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DEPARTMENT OF MANAGEMENT

ANALYSIS OF SUPPLY CHAINS MANAGEMENT PRACTICE ON OPERATIONAL AND ORGANIZATIONAL PERFORMANCE: IN THE CASE OF HAFDE TANNERY

BY: KEFELEGN FEKENE CHAKA

ADVISOR: ZELALEM G/TSADIK (DR.)

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DECLARATION

I, the undersigned declare that, this thesis titled **ANALYSIS OF SUPPLY CHAINS MANAGEMENT PRACTICE ON OPERATIONAL AND ORGANIZATIONAL PERFORMANCE: IN THE CASE OF HAFDE TANNERY** Submitted to Addis Ababa university school of business and economics for the award of the degree of master of science is a record of original and independent research work done by me under the supervision and guidance of Dr. Zelalem Geberetsadik has not been presented for a degree in any other university. And that all sources of materials used for the study have been accordingly acknowledged.

Declared by

Name _____

Signature _____

Date_____

Confirmed by Advisor:

Name _____

Signature _____

Date_____

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Table of contents

Acknowledgement iii
Table of contents ii
List of table vi
List of figure vii
Acronyms viii
ABSTRACT x
CHAPTER ONE 1
INTRODUCTION 1
1.1.Background of the study 1
1.2.Background of Hafde Tannery 4
1.2.1.Mission and vision statement 4
1.2.2.Production strategy 5
1.2.3.Marketing strategy 5
1.2.4.Current supply chain of Hafde Tannery 5
1.2.4.1. Suppliers of Hafde tannery 5
1.2.4.2. Customer of Hafde tannery 6
1.3. Statement of the Problem 8
1.4.Objective of the study 10
1.4.1. General objective 10
1.4.2.Specific Objectives 10
1.5. Research questions 10
1.6.Significance of the Study 11
1.7.Scope of the Study 11
1.8.Limitations of the Study 12
1.9.Definition of Terms 12
1.10.Organization of the Study 13
CHAPTER TWO 14
REVIEW OF RELATED LITERATURES 14
2.1.Theoretical Literature Review 14
2.1.1.Definition and Concepts of Supply Chain Management 15

2.1.2.Drivers of Supply Chain Development and main initiatives 20
2.1.3.Supply chain management practices 21
2.1.3.1.Strategic Supplier partnership 22
2.1.3.2.Customer Relationship 23
2.1.3.3.Level of Information Sharing 24
2.1.3.4.Level of information Quality 25
2.1.3.5.Internal Lean Practice 26
2.1.4. Operational performance 27
2.1.4.1.Price/cost 28
2.1.4.2.Quality 29
2.1.4.3.Delivery 29
2.1.4.4.Time to market 30
2.1.5. Organizational Performance 30
2.2.Empirical review of study 31
2.3.Research hypothesis 33
2.3.1. Supply Chain Management Practice and Operational Performance 33
2.3.2. Supply chain operational performance and organizational performance 34
2.3.3. Supply chain management practice and organizational performance 34
2.3.4.The mediating role of operation performance on relation of SCM practice and organizational performance 35
2.4.Summary of literature review 35
2.5.Conceptual Framework 35
CHAPTER THREE 37
RESEARCH METHODOLOGY 37
3.Introduction 37
3.1.Research Approach 37
3.2.Research Design 38
3.3.Target Population and Sample 38
3.3.1. Target population 38
3.3.2. Sampling technique 39
3.3.3. Sample size 39

3.4.Data Sources and Types....41
3.5.Data Collection Procedures....41
3.6.Data Analysis....42
3.6.1. Quantitative Data Analysis....42
3.6.2. Qualitative data analysis....42
3.7.Validity and reliability....42
3.7.1. Validity....42
3.7.2. Reliability....43
3.8.Ethical Consideration....45
CHAPTER FOUR....46
DATA PRESENTATION, ANALYSIS, AND DISCUSSION....46
4.1.INTRODUCTION....46
4.2.Descriptive statistics....46
4.2.1. Demographic characteristics....46
4.2.1.1.Respondent's by Gender....47
4.2.1.2.Respondent relationship with Hafde Tannery....47
4.2.1.3.Respondents Years of service or partnership with Hafde....48
4.2.1.4.Respondents level of Education....49
4.2.1.5.Employees responses by working unit....50
4.3.Respondent's responses of SCM practices, SCM operational and organizational performance51
4.3.1.1.Strategic supplier partnership....52
4.3.1.2.Customer relationship....53
4.3.1.3.Level of information sharing....55
4.3.1.4.Level of information quality....56
4.3.1.5.Internal lean practice (ILP)....58
4.3.2. Supply Chain management operational performance....59
4.3.2.1.The extent of Price / cost....59
4.3.2.2.Quality of the products....60
4.3.2.3.Delivery dependability....61
4.3.2.4.Time to market....62
4.3.2.5.Supply Chain Management Organizational Performance....63

4.3.4.Analysis of open-ended questions 65
4.4.Inferential statistics for SCM practices, operational performance, organizational performance……..65
4.4.1. Correlation analysis.....65
4.4.1.1.Correlation analysis between construct of SCM practices and operational performance 66
4.4.1.2.Correlation between SCM Practices and OP 68
4.4.1.3.Correlation Analysis between constructs of SCM Practices and organizational performance 68
4.4.1.4.Correlation between SCM Practices and Organizational performance 70
4.4.1.5.Correlation Analysis between OP Measures and ORP..... 71
4.4.1.6.Correlation between Operational performance and Organizational performance..... 72
4.4.2. Regression analysis 73
4.4.2.1.Regression analysis between SCM practice and operational performance 74
4.4.2.2.Regression analysis between operational performance and organizational performance 79
CHAPTER FIVE 92
SUMMARY, CONCLUSION AND SUGGESTIONS 92
5.1. Introduction.....92
5.2. Summary of the Findings.....92
5.3. Conclusion 93
5.4. Recommendations.....94
5.5. Suggestions for future research.....95
REFERENCE.....97
APPENDIX 106

List of table

Table 3.1 sample size determination table 40
Table 3.2 population, Sample size, and response rate determination table of the study 40
Table 3.3: Validity test 43
Table 3.4: Alpha cronbach value 44
Table 3.5: Reliability of SCM practice. Operational performance, organizational performance 44
Table 4.1: Gender of the respondent 47
Table 4.2: The extent of supplier strategic partnership on Hafde tannery 52
Table 4.3: The extent of customer relation on Hafde tannery 54
Table 4.5: The extent on the level of information quality on Hafde tannery 57
Table 4.6: The extent of internal lean practice on Hafde Tannery 58
Table 4.7: The extent of product price/ cost on Hafde Tannery 59
Table 4.8: The extent of product quality on Hafde Tannery 60
Table 4.9: The extent of delivery dependability 61
Table 4.10: The extent of product time to market on Hafde Tannery 63
Table 4.11: The extent of organizational performance 64
Table 4.12 :The inter correlation between SCM construct and operational performance 66
Table 4.13: The Correlation between SCM Practices and Operation performance 68
Table 4.14: Correlation Matrix between construct of SCM practices and organizational performance 69
Table 4.15: Correlation matrix between SCM practices and organizational performance 70
Table 4.16: Correlation matrix between construct of operational performance measures and organizational performance 71
Table 4.17: Correlation matrix between operational and organizational performance 72
Table 4.18: Coefficient Table operation performance 77
Table 4.19: Model summery operation performance 77
Table 4.20: Anova operation performance 78
Table 4.21: Coefficient organizational performance 82
Table 4.22: Model summery organizational performance 82
Table 4.23: Anova organizational performance 83
Table 4.24: Coefficient matrix organizational performance 87

Table 4.25: Model summery dependent variable organizational performance 87
Table 4.26: Anova organizational performance 88
Table 4:27: Mediator analysis 90
Table 4.28: Summary of the regression analysis (Hypothesis Testing) 91

List of Figure

Figure 1.1 Hafde current supply chain.....7
Figure 2.1: Conceptual framework for the study.....36
Figure 4.2: Years of service with Hafde.....49
Figure 4.3: Educational background respondent's.....50
Figure 4.4: Respondent's working area of the case company……..……51
Figure 4.5: Normal p-p plot of regression standardize residual operational performance 74
Figure 4.6: Histogram of dependent variable Operational peformance.....75
Figure 4.7: Scatter plot dependent variable OP 76
Figure 4.8: Normal p-p plot ORP 80
Figure 4.9 Histogram dependent variable organizationa performance.....80
Figure 4.10: Scatter plot dependent variable organizational performance 81
Figure 4.11: p-p Plot dependent variable ORP 85
Figure 4.12: Histogram dependent variable ORP.....85

Acronyms

SCM:	Supply chain management
SCMP: -	Supply chain management practice
CSCMP: -	The Council of Supply Chain Management Professionals
CLM:-	Council of Logistics Management
CSA :-	Central statics agency
UNIDO:-	United Nations industrial Development organization
SSP: -	Strategic supplier partnership
CR: -	Customer relation
LIS: -	Level of information sharing
LIQ: -	Level of information quality
ILP: -	Internal Lean Practices
PC: -	Price/cost
QL:-	Quality of product
DD: -	Delivery dependability
TM: -	Time to market
OP: -	Operational Performance
ORP: -	Organizational Performance
RBV: -	Resource-Based View

ABSTRACT

Effective supply chain management has become a very important way to gain competitive advantage by improving the efficiency and effectiveness of the organization. This study tests the relationships between supply chain management practices, operational performance and organizational performance. It also investigates the mediating role of operational performance between SCM practice and organizational performance relationships. The data were collected from 96 employees and customers of the company The relationships proposed in the framework was tested using SPSS version 23 using both descriptive (mean and standard deviation) and inferential (linear correlation, and regressions) the research findings have shown that SCMP has a positive effect on both operational and organizational performance furthermore operational performance has also a positive significant relationship with organizational performance. This study also revealed that the operational performance of the firm mediates the SCM practice and organizational performance relationship. Therefore to achieve advancement in organizational performance in the long run the organization should give due emphasis to the constructs of SCM practice and the measures of operational performance. This paper is only on the case of Hafde tannery, and future research should consider other business organizations.

Key word: supply chain management, operational performance and organizational performance.

CHAPTER ONE

INTRODUCTION

This section addressed the background of the study, statement of the problem, research question, research objectives, and significance of the study, scope of the study, limitation of the study, definition of terms and organization of the study.

1.1. Background of the study

In this emerging competitive environment, the challenges associated with getting a product and service to the right place at the right time at the lowest cost are the determinant factors. Emily (2017) defines that the management of material, money, human resource, and information within and across the supply chain to maximize customer satisfaction and to enhance competitive advantage. The challenge associated with getting a product and service to the right time at the lowest cost should be resolved with in supply chain management practice.

The understanding and practicing Effective SCM has become the most important way to gain competitive advantage and improve organizational performance as competition is no longer within organizations, but within supply chains (Niknia, 2007). In the current global race and for enhancing profitability and the goal of supply chain management the integration of both material and information flows seamlessly throughout the supply chain as an effective competitive weapon (li et al., 2006).

In recent times, the occurrence of the digital age has brought wholesale transformation to the world of commerce. For the past two decades these processes were difficult, labor intensive, time consuming and disorganized. Now it may seem like ancient history, delivery times have gone from two weeks to a month down to a turnaround of hours in some cases. Manual systems and high-speed communication have surfaced the way for SCM and its increased demand (Emily, 2017). And it consists of the whole actions related with products and services movement from raw material phase to final products which are consumable by customers.

According to a Central Statics Agency (CSA) publication on livestock resources, Ethiopia has 53.4 million cattle, 25.5 million sheep and 22.7 million goats (CSA, 2019). This puts the country as one of the richly endowed countries in livestock resources. It is estimated that the country can collect 3.7 million hides (cattle), 7.7 million goat skins, and 8.4 million sheep skins. The sheep skins and the goat skins in particular are known for their quality and international acceptance and both skins are preferred for leather garments and gloves manufacturing in addition being uses for shoe upper. The resource endowment of the country illustrates the substantial potential in the leather industry.

The first formal leather processing firms were established in the early twentieth century by Armenian merchants. It was one of the first players in the industrial process in Ethiopia with the introduction of two Tanneries in the 1920s. Asco Tannery was the first leather to be invented in the country in 1925.The Derg regime (1974-1991) nationalized the economy and managed eight tanneries and six large shoe factories through the National Leather and Shoe Corporation. Rawhide and skin exports predominated during the Imperial and Derg periods, until being banned in the 1980s to secure input for the increasing capacity of nationalized state-owned Leather Products firms (Grumiller, 2019). Currently, there are 26 tanneries in operation having 153,650 sheep and goat skins and 9,725 hides soaking capacity per day. These contribute a major share of export and more than 6000 workers are involved in the sectors (UNIDO, 2019).Hafde Tannery with 6000 sheep and goat skin and 250 cowhides soaking capacity are the largest among industries (ELIA, 2018).

There are some factors or practices that affect the performance of supply chain management for instance Christopher (2017) noted that strategic supplier alliances are one of the vital factors influencing supply chain performance. Other factors which are needed for successful implementation of supply chain management program consider by Truong et al. (2017) is having good relationships with customers. Soltani, et al. (2018) added sustain customer loyalty intensely extend the value it offers to its customer when close customer relationships allow an organization to differentiate its product from competitors. As well, Wang, et al. (2008), describes incorporation and synchronization through the supply chain can be well provided through information sharing. Supply chain partners that exchange information regularly can work together as a single key.

Moslem, *et al*. (2013) argued that the SCM implementation is a necessary way to stay competitive in the market and improve profits. Companies must ahead understand the desires of the final consumer and able to respond quickly to changing market that the failures can occur in the event of information delays, scarcity, or alteration across the supply chain (Li,et al.2006). The quality of the information shared, when and how, and with whom have an impact on supply chain management while information sharing is important and it highly depends on the competitive market (Holmberg.2000). The other factor that affects supply chain performance that reduces waste and other inefficient factors by enhancing the production process is lean practice (Moslem, et al., 2013).

Operational performance refers to the ability of a company in reducing management costs, order-time, lead-time, improving the effectiveness of using raw material and distribution capacity (Mohammed, et al.2019).It is a measurable aspect of the outcomes of an organization's process (Azim,Ahmed,khan .2015).

Organizational performance is a composite construction that indicates the business performance of a company. Specifically, it refers to how well a firm fulfills its financial and market goals (Li, *et al.*, 2006) and the organizations mainly have two types of goals short term and long-term. Short-term goals refer to an increase on production performance, while long-term objectives are to increase profits, penetrating new markets, increasing quality, and increase market share for all units of the SC.

The case company has relationship with upper stream (suppliers) from all regions in Ethiopia particularly for getting raw material (sheep, goat skins and hides) and different chemicals and salts which helps in the process of the production. And also has a strong relation with downstream. The company supplies its products both on domestic as well as foreign markets. Regarding the local market, it incorporates with the all distributor/retailer of finished leather products and leather product manufacturers. Furthermore, the company exporters the products to foreign market as well (company report, 2018).

The case company confronted various gaps in concerns from perspectives of strategic supplier's partnership, customer's relationships, level and quality of information sharing, and internal lean practices concerning supply chain management practice on organizational performance.In light

of this idea, the study was intended to test the framework identifying the relationships among SCM practices, operational performance, and organizational performance of the case company.

1.2. Background of Hafde Tannery

Hafde Tannery is among the leading exporters of high-quality Ethiopian leather to international market. By providing work opportunities in Ethiopia, HAFDE aims to alleviate poverty, improve wellbeing, and promote local creativity. The tannery had been involved for over 70 Years on Import and export. Initially, Hafde tannery was a collector and trader of raw hides and skins before totally involving the exporter of raw hides & skins as well as trading in the area of importation of various products. Since 1999 the company under Hafde Tannery became a manufacturer of skins.

1.2.1. Mission and vision statement

Hafde's mission statement:

"To maximize the product quality and product line through manufacturing by means of utilizing modern technology and also using modern leadership style"

Hafde vision statement:

"To be a better trader on both export and local with satisfaction products "

1.2.2. Production strategy

The Tannery has the following existing up to Production Capacity.

3000 Pcs sheepskin up to finish per day

3000 Pcs Goat skin up to finish per day

250 Pcs cow up to finish per day.

HAFDE has the following production strategy

- Keep the existing 2 shift production system.
- Purchase new machineries to increase efficiency and capacity.
- Systematize main processes to reduce cost.

