following basic research questions

1. What is the effect of strategic supplier partnership on organizational performance look like at Derba cement factory?
2. What is the effect of customer relationship on organizational performance look like at Deba cement factory?
3. What is the effect of quality of information sharing on organizational performance at Derba cement factory?
4. What is the effect of inventory management on organizational performance of at Derba cement factory?
5. What is the effect of lean practice on organizational performance at Derba cement factory?
6. What is the effect of postponement on organizational performance at Derba cement factory?

### **1.4. Objectives of the study**

#### **1.4.1. General objective of the study**

The general objective of this study is to investigate the effects of supply chain management practices on organizational performance at Derba cement factory.

#### **1.4.2. Specific objectives of the study**

The specific objectives of the study are:

1. To examine the influence of strategic supplier partnership on organizational performance at Derba cement factory.
2. To ascertain the effect of customer relationship on organizational performance of at Deba cement factory.
3. To examine the effect of quality of information sharing on organizational performance of Derba cement factory.

4. To assess the effect of inventory management on organizational performance of at Derba cement factory.
5. To examine the effect of lean practice on organizational performance at Derba cement factory.
6. To ascertain the effect of postponement on organizational performance of Derba cement factory.

### 1.5. The Scope of the Study

The scope of this study limited to the investigation of the effect of supply chain management practices on organizational performance of a specific cement factory, which is found in Oromia regional state, at the Northern part of Addis Ababa. Mainly, the sample population taken from Derba cement factory. Conceptually this study focused on six independent variables or SCM practices (i.e., strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean practices and postponement). Methodologically the study delimited to descriptive and explanatory research design and used data from the organization 2022 to 2025 G.C

### 1.6. Significances of the study

The study will help the manufacturing firms in Ethiopia and elsewhere so as to strengthen their understanding regarding with the role of supply chain management practices on their organizational performance. Other non-manufacturing institutions will also benefit from the findings of this study since it will shed more light on the effect of supply chain management practices on organizational performance. The findings of this study will be used as a reference point by other researchers for further research to the field of literatures on supply chain management practices and organizational performance. They can also use the findings as a secondary source of information.

### 1.7. Definition of key terms and concepts

**Customer relationship** is “the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction.

**Lean practices** are the process of removing all of the wasted time and resources in the production process. Lean can be considered a philosophy, a work culture, a technique, a management concept, a value, a methodology or an ethos.

**Organizational performance** refers to how well an organization achieves its market-oriented goals as well as its financial goals.

**Postponement-** is referred bring forward one or more than one operations and activities to the later points of supply chain.

**Quality of information sharing** includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchanged.

**Supply Chain Management** is “The management of a network of relationships within a firm and between interdependent organizations and business units consisting of material suppliers, purchasing, production facilities, logistics, marketing, and related systems that facilitate the forward and reverse flow of materials, services, finances and information from the original producer to final customer with the benefits of adding value, maximizing profitability through efficiencies, and achieving customer satisfaction.

**SCM practices** are defined as “the set of activities undertaken by an organization to promote effective management of its supply chain

### 1.8. Organization of the study

Overall, this thesis is structured into five different chapters. Chapter one discusses on the background of the study, statement of the problem, research objectives and research questions as well as research hypotheses, significance of the study, the definition of the variables and limitation of the study. Chapter two presents on the literature review of the independent variables, dependent variables and the relationship between supply chain management practices and organizational performance (relationship between independent and dependent variable). In addition, empirical framework and conceptual framework are formulated based on the literature review. Chapter three focuses on the methodology which discuss on the study area, the study design, data collection instruments, sample size and sampling technique, sources of data, statistical data analysis, and reliability and validity test. Chapter four discusses on the results of the statistical analysis mainly both descriptive and inferential statistical analysis. Lastly, the final chapter presents on the summary of major findings, conclusion, recommendation, and suggestions for further research.

### 2.1. Introduction

This chapter emphasized on a review of the various studies that have been conducted by other researchers on supply chain management practices and organizational performance. Among the areas to be reviewed include: constructs on supply chain management practices; strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean practices and postponement as independent variable and organizational performance as a dependent variable as well as the relationship between supply chain management practices and organizational performance. The chapter also provided an empirical framework and a conceptual framework to show the relationship between the dependent and independent variables.

### 2.2. Supply Chain Management

As many studies described it supply chain management is a new discipline and contradictory in definition. Mainly, it is a function that incorporates the overall coordination from the suppliers up to the end users (the upstream and downstream chain), which is emphasized on reducing cost, improving cost and increasing profit margins. According to Sharma, Garg and Agarwal (2012) "SCM was initially related to the management of inventory within a supply chain. This concept was later broadened to include the management of all functions within a supply chain". Stock,2013 (cited in Ottmann 2015) found many developments, including enterprise resource planning, materials requirements planning, efficient consumer response, customer relationship management, vendor management inventory, transportation management systems, just-in-time, warehouse management systems, total quality control, collaborative planning, forecasting, and replenishment, plus various other methodologies have contributed to the advancement of supply chain management.

Integration of business activities and collaboration with upstream and downstream partners has become an integral part of doing business. The realization of importance of integration and collaboration among the partners for efficient and economic utilization of resources leading to better profit margins among all partners; and customer service lead to the idea of Supply Chain Management (SCM) (Gupta and Abidi,2013).

### 2.2. Supply Chain Management Practices

SCM practices involve a set of activities undertaken in an organization to promote effective management of its supply chain (Yap and Tan 2012, p.218). SCM practices has been defined as a set of activities undertaken by an organization to promote effective management of its supply chain" (Li, 2006 cited in Ale 2014). He proposed SCM practices as a multi-dimensional construct that includes both upstream and downstream sides of the supply chain. Ale (2014) citing Tan et al. (2002) identified: supply chain integration, information sharing, customer service management, geographic proximity, and JIT capability, as the key aspects of SCM practice. Lee (2004) in his case study-based research identified five practices at the supply chain level that are a key to creating supply chain responsiveness. They include: outsourcing, strategic supplier partnerships, customer relationships, information sharing, and product modularity.

Li et al. (2006) identified strategic supplier partnership, customer relationship, and information sharing as key SCM practices. This study adopts the same practices (these are: strategic supplier partnership, customer relationship, information sharing, quality information sharing, lean practices and postponement) as sub-constructs for the SCM practices construct.

#### 2.2.1. Strategic Supplier Partnership

Supplier is one of chain members in supply chain. They contribute to overall performance of the process in the supply chain. Low performance by the supplier can contribute to failure in supply chain (Ali, 2012). Strategic supplier partnership includes the relationship between the supplier and the organizations whether long term or short term. It is important for the firms to have a close relationship with the supplier in order to build strong supply chain.

Strategic supplier partnership is the long-term relationship between the organization and its suppliers. Strategic partnerships with suppliers enable organizations to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Suppliers participating early in the product-design process can offer more cost-effective design choices, help select the best components and technologies, and help in design assessment (Bratic, 2011).

Strategically aligned organizations can work closely together and eliminate wasteful time and effort (Toyin, 2012).

### **2.2.2. Customer Relationship**

Customer relationship comprises the entire array of practices that are employed for the purpose of managing customer complaints, building long-term relationships with customers, and improving customer satisfaction. As pointed out by (Kimechwa, 2015) committed relationships are the most sustainable advantage because of their inherent barriers to competition. The growth of mass customization and personalized service is leading to an era, in which relationship management with customers is becoming crucial for corporate survival (Ragatz, 2007). Good relationships with supply chain members, including customers, are needed for successful implementation of SCM program.

Close customer relationship allows an organization to differentiate its product from competitors, sustain customer loyalty, and dramatically extend the value it provides to its customers (Toyin, 2012). Consequently, it is crucial for the management of the firm to have a good relationship with their customers because by having a good relationship between firm and the customers it can benefit the firm to understand their customers need and wants and allows to produce product that are different from rivals, sustain customer loyalty and promotes customers value. Therefore, the changing of the customers demand requires the firm to work hard in order to sustain in the industry.

Customer relationship is not only focusing on inbound and outbound customer. It also involved ability of the firm to deliver the products and services in the right time, right place, right amount and right location.

### **2.2.3. Inventory management**

For Manufacturing Companies stated that because inventory is usually one of the biggest numbers on their balance sheet, effective inventory control and management is a vital function to help ensure the continued success of manufacturing companies. Inventory management is a crucial part of any business success. This makes it easier to prevent product shortages and keep just enough inventories on hand without having too much (Lee, Kwon, & Severance, 2007).

Ackah and Ghansah, (2016) by their study, on the title of <<Assessment of inventory management>> assessed the Performance of the Production Sector to find out how the management of inventory within work would be effective and bring a lot of cost savings for the organization to increase organizational profitability. According to him an automated inventory system enables to minimize the risk of

error and helps by providing up to date information of the stock items in the warehouse. According to him Surpluses cause financial hardships because they tie up capital and shortages lead to poor operational results, but satisfactory and scientific inventory control eliminates these shortcomings thus proving its importance. Accordingly, management of inventory system requires an appropriate system of making the decisions to keeping track of items in inventory and how much and when the order is applied.

### **2.2.4. Lean Practices**

Mwale (2012) citing Lean Enterprise Institute, 2009 revealed that, the term lean was coined by Krafcik in the late 80's, even though the philosophy came to the Western world's attention in the early 80's as a result of competition from Japan automobile industry which offered low prices and quality products. To precisely define lean is hard and it is likely that every company exercising lean will follow their own unique course (Mwale, 2012). It is the process of removing all of the wasted time and resources in the production process. Lean can be considered a philosophy, a work culture, a technique, a management concept, a value, a methodology or an ethos but today, lean is evolving into a management approach that improves all the processes at each level of an organization.

James and Jones,2003(cited in Mohammed 2015) clarified that, internal lean practices as Lean production associated with continuous pursuit of improving the processes, a philosophy of eliminating all non-value adding activities and reducing waste within an organization. And also, it refers to consume less system resources uses with the same speed mass production and offers greater variety to customers.

### **2.2.5. Postponement**

Postponement is defined as the practice of moving forward one or more operations or activities (making, sourcing and delivering) to a much later point in the supply chain (Batic 2011). Two primary considerations in developing a postponement strategy are: determining how many steps to postpone, and determining which steps to postpone. Postponement allows an organization to be flexible in developing different versions of the product in order to meet changing customer needs, and to differentiate a product or to modify a demand function.

Organization is able to meet the customer changing needs, differentiate product and modify of demand function through postponement because postponement allows it to be elastic and limber in different version of the product. Basically, form, time and place are three different types of postponement. Form postponement refers to the delay of activities in determining the form and function of the product until customer fulfilled on the order. Time

postponement refers to the delays of goods movement before getting customers firm orders. Place postponement refers to the goods positioning either forward or downward movement (Ho,2011).

### **2.2.6. Quality of Information Sharing**

Mbuthia and Rotich (2014) consider sharing of information as one of five building blocks that characterize a solid supply chain relationship. Moberg, (2002) notes that, quality of information sharing includes such aspects as the accuracy, timeliness, adequacy, and credibility of information exchanged. While information sharing is important, the significance of its impact on SCM depends on what information is shared, when and how it is shared, and with whom. Organizations need to view their information as a strategic asset and ensure that it flows with minimum delay and distortion.