- Reduce cost and waste.
- Advance quality and productivity.
- Decrease down time.
- Renovation old machinery machineries.

1.2.3. Marketing strategy

Hafde marketing strategy focuses on the key marketing and competitive elements (price, quality, delivery, time to market) besides these strategies the company produces leathers for export by chrome free(chemical free) it will make the company demand globally. Since the current global market was highly appreciated with environmentally friendly products.

1.2.4. Current supply chain of Hafde Tannery

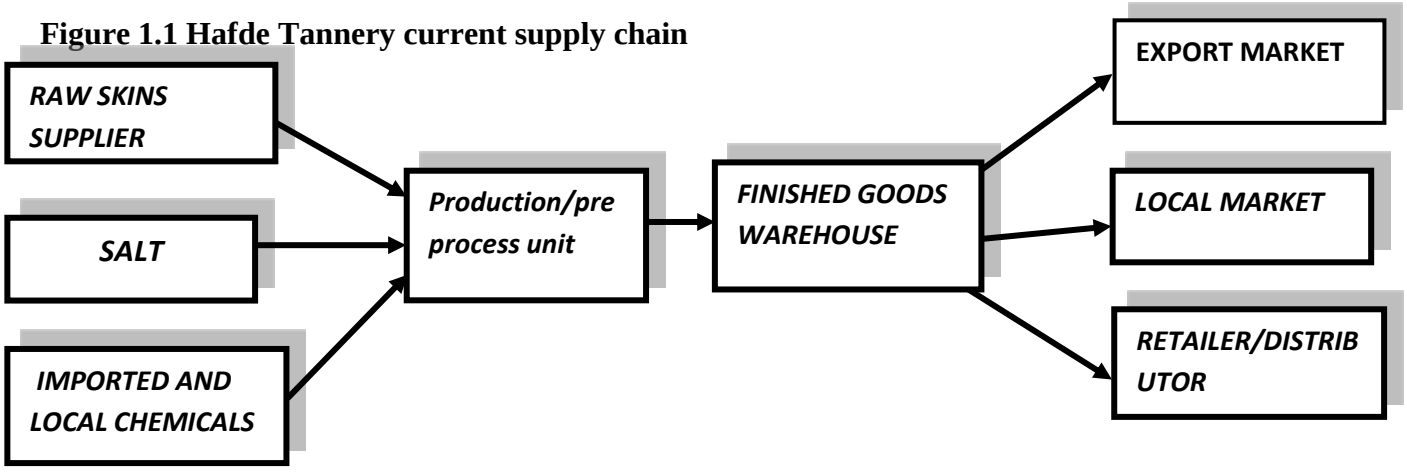
1.2.4.1. Suppliers of Hafde tannery

Among the major suppliers of Hafde 70% sources of skins and hides are from Asela, Gonder, Gojam. Halaba ,Arbaminch The remains 30% are from Addis Ababa, and Regarding to chemicals, the company use three categories of chemicals (i.e. fast moving, slow moving and Dyestuff) which is obtained from both local and foreign markets.

1.2.4.2. Customer of Hafde tannery

The total customer of the company are more than 125 companies which are categorized into large, medium and small scale customers based on their and market distributions, purchasing power, and frequency of buying. Regarding foreign markets China, the USA, Germany, Italy, Japan took the lion share (company report 2018).

Figure 1.1 Hafde Tannery current supply chain



Source: company catalogue

1.3. Statement of the Problem

The SCM is now very popular in manufacturing organizations due to the capability to obtain a competitive advantage (Gorane & Kant, 2015). The Ethiopian government and the private companies are highly interested in the leather industry due to the great prospective of the livestock size to the source in skins. According to the (FAO, 2020) world cattle inventory position 209 countries Ethiopia is the 5th biggest cattle inventory in the world and the first biggest in Africa with 54 million cattle. In addition recent CSA publication on livestock resources, Ethiopia has 53.4 million cattle, 25.5 million sheep and 22.7 million goats (CSA, 2019).

The government implemented a 150 percent tax on export semi-processed wet blue in 2008 and the same rule applies on partial processed or crust leathers on 2015 to encourage the development of its leather industry and capture a larger part of the added value of the sector. Thus, tanneries also have to make certain of the quality of skin they are considering, so as not to waste variable costs on useless skins. Furthermore, starting this condition drives them to implement price incentives to the trader to assure a good quality percentage (ELIA, 2018).Beside, the quality of this supply is limited by structural and organizational problems related to the skins' complex marketing channels.

The chain of leather manufacturing starts from animal husbandry then through passing different stages finally manufacturing finished leather products and supplying to consumers having these process stage the Ethiopian leather industry supply chain is affected by a lot of problems with regard to its SCM practices. Hence, these industries need to construct an efficient supply chain from the supplier to the manufacturer and through the distributor and retailer to the end customers.

Although, much attention has been given to SCM, the literature has not been able to offer much in the way of guidance to aid SCM practice that applies to all situations (Cigolini et al., 2004). This is due to the origins of the various sectors of SCM, the confusion of ideas, the emergence of the concept of SCM, and the diversity of the environment in which organizations that use the

concept of supply chain management. There is considerable evidence that the cultural, social and economic conditions of each country influence the interaction between the performance and practices of SCM (Harland, 1997; Mentzer et al., 2001, and Kaufmann & Carter, 2006).

However, the relationship between SCM and performance cannot be considered complete (cousins et al., 2006). Despite the increase in empirical research over the past few years, significant differences in research design undermine comparisons: lack of consensus on the meaning and magnitude of SCM practice (s), use of various analytical units, and various methods of measuring performance.

There are several studies conducted on various manufacturing industries in Ethiopia regarding supply chain management practices but there was very limited research had done on leather industries particularly on tanneries. As far as the knowledge of the researcher is concerned, there is no empirical study that had conducted in the area of Supply chain management practices on operational and organizational performances which incorporates the down streams of leather processing firms particularly on HAFDE Tannery. The researcher collects the data from a larger population by including the downstream members (customers) besides the employees of the tannery as compared to Mustafa's (2014) study.

This study attempted to analyze the impact of supply chain management practices on the operational and organization performance aimed at bridging this gap and seeking answers to research questions.

1.4. Objective of the study

1.4.1. General objective

The general objective of this research is to analyze the underlying dimensions of supply chain management practices and to empirically evaluate the framework identifying the relationships among SCM practices, operational performance and Organizational performance with special emphasis on the case company.

1.4.2. Specific Objectives

1. To evaluate the relation between supply chain management practices and operational performance.
2. To analyze the relationship between supply chain management practice and organizational performance.
3. To evaluate the relationship between operational performance and organizational performance.
4. To evaluate the mediating role of operational performance between SCM practice and organizational performance.

1.5. Research questions

The purpose of this study was to examine the impact of SCM practice on operational and organizational performance in the case of Hafde tannery plc. Therefore, the following research questioner will be answered by the study:

1. Do the SCM practices have a significant relationship with operational performance in case company?
2. Do the SCM practices have a significant relationship with organizational performance in the case company?
3. Does the operational performance have a significant relationship with organizational performance in the case company
4. Does operational performance have mediating role between SCM practice and organizational performance of the firm?

1.6. Significance of the Study

The ultimate goal of any business establishment is to remain in business profitability through the production and sale of products or services. Without optimal profit, a business/firm cannot survive. One of the core activities in a business company is having a well-developed supply chain management practice. The ultimate success or failure of a company depends on its supply chain management system. The study is, investigating the practices of supply chain management and organizational performance in this complex and dynamic business world is believed to have

the following importance to the academicians, researchers, corporate managers, policymakers, and generally for business practitioners, and specifically for the case company. Specifically, this study has the following main significances:-helps to better understand the processes of SCM practices concerning the company under consideration, Help to identify bottlenecks, waste, problems, and improvement opportunities in the supply chain process of the company:- helps to identify which SCM practice (s) is more contributing for the success of the operational and organizational performance of the company. Furthermore, it serve as a guideline to facilitate more open and transparent communication and cooperation among supply chain partners of the company, Contribute to narrow the gap in the literature on the generalization of the relationship between SCM practices and performance and Help future researchers.

1.7. Scope of the Study

It is difficult and unmanageable to conduct the study in all areas that summarizes SCM in terms of time, finance, and research manageability. Therefore, the scope of this research is delimited to SCM practice operational and organizational performance of one leather tanning industry (Hafde Tannery). The dimension of the study delimited to strategic suppliers, customer relationship, level and quality of information sharing, and internal lean practice. In terms of OP, the study delimited to price, quality, delivery and time to market the company's performance, the study is delimited to organizations' performance the market share, return on investment (ROI), the growth of the market and sales, the growth of ROI, and the profit margin on sales, overall competitive position). The area of the study is also limited to the case company and the down streams (customer) of the supply chain.

1.8. Limitations of the Study

It is tough to cover the entire domain of SCM just in one study .The researcher sample doesn't incorporate all the participants of the chain member namely: the suppliers due to time constrained so that it can't be generalized to the complete chain of the company under investigation. On the other hand constructs of SCM are not only limited to SCM practices selected in this study .Therefore, it is not representing all constructs that can explain SCM practice. However, regardless of the limitation the researcher alleviate the problem through various mechanisms such as outsourcing for data collector, referring the annual report magazine,

brasher and visit website of the office to get current information about customer's intention to the total SCM practice along with operational and organizational performance.

1.9. Definition of Terms

Supply chain: is a network between a company and its suppliers to produce and distribute a specific product to the final buyer

Supply Chain Management: is the the movement of goods and services and includes all processes that transform raw materials into final products.

Strategic supplier partnership: is defined as a **planned** alliance of two or more firms in a supply chain to facilitate joint effort and collaboration in one or more core value creating activities.

Customer relationship: The growth of continuing associating between a company and its customers

Level of information sharing: The way of critical and proprietary information is communicated to one's supply chain partner.

Quality of information sharing: Denotes to the accuracy, timeliness, adequacy, and credibility of information exchanged.

Operational performance: refers to the ability of a company in reducing management costs, order-time, lead-time, improving the effectiveness of using resources.

Organizational Performance: it refers to how well an organization meets its financial goals and market criteria.

Internal lean practice: - The lean manufacturing process is a method for creating a more effective business by eliminating wasteful practices and improving efficiency.

The case company: -Hafde Tannery

1.10. Organization of the Study

This study is organized into five chapters: Chapter one deals with the introduction part consisting of the background of the study, the background of the company, statement of the problem, research questions, research objectives, significance of the study, the scope of the study, limitation of the study and definition of terms. The second chapter discusses the review of related literature about the subject matter, in chapter three research methodologies were presented chapter four contains data analysis interpretation and discussions of the result. Finally, chapter five presents the summary of major findings, conclusions and recommendations

CHAPTER TWO

REVIEW OF RELATED LITERATURES

This chapter focuses on the literature review to be conducted by the researcher. Among the areas to be reviewed are: supply chain; supply chain management, SCM practices variables, operational performance variables and organizational performance. The chapter will also provide the empirical studies and a conceptual framework to show the relationship between the dependent and independent variables.

2.1. Theoretical Literature Review

Resource-based View (RBV) and its extension relational view (RV) is one of the relevant theoretical supports for the relation between SCM practices and firm performance. The original approach of RBV focus on organizations converts resources into valuable outcomes that meet their set mission and goals (Barney, 2012). Resources comprise competencies, capabilities, physical assets, etc., and firms are viewed as entailing a bundle of resources.

The study accumulated by Chopra, et al. (2013) advocated that, a complete supply chain system is essential for the manufacturing and resource-oriented firms because it can be considered as the driving source for the profitability and productivity of the organization. Das and Teng (2000) noted that the competitive advantage of the firm is mainly based on the formation of the alliance as well as the development of buyer-supplier relationships; this is due to the creation of value by pooling together the resources of both partners. This gave the rise to the relational view. Furthermore, buyer-supplier relationships enable the acquisition of valuable and rare resources, which might also include knowledge that supports the management of incoming and outgoing materials (Rungtusanatham, Salvador, Forza, & Choi, 2003).

These supply chain relations between buyers and suppliers themselves can be regarded as a resource since they exclude competitors from forming the same connections and hence provide a

competitive benefit to the firm in form of enhanced operational performance. Studies conducted by Barney (2012) have been specified that excessive wastage is one of the major issues during the production process that often increases the cost of the production result in poor management of the supply chain. It can be generally assumed that manufacturing firms can implement the supply chain management practice for improving the competitive advantage successfully, and this would help the company in enhancing the customer with increasing in the market share and the relation and impact of SCM in performance can be better understood if we interpret its practices using the relational view.

Generally, the relation and impact of SCM in performance can be better understood if we interpret its practices using the relational view a supply chain is essential to manage the consumer demand by ensuring that the product is always available in the market for customers and available in the location where it is required Information sharing and quality of information. Long-term relationships with suppliers and customers can help to reduce transaction costs through the development of trust and reputation (Li, *et al.*, 2006). The quality and level of Information plan directly into accurate and appropriate knowledge exchange. On the other hand, an internal lean practice can reduce waste and contribute to lower transaction costs (Moslem, et al., 2013). Therefore, the researcher conducts a study based on the above theory.

2.1.1. Definition and Concepts of Supply Chain Management

SCM defines the relationship between a company from an early chain till the final results of the production (Lee and Nam, 2016). It is a business strategy with an integrated approach starting from planning's material controls, logistics, services, and a flow of information from suppliers to producers or the service providers to the final clients. That is the most important change in the practice of business management (Al-Shboul, et al., 2017). It includes a number of ways and means to integrate suppliers, manufacturers, distributors, and customers effectively to maximize the long-term performance of each company (Tarigan, et al., 2018).

Supply chain management defined by the global supply chain forum (GSCF). "It is the integration of key business processes from end-user through original suppliers that provide a product, service, and information that add value for the customers and other stakeholders" (GSCF cited by, Mohammed, 2017).

Therefore, the complexity of the chain may vary from industry to industry or even company to company. Hence, within these activities, there are different Actors and technologies employed and each company now focuses on its core competencies and partners with other companies that have complementary capabilities for the design and delivery of products to market .and improvement in their core competencies to keep up with the fast pace of the market and technological change in today's economy.

Besides, it also defines by The Council of Supply Chain Management Professionals (CSCMP) (2004) formerly the Council of Logistics Management (CLM) a leading professional organization promoting SCM Practice, education, and development defines SCM as the systemic, strategic coordination of the traditional business functions and tactics across these businesses functions within a particular organization and across businesses within the supply chain to improve the long-term performance of the individual organizations and the supply chain as a whole. (CSCMP cited by, Mohammed, 2017).

Christopher (2017) defines supply chain management is the management of relation-ships across complex networks of companies that, whilst legally independent, also in reality interdependent. Similarly, successful supply chains are governed by a constant search for win-win solutions based on mutuality trust. Moreover, it is the one that will has dominant role in the future as supply chain competition becomes the norm.

Tan (2001) noted that in the 1950s and 1960s, the concept of SCM was unheard of, and during this period, new product development was slow and relied only on the product's own technology and capabilities. The evolution of supply chain by David (2011) defines that it was not until the late 1960s, when cost pressures and the availability of computerized information tools enabled forward-looking companies to start the process of revamping the nature and function of channel management that the strategic opportunities afforded by logistics began to emerge. The field of Supply Chain Management by Russel and Taylor (2008) found that it was born to manage the flow of information, products, and service across a network of customers, enterprises, and supply chain partners.

Therefore, based on the above literatures the evolution and role of supply chain management will increase in the coming years due to further globalization, customer orientation, and progressions in information technology.

The supply chain management, as being described by Niemann, et al.(2016) is the movement of goods from one place to another through different activities and processes. Meanwhile, Bozarth and Handfield (2008) summarize Supply Chain Management is the active management of supply chain activities and relationships to maximize customer value and achieve sustainable competitive advantage.

Furthermore, the integration of supply chain defines by Donald (2003) as it integrated by having various parties enter into and carry out long term mutually beneficial agreements. Organizations can pursue three primary methods when attempting to integrate their SC: which is Vertical integration: one organization owns multiple participants in the supply chain. Formal contracts (franchising): attempts to combine the benefits of tight integration of some functions along with the ability to be very flexible while performing other functions. Informal agreements – various organizations band together for common goals and objectives, with one organization exerting the greatest degree of control over the entire supply chain.Wisner, Tanand, and Leong (2012) also added that Supply chain management is the integration of trading partners' key business processes from initial raw material extraction to the final or end customer, including all intermediate processing, transportation, and storage activities and final sale to the end product customer.