Quality of information will be affected depends on the different interest and behavior of chain members. It also can affect the informational smoothness across supply chain. Li et al., 2006 (cited in Ali 2012) have identified organization with higher information quality will have lower level of environmental uncertainty in term of customers, suppliers, and technology uncertainty.

Mainly, timeliness, completeness, accuracy, adequacy and reliability of information exchanged were the major factors that become a base for conceptualizing quality of information sharing as well as associated with the amount of information shared among supply chain partners in downstream and upstream side of the supply chain and also the information intensity.

### **2.3. Organizational Performance**

Organizational performance (ORGP) refers to how well an organization achieves its market-oriented goals as well as its financial goals. According to (Taylor 1999, cited in Blachew (2022) performance measurement is common tool in any organization for measuring financial aspect, non-financial aspect, or both financial and non-financial measurement. 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. In line with the above literature, the same items were used to measure organizational performance in this study.

### **2.4. Supply chain management practices and organizational performance**

According to (Mwale, 2012) SCM practices impact not only overall organizational performance, but also competitive advantage of an organization. They are

expected to improve an organizations Competitive advantage can lead to high levels of economic performance, customer satisfaction and loyalty, and relationship effectiveness through price/cost, quality, delivery dependability, time to market, and product innovation.

Prior studies have indicated that the various components of SCM practices (such as strategic supplier partnership) have an impact on various aspects of competitive advantage (such as price/cost). For example, strategic supplier partnership can improve supplier performance, reduce time to market (Mwale, 2012), and increase the level of customer responsiveness and satisfaction (power, 2021) Information sharing leads to high levels of supply chain integration by enabling organizations to make dependable delivery and introduce products to the market quickly. Information sharing and information quality contribute positively to customer satisfaction and partnership quality (Mwale, 2012).

### **2.5. Empirical Framework**

There are many studies that carried out internationally and locally on the issue of supply chain management mainly on the implementation of its dimensions and their effects over organizational, operational and supply chain performance. For instance,

Li et al. (2004) has investigated the impact of supply chain management practices on competitive advantage and organizational performance. This research conceptualizes and develops five dimensions of SCM practice (strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement) and tests the relationships between SCM practices, competitive advantage, and organizational performance. The results indicate that higher levels of SCM practice can lead to enhanced competitive advantage and improved organizational performance. Also, competitive advantage can have a direct, positive impact on organizational performance.

Kimechwa (2015) conducted research on impact of supply chain management practices on the performances of banks in Kenya. This research conceptualizes and develops four dimensions of SCM practice (outsourcing of goods & services, information & communication technology, strategic supplier partnership, and globalization) and tests the relationships between SCM practices, and organizational performance. The study found that outsourcing was important to the banks only when the appropriate methods are employed. It also found that ICT had a major role in determining the performance of banks as it dictated the mode of transaction and data they displayed to clients. Strategic partnership was also important based on what it intended to achieve in enhancing

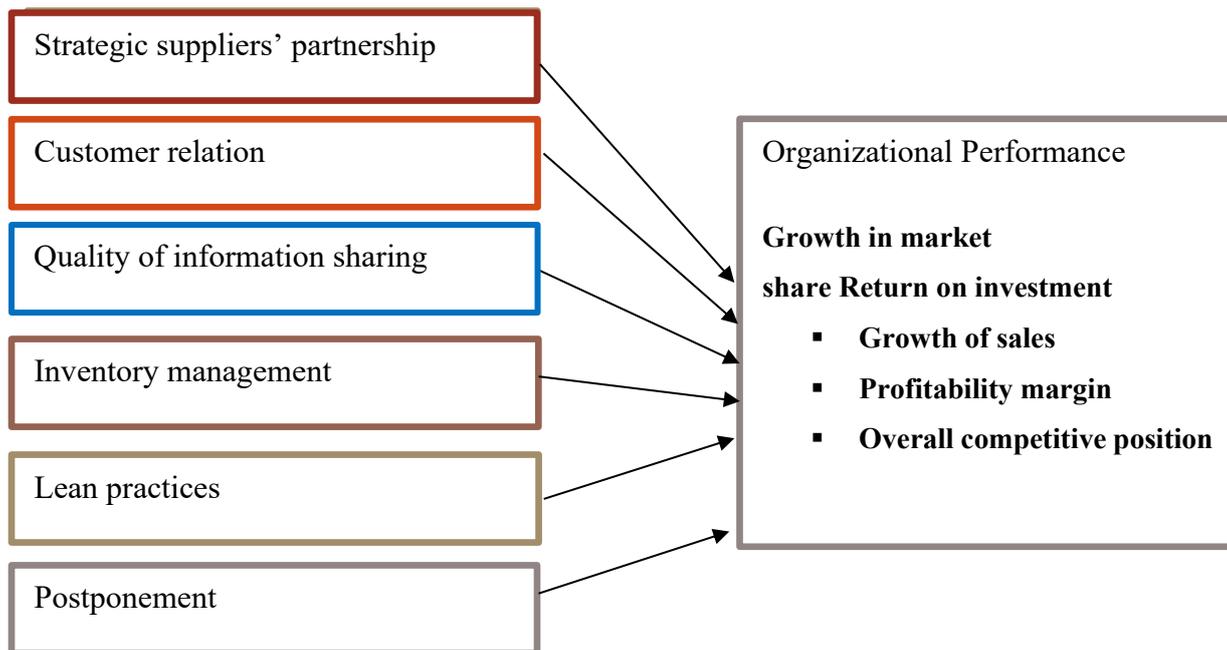
the performance of banks. Lastly, globalization is equally vital as it increases competition and exposes local banks to global scene to experience how performance of banks can be improved.

Deres (2011) has investigated supply chain performance of selected leather footwear firms in Addis Abeba. This research identifies five aspects of SCM: supplier and customer relationship, internal operation, information sharing, information technology and supply chain performance. The survey was conducted to explore the extent to which selected Medium and Large Size leather footwear manufacturing firms in Addis Ababa performs in

those SCM variables and to compare the mean performance difference among firms in implementing those SCM variables. The result shows that, there was significance performance differences of SCM among these Medium and Large footwear firms selected for the study.

Ultimately, the outcome of such studies demonstrates that effective implementation of supply chain management dimensions within an organization have a remarkable achievement on the success of each firm. Beyond this there is strong relationship between supply chain management and organizational performance.

## 2.6. Conceptual frame work



*Figure 2.1: Conceptual Model*

So, six hypotheses are proposed to test the positive significance of supply chain management and organizational performance.

## 2.7. Research Hypotheses

The study is going to identify the relation and effect of supply chain management with /on organizational performance. So, six hypotheses are proposed to test the positive significance (relationship) of supply chain management and organizational performance.

*H1: strategic supplier partnership has positive and statistically significant effect on organizational performance.*

*H2: Customer relationship management has positive and statistically significant effect on organizational performance.*

*H3: Quality of information sharing has positive and statistically significant effect on organizational performance.*

*H4: Inventory management has positive and statistically significant effect on organizational performance.*

*H5: Lean practice has positive and statistically significant effect on organizational performance.*

*H6: Postponement has positive and statistically significant effect on organizational performance.*

#### 3.1. Introduction

This chapter deals on the setting or study area, the study design, data collection instruments and, sample size and sampling techniques. Furthermore, it entails sources of data, the data analysis procedure and, and reliability and validity of the study.

#### 3.2. Research design

This study employed both descriptive and explanatory types of research designs. Descriptive design is appropriate to obtain information concerning the status of the phenomenon, to describe what the current situation is with respect to the variable of the study and helps to get clear information from the respondents with much ease. Accordingly, the researcher preferred this design to find out the fundamental facts existing within the case company and/or circumstances regarding SCM practices; strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean practice and postponement practical implementation and their influences on organizational performance of Derba cement. On the other hand, the study employed explanatory type of research design to interpret and examine the relationship between the independent variables (i.e., strategic supplier partnership, customer relationship, inventory management, lean practice, quality of information sharing and postponement) and the dependent variable organizational performance from Derba cement factory perspective.

#### 3.3. Research approach

Both qualitative and quantitative (mixed method) mainly explanatory (Quan-qual) would incorporate because it involves collection of both quantitative and qualitative data sequentially. Specifically employing either qualitative or quantitative method has its own advantage and limitation but such gaps are filled by developing mixed method, both qualitative and quantitative (McKercher, 2010 cited in G/Meskel, 2011). Meaning the combination of both quantitative and qualitative methods is a more appropriate approach to gain a better understanding of the phenomenon under study.

Furthermore, as this study involves only one contact with the study population it is a cross-sectional survey, which is best situated to studies aimed at finding out the prevalence of a Phenomenon, situation, problem, attitude

or issue, comparatively too cheap to undertake and easy to analyze.

#### 3.4. Data Collection Instruments

The study used close ended questionnaires and an interview as a data collection instrument. The questionnaire used since it would be easy to administer and with data to be obtained is easy to analyze, Mugenda and Mugenda, 2003 (cited in Kimechwa, Njieru and Makau 2015). Close ended questionnaire was designed based on Likert scale (1 (strongly disagree), 2 (disagree), 3 (neutral), 4 agree 5 (strongly agree). On the other hand, structured interview also used to get information on the implementation of supply chain management practices on the case company particularly from manager of this company.

#### 3.5. Sample Size and Sampling Technique

##### 3.5.1. Sample size

Under this organization there are about 250 permanent and temporary employees who engaged from the administrative up to labor force level. Mainly, only 125 of them are permanent. So, for better information taking sample from the permanent employees is more preferable. The research would prefer to take Carvalho sampling technique method. According to Carvalho (1984) sample size determination method as him if the population is less than 150 it is better to take the whole population as sample. So, the permanent employees of Derba cement factory are 125, hence the whole population would be taken as a sample. Therefore, sampling technique for questionnaires used to census method while for interview used to purposive sampling.

#### 3.6. Sources of Data

This study depends on primary data, which would be gathered from employee of Derba cement through questionnaires and interviews. As they are reliable and first-hand information, primary sources are necessary to this study hence majority of the information collected from such types of sources. Primary data can be collected through the use of questionnaires and interviews (Saunders *et al.*, 2009 cited in Mollel 2015). Hence, questionnaire and interview methods incorporated in this study in order to collect the data.

### 3.7. Methods of Data Analysis

Before processing the responses, the completed questionnaires would be edited for completeness and consistency. After collecting the data, both qualitative and quantitative methods of analysis applied for analyzing the data mainly through descriptive (mean and standard deviation) and inferential (correlation and simple regression) statistics and the results, displayed using tables. Data analyzed using the Statistical Package for Social Sciences (SPSS) version 22. Qualitative data analyzed by using descriptive narrations through concurrent triangulation strategy.

The researcher focused on Pearson correlation to measure the degree of association between different variables under consideration and their direction, and simple regressions to explore the predictive ability of a set of independent variables (strategic supplier partnership, customer relation, inventory management, lean practice, quality of information sharing and postponement) on the dependent variable (organizational performance). A simple regression equation for predicting Y will be expressed as follows;

$$Y = B_0 + B_1 X_1 + B_2 X_2 + B_3 X_3 + B_4 X_4 + B_5 X_5 + B_6 X_6 + \epsilon$$

Where:

Y — is the dependent variable that is organizational Performance of Derba cement factory PLC.

X1- X6 — are the independent variables that are SCM practice sub constructs (x1- strategic supplier partnership; x2- customer relationship; x3- quality of information sharing; x4- inventory management, x5- lean practices and X6- postponement).