The integration of the effectiveness and supply chain management is argued by Vladimir (2018) on his blog, point out two things that a supply chain needs to be effective. It should be able to deliver results on time and it should be cost-effective. Moreover, Michael (2018) also argued that the goal of supply chain management is to increase sales of goods and services to the final end use customer while at the same time reducing both inventory and operating expenses. In addition the author noted that to succeed in the competitive markets that make up today's economy; companies must learn to align their supply chains with the demands of the markets they serve. Supply chain performance is now a diverse competitive advantage for businesses that excel in this area**.**

However, the concept of supply chain management has been considered from different points of view in different bodies of literature, such as purchasing and supply chain management, logistics and transportation, operations management, marketing, organizational theory, and management information system (MIS) (Croom,et al.,2000).

Generally, from the aforementioned concepts used in the research assumes that firms set up the market partners (upstream parties, the downstream parties) to improve its competitive advantage exposed by greater operational and organizational performance of the chain members. Regarding the definition of SCM, the researcher conceptualizes the integration of all organizations is involved and that the internal work of the organization itself is central to the supply chain. Moreover, companies can cut excess costs and deliver products to the customer faster that improves the short-term and long-term performance of each organization and supply chain as a whole.

2.1.2. Drivers of Supply Chain Development and main initiatives

In today's global economy, companies face increasing pressure to reduce costs while maintaining production and quality levels to deliver results to customers. the basics drivers for SC development as ever-increasing customer demand in terms of product and service cost, quality, delivery, technology, and cycle time brought by global competition (Hadfield 2002).Meanwhile Makweba and Xu, (2009) summed up many definition by different authors and researcher as companies all over the world are pursuing the supply chain as the latest methodology to reduce costs.

Therefore, to achieve these goals, companies successfully overcome several challenges and problems, And the consequence of this development is that companies are putting more and more effort into developing new ways to increase competitiveness on the market with a high degree of collaboration on a different level of processes involved in delivering the product to the customer as with use of information technology in terms of more efficient and effective supply chain management.

To better comprehend the influence of SCM based manufacturing practices on the supply chain practice, and the effect of supply chain practices and operational performance on organizational

performance, supply chain management practice identified by a complete review of the literature. A research framework will then be developed that demonstrates the causal relationship between these constructive factors.

2.1.3. Supply chain management practices

SCM practices refer to a set of complete activities done inside an organization to increase effectiveness in an internal supply chain. Modern evaluations from the supply chain management practices containing of partnerships with suppliers, outsourcing process, cycle time compression, process flows continuity or technology or information using quality purchasing and relationships between customers are defined as a set of activities done by organization to promote an effective supply chain management(Tarigan, et al. 2020). Similarly the author also added that Supply-based management refers to how companies make use of supplying process, technologies, and their ability to enhance supply chain performance and its competitive advantage.

SCM in practice involves the companies involved in planning and consolidating their supply chain, including the interaction between operations within and across the company (Mentzer, 2001). Through the purchase of quality and relationships Li, et al (2006) defined practices of SCM are a set of functions performed in an organization to promote the effective management of its chain.

SCM practices are also mentioned as an approach that is practical in successively integration and supply demand organization and the relation to satisfy customers in effective and profitable ways (Gandhi et al. 2017).

SCM practices are implemented to achieve and enhance performance through the supply chain, which requires an internal cross-functional integration within the firm and external integration with suppliers and customers to be successful (Kannnan and Tan, 2010).

LI, et al. (2006) have identified five dimensions of strategic supplier partnership, customer relationship, level and quality of information sharing, and postponement. Besides, other researcher adopts the same instrument in this study. Koh, et al., (2007), considers customers' relation, strategic partnership with suppliers, just—in time, benchmarking, e-procurement, and

outsourcing as a key practice. Tan, et al. (1998) proposed purchasing, quality, and customer relations are supply chain practices for their factors analysis study.

Chen and Paulraj (2004) investigated long-term relationships, supplier base reduction, cross-functional teams, and supplier involvement as a supply chain management practice in their study. The same with Chen and Paulraj, Meen and Mentzer (2004), their study examined supply chain leadership under long-term relationships, integration of the cooperation process, information sharing, and supply chain leadership underlying the supply chain management practices.

Thus, the literature reveals SCM practices from a variety of authors and different perspectives with a common goal of ultimately improving organizational performance. In reviewing and Combining the literature, the SCM practice construct used in this research amalgamates the following five components of supply chain management practices, which are common for most researchers, concerning supply chain performances.

The five constructions cover upstream and downstream chain side, information flow to supply chain, and internal lean practice which are having a fundamental emphasis regarding the company objective. Although the above measures take into account the major aspects of dimensions of supply chain management practices, they cannot be considered complete other factors such as geography proximity, cooperation process integration, managing service delivery. Postponement, etc. Hence, this study proposes supply chain management practices as a multidimensional concept.

2.1.3.1. Strategic Supplier partnership

The main objective of strategic supplier's integration with suppliers is increasing the functional capability desired supplier (Rosenzweig, 2003). Christopher (2017) summarizes the size of the supplier base can add to supply chain complexity by increasing the number of relationships that must be managed as well as increasing total transaction costs..

Arawati and Zafaran(2008) also consider an effective supplier partnership as a critical component of leading-edge supply chains .Furthermore, Hashim and Yao (2014) added that supplier integration has a substantial impact on manufacturing operations like production costs, timely delivery, product quality and also strongly affects the organizational profitability or

operational capabilities. It is designed to raise the strategic, tactical and operational capabilities of individual supply chain members.

Li, et al. (2006) pointed out by involving strategic suppliers extensively in SCM organizations could gain faster product development cycles, lower manufacturing costs, and higher finished product quality. Christopher (2017) also noted a level of dependence on just a few critical suppliers can be dangerous. Instead, a better option if available is to have a lead supplier across a category of products who takes responsibility for the management of that category across several suppliers. Typically, such programs involve the company working closely with individual suppliers to identify opportunities to improve not just product quality but also process quality and to work jointly on cost-reduction initiatives.

In general, Strategic supplier partnerships usually occur and a few major suppliers who are committed to contributing to product success and services and strategically aligned. Organizations can work closely together to eliminate uneconomical time and effort.

2.1.3.2. Customer Relationship

Li, et al. (2006 p110) define customer relationship as "*the entire array of practices that are employed to manage customer complaints, building long-term relationships with customers, and improving customer satisfaction*". The central customer relation objectives are identifying new business opportunities; reduce missed opportunities, reducing customer defection, creating customer loyalty (Niknia, 2007). Tan, et al, (2002) consider customer relationship management as an integral part of SCM actions. Day (2000) also noted that committed relationships are the strongest because of their competitive barriers.

Good relationships with supply chain members according to Moberg, et al. (2002) studies noted that, customers are needed for the successful implementation of SCM programs. Agus (2011) argues that the growth of personalized customization and customized service leads to a time when customer relationship management has become increasingly important for corporate survival. Truong,et al.(2017) noted that companies use information gathered from customers to create quality products and services.

Soltani, et al.(2018) explained customer relation practice will positively impact business performance. With an effort done by the company to maintain a relationship with the customers, the company will also be able to understand customers' needs and demands. The good relationship between them will also make it easier for the company to carefully understand the working mechanisms from customers so that customers will feel that the company is a reliable working partner.

Therefore, good and close customer relationships with the customer will lead the organization to a successful implementation of supply chain management programs that allows the company to differentiate its products from competitors and that will also sustain customer loyalty with a comprehensive value. For this research purpose, customer relationships were considered in review and practicability in Ethiopia as a way to build long-term customer relationships by building customer loyalty, improving customer service, and working to improve customer satisfaction.

2.1.3.3. Level of Information Sharing

Level of information is critical and proprietary information about a supply chain partner for information communication. It is defined by Li, *et al.* (2006 p.111) by "the degree to which sensitive and proprietary information is passed on to our trade partners". Min and Mentzer (2004) state that shared information can vary from strategic to tactical and from information about logistics to customer and general market information in nature. In addition to this, Alireza, et al. (2011) describe information sharing across the supply chain can be well provided through integration and coordination.

Zhou, et al. (2014) show that in order to achieve overall overall business performance, payers need to align supply chain practice with their level of information quality. Failures can occur in case of information shortage, distortion, and delay across the supply chain (Power, 2005). Stein and Sweet (1998) noted that for a better supply chain partner a regularly exchanging of information will able to work as a single entity furthermore, they can make a quick response to market changes. Increasing attention to information integration prompts the increase of the establishment of strategic supply chain partners (Zhou and Benton, 2007).Similarly, the

effective use of relevant and timely information on all functional items in the supply list is considered competitive features (Ahmadi, 2005).

In this study, sharing information with chain members is considered to be a standard for sharing information legally or informally with trading partners. Moreover, it is associated with the amount of information shared among supply chain partners in the downstream and upstream side of the supply chain.

2.1.3.4. Level of information Quality

Today's supply chains end with the exchange of information between all entities and levels including a complete end-to-end network. The data volume flowing in all directions is plentiful and not always accurate and may be prone to misinterpretation. The visibility of the actual demand and supply situation can be obscured by the way information is filtered and modified as it moves from one entity or level to another Christopher (2017).

Quality information sharing is a vital practice of supply chain management, and its impact on supply chain management depending on what information is shared, when and how, and with whom (Holmberg 2000). It includes aspects such as timeliness, accuracy, adequacy, and credibility of information exchanged (Li, et al., 2006). Besides, Li and Lin (2006) also noted ensuring the quality of shared information plays a key role in achieving effective supply chain management, and organizations should ensure that it flows with minimum delay and distortion.

Zailani and Rajagopal (2006) confirmed that better supply chain performance is achieved when the quality of information is maintained. Based on, Li et al. (2006) considering the importance given to the quality of information sharing in the academic literature about its impact on SCM.

Therefore, for this study, information quality is conceptualized as accuracy, adequacy, timeliness, information exchange reliability, and completeness.

2.1.3.5. Internal Lean Practice

Another supply chain management practice is the use of internal lean practice. Belfanti (2019) noted these practices mean to eliminate the waste like cost, time, or any other useless activity in the production process, characterized by reduced set-up times, small lot sizes, and pull-

production. Besides, Wijetunge (2017) consider internal Lean practice is referred to as a process of eliminating waste time as well as resources in the production process, Also noted that the internal lean practice rely has a positive effect on the functioning of the organization.

In other way, James and Jones (2003) argued that internal lean practices as lean production associated with the continuous pursuit of improving the process, and philosophy of eliminating all non-value-adding activities to enhancing the operation and organizational performance by reducing waste within an organization. The authors argue that a lean way of thinking allows companies to specify the value, line up value-creating actions in the best sequence, conduct these activities without interruption.

Mothersell, et al. (2008) noted that the change to lean also identifies and discusses culture and people systems in harmony with lean and parallel organizational structures. Besides, the lean practice has a positive influence on the operation (Maalouf, 2018). To conclude on the context of lean in the manufacturing discipline James and Jones (2003) are putting the entire value stream for specific products relentlessly in the foreground and rethinking every aspect of jobs, careers, functions, and firms in order to correctly specify a value and make it flow continuously along the whole length of the stream as pulled by the customer in pursuit of perfection.

Therefore, the above studies suggest that lean principles and practices enable the process of removing all the wasted time and money spent on the production process. For this study in considering this dimension as part of the supply chain management practices developed through the internal lean management practices and to understand continuous improvement, waste elimination regarding set up time and just in time. .

2.1.4. Operational performance

Operation is parts of an organization process which are used in the transformation of input resources into outputs of goods and services (Brandon,slack, Johnson,2016). Christopher (2017) showed that it is a source of competitive profit as an organization can distinguish itself from its competitors in the eyes of consumers by operating at low cost and thus being highly profitable.. Furthermore, Azim, Ahmed, khan (2015) defines operational performance as a measurable aspect of the outcomes of an organization's process. According to Mohammed, et al.(2019) It

works through processes and measures the performance of the company's internal performance in terms of cost, customer delivery, delivery, quality, flexibility, and quality of product / service process.

The measurement of operation performance noted by Chauk, Edoum, Mbohwa (2019) is the efficiency and effectiveness of the products and services, and it is realized through the ability to timely deliver products and services according to customer expectations. These firms can provide high quality and low prices, comprehensive services, customer satisfaction, and/or services in the most reasonable time. Improving these capabilities can enable firms to improve their performance, as such advantages can help firms to gain more market shares and increase sales (Ilgin & Gupta, 2010).

According to Heizer, et al.(2008) competitive advantage refers to the ability of a company in reducing management costs, order-time, lead-time, improving the effectiveness of using raw material and distribution capacity. Besides, Priscila and Luiz (2011) describe the competitive priorities can also be thought as a way to conceptualize and measure operational performance, competitive advantages as cost, quality, delivery, and time can be a useful measurement tool that allows for comparison, completeness, and doctrinal support. And Li et al. (2006) these four dimensions of competitive advantage construct are also used for operational performance.

Therefore, organizations can increase their competitive advantages and can bring superior performance. Many theoretical pieces of literatures were consistent in determining value / cost; quality, delivery, and flexibility as an important competitive advantage. Besides, current study has included time-based competition as an important. Hence, for this study the researcher uses price, quality, delivery, and time to market as competitive advantage scales to measure operation performance.

2.1.4.1. Price/cost

Price / cost is one of the elements of a competitive advantage. Firms can be competitive when they lower their products' prices and production costs. Changing costs and prices is one of the main factors of competitiveness (Dupeyras and Maccallum, 2013). The operational definition of price is an organization is capable of competing against major competitors based on the low price (Bratić, 2011). In addition, Sachitra (2016) defined price as the capability of a firm to contest against key competitors at low cost / price.

Companies have two options in this regard. They can increase customers' value with the same cost or provide the same level of value at a lower cost (Wu, 2013). It was suggested by Urbancova (2013) that innovation can lead to less costly and better quality products which will improve a firm's competitiveness. It is argued that firms cannot achieve a competitive advantage if they charge the market price and that the value for the customer has to be mirrored in the price (McWilliams and Siegel, 2011). Therefore, a lower-cost strategy where firms can operate more efficiently and effectively than their competitors will be reflected in the prices of goods. On the other hand, the differentiation strategy may lead to a premium price.

It has been indicated that lower product price is one of the most important factors of competitive advantage; however, it provides a short-term advantage (Sipa,et al., 2015). Therefore, it is noted that price is one component of operational performance which is the source it enables an organization to create a state of defense against competitors.

2.1.1.2.Quality

Li et al.(2006) describe quality as one of the measures of operational performance which contribute to competitive capabilities and value to –the customer. Customers are concerned about product quality which is a key factor for improving company competitive advantage (Dupeyras and Maccallum, 2013).

Bratic (2011) has identified quality "*as an organization capable of providing product quality and performance that creates a high number of customers*." Product quality is a driver of competitive advantage (Sachitra, 2016).

Therefore, increased competitiveness has encouraged firms to focus on quality and they must consider all aspects of the supply chain, and firms have to look at product quality as a factor for satisfying customers and remaining competitive.

2.1.4.2. Delivery

Li *et al.*(2006) defines delivery dependability as one dimension of the competitive advantage which in long contributes for organizational improvement. This validate as there is a relationship between delivery dependability and organizational performance. A firm needs to be capable of

delivering its product to customer's on-time as described by Bratic (2011), "an organization is capable of providing on time the type and volume of products required by consumers". Furthermore, Sachitra (2016) suggested that delivery dependability is "the ability of a firm to provide on-time the type and volume of product requested by customers".

The delivery of products has to meet customers' demands and needs. Firms should guarantee that their products are also available on time. A study by Awad et al. (2013) Competitive advantage of reported delivery is positively correlated with fabrication. Delivery and availability are some of the reasons to buy products (Aga et al., 2011). The speed of delivering service and response to customer demand is one of the dimensions of being competitive among competitors (Diab, 2014).

Therefore, prior studies agreed that delivery is one of the most important indicators that can positively affect the competitive advantage of a firm.

2.1.4.3. Time to market

Is the extent to which an organization is capable of introducing new products faster than major competitors (Li, et al., 2006 and Bratic, 2011). In addition, it was stated by Sachitra (2016) that time to market is "the ability of firm to introduce new products faster than major competitors". Therefore, time to market is a strong indicator of competitive advantage and time-based competition as an important competitive priority which its source is operational performance customers' needs have to be satisfied to maintain and improve a firm's competitive position. Thus, firms that can launch new products for customers faster than their competitors will gain a better position and create a competitive advantage.