B0 - is the constant

B1- B6 — are the regression coefficients or change induced in Y by each X

$\epsilon$ - is the error

### 3.8. Validity and Reliability of the Study

#### 3.8.1. Validity of the Study

Validity of the study would be achieved by having objective questions included in the questionnaire. This study addressed content validity through the review of literature and adopted instruments used in previous research (i.e. Li et al., 2004 and Mwale 2012). Consequently, before collecting the real data the researcher would provide to main advisor and proposal examiners so as to verify all the items that were incorporated in the instruments. Hence, based on their comments redundant and ambiguous items are modified and eliminated.

#### 3.8.2 Reliability

As Mugenda and Mugenda, 2003(cited in Kimechwa 2015) asserts that, the accuracy of data to be collected largely depend on the data collection instruments in terms of validity and reliability. Reliability refers to a measure of the degree to which research instruments yield consistent results. In this study, reliability would be checked by using Cronbach Alpha to show how best the variables are best suited for the questionnaire was carried out.

Randomly as a pilot test twenty respondents would be selected from the employees. The purpose of the pilot test is to test reliability of the questionnaires. The questionnaire would be given personally to the staff and then measure the reliability by using, Cronbachs alpha. So, to check the reliability of variables used in the study, the researcher conducted reliability analysis on SPSS and the result would be displayed in the following table.

**Table 3.1: Reliability of SCM practice and organizational performance**

Variable	Cronbachs Alpha	Number of items
Strategic supplier partnership (SSPR)	.954	6
Customer relationship (CRN)	.957	5
Quality of information sharing (QUISH)	.961	5
Inventory management (INVMGT)	.901	3
Lean practices (LEANP)	.953	4
Postponement (PSPON)	.951	3
B/Organizational Performance (ORGP)	.964	5

*Source: Survey data (2026)*

As it indicated on table 3.1, the reliability statistics result of strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean practices and postponement is .954, .957, .961, .901, .953, .951 for independent variables and .964 for dependent variable that is organizational performance respectively. And also, the reliability statistics of organizational performance is 0.939. Consequently, all of the variables have a high level of internal consistency for the scale in the sample and they are acceptable since their value is greater than 0.70 (Stwes et al., 2010 cited in Karimi and Rafiee 2014).

### **3.9 Ethical Considerations**

According to (Leedy & Ormrod 2010), most ethical issues fall into one of the following four categories must be

applied; those are informed consent, confidentiality, security and honesty. Therefore, the researcher must consider all these issues in the questionnaire and interview guidelines in the following manner:

**Informed consent:** all participants shall be briefly informed about the reason of conducting such study therefore enabled them to join with full consent. **Confidentiality (Right to privacy):** the researcher would keep the nature and quality of participants performance strictly confidential. No information shall be recorded to link respondents with their responses. **Be secure:** the researcher doesn't expose the participants to unusual stress, embarrassment, or loss of self-esteem. **Be Honest:** the researcher reported the findings in complete honesty.

## CHAPTER FOUR

### DATA ANALYSIS, FINDINGS AND DISCUSSIONS

In this section the data collected from employees Derba cement factory analysis and presented based on the information obtained. The collected quantitative data were analyzed and interpreted using descriptive, inferential statistics and Pearson correlation. The qualitative data which were collected through structure interview also analyzed using discourse analysis for concurrent triangulations. Depending on the sample size, 125

questionnaires for 125 respondents were distributed and from these all (100%) questionnaires were returned.

#### 4.1 General profile of the respondents

In this section the general profile of the respondents is analyzed using frequency and percentage. Specifically, the gender, age distribution, educational level of respondents and years of experiences are analyzed, interpreted, and discussed based on the data gathered.

**Table 4.1 General Characteristic of the respondent**

No.	Item related to demographic Characteristic	Frequency	%	
1	Gender of respondents	Male	78	62.4
		Female	47	37.6
		Total	125	100.0
2	Age of respondents	18-25	24	19.2
		26-40	92	73.6
		40 and above	9	7.2
		Total	125	100.0
3	Educational background of the respondents	Below diploma	15	12.0
		Diploma	30	24.0
		Degree	74	59.2
		Master	6	4.8
		Total	125	100.0
	Experience of the respondents	1 to 5	3	2.5
		6 to 10	14	11.2
		11 to 15	42	33.6
		16 and above	66	52.8
		Total	125	100.0

*Source: survey of 2026*

The overall profile of the participating respondents demographic characteristics is presented in **table 4.1**. Out of 125 respondents, 78(62.4%) were males and 47(37.6%) were females. This implies that majorities of the respondents of this study are male. That means in the case company there is male dominance in gender.

Regarding the age of respondents in the range of 24(19.2%) of respondents replied as they belong under the age category of 18 to 25 years. But the majorities 92(73.6%) of this study respondents are found under the age category of 26 to 40 years and the remaining respondents 9(7.2%) responded as they are belonging to the age category of 41 and above years. This indicates that the majority of the respondents of the case factory are within the age range of 26-40 years old which implies in age criteria which is productive.

As far as the educational background concerned, 15 (12.0%) were below the diploma level, 30(24.0%) were at the diploma level, 74(59.2%) first degree holders and

6(4.8%) were second degree (master) holders. From this one can conclude that regarding to the educational status of the employees the majority of the respondents are at first degree status and which implies that the employees of the case company are productive.

As it is depicted from the table above, 3(2.5%) of the respondents were between 1 to 5 years, 14(11.2%) of the respondents were 6 to 10 years of experience, 42(33.6%) of the respondents are 11 to 15 and 16 and above years were 66 (52.8%). From this the researcher can conclude that regarding to the experience of the respondent's majority of the respondents 16 and above which implies that well experience and seems professional.

**In general**, the profile of the respondents of the study seems to mirror the general population of all the staffs of Berba cement factory. That means the demographic variables percentage reflects the actual population of the organization.

## 4.2. Descriptive analysis

The descriptive statistical results were presented through tables by using mean for each question and aggregate mean scores for variables compressed picture of the data. The reason for using descriptive statistics was to compare the different factors. Besides Likert's five scale questionnaires, interview questions were analysed using descriptive narrations through concurrent triangulation strategy. Both quantitative and qualitative data were collected concurrently and then compares the results of two methods to determine if there is convergence, differences, or some combinations. This is used to offset the weaknesses inherent within one method with the strength of the other (Sekaran, 2005).

According to Zaidaton & Bagheri (2009) the mean score below 3.39 was considered as low, the mean score from

3.40 up to 3.79 was considered as moderate and mean score above 3.8 was considered as high as illustrated by Comparison bases of mean of score of five-point Likert scale instrument.

### 4.2.1. Descriptive analysis of strategic supplier partnership

Under this topic the researcher discussed regarding to the issues of consider quality as a number one criterion to select our suppliers, time solve problems jointly with our suppliers, have helped our suppliers to improve their product quality, have continuous improvement programs that include our key suppliers, include our key suppliers in our planning and goal setting activities and actively involve our key suppliers in new product development processes.

*Table 4.2: shows mean of the value of variable of strategic supplier partnership*

S.No	Items related to Strategic supplier partnership	N	Mean	Std. Deviation
1	We consider quality as a number one criterion to select our suppliers	125	3.18	1.362
2	We on time solve problems jointly with our suppliers	125	3.50	1.133
3	We have helped our suppliers to improve their product quality	125	3.22	1.217
4	We have continuous improvement programs that include our key suppliers	125	3.26	1.186
5	We include our key suppliers in our planning and goal setting activities	125	3.18	1.232
6	We actively involve our key suppliers in new product development processes	125	3.14	1.223
Valid N (listwise)		125		
<b>The aggregate mean</b>			3.24	1.225

*Source: survey of 2026*

As any one observed from the above table 4.2 which deals with strategic supplier relationship management practices in the case of Derba Cement factory, the researcher developed about six items and asked the respondents. Accordingly, as per the data obtained from respondents of this study the mean score value of the question of consider quality as a number one criterion to select our suppliers is (M= 3.18) with standard deviation value of (SD = 1.362). According to the mean range determination stated by Zaidaton and Bagheri (2009) this mean value is below 3.39 which implies that on average the sampled respondents disagree with the case factory consider quality as a number one criterion to select its suppliers. That means there a gap on this aspect of strategic supplier relationship management

practices. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

In the same table above the second item raised to respondents is about the case factory on time solve problems jointly with its suppliers. The mean score value obtained on this issue is (M= 3.50) with standard deviation value of (SD = 1.133). Here the mean score value as per the range determined indicates on average the respondents moderately agree on this issue. That mean even if it is not as such strong enough jointly with its suppliers to solve problem on time to some extent there is such trend in the

case factory. Which is appreciated further to strength such practices.

Regarding to the question of suppliers improve their product quality respondents of the case company the mean score value obtained on the issue is (M=3.22) with the standard deviation of (SD= 1.217). Here the mean score value as per of the range determined indicates on the average of the respondents disagree on the issue. That means there a gap on this aspect of suppliers improve their product quality. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

As table 4.2 shows that the mean score of continuous improvement programs that include our key suppliers is (M=3.26) with the standard deviation of (SD=1.186). As the result of the mean score value reflect that as per the range determined indicates on average the respondent's response is disagree on this issue. That means there a gap on this aspect of continuous improvement programs that include our key suppliers. But as the standard deviation score shows that there is irregularity or difference among respondent on this issue.

As majorities of the respondents stated that regarding to the question of inclusion of suppliers in our planning and goal setting activities the mean score is (3.18) with the standard deviation value of (1.232). Here the mean score value as per of the range determined indicates on the average of the respondent's response is disagree on the issue. But the standard deviation value directs that there is variation or difference among respondent on this issue.

The ample of respondent's response concerning the involvement of key suppliers in new product development processes is (M=3.14) with the standard deviation of value

of (SD=1.223). This implies that as per of the range determined indicates on the average of the respondent's response is disagree on the issue in the case company. But the standard deviation value directs that there is variation or difference among respondent on this issue.

The aggregate mean value of the variable of related to Strategic supplier partnership is (M=3.24) with the score of standard deviation (SD=1.225) which shows that according to the mean range determination stated by Zaidaton & Bagheri (2009) is disagree implies that on average the sampled respondents disagree with the case factory about related to Strategic supplier partnership.

As similar to findings of quantitative analysis, qualitative findings from interview revealed that even if strategic supplier partnership is the long-term relationship between the organization and its suppliers, in our company did not apply as per of the logic. Strategic partnerships with suppliers not enable the company to work more effectively with a few important suppliers who are willing to share responsibility for the success of the products. Therefore, both findings confirmed that Derba cement factory should work a lot for strategic supplier partnership by considering their importance as a valuable to sustainable company's competitive advantage for a long period of time.

#### 4.2.2. Descriptive analysis of customer relationship

Here under this the researcher presented customer relationship issues like frequently interact with customers to set reliability responsiveness, and other standards for us, frequently measure and evaluate customer satisfaction, frequently determine future customer expectations, facilitate customer's ability to seek assistance from us and periodically evaluate the importance of our relationship.