2.1.5. Organizational Performance

Organizational performance is a composite construction that indicates the business performance of a company. Specifically, it refers to how well a firm fulfills its financial and market goals (Li, *et al.*, 2006). Organizations have two main types of short-term and long-term goals. Short-term goals refer to an increase in production performance, while long-term objectives are to increase profits, penetrating new markets, increasing quality, and increase market share for all

units of the SC (Tan, *et al*., 1998). All the initiatives are taken by the organizations including supply chain management ultimately lead to improving the organizational performance.

Therefore, it is important to study the impact that supply chain management practices have on organizational economic performance. A review of the literature on business and organizational performance can be evaluated by comparing it with the company's short-term and long-term objectives. Moreover, suggests different opinions regarding the performance of the company.
Chen and Paulraj (2004) argued financial performance have to be the main concept of company performance because the primary goal of an organization is to make profit for the shareholders. Thus, it is of paramount importance to examine the impact that SCM practices have on the financial performance of manufacturing companies. However, financial performance measures and especially profitability are the main reason for the existence of a manufacturing firm and its connection with the supply chain, non-financial measures are also important to determine the SCP.
A significant number of scholars have measured organizational performance using both financial and market criteria, including return on investment (ROI), market share, profit margin, ROI growth, sales growth, market share growth, and the overall competitive environment (Vickery, et al., 2010; Zhang, 2010; Stock, et al., 2000). In line with the above literature, the present study is adopted the same instruments for measuring organizational performance.

2.2. Empirical review of study

Certain previous researchers have devoted a deal of attention to the relationship of supply chain management practices and certain aspects of organizational performance from different perspectives/dimensions of the overall supply chain. Some of these researches findings are discussed as follows.

On a research topic SCM measurement and its effect on operational Performance conducted by Priscila and Luiz (2011) with considering the dimensions (information sharing, long term relations, cooperation, and process integration) as independent variable influences operational performance in case of Brazilian companies. The finding explains a positive impact of SCM measurement on operation performance.

The impact of supply chain management practice on competitive advantage and organizational performance researched by Li, et al. (2006) conduct a study by collecting data from 190 organizations with developing five dimensions of SCM practices and the research tests the relationships between SCM practice competitive advantage and organizational performance the finding indicates it have a direct and positive impact on organizational performance, from the five dimensions developed postponement has insignificant effects .

Mustefa (2014) also conducted study on supply chain management practices and firm performance in case of Awash tannery. The data collected from employees of Awash tannery and it conceptualized and develops by focusing the relationship among SCM practices, operational and organizational performance. Based on the review there is a strong relationship between SCM practice variables on operational and organizational performance.

The effect of service supply chain management practices on the public health care organizational performance in Malaysia conducted by Yap and Tan (2012) uses a total of five dimensions of service supply chain management practice was used to study the effect of supply chain management on organization performance. Based on these information and technology management demand management, customer relationship management, supplier relationship management capacity and resource management were found to have a significant and positive direct relationship with organizational performance. In addition to this, alliance network was found to have the mediating effect on the direct relationship.

Mvilu (2013) also conducted a study on supply chain management practices and performance in public research institutes in Kenya. By developing seven dimensions of SCM practices the research mentioned that three variables namely logistics, lean suppliers and information technology were found to have strong statistically significant relationships with performance. The other three variables namely green supply chain practices, long term supplier relationships, and outsourcing were found to have week relationships which were not statistically significant.

Meseret (2016) conducts research on the ideas of Supply Chain Management Practice and Its Links and Ago-processing Industry activities in The Case of National Tobacco Enterprise (Ethiopia) SC and it shows the relationship between SCM practice and supply chain management

operational and organizational performance was tested, and the findings on the study show there is a positive relationship between the variables.

Banchiyrgu (2017) also conduct a study assessment on the impact of supply chain management on organizational performance of the case horizon Addis tire s.c. According to the data collected from employees of Horizon Addis Company and the research conceptualized and all dimensions have a positive statistically significant relationship with organizational performance and the result of the research indicates organization performance has a positive relationship with SCM.

In General, as we have seen from the above literature to assess the impact of supply chain management on organization performers there is no single measurement (dimension). Although there has been an increase in empirical research over the past few years, significant differences in research design reduce the lack of consensus about the definition and dimension of SCM construction.

2.3. Research hypothesis

2.3.1. Supply Chain Management Practice and Operational Performance

Other studies indicated SCM practices have an impact not only on overall organizational performance but also on the competitive advantage of an organization. They are expected to improve through an organization's competitive advantage dimensions (Moslem, et al.2013). For instance, the strategic supplier partnership can improve supplier performance, reduce time to market, and increase the level of customer satisfaction (Power, 2005). In light of these issues it is thought that:

Hypothesis 1: There is a positive relationship between SCM practices and operational performance.

2.3.2. Supply chain operational performance and organizational performance

An organization having a short time-to-market and rapid product innovation can be the first in the market (Li, *et al.,* 2006). Therefore, In light of these issues it is thought that:

Hypothesis 2: There is a positive relationship between operational performance and organizational Performance.

2.3.3. Supply chain management practice and organizational performance

A single supply chain management practice will have a certain impact on organizational performance. On the other hand, since it is placed in a system that many other practices are conducted simultaneously, the practice itself will interact with other ones (i.e. affect/be affected). As a result, the efficiency of the affected practice is increased and it is expected to maximize the impact of supply chain management practices on operation performance (Binh, et al. 2019). In light of these issues it is thought that:

Hypothesis 3: There is a positive relationship between SCM practices and organizational performance.

2.3.4. The mediating role of operation performance on relation of SCM practice and organizational performance

A study by Cao and Zhang (2011) initiate supply chain enhances the partnership between the company and its supplier which creates the corporate profitability of the company that helps the organization improve its performance.

Hypothesis 4: Operation performance has mediated the relationship between SCM practice and organizational performance of the firm.

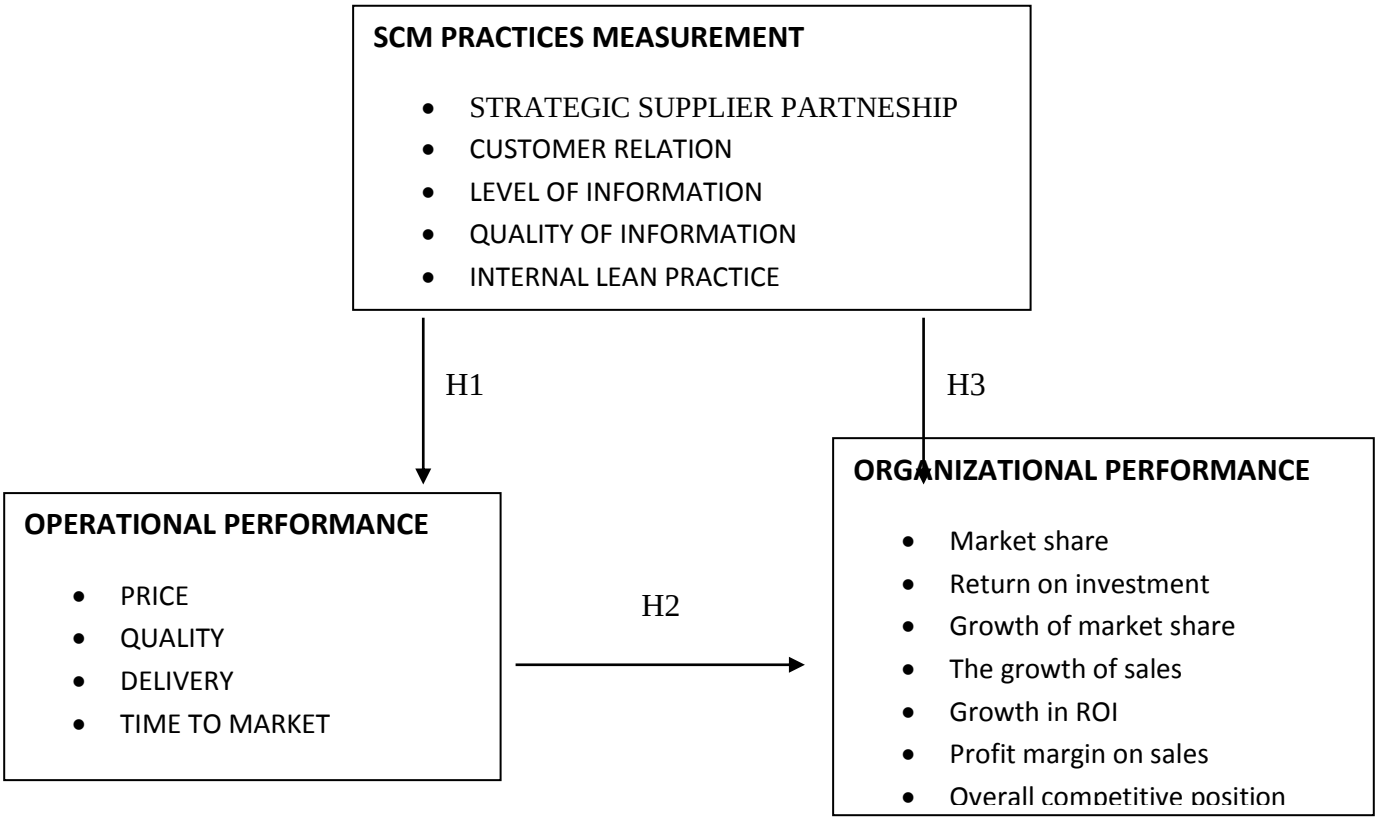
2.4. Summary of literature review

From the literature review it is clear that scholars have different views on the supply chain management practices that are the key to operational and organizational performance. However, they seem to agree on the main practices which are customer relationship, strategic supplier relationship, quality of information sharing, level of information and internal Lean practice. It is an indication that different organization ranks these practices differently where by one supply chain management practice can be widely adopted by an organization but minimally adopted or even not at all used by another organization.

2.5. Conceptual Framework

The various elements discussed under this heading include supply chain management (Strategic supplier integration, Customer relationship, Level and quality of information sharing, and internal lean practice), operational performance, and organizational performance. Based on the review, the work of Li, et al. (2006), Priscila and Luiz (2011), and Moslem, et al. (2013) regarding conceptual framework in which this specific study was developed as follows:

Figure 2.1: Conceptual framework for the study



Source: Adapted from Li, et al. (2006) and Priscila and Luiz (2011).

CHAPTER THREE

RESEARCH METHODOLOGY

3. Introduction

This part describes the methodologies that were used in this study it includes a description of the Study area and data analysis techniques along with an appropriate justification associated with each approach.

3.1. Research Approach

The three approach that were commonly implemented in a researches are quantitative, qualitative and mixed, where one of them is not better than the others, all of this depends on how the researcher want to do a research of study(Creswell, 2014). He asserted that, quantitative research is a type of academic study in which the researcher decides what to study, asks specific, small questions, and collects numerical (numbered) data from participants analyzing these numbers using statics, and conduct investigations in an unbiased, objective manner. Variables can be defined as attributes or characteristics of individuals, groups, or sub-groups of individual's.

Qualitative research is a way of assessing and understanding what people or groups have to say about a social or personal problem (Creswell, 2014).He also defines mixed methods research as an approach to examining both parameters and qualitative data, integrating two forms of data, and using specific designs, which may include assumptions and theoretical frameworks. Therefore, in terms of approach, this research employed quantitative and qualitative approaches while conducting the study.

3.2. Research Design

Even though, supply chain management is necessary for manufacturing and service companies, this study is designed to demonstrate supply chain management practice on operational and

organizational performance on the leather processing company particularly Hafde tannery. Therefore, the researcher preferred to use descriptive and inferential research type, and he selected the sample from the target population by using probability sampling particularly stratified sampling technique.

The researcher used the cross-sectional field survey design to assess the relationship between SCM practices, operational performance and the organizational performance of Hafde Tannery.

3.3. Target Population and Sample

3.3.1. Target population

The common characteristics of the groups distinguish them from other individuals, institutions, objects, and so forth. The populations of these studies were employees who work in Hafde Tannery, who have directly or indirectly involve the company operation that relates to the supply chain, to get employees who have better knowledge about the supply chain practices of the case company. Moreover, all distributers/retailer of finished leather products for small and medium leather product manufacturers to all regional states of Ethiopia and local customers based on the relation with the case company by margin of sales and their long relation time with the case company.

3.3.2. Sampling technique

The sample can be selected in a variety of ways. Black (1960) divided the sample methods into two categories according to the type of sample unit selection. With Non-Probability Sampling and Probability Sampling techniques for the purpose of this study, the researcher used probability sampling particularly stratified sampling technique. The target populations for the study were classified into six strata based on the departments and sections in the firm which is directly related with SC of the organization and both the retailer/distributor and direct customers. After that samples are selected for each stratum according to their proportion to the total population.

Since the information required for the study the departments considered as strata, from which data were collected from: production department (Hide section, skin section), marketing, quality

control, and finance and administration, purchasing. The researcher also used purposive sampling in relation with retailer/distributor and local customers.

The total number of employees in marketing, purchasing, administrative and finance, working units are small. Hence, census instead of sampling is used in these working units. And all 33 retailers/distributors are included in this research.

3.3.3. Sample size

It is difficult to address the whole customers and not exactly known lists of customers within the case company. Therefore, these respondents were addressed as per their address because since the researcher used purposive sampling the local customers and retailers were selected because this study may not be available at the time they are in need for this research. The questionnaire was therefore distributed to the respondents. Due to time and financial limitations and the nature of the population, sample determination method developed by Carvalho (1984) was preferred to use by a researcher as a method to determine a sample size.

Table 3.1 sample size determination table

Population size	Small	Medium	Large
51-90	5	13	20
91-150	8	20	32
151-280	13	32	50
281-500	20	50	80
501-1200	32	80	125
1201-3200	50	125	200
3201-10000	80	200	315
10001-35000	125	315	500
35001-150000	200	500	800

Source; Carvalho (1984)

Table 3.2 population, Sample size, and response rate determination table of the study

SN	Types of respondent	Population size	Sample selected	Sample size of each Stratum	Sampling method	Response obtained	Response rate (%)

1	Hafde employee						
1.1	Production (hide, skin)	259	78	11	SRS	11	84.6
1.2	Marketing &sales	9	9	9	Census	9	100
1.3	Purchasing	6	6	6	Census	6	100
1.4	Administration and finance	16	16	16	Census	15	93.7
2	retailers/distributors	33	33	33	Ps	29	87.8
3	Local customers	125	34	34	PS	26	76.4
		448	176	110		96	87.2

Source: Research compilation

The total sample size selected for this research was 110. However, these 110 samples were accessed and hand delivered questionnaires was distributed to these accessed selected samples, 8 weren't accessed to collect due to annual leave and sick leave. From these 110 distributed questionnaires 102 questionnaires were filled and returned. This shows that there is a 87.2% response rate. Therefore, 87.2 % response rate is considered satisfactory to make data analysis for this study. From these 102 answered questionnaires 96 questioners were found appropriately filled and usable.

3.4. Data Sources and Types

The researcher used the primary data to better analyze the study. A general questionnaire was used to gather the required information regarding the study it was adopted from the work of Li, et al. (2006) & (Mustafa, 2014) and modified to this research perspective. In addition, from the selected sample of respondents 'data collected in questionnaires were used as primary data and text references referred to and used as secondary sources.

3.5. Data Collection Procedures

Close-ended questionnaire on a 5 point Likert scale were analyzed. With a numeric value 1 to 5 respectively. Data gathered through questionnaires were simple and clear to analyses and it allows for the tabulation of responses and quantitatively analyzes certain factors. Furthermore, it is time-efficient for both the respondents and the researcher.

There are two data sources namely, primary and secondary sources. In this study, primary and secondary data were used for questionnaires and interviews.

Questionnaires are designed in such a way that they include all the relevant sections and information to inform the respondents. The questionnaire contains various aspects related to supply chain management materials and their impact on the supply chain, operations and organizational performance of the case company.

Prior to the final distribution of the questionnaire and cover letter, it was also translated into Amharic and both Amharic and English versions were examined by practitioners working in Hafde Tannery plc. Based on their comments questionnaires that was not clear modified and rewritten.