**Table 4.3. shows means of the value of the variable of customer relationship**

S. No.	Items related to customer relationship management practice	N	Mean	Std. Deviation
1	We frequently interact with customers to set reliability responsiveness, and other standards for us	125	3.26	1.357
2	We frequently measure and evaluate customer satisfaction	125	3.22	1.237
3	We frequently determine future customer expectations	125	3.31	1.146
4	We facilitate customer's ability to seek assistance from us.	125	3.18	1.370
5	We periodically evaluate the importance of us Relationship	124	3.20	1.249
Valid N (listwise)		124		
Aggregate mean value			3.23	1.2718

*Source: survey of 2026)*

As table 4.3 shows that the data obtained from respondents of the mean score value of the question of regarding to frequent interact with customers to set reliability responsiveness, and other standards with the case factory is (M=3.26) with standard deviation value of (SD = 1.357). According to the mean range determination stated by Zaidaton & Bagheri (2009) this mean value is below 3.39 which implies that on average the sampled respondents disagree with the case factory considering with frequently interact with customers to set reliability responsiveness, and other standards with Derba cement factory. That means there a gap on this aspect of frequently interact with customers to set reliability responsiveness, and other standards with case factory. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

Regarding to the question of frequently measure and evaluate customer satisfaction respondents of the case company the mean score value obtained on the issue is (M=3.22) with the standard deviation of (SD= 1.217). Here the mean score value as per of the range determined indicates on the average of the respondents disagree on the issue. That means there a gap on this aspect of frequently measure and evaluate customer satisfaction. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

As table 4.3 indicated that the data obtained from respondents of the mean score value of the question of regarding to frequently determine future customer expectations with the case factory is (M=3.31) with standard deviation value of (SD = 1.146) which implies that on average the sampled respondents disagree with the case factory considering with frequently determine future customer expectations with Derba cement factory. That means there a gap on this aspect of frequently determine future customer expectations with case factory. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

The ample of respondent's response concerning the facilitate customer's ability to seek assistance from us is (M=3.18) with the standard deviation of value of (SD=1.370) This implies that as per of the range determined indicates on the average of the respondent's response is disagree on the issue in the case company. But the standard deviation value directs that there is variation or difference among respondent on this issue.

The majorities of respondent's response regarding to periodically evaluate the importance of us relationship is (M=3.20) with the standard deviation of value of (SD=1.249). This implies that as per of the range determined indicates on the average of the respondent's response is disagree on the issue in the case company. But the standard deviation value directs that there is variation or difference among respondent on this issue.

The aggregate mean value of the variable of related to related to customer relationship management practice is (M=3.23) with the score of standard deviation (SD=1.2718) which shows that according to the mean range determination stated by Zaidaton & Bagheri (2009) is disagree implies that on average the sampled respondents disagree with the case factory about related to customer relationship management practice.

In line with the findings of the questionnaires the interview response regarding to the question of what is the influence of customer relationship on organizational performance look like at Deba cement factory? Is majority of the respondents answered said that due to the absences of permanent and consistent suppliers rather it relies on various suppliers who selected arbitrarily on the basis of relative quality and price, existence of shortage of supplies which is responsible to enter from out of the country especially from Djibouti country accessed to necessary materials. Furthermore, existence of inconsistency on the provided raw materials or variability on the same raw materials which have common purpose manifested the firm's weakness on the establishment of strong relationship with its supply chain partners.

Thus, from the finding the researcher can conclude that there is a need for Derba cement Factory Company to strengthen its commitment towards identifying and satisfying customers' requirements and exceeding their expectations since the survival of organizations is highly depended on satisfied and loyal customers.

#### **4.2.3. Descriptive analysis of quality of information sharing**

Regarding to quality of information sharing important points were discussed under this table and the points are information exchange between our supply chain partners and us is timely, information exchange between our supply chain partners and us is accurate, information exchanged between us and our supply chain partners is complete, information exchanged between us and our supply chain partners is adequate and information exchanged between us and our supply chain partners is reliable.

**Table 4.4: shows the mean of the level of value of quality of information sharing**

No.	Items related to Quality of information sharing	N	Mean	Std. Deviation
1	Information exchange between our supply chain partners and us is timely	125	3.04	1.422
2	Information exchange between our supply chain partners and us is accurate	125	3.18	1.298
3	Information exchanged between us and our supply chain partners is complete	125	3.09	1.270
4	Information exchanged between us and our supply chain partners is adequate	125	3.08	1.311
5	Information exchanged between us and our supply chain partners is reliable	125	3.14	1.410
Valid N (listwise)		125		
Aggregate mean value			3.10	1.342

*Source: Survey data (2026)*

From table 4.4 one can easily understand that the mean score value of information exchange between our supply chain partners and us is timely is (M=3.04) with the standard deviation (SD=1.422). This implies that as per of the range determined indicates on the average of the respondent's response is disagreed on the issue in the case company and the standard deviation value directs that there is variation or difference among respondent on this issue.

The significant number of respondents response concerning the information exchange between our supply chain partners and us accurate the mean score value is (M=3.18) with the standard deviation of value of (SD=1.298). This implies that as per of the range determined indicates on the average of the respondent's response is disagreed on the issue in the case company. And also, the study indicates that the standard deviation value directs that there is variation or difference among respondent on this issue.

The majorities of respondent's response regarding to information exchanged between us and our supply chain partners is complete is (M=3.09) with the standard deviation of value of (SD=1.270). This implies that as per of the range determined indicates on the average of the respondent's response is disagree on the issue in the case company. But the standard deviation value directs that there is variation or difference among respondent on this issue.

Regarding to the question of information exchanged between us and our supply chain partners is adequate respondents of the case company the mean score value obtained on the issue is (M=3.08) with the standard deviation of (SD= 1.311). Here the mean score value as per

of the range determined indicates on the average of the respondents disagree on the issue. That means there a gap on this aspect of information exchanged between us and our supply chain partners is adequate. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

Concerning the question of information exchanged between us and our supply chain partners is reliable as the respondent's response indicated that the mean score is (M=3.14) with the score value standard deviation value of (SD=1.342). This the mean score value as per of the range determined implies that on the average of the respondents disagree on the issue. That means there is a gap on this aspect of information exchanged between us and our supply chain partners is reliable. The standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

The aggregate mean value of the variable of related to the variable of quality of information sharing is (M=3.10) with the score of standard deviation (SD=1.342) which shows that according to the mean rage determination stated by Zaidaton & Bagheri (2009) is disagree implies that on average the sampled respondents disagree with the case factory about variable of quality of information sharing.

Besides to the questionnaires, majority of the interviewees said that quality of information sharing experience is not this much strong due to the scarcity of advanced information technology facilities and skilled human resource. Therefore, it is a must to do more on such issues for addressing timely, accurate, complete, adequate and reliable information to our supply chain partners. Sometimes we checked current information by our survey

specially market, raw material and price-oriented information we assessed. That is better to build fast operational system which is supported by advanced technology, increase production, and create strong relationship with customers and suppliers and involving them in various decision-making process particularly on business-oriented activities.

From the above finding the researcher can generalize that Derba cement factory ought to know about the importance of information exchange timely, accurately, completeness, adequately and reliable to meet the supplier's interest and increasing the company's profit margin.

**Table 4.5: shows mean of the value of variable of inventory management**

No.	Items related to inventory management	N	Mean	Std. Deviation
1	How does the delay on processes of central store receiving inventory delivery affect your work in this company	125	3.56	1.214
2	In the current situation, inventory control management practice is well organized and effectively performed to manage.	125	3.46	1.260
3	Your company easily get the raw material and supplies from local market	125	3.40	1.326
Valid N (listwise)		125		
<b>Aggregate mean value</b>			3.47	1.266

*Source: Survey of (2026)*

In the same table above the first item raised to respondents is about the case factory on how does the delay on processes of central store receiving inventory delivery affect your work in this company the mean score value obtained on this issue is (M= 3.56) with standard deviation value of (SD =1.214). Here the mean score value as per the range determined indicates on average the respondents moderately agree on this issue. That mean even if it is not as such strong enough delay on processes of central store receiving inventory delivery affect your work in this company, to some extent there is such trend in the case factory. Which is valued more to strength such practices.

Concerning the question of the current situation, inventory control management practice is well organized and effectively performed to manage as the respondent's response indicated that the mean score is (M=3.46) with the score value standard deviation value of (SD=1.260). This the mean score value as per of the range determined implies that on the average of the respondents agree on the issue. That means there is a gap on this aspect of the current situation, inventory control management practice is well organized and effectively performed to manage. The standard deviation value indicates that even though there

#### 4.2.4. Descriptive analysis of inventory management

In modern word and organizations, the decision of inventory management is played a great role for the attainment of the organizations mission and vision. In relation to the concept the study deals with important points such as delay on processes of central store receiving inventory delivery affect your work in this company, current situation, inventory control management practice is well organized and effectively performed to manage and company easily get the raw material and supplies from local market.

are consistency and good way of performance it's expected to do more on this issue.

The majorities of respondent's response regarding to company easily get the raw material and supplies from local market is (M=3.40) with the standard deviation of value of (SD=1.326). That mean even if it is not as such strong enough company easily get the raw material and supplies from local market, to some extent there is such trend in the case factory. Which is appreciated further to strength such practices.

The aggregate mean value of the variable of related to related to inventory management is (M=3.47) with the score of standard deviation (SD=1.266) which shows that according to the mean rage determination stated by Zaidaton & Bagheri (2009) is agree implies that on average the sampled respondent's moderate level with the case factory about related to inventory management.

To triangulate the response of questionnaires finding the researcher can have conducted interviews, related to the question of interviews what is the effect of inventory management on organizational performance of at Derba cement factory? Almost all of interviewees stated as

follows, our factory inventory management system was, we have better store for raw materials, products and other all materials. We have also skilled human resource to control enter and out all materials. Additionally, there is checked up and control system in each month.

#### 4.2.5. Descriptive analysis of lean practice

Lean practice is an important concept that play a pivotal role the sustainable and competitive advantage of the organization through implement a continuous important practice. Concerning these concepts the study presented issues like kaizen, six sigma, just in time and lean thinking.

*Table 4.6. shows means of the value of the variable of lean practice*

No.	Items related to Lean practice	N	Mean	Std. Deviation
1	The firm continually improve their own performance with small incremental lean procurement improvements (Kaizen)	125	2.78	1.243
2	Firm does not rely on inspecting products procured (six sigma)	125	2.76	1.298
3	Firm buys products in smaller batches only when they are needed at the place where they are needed and exactly in the quantity required (Just in Time)	125	2.74	1.337
4	Firm practices delaying, Downsizing and Outsourcing (Lean Thinking)	125	2.78	1.242
Valid N (listwise)		125		
Aggregate mean			2.76	1.283

*Source: Survey data (2026)*

As table 4.6 shows that the data obtained from respondents of the mean score value of the question of regarding to the firm continually improve their own performance with small incremental lean procurement improvements (Kaizen) in the case factory is (M=2.78) with standard deviation value of (SD=1.243). According to the mean rage determination stated by Zaidaton & Bagheri (2009) this mean value is below 3.39 which implies that on average the sampled respondents disagree with the case factory considering the firm continually improve their own performance with small incremental lean procurement improvements (Kaizen) Derba cement factory. That means there a gap on this aspect of with the issue case factory. But as the standard deviation value shows that there is discrepancy or difference among respondent on this issue.

Regarding to the question of firm does not rely on inspecting products procured (six sigma) of the case company the mean scare value obtained on the issue is (M=2.76) with the standard deviation of (SD= 1.298). Here the mean score value as per of the range determined indicates on the average of the respondents disagree on the issue. That means there a gap on this aspect of firm does not rely on inspecting products procured (six sigma). But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

As table 4.6 indicated that the data obtained from respondents of the mean score value of the question of regarding to firm buys products in smaller batches only when they are needed at the place where they are needed and exactly in the quantity required (Just in Time) with the

case factory is (M=2.74) with standard deviation value of (SD =1.337) which implies that on average the sampled respondents disagree with the case factory considering to the issue. That means there a gap on this aspect of firm buys products in smaller batches only when they are needed at the place where they are needed and exactly in the quantity required (Just in Time) with case factory. But the standard deviation value indicates that there is variation or difference among respondent on this issue.

The ample of respondent's response concerning the Firm practices delaying, Downsizing and Outsourcing (Lean Thinking) is (M=2.78) with the standard deviation of value of (SD=1.242). This implies that as per of the range determined indicates on the average of the respondent's response is disagree on the issue in the case company. But the standard deviation value directs that there is discrepancy or difference among respondent on this issue.

The aggregate mean value of the variable of related to lean practice is (M=2.76) with the score of standard deviation (SD= 1.283) which shows that according to the mean rage determination stated by Zaidaton & Bagheri (2009) is disagree implies that on average the sampled respondents dissatisfied with the case factory about related to lean practice.

While the researcher interviewed the interviewees about the effect of lean practice on organizational performance at Derba cement factory? majority of the respondents were said that in logic lean practices as lean production associated with continuous pursuit of improving the

processes, to eliminating all non-value adding activities and reducing waste within an organization. And also, consume less resources with the same speed mass production and offers greater variety to customers. But practically, our company did not implement properly as due to lack of knowledge and ignoring the importance of the practical implementation of science.

From this finding one can have generalized that Derba cement factory gives special attention regarding to lean practice mainly kaizen, six sigmas, just in time and lean

thinking because these play great role for continuous improvement of the organizations to be effective and efficient.

#### 4.2.6. Descriptive analysis of postponement

Postponement concepts are discussed under this table, issues are delay final product assembly activities until customer orders have actually been received, delay final product assembly activities until the last possible position in the supply chain and products are designed for modular assembly.

*Table 4.7. shows means of the value of the variable of postponement*

No.	Items related to Postponement	N	Mean	Std. Deviation
1	We delay final product assembly activities until customer orders have actually been received	125	3.04	1.416
2	We delay final product assembly activities until the last possible position in the supply chain	125	3.11	1.375
3	Our products are designed for modular assembly	125	3.08	1.371
Valid N (listwise)		125		
Aggregate mean			3.07	1.387

*Source: Survey of (2026)*

In the above table the first item raised to respondents is about the case factory delay final product assembly activities until customer orders have actually been received in this company the mean score value obtained on this issue is (M= 3.04) with standard deviation value of (SD=1.416). This implies that as per of the range determined indicates on the average of the respondent's response is disagree on the issue in the case company. But the standard deviation value directs that there is discrepancy or difference among respondent on this issue.

Concerning the question of the current situation delay final product assembly activities until the last possible position in the supply chain as the respondent's response indicated that the mean score is (M= 3.11) with the score value standard deviation value of (SD= 1.375). This the mean score value as per of the range determined implies that on the average of the respondents disagree on the issue. But the standard deviation value directs that there is discrepancy or difference among respondent on this issue.

Significant number of respondents response regarding to company products are designed for modular assembly is (M=3.08) with the standard deviation of value of (SD=1.371). This the mean score value as per of the range determined implies that on the average of the respondents disagree on the issue. But the standard deviation value directs that there is discrepancy or difference among respondent on this issue.

The aggregate mean value of the variable of related to related to lean practice is (M=3.07) with the score of standard deviation (SD= 1.371) which shows that according to the mean rage determination stated by Zaidaton & Bagheri (2009) is disagree implies that on average the sampled respondents dissatisfied with the case factory about related to postponement.

In line with questionnaire analysis, the researcher conducted interviews about the effect of postponement on organizational performance at Derba cement factory? and plenty of interviewees said that basically in our company there are a delay of activities in determining the form and function of the product until suppliers fulfilled on the order. There is a time postponement that the

delays of goods movement before getting suppliers orders.

As finding revealed that the strategic supplier partnership, customer relation, quality of information sharing, inventory management, lean practice and postponement are aggregate mean value (M=3.24, 3.23, 3.10, 3.47, 2.76 and 3.07) and value of standard deviations (SD= 1.225,1.2718,1.342,1.271,1.266,1.283,1.371 and1.387) which implies that disagree according to (Zaidaton & Bagheri (2009) respectively except inventory management which indicated moderately extent.

Depending on the obtained measurement through the above-mentioned values is insufficient to bring a desired change hence they are somewhat low extent for the role of supply chain management practices to the overall

**Table 4.8. Shows means of the value of the variable of organizational performance**

No.	Items related to Organizational performance	N	Mean	Std. Deviation
1	Growth of sales is significantly increasing	125	3.24	1.405
2	Our profit margin on sales is significantly increasing	125	3.26	1.436
3	Growth of return on investment is significantly increasing	125	3.23	1.404
4	Our market share is significantly increasing	125	3.26	1.398
5	Overall competitive position is significantly increasing	125	3.09	1.391
Valid N (listwise)		125		
<b>Aggregate mean value</b>			3.21	1.406

*Source: Survey of (2026)*

As any one observed from the above table 4.8 which deals with the dependent variable related to organizational performance in the case of Derba Cement factory. Accordingly, as per the data obtained from respondents of this study the mean score value of the question of consider growth of sales is significantly increasing is (M= 3.24) with standard deviation value of (SD=1.405). According to the mean rage determination stated by Zaidaton & Bagheri (2009) this mean value is below 3.39 which implies that on average the sampled respondents disagree with the case factory consider growth of sales is significantly increasing. That means there a gap on this aspect of growth of sales is significantly increasing. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

In the same table above the second item raised to respondents is about the case factory profit margin on

performance of an organization. So, the researcher concluded that Derba cement factory is not a good position to implement the above-mentioned supply chain management practices to insure a competitive advantage in this volatile era.

**4.2.7. Descriptive analysis of organizational performance**

Under this topic the study discussed important measurement criteria for measuring the organization performance like growth of sales is significantly increasing, our profit margin on sales is significantly increasing, growth of return on investment is significantly increasing, our market share is significantly increasing and overall competitive position is significantly increasing.

sales is significantly increasing. The mean score value obtained on this issue is (M= 3.26) with standard deviation value of (SD = 1.436). Here the mean score value as per of the range determined indicates on the average of the respondents disagree on the issue. That means there a gap on this aspect of factory profit margin on sales is significantly increasing. But the standard deviation value indicates that there is inconsistency or difference among respondent on this issue.

Regarding to the question of growth of return on investment is significantly increasing respondents of the case company the mean score value obtained on the issue is (M=3.23) with the standard deviation of (SD= 1.404). Here the mean score value as per of the range determined indicates on the average of the respondents disagree on the issue. That means there a gap on this aspect of growth of return on investment is significantly increasing. But

the standard deviation value indicates that there is variation or change among respondent on this issue.

As table result shows that the mean score of factory market share is significantly increasing is ( $M=3.26$ ) with the standard deviation of ( $SD=1.398$ ). As the result of the mean score value reflect that as per the range determined indicates on average the respondent's response is disagreeing on this issue. That means there a gap on this aspect of factory market share is significantly increasing. But as the standard deviation score shows that there is irregularity or difference among respondent on this issue.

As majorities of the respondents stated that regarding to the question of Overall competitive position is significantly increasing the mean score is ( $M=3.09$ ) with the standard deviation value of ( $SD=1.391$ ). Here the mean score value as per of the range determined indicates on the average of the respondent's response is disagree on the issue. But the standard deviation value directs that there is variation or difference among respondent on this issue.

The aggregate mean value of the variable of related to the dependent variable related to Organizational performance is ( $M=3.21$ ) with the score of standard deviation ( $SD=1.406$ ) which shows that according to the mean range determination stated by Zaidaton & Bagheri (2009) is disagree implies that on average the sampled respondents disagree with the case factory about related to the dependent variable related to Organizational performance.

To triangulate quantitative result, the research conducted qualitative data analysis which is gathered through interview, the researcher asked to give their response on question, "Do supply chain management practices affect the performance of your organization?" here in regarding to this question all the respondents were replied "Yes" because it helps to handle delaying of production related with shortage of supplies, improves quality and profitability of our products as well as to earn better revenue. In addition, it helps to deliver products on time and when customers needed, enables to balance the imbalance between supply and demand in a market, facilitated the provision of raw material on time for producing the required products.

On the other hand, it enhanced production capacity of the industry and enables to minimize interruption of company's production or operation. Similarly practicing supply chain management practices increased the firm's competitiveness and strengthened the relationship with

its business partners so as to produce quality products and to make it responsive and fast.

Finally, the researcher asked the question, "What do you suggest as a best mechanism to improve the performance of your organization?" For this question many of the respondents suggested different valuable suggestions, which were mainly emphasized on alleviating shortage of supplies, fulfilling customers requirement, quality improvement and working more on promotion and advertisement. Rare respondents also suggested on evaluating customer satisfaction continuously, employing skilled and professional human resources as well as putting the right man on the right place. And also, plan based on research and implementing it accurately.

Generally, from the responses of the Chief Executive Officer, four directors and two team leaders and for interview questions, the researcher concluded that is the performance of case company is not productive and profitable due to a improper implementation of supply chain management practice. As findings revealed that market share, profit margin, return on investment is not a good status. In this condition the company is difficult to stay as competitive and penetrating current market situations without proper implementation of supply chain management practice. According to Toyin (2012), in order to compete successfully in today's challenging business environment, companies need to focus on supply chain management practices that have impact on enhancing SCM activities and ultimately performances.

### **4.3 Results of Inferential Statistics**

#### **4.3.1 Pearson Correlation Analysis**

In this section Pearsons Product Moment Correlation Coefficient, simple regression and multiple regression analysis was computed. With the help of these statistical tools, conclusions are drawn with regard to the sample and decisions are made with respect to the research questions.

Correlations are the measure of the linear relationship between two (and only two) variables. Correlation coefficients range from -1.0 to 1.0. That is from a perfect negative correlation to a perfect positive correlation. The closer correlation coefficients get to -1.0 or 1.0, the stronger the correlation. The closer a correlation coefficient gets to zero, the weaker the correlation is between the two variables. The correlation is a commonly used measure of the size of an effect: values of  $\pm 0.1$  represent a small effect,  $\pm 0.3$  is a medium effect and  $\pm 0.5$  is a large effect (Andy, 2006).