3.6. Data Analysis

Closed-ended questionnaires were analyzed for quantitative method interpreted by using quantitative techniques, and open ended were analyzed by synthesizing the data.

3.6.1. Quantitative

The information acquired through the questions was first check for completeness. The questionnaires found appropriately filled and fit for analysis was coded and all the data entered into the statistics package social science (SPSSv23) was also analyzed using descriptive statistics and inferential statics. Closed-ended questionnaires were analyze for quantitative data by using descriptive method (mean, frequency), and inferential method (correlation, and regression analysis technique) to show the effect of independent variables on the dependent variable by using SPSS version 23 software.

3.6.2. Qualitative data analysis

The data collected by open ended were analyzed qualitatively by combining the data.

3.7. Validity and reliability

Cronbach's alpha is often used as a tool or measure of internal consistency or reliability of a given concept. It is an indication of how well a set of objects weighs the same idea.The constructs in the study should all measure the same thing, so they should be correlated with one another.

3.7.1. Validity

To complete the appropriate questions a variety of questions were included in the respondent's information. The questions were based on information collected during the review of the documents to ensure its representation. Content approval was verified accordingly in the management of the questionnaire. All the questions are still distributed in the articles by the researcher personally the questions are made in simple language to make it clear and easy to understand the clear instructions given to the subjects.

Table 3.3: Validity test

VARIABLE	**KMO**
Strategic Supplier Partnership	.826
Customer Relation	.821
Level Of Information Sharing	.774
Level Of Information Quality	.709
Internal Lean Practice	.820
Price /Cost	.831
Quality	.854
Delivery Dependability	.826
Time To Market	.871
C)Organizational Performance	.721

Source: survey SPSS version 23 (2020)

From the above table, the validity test result is ranging between 0.709 and 0.871 and all values of the variables are above 0.60. According to Brink (l993) it is said to be acceptable measure if the KMO value above 0.60 the questions designed and content validity is valid and Acceptable.

3.7.2. Reliability

Analysis of the reliability of the research was assessed by the Cronbach alpha value. It should be above 0.70 to produce a reliable scale and any scale with the value of less than this standard should be eliminated. The table shows the summery of reliability of all constructs.

Table 3.4: Alpha Cronbach value

Alpha cronbach value	Interpretation
0.91-1.00	Excellent
0.81-0.90	Good
0.71-0.80	Good and Acceptable
0.61-0.70	Acceptable
0.01-0.60	Non acceptable

Source konting et al.(2009)

Table 3.5: Reliability of SCM practice. Operational performance, organizational performance

VARIABLE	**RELIABILITY**	**No. of items**	**Result**
A)SCM PRACTICES	-		
Strategic Supplier Partnership	.733	6	Good and acceptable
Customer Relation	.739	5	Good and acceptable
Level Of Information Sharing	.754	7	Good and acceptable
Level Of Information Quality	.709	5	Good and acceptable
Internal Lean Practice	.830	3	Good
B)Operational Performance			
Price /Cost	.851	5	Good
Quality	.874	4	Good
Delivery Dependebility	.825	5	Good
Time To Market	.881	4	Good
C)ORGANIZATIONAL PERFORMANCE	.721	7	Good and accepted

Source: survey SPSS version 23(2020)

The above table shows the reliability test for the independent variables of SCM practice and the construct for operation performance (price/cost, quality, delivery dependability, time to market) and organizational performance. The internal consistency test for strategic supplier partnership consisted of six questions and the result is .733 representing 73.3 scales reliable. The reliability test result for customer relationships consisted of five questions is 0.739 indicating that 73.9 % reliable. The reliability test result for level of information sharing .754 was indicating that 75.4% reliable. This result is considered high according to the alpha coefficient range and thus the researcher concludes that the questions Supply chain management practice and operation performance dimensions are acceptable. Thus, all explanatory variables are reliable and acceptable range of Cronbach's Alpha Coefficient. Based on the examination of the research scales and constructs, it can be concluded that each variable represents a reliable construct.

3.8. Ethical Consideration

Research in the manufacturing industry has been found to be tedious. In a world where the importance of research is still unknown; the researcher suffers greatly to convince the importance of this research to improve the business. Even in some managers, employees, and customers were not quite positive to handle questionnaires. However, it is ethical to gather necessary information with patience until the researcher concluded everything that needs from respondents. All information's that were collected from the respondents treated confidentiality without disclosure of the respondents' identity.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND DISCUSSION

4.1. INTRODUCTION

As discussed in the previous chapter this study attempted to examine supply chain management practice and its relation with operational and organizational performance in a case company (Hafde Tannery). Therefore, the findings of the study are presented and discussed in this chapter. It is presented and analyzed using tables, figures, and graphs. The data were collected from different groups as shown in table 3.1. The questionnaire was developed in five scales ranging from five to one(5-1), in addition to this in order to evaluate the relationship between supply chain management practices, firm performance, correlation, and regression analysis was conducted for scale type questionnaire. A total of 110 questionnaires were distributed to employees, retailers, and customers, and 96(87.2%) of the questioners were obtained valid and used for analysis . Data collected and analyzed using SPSS statistics software (version23).

The study used both descriptive and inferential statistical methods were used in the data analysis. Mean and standard deviations were also used as measures of central tendencies and dispersions respectively. Regression and correlation analysis specifically Pearson correlation to measure the degree of association between different variables are under consideration. Regression analysis was also used to test the effect of independent variables on the dependent variable.

4.2.Descriptive statistics

This section starts with the description of sample characteristics for the study with respect to Hafde tannery employees, local customers, retailer/distributers, respondent's educational level, gender, length of service/relation with the case company.

4.2.1. Demographic characteristics

This section of the questionnaire requested a limited number of details related to the status of the respondents. The status of demographic examination in this research is to designate the

characteristics of the sample, as the proportion of male and female, work division or department, educational background, and experience of respondents in the Hafde tannery.

4.2.1.1. Respondent's by Gender

The study shows that 61 of the respondents (63.5%) are male while 35 of them (36.5%) are female. This result indicates that there are more male participants in the study than female participants.

Table 4.1: Gender of the respondent

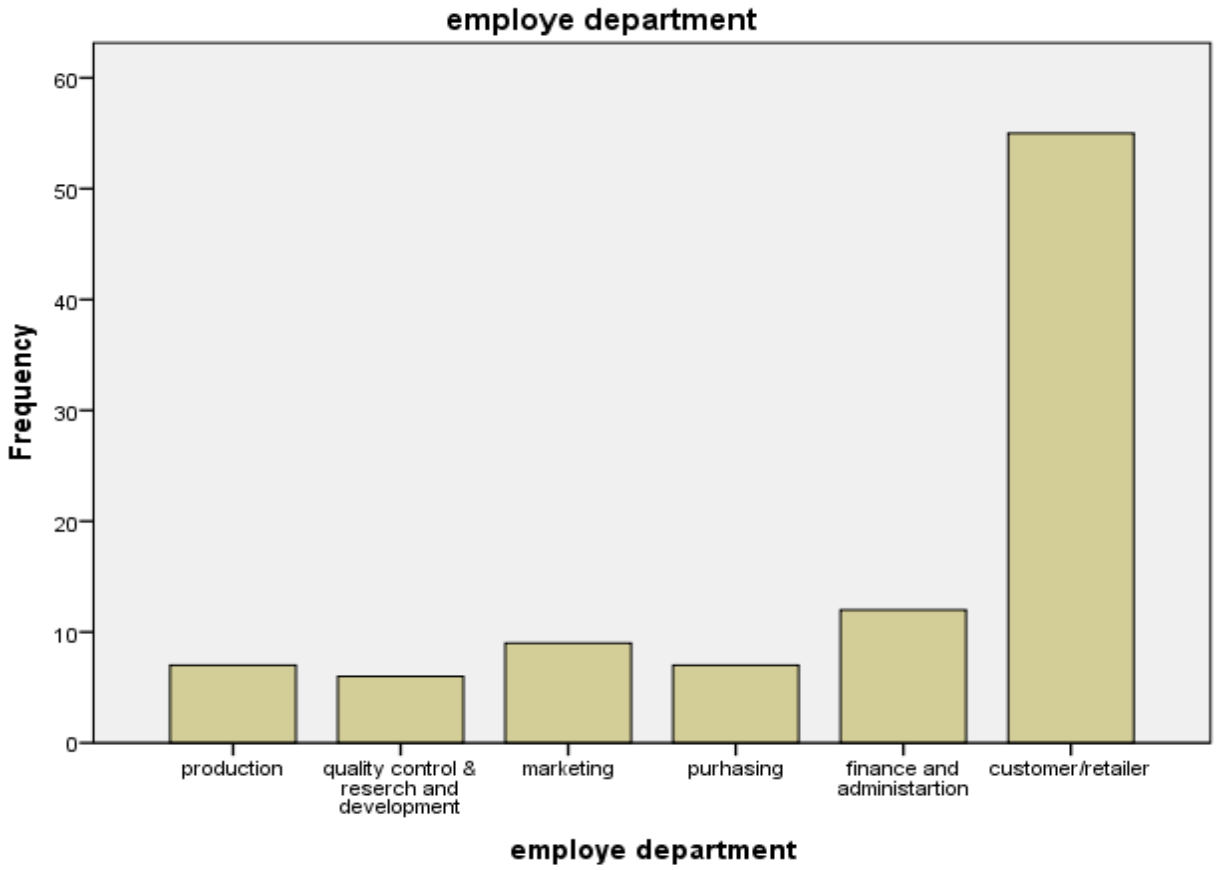
Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	61	63.5	63.5	63.5
	Female	35	36.5	36.5	100.0
	Total	96	100.0	100.0	

Source: own survey SPSSv23 2020

4.2.1.2. Respondent relationship with Hafde Tannery

Data for this research was collected from the case company and downstream supply chain members of Hafde. That includes employees of Hafde and customers (distributers and local customers) the detailed shown in table 4.2.

Figure 4.1: Respondent relations with company



Source: Own survey SPSSv23 (2020)

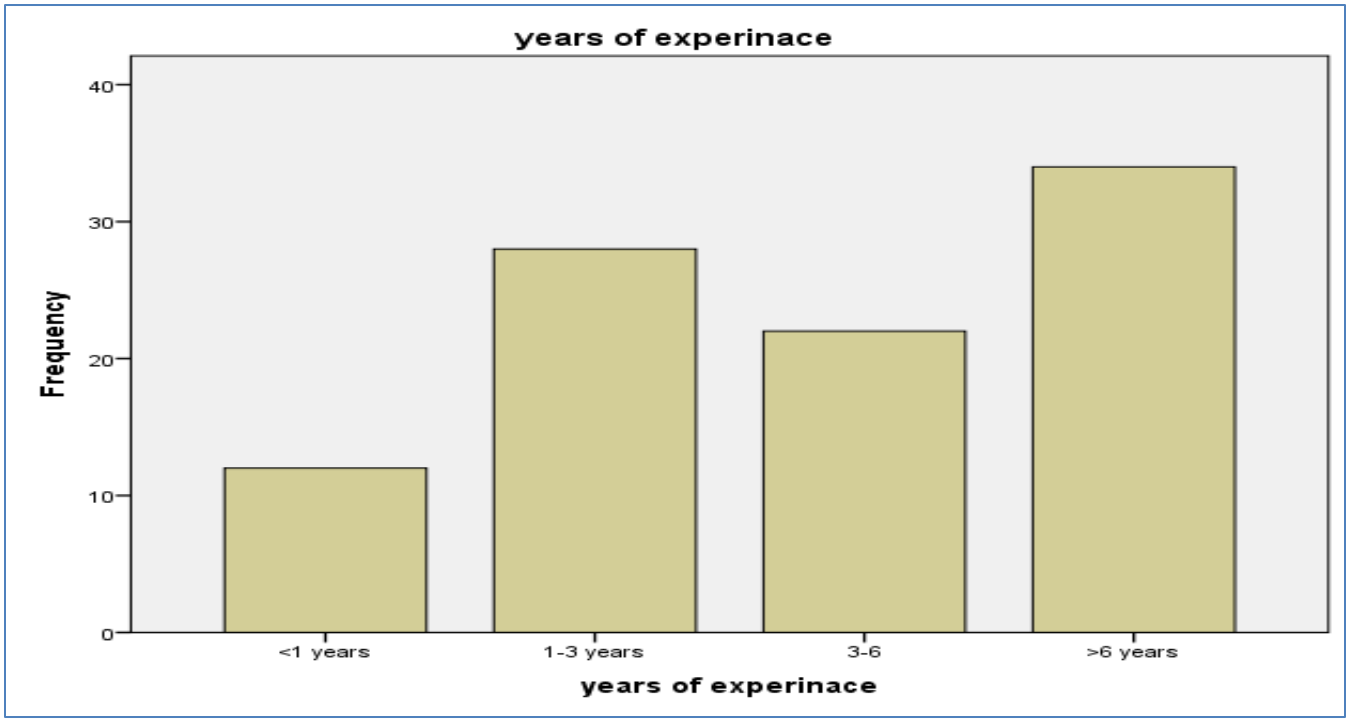
As shown in the above figure 4.1, a total of 41 respondents (42.8%) are employees of the case company from different department and 55 of the respondent (57.2%) are the downstream members of the supply chain or customers of the case company .This shows that majority of the respondent are customers of HAFDE.

4.2.1.3. Respondents Years of service or partnership with Hafde

Figure 4.2 shows respondent's relationship with HAFDE (as employee or trading partner) the below figure shows that 12 of the respondents (12.5%) have worked with Hafde or have trade partnership for less than 1 years, 28 of them (29.2) have a relation or worked between 1-3 years, 22 of them (22.9%) have worked between 3-6 years,34 of them (35.4%) have worked or trade partnership with Hafde for more than 6 years. Hence, the data thus clearly shows that the

majorities of the respondent have worked with or have a trade partner for more than 6 years and this assures that respondents have good experience with the questionnaires accordingly.

Figure 4.2: Years of service with Hafde



Source: Own survey SPSSv23 (2020)

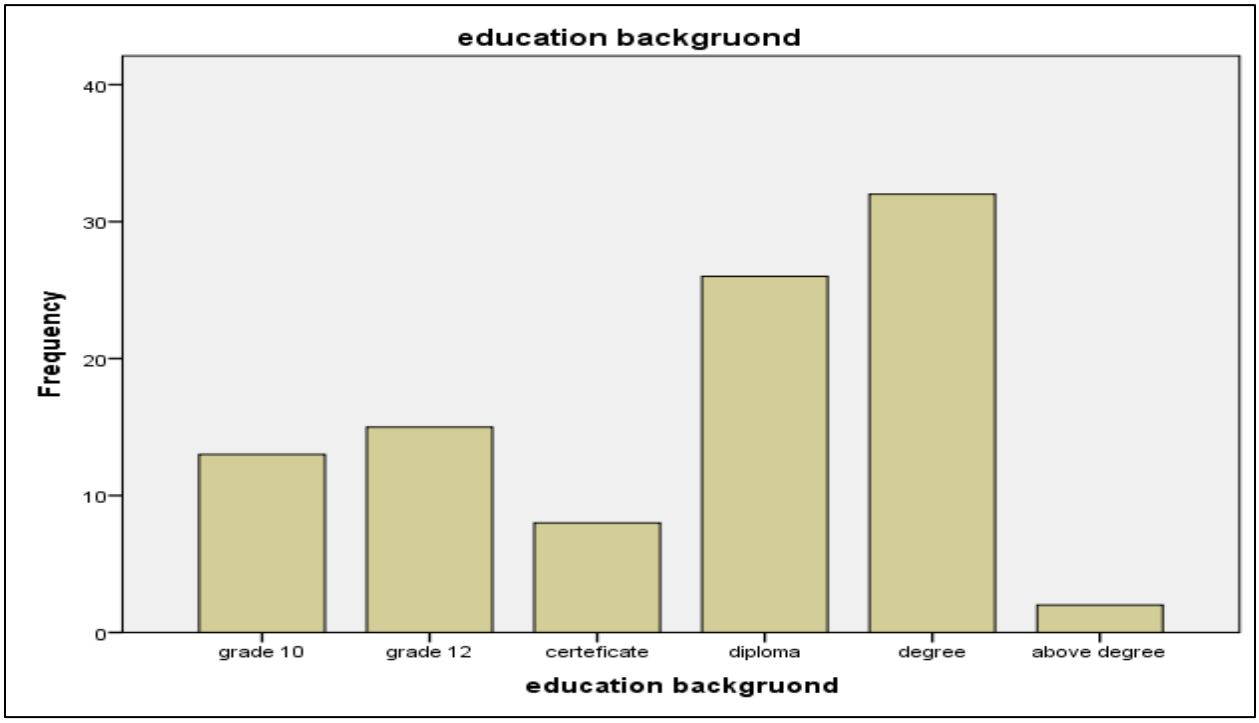
Figure 4.2 shows service years of respondent's with Hafde (as employee or trading partner) the result shows that 12 of the respondents (12.5%)have a relation with Hafde for less than 1 years ,28 of them (29.2%) have a relation between 1-3 years ,22 of them (22.9%) have a relation with Hafde between 3-6 years, and the rest 34(35.4) of respondent have a relation with Hafde for more than 6 years .Therefore, the data thus clearly shows that majority of the respondent have more than 6 years and this assures that respondents have good experience to respond to the questionnaires accordingly.