*Table 4.9. shows correlation coefficient*

Correlations		SSPR	CRN	QUISH	INVMGT	LEANP	PSPON	ORGP
SSPR	Pearson Correlation	1						
	Sig. (2-tailed)	.000						
	N	125						
CRN	Pearson Correlation	.789**	1					
	Sig. (2-tailed)	.000						
	N	125	125					
E QUISH	Pearson Correlation	.639**	.814**	1				
	Sig. (2-tailed)	.000	.000					
	N	125	125	125				
INVMGT	Pearson Correlation	.438**	.683**	.593**	1			
	Sig. (2-tailed)	.000	.000	.000				
	N	125	125	125	125			
LEANP	Pearson Correlation	.694**	.759**	.664**	.464**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
	N	125	125	125	125	125		
PSPON	Pearson Correlation	.615**	.800**	.707**	.609**	.737**	1	
	Sig. (2-	.000	.000	.000	.000	.000		
	N	125	125	125	125	125	125	
ORGP	Pearson Correlation	.745**	.867**	.805**	.637**	.782**	.820**	1
	Sig. (2-	.000	.000	.000	.000	.000	.000	
	N	125	125	125	125	125	125	125

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

*Source; Output of SPSS, (2026)*

The correlation between supply chain management practices with organizational performance was run as seen table 4.9 the result of correlation matrix between each construct and organizational performance are analyzed as follow:

As it is indicated in table 4.9 there is significant positive correlation between strategic supplier partnership (SSPR) and organizational performance (ORGP) with correlation coefficient of .745 ( $r=0.745$ ) and significance less than

0.001. Therefore, strategic supplier partnership and organizational performance are genuinely correlated. There is also strong positive relationship between customer relationship (CRN) and organizational performance (ORGP) with correlation coefficient of .867\*\* ( $r=0.867$ ) and significance value is less than 0.001. This significance tells that there is genuine relationship between customer relationship (CRN) and organizational performance (ORGP).

Quality of information sharing (QUISH) was positively related to organizational performance (ORGP) with correlation coefficient of .805\*\* ( $r=.805^{**}$ ) and a significance level of less than 0.001, which demonstrates the existence of genuine relationship between quality of information sharing and organizational performance.

As table 4.10 clearly displays the relation between inventory management (INVMGT) and organizational performance (ORGP) was positive. The correlation was significant at 0.001 level of 2-tailed Pearson correlation coefficient of .637\*\* ( $r=.637^{**}$ ). So, this significance shows that there is genuine relationship between inventory management and organizational performance.

Furthermore, there was positive relationship between lean practices (LEANP) and organizational performance (ORGP) with 2-tailed Pearson correlation coefficient of .782\*\* ( $r=.782^{**}$ ) and significance value less than 0.001. This significance value reflects that there is genuine relationship between lean practices and organizational performance. Finally, as it depicted on the table above there is somewhat 'good relationship between postponement (PSPON) and organizational performance (ORGP) with correlation coefficient of .820\*\* ( $r=.820^{**}$ ) and which shows that there is strong relationship between postponement and organizational performance.

**Table 4. 12** Co-linearity test of independent variable

Model		Co-linearity Statistics	
		Tolerance	VIF
1	Strategic supplier partnership	.338	2.959
	Customer relationship	.138	7.253
	Quality of information sharing	.325	3.076
	Inventory management	.487	2.053
	Lean practice	.342	2.921
	Postponement	.301	3.318
a. Dependent Variable: organizational performance			

**Source:** - Output of SPSS (2026)

This study tolerance is not less than 0.1. It seems from these values that there is not an issue of co linearity between the predictor variables. This means that the derived model is likely to be unchanged by small changes in the measured variables.

#### 4.4.2 Linearity assumption test

In multiple linear regressions, the first assumption to be tested is linearity. Linearity means the relationship between dependent and independent variables is to be linear. This

#### 4.4. Regression assumption test for regression Model

According to Lind, (2012) the reason why ever data must have the test is that if the data does not pass classic assumption test, then the result after the data was processed might be misleading or biased. The examination called Fundamental Assumption Test that consists of mainly four tests, and those tests are normality, linearity, multicollinearity, and homoscedasticity tests (Lind, 2012).

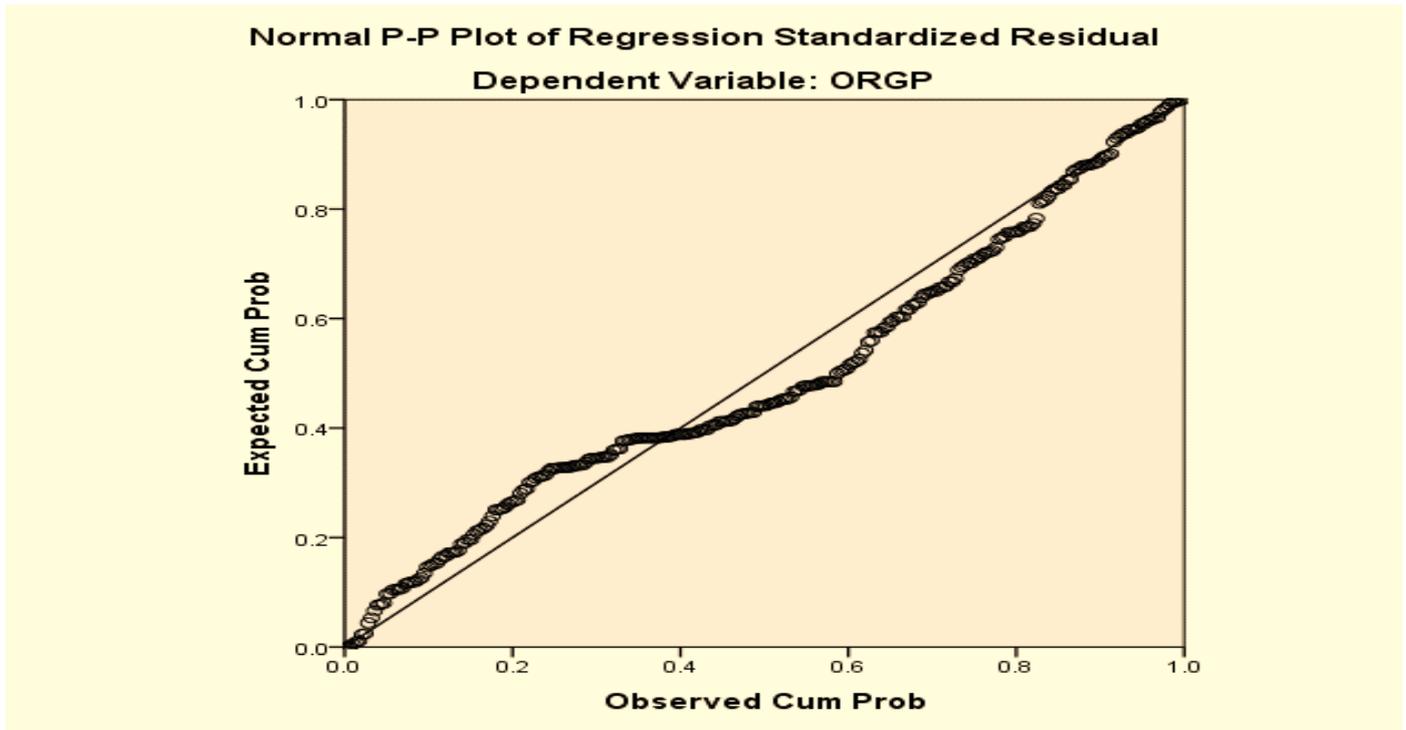
Therefore, even if there are different types of assumptions be considered for regression analysis these aforementioned assumptions are the most common and highly recommended assumptions what the researcher should conduct before running the regression analysis and hypothesis testing were addressed in brief in this study and presented below.

##### 4.4.1. multicollinearity assumption Test

It also shows the collinearity statistics test that can be interpreted as the relationship between the independent variables is acceptable since, the result of variable inflation factor (VIF) is below 10. Liu (2010) also stated that a VIF value greater than 10 brought collinearity problem but in this research data the values are below 10 for all predictors. Andy (2006) described that a tolerance value less than 0.1 almost certainly indicates a serious collinearity problem.

relationship characterized by a straight line. Linearity allows the researcher to predict the dependent variable based on one or more several independent variables. The assumption was checked through a scatter plot by looking at whether the two variables approximately form a straight line. Therefore, the linear relationship between the dependent (organizational performance) and independent (supply chain management practice) variables was confirmed through the scatter plot (Figure 4.1).

Figure 4.1 normal p-p scatter plots



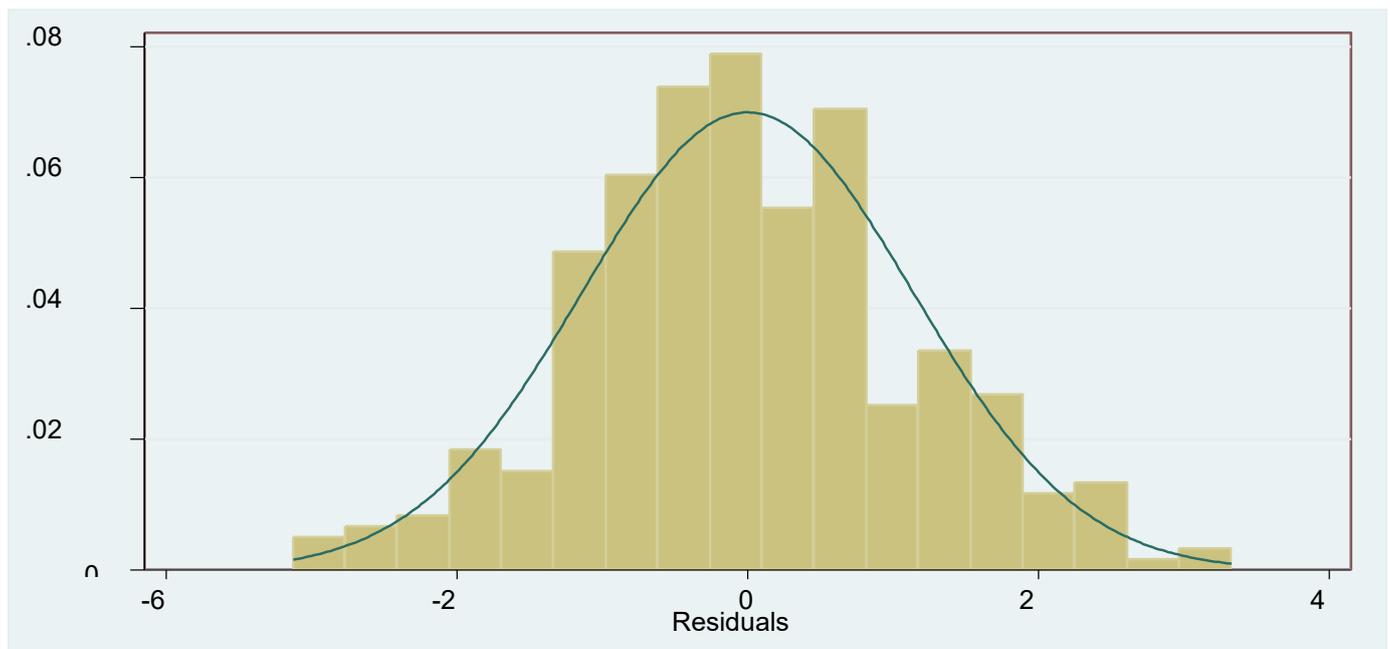
Source: output of SPSS, (2026)

#### 4.4.3 Normality assumption test

Normality assumes that the data to be normally distributed (symmetry about the mean). The normal distribution of data characterized bell-shaped means that the data has spread evenly so that it can represent the population. Data that is not normal, can be distinguished by the level of skewness, that negative skewness indicates scores are clustered to the right (the data tends to skew to right), whereas positive skewness

indicates a clustering of scores at the left side of the graph (positive skewness). Normally distributed data is symmetrical about the mean, has zero skewness. Frequency distribution of organizational performance scores at Derba cement factory was tested for its normality. The organizational performance score, visualized by bell-shape (Figure 4.2), was reasonably normally distributed.

Figure 4.2 Histogram graph



Source: - output of SPSS, (2026)

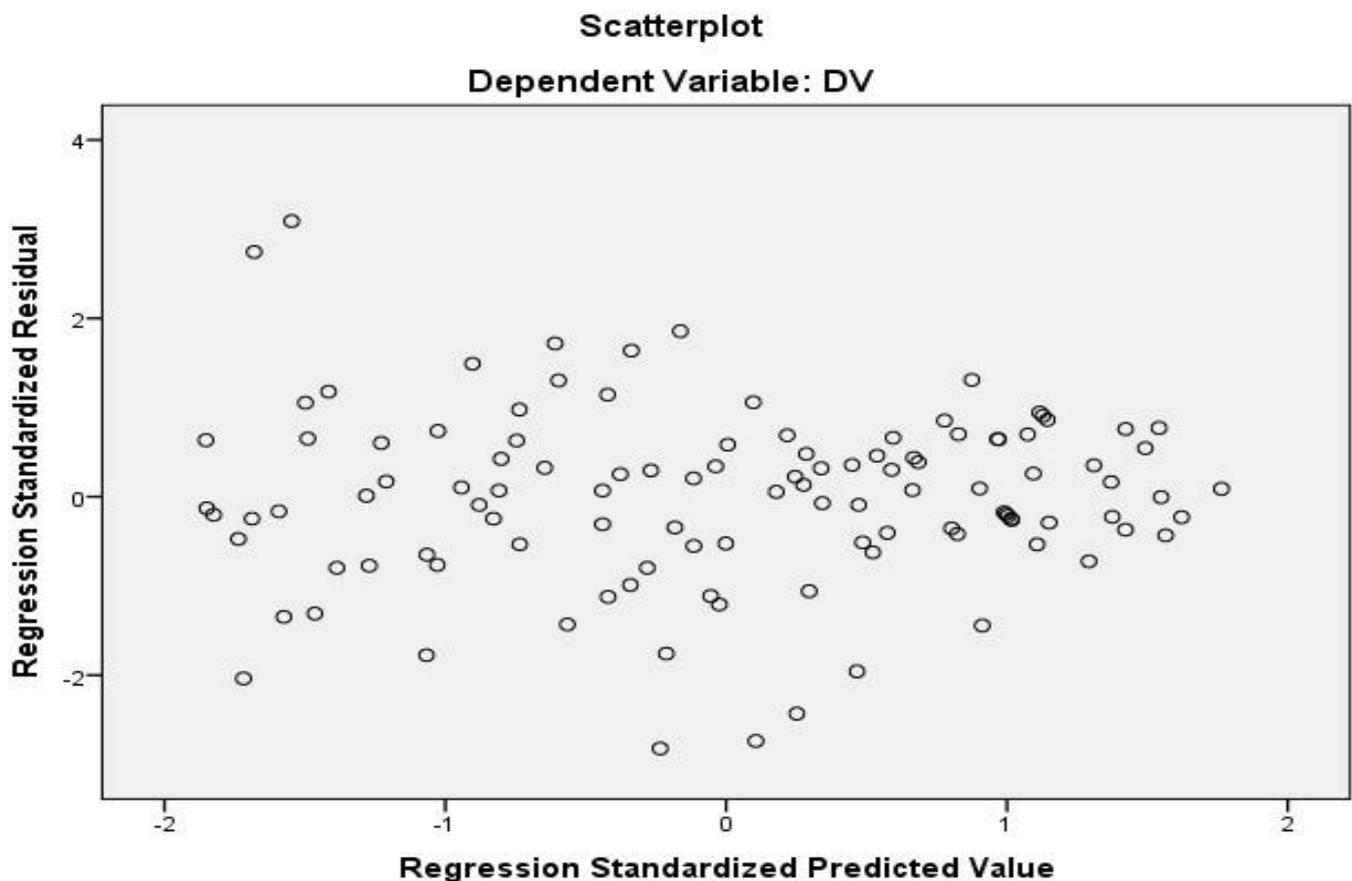
Figure 4.2 shows the frequency distribution of the standardized residuals compared to a normal distribution. Although, there are some residuals (those occurring around 0) that are relatively far away from the curve, many of the residuals are fairly close. Moreover, the histogram is bell shaped which led to infer that the residuals are normally distributed.

#### 4.4.4. Homoscedasticity test

In Homoscedasticity assumption, the variance of error terms is similar across the independent variables. At each level of the predictor variables, the variance of the residual terms should be constant. This just means that the residuals at each level of the predictors should have the same

variance, when the variances are very unequal there is said to be heteroscedasticity (Field, 2009). According to the statistical solution, to test the linear relationship assumption, Intellect s in the statistics plot the standardized residuals verses the predicted Y' values can show whether points are equally distributed across all values of the independent variables or not. Biased standard errors lead to biased inference, so results of hypothesis tests are possibly wrong. For a basic analysis, we first plot \*ZRESID (Y-axis) against \*ZPRED (X-axis) on SPSS because this plot is useful to determine whether the assumptions of random errors and homoscedasticity have been met (Field, 2009). residuals were around the diagonal straight line instead of making any other shape or curve.

Fig 4.3: Scatterplot based on Residual



Source: - output of SPSS, (2026)

The graph of \*ZRESID and \*ZPRED should look like a random array of dots evenly dispersed around zero. If this graph funnels out, then the chances are that there is heteroscedasticity in the data. If there is any sort of curve in this graph, then, the chances are that the data have broken the assumption of linearity (Field, 2009).

#### 4.5. Regression analysis

Regression analysis is a systematic method that can be used to investigate the effect of one or more predictor variables on dependent variables, that is, it allows us to make

statements about how well one or more independent variables will predict the value of a dependent variable. Specifically, this multiple regression was conducted to investigate the effect of an overall bundle of selected supply chain management factors on organizational performance. Accordingly, the table below depicts the result of the regression model that examines the effect of explanatory variables on organizational performance. Hence, organizational performance is explained as a variable whereas SSPP, CRN, QUIISH, INVMGT, LEANP and PSPON are explanatory variables.

#### 4.5.1. Model Summary

*Table 4. 13 Multiple Linear Regression Model Summary*

##### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.916 <sup>a</sup>	.839	.831	.541

a. Predictors: (Constant) SSPR, CRN, QUISH, INVMGT, LEANP, PSPON

As table 4.13 revealed that, the correlation between the observed value of organizational performance and the optimal linear combination of the independent variables (SSPR, CRN, QUISH, INVMGT, LEANP, and PSPON) is .916, as indicated by R. The result as shown in the model summary table indicates that the coefficient of determination (the percentage variation in the dependent variable being explained by the changes in the independent variables)  $R^2 = 0.839$  leaving only 0.161 (16.1%) unexplained. This indicates that the effect of supply chain management practice; SSPR, CRN, QUISH, INVMGT, LEANP, PSPON accounts for 83.9% of variability in organizational performance and the remaining 16.1% of the variation in organizational

performance cannot be explained by those dimensions of effect of supply chain management practice which are used in this study. This represents a good fit since the rule of thumb has it that an R-square between 60% and 69% represents a good model. Consequently, the researcher can conclude that effect of supply chain management practice is essential in enhancing organizational performance given that the unexplained variance is 16.1%. The regression equation appears to be very useful for making predictions since the value of  $R^2$  is close to 1.

#### 4.5.2. Analysis of variance (ANOVA)

*Table 4.11 ANOVA model of supply chain management practice*

##### ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	180.127	6	30.021	102.739	.000 <sup>b</sup>
	Residual	34.481	118	.292		
	Total	214.608	124			

a. Dependent Variable: ORGP

b. Predictors: (Constant), SSPR, CRN, QUISH, INVMGT, LEANP, PSPON

The ANOVA reports how well the regression equation fits the data or predict the dependent variable. In the above ANOVA table, the F value measures the probability of chance deputed from straight line and the F-ratio of this study is ( $F=30.021/.292 = 102.739$ ), which is statistically significant at  $P < 0.05$  because the value in the column labelled (sig. less than 0.05) or the significance value is .000 which is less than 0.05. Therefore, it is concluded that the regression model is significantly better prediction of organizational performance or the regression model over all predicts organizational performance significantly well. Thus, the model is statistically significance in predicting, strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean

practice and postponement of SCM practices affect organizational performance. As the ANOVA table indicates that from the estimated total observation 214.608 wanted to be explained by the regression model 180.127 with mean square 30.021 was explained and the remaining 34.481 with mean square .292 of the total estimated observation was error or not explained by the regression model. This implies the regression model is a suitable prediction for explaining the effect of the supply chain management practice on organizational performance at Derba cement factory.

### 4.5.3. Coefficient analysis

Table 4.11. Shows regression coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.362	.180		2.013	.046
	SSPR	.183	.076	.154	2.419	.000
	CRN	.202	.111	.181	1.824	.000
	QUISH	.234	.068	.222	3.437	.000
	INVMGT	.097	.060	.086	1.619	.000
	LEANP	.186	.069	.170	2.692	.000
	PSPON	.244	.067	.246	3.653	.000

Source: - survey of (2026)

Here unstandardized beta coefficient value was used since many researchers and practitioners like Dawson (2009) and Gitah (2014) were recommended to use it. The findings presented also shows that taking all other independent variables at zero, a unit increase in SSPR factors will lead to a 0.183 improve in organizational performance. A unit increase in CRN, will lead to a 0.202 improve in organizational performance, a unit increase in QUISH factor will lead to .234 improve in organizational performance, a unit increase in INVMGT will lead to a .097 improve in organizational performance, a unit increase in LEANP factor will lead to .186 improve in organizational performance and a unit increase in PSPON, will lead to a .244 improve in organizational performance.

### 4.5.4. Regression Mathematical Model

The equation of multiple regressions in this study is generally built on around two sets of variables, namely dependent variable (organizational performance) and independent variables (SSPR, CRN, QUISH, INVMGT, LEANP and PSPON). The basic objective of using regression equations in this study is to make the researcher more effective at describing, understanding, predicting, and controlling the stated variables.

#### Regress organizational performance on the supply chain practice dimensions

**Organizational performance** = f(SSPR, CRN, QUISH, INVMGT, LEANP and PSPON)

$$ORGP = \beta_1 + \beta_2 \text{ SSPR} + \beta_3 \text{ CRN} + \beta_4 \text{ QUISH} + \beta_5 \text{ INVMGT} + \beta_6 \text{ LEANP} + \beta_7 \text{ PSPON} + e$$

Where: - ORGP = Organizational performance  
SSPR = Strategic supplier partnership

CRN = Customer relationship

QUISH = Quality of information sharing

INVMGT = Inventory management

LEANP = Lean practice

PSPON = Postponement

e = Model error term

$$\text{Mathematically, } Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6$$

Where Y is the dependent variable- organizational performance X1, X2, X3, X4, X5 and X6 are the independent variables  $\beta_1$  is the intercept term- it gives the mean or average effect on Y of all the variables excluded from the equation, although its mechanical interpretation is the average value of Y when the stated independent variables are set equal to zero.  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$  and  $\beta_6$  refer to the coefficient of their respective independent variable which measures the change in the mean value of Y, per unit change in their respective independent variable

Therefore, organizational performance =  $.362 + .183(\text{Strategic supplier partnership}) + .202(\text{Customer relationship}) + .234(\text{Quality of information sharing}) + .097(\text{Inventory management}) + .186(\text{Lean practice}) + .244(\text{Postponement})$ .