4.2.1.4. Respondents level of Education

Figure 4.3 represent the educational level of the respondents. It shows that 13 respondents (13.5) of the respondents are 10^{th} grade complete, 15 respondents (15.6%) are grade 12th level, 8 of the respondents (8.3%) are certificate level, 26 of the respondents (27.1) have a college diploma,32

of the respondents(33.3%) have a first degree and 2 of them have above first degree. Hence, majority of the respondents have college diploma and first degree this indicates the respondents are considered to understand supply chain management and easly respond to the questionnaires.

Figure 4.3: Educational background respondent's

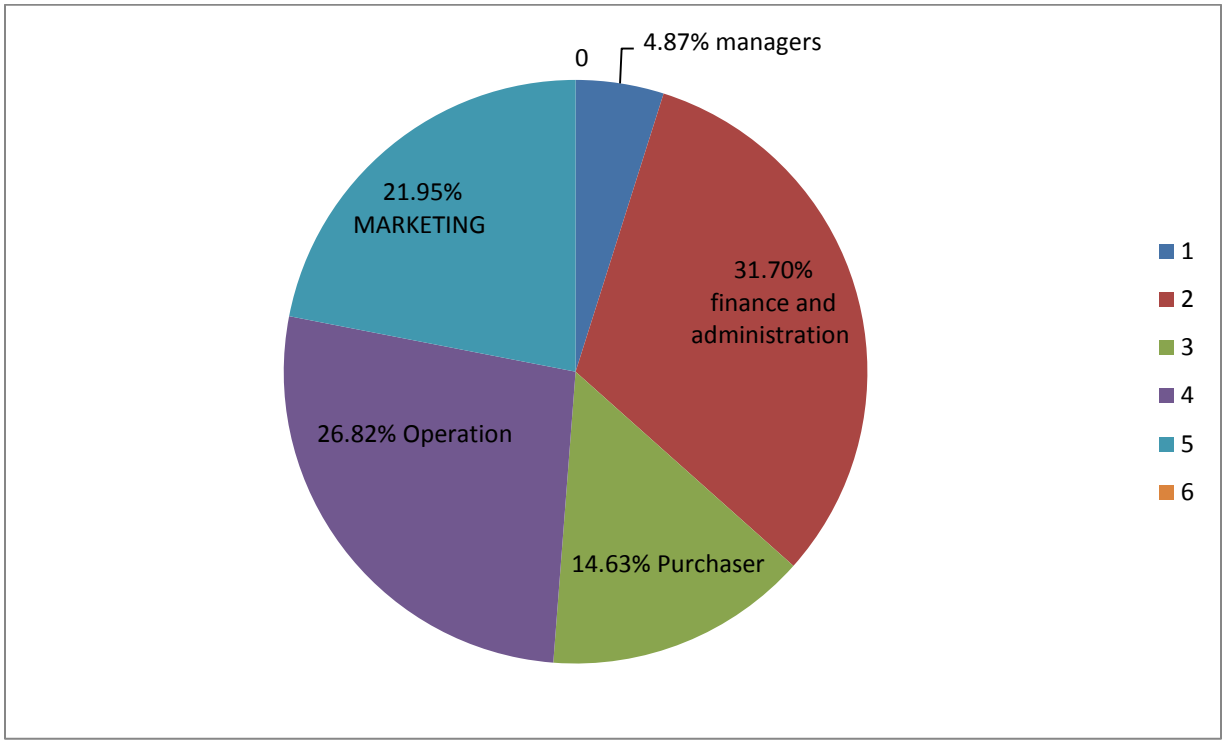


Source: Own survey SPSSv23 (2020).

4.2.1.5. Employees responses by working unit

It was noted that Hafde tannery employees activities are directly related to supply chain management were taken as the population of the study .Hence, among the respondents of these Hafde tannery employees 4.8% were managers and deputy manager,31.7% of the respondents were finance and administration officers,14.6% were purchasing employees,26.8% were operation and technical staffs and the rest 21.9% are from the marketing department of the tannery .This indicates the employees taken as sample are in the best position to respond to Hafde tannery supply chain management activities.

Figure 4.4: Respondent's working area of the case company



Source: Own survey SPSSv23 (2020).

4.3. Respondent's responses of SCM practices, SCM operational and organizational performance

In this section respondents' answers about the extent of SCM practices and its effect on operational and organizational performance in Hafde Tannery was discussed. Therefore, data related to each of the SCM practices, operational performance (price/cost, quality, delivery, time to market), and organizational performances are review and the result was summarized as the same format as they were in the questioner.

4.3.1. Supply chain management practice (SCMP)

4.3.1.1. Strategic supplier partnership

The first SCM practice is evaluated through arithmetic mean and standard deviation scores of the items for the factors of strategic supplier partnership obtained in the rating scale of 1 to 5.

Table 4.2: The extent of supplier strategic partnership on Hafde tannery

NO	Description		Label of agreements					mean	Standard deviation
			strongly Disagree	Disagree	Neutral	agree	strongly .agree		
1	The company considers quality as number one criterion in selecting suppliers.	F		3	8	31	54		
		%		3.1	8.3	32.3	56.3	4.18	0.711
2	The company resolves the problem on a regular basis	F	2	4	6	56	28		
		%	2.1	4.2	6.3	58.3	29.2	4.08	0.842
3	The company has helped suppliers to improve their product quality.	F		7	16	49	24		
		%		7.3	16.7	51	25	3.94	0.844
4	The company have continues improvement programs that include key supplier.	F		6	17	52	21		
		%		6.3	17.7	54.2	21.9	3.92	0.804
5	The company takes in key supplier in planning and goal setting activities.	F		4	16	51	25		
		%		4.2	16.7	53.1	26.0	4.01	0.775
6	The company actively involve key suppliers in new product development	F		5	16	51	24		
		%		5.2	16.7	53.1	25.0	3.98	0.794
		Average mean &st dev.						**4.018**	**0.795**

Where F= frequency %=percentile

Source: Own survey SPSSv23 (2020)

As shown supplier selection criteria, problem-solving with suppliers and supplier participation in planning and goal setting activities have a mean value of 4.18,4.08 and 4.01 respectively which are the most practiced element of strategic supplier partnership. The mean value for Hafde Tannery encouraging supplier to improve their product quality, supplier involvement on in continues improvement program and involvement in new product development are 3.94,3.92, and 3.98 respectively are practiced above average in Hafde Tannery.

The Likert scale shows that the mean was 2.5, from the results, all the means were above 2.5, hence the above result shows the overall mean of the dimension was computed to be 4.018 with a standard deviation of 0 .795 results indicate that majority of the respondents agreed with the statements presented to them in table 4.2. The result indicated that strategic supplier partnership has impact on operational and organizational performance as indicated on the means for all the study variables all of which are above 3.9 in five likert scale.

The findings are consistent with many earlier studies. Tan, et al (2002) noted suppliers joining early in the product design process can offer more profitable design choices, helps to select the best components and technologies, and helps in design assessment. Whereas, Hashim and Yao (2014) describes supplier integration has a substantial impact on manufacturing operations like production costs, timely delivery, product quality also strongly affects the organizational profitability or operational capabilities .

4.3.1.2. Customer relationship

These sub-section respondents were requested to rate customer relationships practice in Hafde Tannery based on five variables,

Table 4.3: The extent of customer relation on Hafde tannery

NO	**Description**		**Label of agreements**					mean	Standard deviation
			strongly disagree	Disagree	Neutral	Agree	strongly agree		
1	We frequently interact with customers to set reliability, responsiveness, and other standards for us.	F		8	8	40	40	4.17	0.902
		%		8.3	8.3	41.7	41.7		
2	We frequently measure and evaluate customer satisfaction.	F		12	9	56	19	3.85	0.882
		%		12.5	9.4	58.3	19.8		
3	We frequently determine future customer expectation.	F		7	21	50	18	3.82	0.821
		%		7.3	21.9	52.1	18.8		

4	We facilitate customers' ability to seek assistance from us.	F		6	16	51	23	3.95	0.813
		%		6.3	16.7	53.1	24		
5	We periodically evaluate the importance of our relationship with our customers.	F			10	48	38	4.29	0.648
		%			10.4	50.0	39.6		
		Average mean & St.dev						**4.018**	**0.81**

Where F= frequency %= Percentile

Source: Own survey SPSSv23 (2020).

Table 4.3 shows that all the factors of customer relationship have arithmetic mean of the score obtained in the five point rating scale is more than 2.5 out of 5.The highest value of mean score is 4.029(st.dev.0.648) their answers were ranged from 5 (strongly agree) to 2(disagree).

The descriptive statistics points that overall mean of the dimension was computed to be 4.018 which represents 80.3% indicates the relation between the customer relation operational and organizational performance as indicated on the means for all the study variables all of which are above 3.8 in five likert scale; with a standard deviation of 0.81.the standard deviation shows that how diverse are the responses of respondents for a given item or in proportion to the mean value.

The findings are consistent with some earlier studies. A research by Agus (2011) argues that the growth of customization and personalized service leads to a time when customer relationship management has become more important to corporate survival.

4.3.1.3. Level of information sharing

This sub-section respondent were asked to assess Supply chain members' level of information sharing practices in terms of seven variables as shown in the table below.

Table 4.4: The extent of the level of information sharing

NO	Description		Label of agreements					Mean	Standard deviation
			strongly S.Disagree	Disagree	Neutral	Agree	S.Agree		

1	The company notify trading partners in advance of changing needs.	F		4	17	53	22		
		%		4.2	17.7	55.2	22.9	3.97	0.760
2	The company trading partners share proprietary information with company	F		4	28	50	14		
		%		4.2	29.2	52.1	14.6	3.77	0.747
3	The firm trading partners keep your fully informed about issues that affect your company bossiness	F		4	34	42	16		
		%		4.2	35.4	43.8	16.7	3.73	0.788
4	Our trading partner share business knowledge of main business process with your company	F		4	49	34	9		
		%		4.2	51.0	35.4	9.4	3.50	0.725
5	The firm trading partner exchange information that helps founding of business planning	F	1	3	24	51	17		
		%	1	3.1	25.0	53.1	17.7	3.83	0.790
6	Exchange of information with your company partners is frequent	F	1	3	33	42	17		
		%	1.0	3.1	34.4	43.8	17.7	3.74	0.824
7	The firm and the trading partners keep each other informed about occasions or changes that may disturb the other partner.	F	1	4	28	52	11	3.71	0.767
		%	1	4.2	29.2	54.2	11.5		
		Average mean &St.dev						**3.767**	**0.822**

Where F= frequency %=percentile

Source: Own survey SPSSv23 (2020)

As shown in the above table the Likert scale shows that the mean was 2.5, as shown in table 4.3 respondents were requested to evaluate Hafde's tannery relation with customers. Their answers were ranged from 5 (strongly agree) to 1(strongly disagree). From the results, all the means were above 2.5. Hence, the above result shows the overall mean of the dimension was computed to be 3.767 with a standard deviation of 0 .82 results indicate that majority of the respondents agreed with the statements presented to them, based on the data shown on table 4.4.

The results indicate that level of information sharing has impact on operational and organizational performance as indicated on the means for all the study variables all of which are above 3.7. Furthermore, informing trading partners in advance of changing needs and trading partners share proprietary information with the company are the most practiced elements.

The findings are consistent with some earlier studies. A research by Stein and Sweat (1998) suggests information exchange among supply partners enables them to work as a single entity.

4.3.1.4. Level of information quality

In this section, the respondent asked to assess the company supply chain members on the quality of information sharing in terms of five variables. These are accurate; Timeliness, completeness, adequacy, and reliability of information sharing and the response on these issues are shown in the table below.

Table 4.5: The extent on the level of information quality on Hafde tannery

NO	Description		Label of agreements					mean	Standard deviation
			disagree	Disagree	Neutral	Agree	strongly agree		
1	The exchange of information between our trading partners is timely	F		4	14	57	21		
		%		4.2	14.6	59.4	21.9	3.99	0.773
2	The exchange of information between your trading partners is accurate.	F		6	18	55	17		
		%		6.3	18.8	57.3	17.7	3.86	0.776
3	Data exchange between our trading partners and us is complete..	F		10	29	41	16		
		%		10.4	30.2	42.7	16.7	3.66	0.881
4	The exchange of information between our business partners and us is sufficient.	F		8	14	66	8		
		%		8.3	14.6	68.8	8.3	3.77	0.718
5	The exchange of information between our trading partners is reliable.	F		3	30	49	14		
		%		3.1	31.3	51	14.6	3.77	0.732
		Average mean & St.dev						**3.818**	**0.773**

Where F= frequency %= percentile

Source: Own survey SPSSv23 (2020).

Based on the above table timely information sharing has the highest mean (3.99), the remaining four variables: accuracy of information exchange (mean 3.86), completeness of information exchange (mean3.66), adequacy of information exchange (mean 3.77), and reliability of information with mean (3.77) are also practiced above average value.

The average mean value of level of information quality is 3.818 and standard deviation is 0.773 the standard deviations are quite high, indicating the dispersion in a widely-spread distribution. This means the effects of level of information quality on operation and organizational

performance are an approximation to a normal distribution. This also indicates that respondents are in favor of level of information quality and all the means were above 2.5. Hence, the results indicate that majority of the respondents agreed with the statements presented to them, as shown in table 4.5. The results indicate that level of information quality has impact on operational and organizational performance as indicated on the means for all the study variables all of which are above 3.8 in five likert scale. The findings are consistent with many earlier studies. A research by Christopher (2017) visibility of actual demand and supply conditions can be obscured through the way that information is filtered and modified as it passes from one entity or level to another. In addition, Li, et al. (2006) and Li and Lin (2006) ensuring the quality of shared information plays a key role in achieving effective supply chain management.

4.3.1.5. Internal lean practice (ILP)

Under this sub-section, respondents were asked to indicate which three variables of internal lean practice were experienced in the case company. The variables include the ability of the organization to reduce the process to set up time, applying for continuous quality improvement program, the use of produces only what has been ordered by the customer (pull production system). The respondents' reflection on these variables is shown in the table below.

Table 4.6: The extent of internal lean practice on Hafde Tannery

NO	Description		Label of agreements					mean	Standard deviation
			strongly disagree	Disagree	Neutral	agree	strongly agree		
1	your organization reduces process set up time	F	3	2	24	58	9		
		%	3.1	2.1	25	60.4	9.4	3.71	0.794
2	Your organization has continuous quality improvement program	F		3	31	48	14		
		%		3.1	32.3	50	14.6	3.76	0.736
3	Your organization produces only what has been ordered by customer (pull	F	1	77	33	38	17		
		%	1	7.3	34.4	39.6	17	3.66	0.892

	production system)								
		Average mean & St.dev						**3.71**	**0.807**

Where F= frequency %=percentile

Source: Own survey SPSSv23 (2020).

As shown in the table the mean value for process setup time is 3.71, continuous quality improvement program 3.76 and for a pull production system is 3.66.The response shows the average mean value of internal lean practice is 3.71 and the continuous quality improvement program is the most practices program in the case company. Thus, the results shows internal lean practice has impact on operational and organizational performance with a 3.6 in five likert scale of overall means. The findings are consistent with some earlier studies. A research by Belfanti (2019) and Wijetunge (2017) consider internal lean practice is referred to as a process of eliminating waste time as well as resources in the production process, also added that internal lean practice has a positive influence on organizational performance.

4.3.2. Supply Chain management operational performance

Respondent's attitude about supply chain management operational performance (price/cost, quality, delivery, time to market) of the case company is discussed through these four dimensions.

4.3.2.1. The extent of Price / cost

Respondents were requested to rate their opinion on the price/cost factor of the case company and their response is summarized in table below:

Table 4.7: The extent of product price/ cost on Hafde Tannery

NO	Description		Label of agreements					mean	Standard deviation
			strongly disagree	Disagree	Neutral	Agree	strongly agree		
1	The firm able to offer lower or lower prices than our competition	F		2	23	57	14	3.86	0.675
		%		2.1	24.0	59.4	14.6		
2	our capacity utilization is very good	F		3	18	59	16	3.92	0.691
		%		3.1	18.8	61.5	16.7		
3	Our inventory turnover is high.	F			39	43	14	3.74	0.700
		%			40.6	44.8	14.6		

4	we run operation with less production cost	F		2	24	54	16		
		%		2.1	25	56.3	16.7	3.88	0.700
5	we offer competitive prices	F		3	25	43	25		
		%		3.1	26.0	44.8	26	3.94	0.805
		Average mean & St.dev						**3.86**	**0.714**

Where F= frequency %=percentile
Source: Own survey SPSSv23 (2020).

As shown in table above, the mean value of offering lower price competition is 3.86, very good capacity utilization is 3.92, high inventory turnover is 3.74, operation with less production cost is 3.88, and offering competitive price is 3.94.

With the average mean of the variables 3.86, and standard deviation is 0.714 all the dimensions are on a moderate level of practicing with a moderating value of average mean practiced in Hafde Tannery. This means that the effects of price on operation and organizational performance are an approximation to a normal distribution. This also indicates that respondents are in favor of internal lean practice. The findings are consistent with some earlier studies. The finding is consistent with a research by li, et al .(2006) that noted price is one component of operational performance which is source of a competitive advantage that enables the organization to create a defensive environment for competitors and includes a feature that allows the organization to differentiate itself from its competitor.

4.3.2.2. Quality of the products

Respondents were requested to rate their opinion on the quality construct of operation management dimensions of Hafde Tannery. Their response is summarized in table 4.8.

Table 4.8: The extent of product quality on Hafde Tannery

NO	Description		Label of agreements					mean	Standard deviation
			disagree	Disagree	Neutral	agree	strongly agree		
1	The company are able compete based on quality.	F		6	24	48	18		
		%		6.30	25	50	18	3.81	0.812

2	The company offers the most reliable products	F		7	16	60	13	3.82	0.754
		%		7.3	16.7	62.5	13.5		
3	The company offers products that last a very long time.	F		6	25	44	21	3.83	0.842
		%		6.3	26	45.8	21.90		
4	The company provides high quality products to customers	F		5	17	57	17	3.90	0.747
		%		5.2	17.7	59.4	17.7		
		Average mean & St.dev						**3.84**	**0.788**

Where F= frequency %=percentile

Source: Own survey SPSSv23 (2020).

As shown in the table the mean value of all the variables is above 3 with an average mean value of 3.84 .the variables mean value is 3.81 of competing based on quality,3.82 for offering a highly reliable product,3.83 mean value with offering very durable products and 3.90 mean value offering a high-quality product for customers.

The average mean value of product quality are 3.84 and standard deviation is 0.788 the standard deviations are high, indicating the dispersion in a widely-spread distribution. Based on the average mean the rate given for the constructs by the respondent is very high. Furthermore, all dimensions for the construct practice very well at Hafde tannery based on the response. This means the effects of quality on operational and organizational performance are an approximation to a normal distribution. This also indicates that respondents are in favor of product quality. The finding supported by the work of Li, *et al.*(2006) that describe quality as one among the measures of operational performance which contribute for competitive capabilities and value-to –customer.

4.3.2.3. Delivery dependability

Regarding delivery and dependability respondents were requested to rate their level of agreement from 1(strongly disagree) to 5 (strongly agree) for five variables. The mean and frequency of the responses on delivery and dependability of Hafde is shown in table 4.9.

Table 4.9: The extent of delivery dependability

NO	Description		Label of agreement					mean	Standard deviation
			strongly disagree	Disagree	Neutral	agree	strongly agree		
1	The company bring the kind of products needed.	F		4	19	56	17		
		%		4.2	19.8	58.3	17.7	3.90	0.732
2	The company delivery customer order on time.	F		3	19	54	20		
		%		3.1	19.8	56.3	20.8	3.95	0.731
3	The company delivers dependable delivery.	F		4	33	43	16		
		%		4.2	34.4	44.8	16.7	3.74	0.785
4	At the company time to solve customer criticisms is short.	F		5	19	53	19		
		%		5.2	19.8	55.2	19.8	3.90	0.774
5	Customer order handling time is short.	F		4	22	48	22		
		%		4.2	22.9	50	22.9	3.92	0.790
		Average mean &St.dev						**3.88**	**0.75**

Where F= frequency %=percentile

Source: Own survey SPSSv23 (2020)

The mean value of delivering the kind of products needed is 3.90; delivery of customer order on time is 3.95. Providing dependable delivery is 3.74, shortage of Time to solve customer complaints is 3.90. And the shortage of Customer order processing time is 3.92. This shows providing dependable delivery is the most practiced and the rest nearly equally practiced in Hafde Tannery.

The average mean value of level of information quality is 3.88 and standard deviation is 0.75 the standard deviations are quite high, indicating the dispersion in a widely-spread distribution. This means that the effects of delivery on operation and organizational performance are an approximation to a normal distribution. This also indicates that respondents are in favor of quality. And all the means were above 2.5, hence the results indicate that majority of the respondents agreed with the statements presented to them, as shown in table 4.9.

The results indicate that delivery has impact on operational and organizational performance as indicated on the means for all the study variables all of which are above 3.7 in five likert scale. The work of Li, *et al.* (2006) defines delivery dependability as one dimension of the competitive advantage which in long contributes for organizational improvement. This validate as there is a relationship between delivery dependability and organizational performance.

4.3.2.4. Time to market

Regarding time to market respondents were requested to rate their level of agreement from 1(strongly disagree) to 5 (strongly agree) for four variables .the mean and frequency of the responses on time to market of the case company is shown in table 4.10.

Table 4.10: The extent of product time to market on Hafde Tannery

NO	Description		Label of agreements					mean	Standard deviation
			S.disagree	Disagree	Neutral	agree	strongly agree		
1	The company brings the product to market immediately.	F		6	23	38	29	3.94	0.892
		%		6.3	24	39.6	30.2		
2	The company has less marketing time than the industry average.	F		12	35	27	22	3.61	0.977
		%		12.5	36.5	28.1	22.9		
3	The company are the first in the market to introduce a new product..	F		5	29	29	33	3.94	0.927
		%		5.2	30.2	30.2	34.4		
4	The company has fast product development.	F		6	19	44	27	3.96	0.857
		%		6.3	19.8	45.8	28.1		
		Average mean & St dev						**3.86**	**0.91**

Where F= frequency %=percentile

Source: Own survey SPSSv23 (2020)

The mean value of delivering market quickly is 3.94, time to market with lower than industry average is 3.61, introducing first in the market for the new product is 3.61, and very fast product development is 3.96.Thus, the evaluation of average mean scores for the element of time to market implies that all the components of these dimension has mean score more than 3.61 out of 5; and the overall time to market has mean scores 3.862 which represents 77.2 % indicates that Hafde tannery providing through equal acceptance of requests on time to market in the view of respondent. Stalk (1988) in his study has identified time-based competition as an important competitive priority which its source is operational performance.

4.3.2.5. Supply Chain Management Organizational Performance

Respondents were requested to reflect their opinion to what extent has changed its organizational performance through supply chain management. Their reflection on Hafde Tannery supply chain organizational performance is shown in table 4.11.

Table 4.11: The extent of organizational performance

NO	Description		Label of agreements					mean	Standard deviation
			strongly disagree	Disagree	Neutral	Agree	strongly agree		
1	Hafde's Market share	F		1	26	55	14	3.85	0.665
		%		1.0	27.1	57.3	14.6		
2	Hafde's ROI	F		1	19	61	15	3.94	0.629
		%		1.0	19.8	63.5	15.6		
3	Hafde's growth of market share	F		1	37	40	18	3.78	0.757
		%		1.0	38.5	41.7	18.8		
4	Hafde's Growth of sales	F		1	22	57	16	3.92	0.660
		%		1.0	22.9	59.4	16.7		
5	Hafde's Growth on ROI	F		1	22	52	21	3.97	0.703
		%		1.0	22.9	54.2	21.9		
6	Hafde's Profit margin on sale	F		4	18	57	17	3.91	0.727
		%		4.2	18.8	59.4	17.7		
7	Hafde's Overall competitive position	F		4	12	61	19	3.99	0.703
		%		4.2	12.5	63.5	19.8		
		Average mean & St dev						**3.844**	**0.821**

Where F= frequency %=percentile

Source: Own survey SPSSv23 (2020)

Thus, the evaluation of mean scores for the factor of organizational performance implies that all the components of these dimension has mean score more than 3.78 out of 5; and the overall organizational performance has mean scores 3.844 which represents 76.9 % indicates that Hafde

tannery providing through equal acceptance of requests on organizational performance in the view of respondents.

The average mean value of organizational performance is 3.844 and standard deviation is 0.821.The standard deviations are quite high, indicating the dispersion in a widely-spread distribution. This means the effects of supply chain management practice and operational performance on organizational performance are an approximation to a normal distribution. This also indicates that respondents are in favor of organizational performance. And all the means were above 2.5. Hence, the results indicate that majority of the respondents agreed with the statements presented to them, as shown in table 4.11. The findings are consistent with some earlier studies. A research by scholars such as (Vickery, et al., 2010; Zhang, 2010; Stock, *et al.,* 2000) have measured organizational performance and its shows that SCM practice enhance using both financial and market criteria.

4.3.4. Analysis of open-ended questions

From the open-ended questions, management of the tannery describes regarding the problem on supply chain managements are:

- High taxation on exporting semi-processed leather.
- Massive competition from foreign competitors who joined the industry by foreign direct investment.
- Foreign currency shortage for importing raw materials (chemicals).
- Very traditional slaughtering of skins unawareness on the reservation of skins.
- Week reservation of the skins by the suppliers.
- Routing Shortage of power (electricity).

In addition to the question of supply chain management aspects, the industry by itself needs support from the government since the nation is highly dependent on hard currency.

4.4. Inferential statistics for SCM practices, operational performance, organizational performance

4.4.1. Correlation analysis

In this section, correlation analysis conducted in light of each research objectives and hypotheses developed. The relationship between supply chain management practices and payroll performance was examined using compatibility analysis. This correlation provides a coefficient that indicates the strength and direction of the relationship. The p-value also shows an important probability of this relationship.

4.4.1.1. Correlation analysis between construct of SCM practices and operational performance

The inter correlation of these items is calculated using SPSS version 23 and the result is shown in the table below.

Table 4.12 :The inter correlation between SCM construct and operational performance

Correlations							
		SSP	CR	LIQ	ILP	LIS	OP
SSP	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	96					
CR	Pearson Correlation	.473**	1				
	Sig. (2-tailed)	.000					
	N	96	96				
LIQ	Pearson Correlation	.272**	.343**	1			
	Sig. (2-tailed)	.007	.001				
	N	96	96	96			
ILP	Pearson Correlation	.009	.273**	.632**	1		
	Sig. (2-tailed)	.928	.007	.000			
	N	96	96	96	96		
LIS	Pearson Correlation	-.006	.195	.271**	.346**	1	
	Sig. (2-tailed)	.955	.056	.008	.001		
	N	96	96	96	96	96	
OP	Pearson Correlation	**.378****	**.468****	**.696****	**.621****	**.322****	**1**
	Sig. (2-tailed)	**.000**	**.000**	**.000**	**.000**	**.001**	
	N	**96**	**96**	**96**	**96**	**96**	**96**
** Correlation is significant at the 0.01level (2-taled). * Correlation is significant at the 0.05levell (2-tailed).							

Source: Own survey SPSS version 23 (2020)

The finding on the Table 4.12 shows there is a significant positive relation between SCM dimensions and operational performance. As seen from the result, strategic supplier partnership,

customer relation, level of information sharing, information quality and lean practice had a correlation of 0.378, 0.468, 0.322, 0.696, 0.621, $p<0.05$ respectively with operational performance. Among the constructs information quality and lean practices have a strong positive relationship.

4.4.1.2. Correlation between SCM Practices and OP

Pearson correlation test was conducted between SCM practices (collective representative of five constructs of SCM practices) and the results are shown in table 4.13.

Table 4.13: The Correlation between SCM Practices and Operation performance

Correlations			
		SCMP	OP
SCMP	Pearson Correlation	1	**.767****
	Sig. (2-tailed)		.000
	N	96	96
OP	Pearson Correlation	**.767****	1
	Sig. (2-tailed)	.000	
	N	96	96
**.Correlation is significant at the 0.01level (2-taled).			

Source: Own survey SPSS version 23(2020).

As it is shown in the table, SCM practices and operational performance have strong positive relationship with correlation coefficient of ($r=0.767$) $p<0.05$.

4.4.1.3. Correlation Analysis between constructs of SCM Practices and organizational performance

The table 4.14 shows the correlation between constructs of SCM practices with organizational performance was run as seen in the above table.

Table 4.14: Correlation Matrix between construct of SCM practices and organizational performance

Correlations							
		SSP	*CR*	*LIQ*	*ILP*	*LIS*	*ORP*
SSP	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	96	96				
CR	Pearson Correlation	.473**	1				
	Sig. (2-tailed)	.000					
	N	96	96				
LIQ	Pearson Correlation	.272**	.343**	1			
	Sig. (2-tailed)	.007	.001				
	N	96	96	96			
ILP	Pearson Correlation	.009	.273**	.632**	1		
	Sig. (2-tailed)	.928	.007	.000			
	N	96	96	96	96		
LIS	Pearson Correlation	-.006	.195	.271**	.346**	1	
	Sig. (2-tailed)	.955	.056	.008	.001		
	N	96	96	96	96	96	
ORP	Pearson Correlation	**.265****	**.395****	**.621****	**.574****	**.382****	**1**
	Sig. (2-tailed)	**.009**	**.000**	**.000**	**.000**	**.000**	
	N	**96**	**96**	**96**	**96**	**96**	**96**
** Correlation is significant at the 0.01level (2-taled). * Correlation is significant at the 0.05levell (2-tailed).							

Source: Own survey SPSSv23 (2020)

The finding on the Table 4.14 shows there is a significant positive relation between SCM dimensions and organizational performance. As seen from the result, strategic supplier partnership, customer relation, level of information sharing, information quality and lean practice had a correlation of 0.265, 0.395, 0.382, 0.621, 0.574, $p<0.05$ respectively with organizational performance. Among the constructs information quality has a strong positive relationship.

4.4.1.4. Correlation between SCM Practices and Organizational performance

Pearson correlation test was conducted between SCM practices with five constructs of SCM and organizational performance.

Table 4.15: Correlation matrix between SCM practices and organizational performance

Correlations			
		SCMP	ORP
SCMP	Pearson Correlation	1	**.691****
	Sig. (2-tailed)		.000
	N	96	96
ORP	Pearson Correlation	**.691****	1
	Sig. (2-tailed)	.000	
	N	96	96
** Correlation is significant at the 0.01level (2-taled). * Correlation is significant at the 0.05levell (2-tailed).			

Source: Own survey SPSS version 23(2020)

As it is shown in the table above there is strong positive relationship between SCM Practices and organizational performance with a Pearson correlation coefficient of ($r=0.691$) and significance value is less than 0.05. This significance tells that there is genuine relationship between SCM practices and organizational performance.

4.4.1.5. Correlation Analysis between OP Measures and ORP

Table 4.16: Correlation matrix between construct of operational performance measures and organizational performance

Correlations						
		PC	QL	TM	DD	ORP
PC	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	96				
QL	Pearson Correlation	.682**	1			
	Sig. (2-tailed)	.000				
	N	96	96			
TM	Pearson Correlation	.691**	.680**	1		
	Sig. (2-tailed)	.000	.000			
	N	96	96	96		
DD	Pearson Correlation	.811**	.720**	.732**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	96	96	96	96	
ORP	Pearson Correlation	**.835****	**.790****	**.695****	**.818****	**1**
	Sig. (2-tailed)	**.000**	**.000**	**.000**	**.000**	
	N	**96**	**96**	**96**	**96**	**96**
** Correlation is significant at the 0.01level (2-taled). * Correlation is significant at the 0.05levell (2-tailed).						