### 4.6. Hypothesis testing

From the above analysis, the following hypothesis was tested as follow:

*Ha1: Strategic supplier relationship management has significant influence on organizational performance.*

The result of multiple regression analysis clearly indicates that strategic supplier relationship management

has positive and statistically significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.183$ ) shows that the positive influence of supplier relationship management on organizational performance. Which is significant at 1 percent level of significance. That means a unit increase in strategic supplier relationship leads to an increase organizational performance by 0.183 (18.3%). Hence, the above proposed hypothesis is accepted. As similar to this research finding the pervious findings by Muhammed (2012) stated that practice and implementation of strategic supplier corporation have great impact on product quality also organizations performance. The relationship with supplier is important in term of what type of material organizations required at what cost to improve their firm performance.

*Ha2: Customer relationship management has significant influence on organizational performance*

The result of multiple regression analysis clearly indicates that Customer relationship management has positive and statistically significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.202$ ) shows that the positive influence of supplier relationship management on organizational performance. Which is significant at 1 percent level of significance. That means a unit increase in Customer relationship management leads to an increase organizational performance by 0.202 (20.3%). Hence, the above proposed hypothesis is accepted. On the similar to this findings Mbuthia & Rotich (2014) good relationships with supply chain members, including customers, are needed for successful implementation of SCM program.

*Ha3: Quality of information sharing has significant effect on organizational performance.*

The result of multiple regression analysis clearly indicates that Quality of information sharing has positive and statistically significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.234$ ) shows that the positive influence of Quality of information sharing on organizational performance. Which is significant at 1 percent level of significance. That means a unit increase in Quality of information sharing leads to an increase organizational performance by 0.234 (23.4%). Hence, the above proposed hypothesis is accepted. Similar to this finding's earlier studies like Ali (2012) quality of information will be affected depends on the different interest and behavior of

chain members. It also can affect the informational smoothness across supply chain.

*Ha4: Inventory management has significant effect on organizational performance.*

The result of multiple regression analysis clearly indicates that Inventory management has positive and statistically significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.097$ ) shows that the positive influence of Inventory management on organizational performance. Which is significant at 1 percent level of significance. That means a unit increase in Inventory management leads to an increase organizational performance by 0.097 (9.7%). Hence, the above proposed hypothesis is accepted. In line with the finding to this study Fetiya (2021) confirmed management of inventory system requires an appropriate system of making the decisions to keeping track of items in inventory and how much and when the order is applied for downstream and upstream side of the supply chain partner to reach and receive their raw materials and finished goods in the case company.

*Ha5: Lean practice has significant effect on organizational performance.*

The result of multiple regression analysis clearly indicates that *Lean practice* has positive and statistically significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.186$ ) shows that the positive influence of Lean practice on organizational performance. Which is significant at 1 percent level of significance. That means a unit increase in Lean practice leads to an increase organizational performance by 0.186 (18.6%). Hence, the above proposed hypothesis is accepted. Similar to this research finding Mwale (2012) it is the process of removing all of the wasted time and resources in the production process. Lean can be considered a philosophy, a work culture, a technique, a management concept, a value, a methodology or an ethos but today, lean is evolving into a management approach that improves all the processes at each level of an organization.

*Ha6: Postponement has significant effect on organizational performance.*

The result of multiple regression analysis clearly indicates that Postponement has positive and statistically significant effect on organizational performance ( $p < 0.05$ ). Besides, the value of beta ( $\beta = 0.244$ ) shows that the positive influence of Postponement on organizational performance. Which is significant at 1 percent level of

significance. That means a unit increase in Postponement leads to an increase organizational performance by 0.244(24.4%). Hence, the above proposed hypothesis is accepted. Similar to research finding Ho (2011) organization is able to meet the

customer changing needs, differentiate product and modify of demand function through postponement because postponement allows it to be elastic and limber in different version of the product.

**Table: 4. 14 hypothesis test summary**

<b>Hypothesis</b>	<b>Description</b>	<b>Unstandardized beta coefficient</b>	<b>Sig</b>	<b>Decision</b>
<b>H1</b>	<i>Strategic supplier partnership has Positive and statistically significant effect on organizational performance.</i>	.183	0.000	accepted
<b>H2</b>	<i>Customers relationship has Positive and statistically significant effect on organizational performance</i>	.202	0.000	accepted
<b>H3</b>	<i>Quality of information sharing has positive and statistically significant effect on organizational performance</i>	.234	0.000	accepted
<b>H4</b>	<i>Inventory management has positive statistically significant effect on organizational performance</i>	.097	0.000	accepted
<b>H5</b>	<i>Lean practice has positive and statistically significant effect on organizational performance</i>	.186	0.000	accepted
<b>H6</b>	<i>Postponement has positive and statistically significant effect on organizational performance</i>	.244	0.000	accepted

### 5.1. Introduction

This study was carried out to investigate the effect of supply chain management practices on organizational performance at Derba cement factory. This chapter presents the summary of findings based on the objectives of the research, the conclusions, recommendations made based on findings and the suggestions on areas that need to be other research directions as far as this concept is concerned.

### 5.2. Summary of Findings

Based on the descriptive analysis, practical implementation of supply chain management practices at Derba cement factory is all variables that used to measures the organizational performance average mean score is low.

Strategic supplier partnership, customer relation, quality of information sharing, inventory management, lean practice and postponement had 3.24, 3.23, 3.10, 3.47, 2.76 and 3.07 respectively all are low extent except inventory management according to Zaidaton & Bagheri (2009). Not only have the independent variables dependent variable that is organizational performance aggregate mean score is 3.21 which is low scored Zaidaton & Bagheri (2009).

With regard to supply chain management practices implementations in addition to the data analysis through descriptive and inferential, interview data analysis confirmed that Derba cement factory is weak in giving the necessary attention to supply chain management practices. Especially local suppliers had shortage to supply raw materials.

Regarding with the relationship between supply chain management practices and organizational performance, Pearson correlation revealed that there was positive relationship between all supply chain management practices (strategic supplier partnership, customer relationship, and quality of information sharing, inventory management, lean practices and postponement) and organization performance with a significance level less than 0.001. This revealed that the presence of genuine relationship between supply chain management practices and organization performance in the case company. Eventually, strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean practice and postponement were found to have positive statistically significant relationships with performance which is statistically significant at the 5% significance level (i.e. P-value < 0.05).

The result as shown in the model summary table indicates that the coefficient of determination (the percentage

variation in the dependent variable being explained by the changes in the independent variables)  $R^2 = 0.839$  leaving only 0.161 (16.1%) unexplained. This indicates that the effect of supply chain management practice; SSPR, CRN, QUIISH, INVMGT, LEANP, PSPON accounts for 83.9% of variability in organizational performance and the remaining 16.1% of the variation in organizational performance cannot be explained by those dimensions of effect of supply chain management practice which are used in this study. This represents a good fit since the rule of thumb has it that an R-square between 60% and 69% represents a good model. Consequently, the researcher can conclude that effect of supply chain management practice is essential in enhancing organizational performance given that the unexplained variance is 16.1%.

ANOVA also tells whether the overall effect of the six independent variables on organizational performance is significant. As depicted in the table below, at a 95% confidence interval, a significant P-value of .000 and F-value 102.739 was recorded. This implies the regression model is a suitable prediction for explaining the effect of the supply chain management practice on organizational performance at Derba cement factory.

The findings presented also shows that taking all other independent variables at zero, a unit increase in SSPR factors will lead to a 0.183 improvement in organizational performance. A unit increase in CRN, will lead to a 0.202 improve in organizational performance, a unit increase in QUIISH factor will lead to .234 improve in organizational performance, a unit increase in INVMG will lead to a .097 improve in organizational performance, a unit increase in LEANP factor will lead to .186 improve in organizational performance and a unit increase in PSPON, will lead to a .244 improve in organizational performance.

### 5.3. Conclusions

on the basis of the above findings, the researcher forwarded the following conclusions were made.

The aggregate mean value of the variable of strategic supplier partnership is (3.24), customer relationship is (3.23), quality of information sharing is (3.10), inventory management is (3.47), lean practice is (2.76), postponement is (3.07) which are considered as independent variables are aggregate mean score is low extent except inventory management moderate according to Zaidaton & Bagheri (2009) and organizational performance is that is dependent variable (3.21) which low extent. Generally, Derba cement factory the application of supply chain management

practices to a low extent rather than to moderate, great and very great extent. This implies that the case company has a limitation in improving the extent of practicing supply chain management practices relative to their significance.

The study also assured that the prevalence of a positive correlation between supply chain management practices (strategic supplier partnership, customer relationship, quality of information sharing, inventory management, lean practices and postponement) and organizational performance.

The model which used in the study has a good fit for the data. The study has confirmed that strategic supply chain management practices are very significant in enhancing the performance of organizations and as we know today's competition is moving from among organizations to between supply chains. The study finding confirmed that among the variables which is used in the study quality of information sharing and postponement has played lion share in influencing the dependent variable that is organizational variable.

Finding of the study confirmed that the existence of a shortage of supplies, fulfilling customers requirement, quality improvement and working more on promotion and advertisement.

The firms key suppliers were not actively involved in its goal setting and planning activities because of the absence of well-established information sharing experiences and weakness in creating favorable preconditions on the side of the firm. Ultimately, the case company gets difficulty to be successfully achieved its market- oriented and overall goals because there were shortages of financial and material access even there were many ups and downs within the firms overall activities that demonstrates the presence of many challenges.

Generally, the overall organizational performance of Derba cement factory not that much attractive and profitable since as finding result revealed that organizational performance measurements that used in the study that is growth of sales, profit margin, growth of return, market share and overall competitive position are low extent and needs to work more in the supply chain management practices.

#### 5.4. Recommendation

As the study confirmed that supply chain management practices are very significant in enhancing organization performance. By saying this, depending on the above findings and conclusions the researcher forwarded the following recommendations.

- Derba cement factory should strengthen its supply chain management by putting greater effort to the implementation of all best practices which were

conceptualized in this study and others that were not mentioned.

- The case company should be advised to embrace the concept so that it can be able to reap the benefits of adopting supply chain management practices
- The researcher recommended the company engaging in employment of appropriate professionals with the expertise requisite to manage the chain at every stage of the process. This is because professionals in SCM are expected to improve delivery dependency which also has positive influence on performance.
- And also, it is recommended that Derba cement factory should alleviate machinery, information technology facilities and supply problems so as to lighten the necessary conditions for practically implementing supply chain management practices and to succeed both market and financial performance of the organization.
- Concerned bodies should play a pivotal role in reducing or avoiding supply chain problem which is found in this finding and give due attentions variables of the supply chain management practice according to the regression findings.
- Derba cement factory concerned bodies ought to give special attention about shortage of supplies, fulfilling customers requirement, quality improvement and working more on promotion and advertisement.
- Standing from the study findings the researcher recommended that better to build fast operational system which is supported by advanced technology, create strong relationship with customers and suppliers and involving them in various decision-making process particularly on business-oriented activities.

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