Source: Own survey SPSS version 23(2020)

The finding on the Table 4.16 shows there is a significant positive relation between operation performance dimensions and organizational performance. As seen from the result, Price, Quality, Delivery dependability and Time to market had a correlation of 0.835, 0.790, 0.818, 0.695, $p<0.05$ respectively with organizational performance. The finding also shows all the construct of operation performance have strong positive correlation.

4.4.1.6. Correlation between Operational performance and Organizational performance

Table 4.17: Correlation matrix between operational and organizational performance

Correlations			
		OP	ORP
OP	Pearson Correlation	1	**.851****
	Sig. (2-tailed)		.000
	N	96	96
ORP	Pearson Correlation	**.851****	1
	Sig. (2-tailed)	.000	
	N	96	96
** Correlation is significant at the 0.01level (2-taled). * Correlation is significant at the 0.05levell (2-tailed).			

Source: Own survey SPSSv23 (2020)

As Pearson correlation coefficient of (r=851) with a significant value less than 0.05 on the above table 4.17 shows there is strong positive relationship between operational performance and organizational performance.

Therefore, based on the above tables the correlations analysis between the variables result of this study indicated that supply chain management practices elements are positively and significantly correlated with supply chain management operational and organizational performances. As a result it can be concluded that when the extra effort to start using SCM makes a direct impact on Operational and organizational performance.

4.4.2. Regression analysis

Regression analysis is a statistical method used in finance, investment, and other disciplines that attempts to determine the strength and character of the relationship between a dependent variable (dependent) and a range of other variables (independent). Typically, this is done for one of two purposes: to predict the value of a dependent variable for individuals for which some information

regarding the explanatory variables is available, or to estimate the effect of some clarification variable on the dependent variable.

For this study, multiple linear regression analysis is used to assess the strength of relationships of dependent variables with the independent variables, in the first regression it was conducted between SCM practices (independent variable) and operational performance (dependent variable). SCM practices (independent variable) and organizational performance (dependent Variable) was the second regression. To test the hypothesis of supply chain management organizational performance with supply chain operational performance the dependent variable is operational performance and the dependent variable is supply chain management organizational performance. Finally, operational performance is used as a mediator between SCM practice and organizational performance.

Before testing the hypothesis developed in chapter two assumptions of multiple linear regressions were tested using the collected data. Six types of multiple linear regression assumptions are tested before developing the regression equation and testing the proposed hypotheses.

4.4.2.1. Regression analysis between SCM practice and operational performance

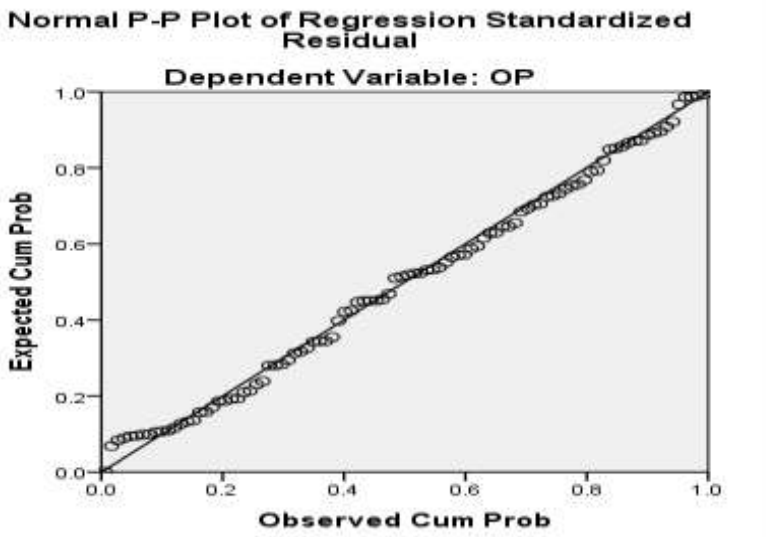
Hypothesis 1

It was hypothesized that: "SCM practices have a positive significant relation with operational performance".

To test this hypothesis the assumption of multiple regressions were checked with the research data. Output in the Tables below provides the usual descriptive statistics for all six variables. Note that all the 96 participants are included in the analysis.

A.Linearity Test

Figure 4.5: Normal p-p plot of regression standardize residual operational performance



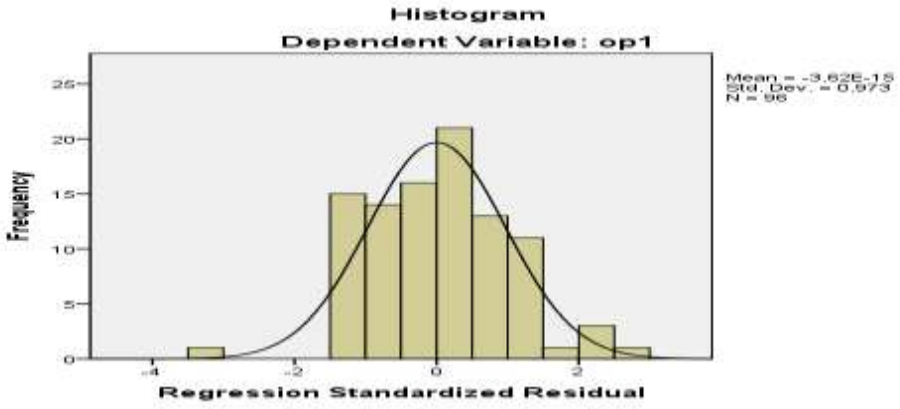
Source- own survey SPSSv23 (2020)

From the above graph the scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right on the diagonal on figure above. This result suggests that the relationship we are trying to predict is linear.

B. Normality test

This assumption can be best considered with the histogram and the standard curve inserted or the P-P Plot (Keith, 2006). According to the Classical Linear Regression Models, the error name should be standardized or the expected number of error values should be zero (E (ut) = 0).

Figure 4.6: Histogram of dependent variable Operational peformance



Source- own survey SPSSv23 (2020)

The distributed or expected number of error values should be zero (E (ut) = 0) Based on the above 4.6 histogram it shows evidence that the residues are normal.

C. Multicollinearity Test operation performance

For testing the existence of a multicollinearity in our model, we used the VIF analysis (Variance Inflection Factor analysis).The above coefficent table 4.19 are used to evaluate mulitcolinearity of The Tolerance and VIF columns we observe that, for the 5 independent variables, all the VIF values are between 1,431 and 1,907.

The results show that there is no serious problem in the equilibrium between the independent variables as the tolerance value is greater than 0.1 for all independent variables and all VIFs are less than ten (VIF <10).

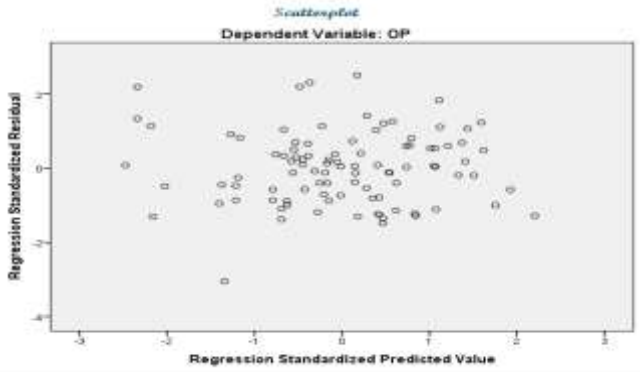
D. Autocorrelation Test

Fourthly, linear regression analysis requires that there's little or no autocorrelation within the data. Autocorrelation occurs when the residuals aren't independent from one another (Stevens, 2009). While a scatter plot allows you to see for autocorrelations, you'll test the rectilinear regression model for autocorrelation with the Durbin-Watson test. The Durbin Watson test reports a test statistic, with a value from 0 to 4, where: 2 are no autocorrelation.0 to 2 to 4 is negative autocorrelation. From our test, the value of Durbin Watson is about 1.451. Thus it lies between 0<1.451.

E. Homoscedasticity

Lastly, homoscedasticity test, which refers to whether residuals are equally distributed, or presence of equality of variance/homogeneity of variance (Osborn & Waters, 2002). Homoscedasticity can be assessed by visual inspection of a residual structure confirmed by an estimated deferred value. If the error terms are distributed randomly with no certain pattern, then the problem is not detrimental for analyses. Figure below shows that the standardized residuals in this research are distributed evenly indicating heteroscedasticity is not a serious problem for this data.

Figure 4.7: Scatter plot dependent variable operation performance



Source- Own survey SPSS version 23 (2020)

The above scatterplot figure (figure 4.7) plotted between the standardized residual and standardize predicted values shows that it has no sign of association. Thus, the homoscedasticity of residuals assumption is considered satisfied.

Thus, from an explanation of the information presented in the entire five tests one can conclude that there are no significant data problems that would lead to say the assumptions of regressions have been seriously violated.

Table 4.18: Coefficient Table operation performance

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Const.)	.042	.366		.116	.908		
	SSP	.192	.070	.211	2.728	.008	.699	1.431
	CR	.138	.077	.139	1.791	.077	.689	1.451
	LIS	.081	.065	.086	1.236	.220	.860	1.162
	LIQ	.344	.084	.365	4.095	.000	.524	1.907
	ILP	.261	.072	.320	3.612	.001	.530	1.886
a. Dependent Variable: OP								

Source- own survey SPSSv23 (2020)

Table 4.19: Model summery operation performance

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.791[a]	.625	.604	.35146	1.451
a. Predictors: (Constant), ILP, SSP, LIS, CR, LIQ					
b. Dependent Variable: OP					

Source- own survey SPSSv23 (2020)

From the table 4.19 it has been seen that Adjusted R Square value from the Model Summary is evaluated to determine the proportion of variance explained by the independent variable.it can also observed that the coefficient of determination is the adjusted R squared value was .604. Which implies that SCM practices can account 60.4 % of the variance in supply chain management performance was largely explained by the model. This in fact, is a strong explanatory power of regression.

Table 4.20: Anova operation performance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.536	5	3.707	30.012	.000[b]
	Residual	11.117	90	.124		
	Total	29.653	95			
a. Dependent Variable: OP						
b. Predictors: (Constant), ILP, SSP, LIS, CR, LIQ						

Source- own survey SPSSv23 (2020)

Analysis of variance was used to test the significance of the regression model as pertains to differentiate the means of the dependent and independent variables as shown on table 4.20.

The ANOVA test produces combination of variables significantly predicted operational performance, F (5, 90) = 30.12, P=0.000 which is significant at P <.005, with all five variables significantly contributing to the prediction.

The beta weights presented in table 4.18 all five variables positively contribute to this prediction this depicts that the regression model is significant at 95% confidence level. Thus, the regression model is statistically significant in predicting how SCM practice for predicting operation performance.

In this part of the analysis includes a regression model to test the hypotheses. Five extracted dimensions were taken as independent variables against operation performance as dependent variable in a multiple regression model. For the hypotheses of the study below hypothesis test was used at 95% confidence interval. To know about the impact of the individual dimensions of SCM practice on operational performance multiple regressions using the following model is run:

$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + e$ ..... (1)

β0β1 β2 β3 β4β5 are the coefficient of the variables.
e is the error term
Where, Y = Operation Performance, X1 = Strategic Supplier Partnerships, X2 = Customer Relationships, X3 = Information Sharing, X4 = Information Quality, X5 = Internal lean Practice

The regression equation can be constructed using the coefficient table 4.18 slope and constant found on the table as follows:

Y=.042+.192(SSP) +0.138(CR) +0.081(LIS) +0.344(LIQ) +0.261(ILP)

Ho: Supply chain management practice has no significant positive relationship with operational performance.

H1: that states "SCM practices have a direct positive impact on operational performance" is supported.

Therefore, we reject null hypothesis and accept alternative hypothesis, which states there is significant relationship SCM practices and operational performance.

4.4.2.2. Regression analysis between operational performance and organizational performance

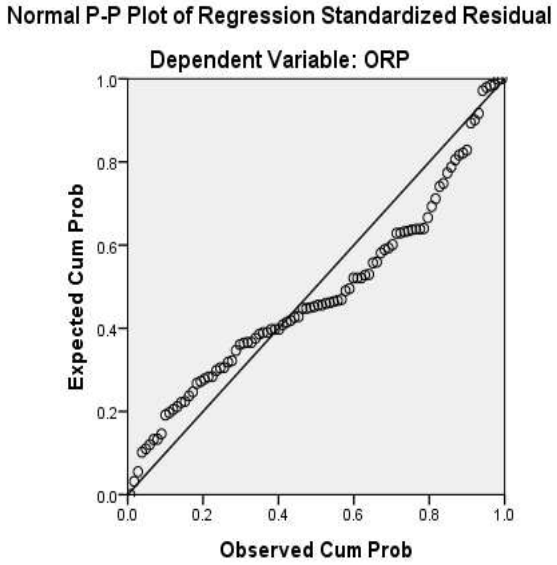
Hypothesis 2

It was hypothesized that:'' There is a direct positive relation between operational performance and organizational performance".

To test this hypothesis the assumption of multiple regressions were checked with the research data as follows.

A. Linearity test

Figure 4.8: Normal p-p plot organizational performance

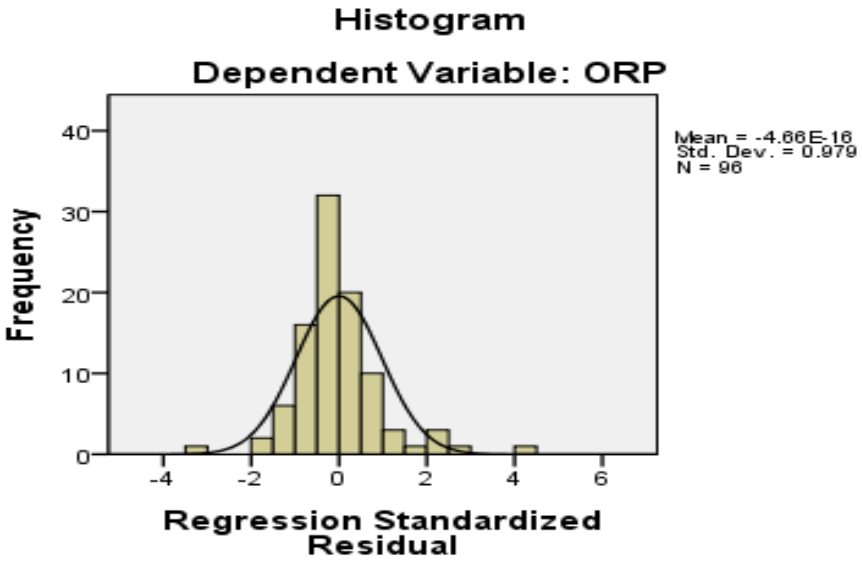


Source- own survey SPSSv23 (2020)

From the above graph the scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right on the diagonal on figure above. This result suggests that the relationship we are trying to predict is linear.

B. Normality test

Figure 4.9 Histogram dependent variable organizationa performance



Source- own survey SPSSv23 (2020)

The distributed or expected number of error values should be zero (E (ut) = 0) Based on the above histogram it shows evidence that the residues are normal.

C. Multicollinearity

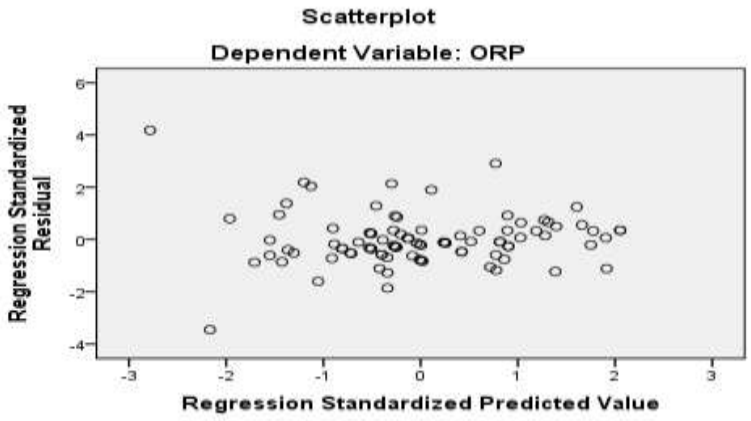
The coefficent table 4.23 are used to evaluate mulitcolinearity of The Tolerance and VIF columns .The results show that there is no range problem in the equilibrium between the independent variables as the tolerance value is greater than 0.1 for all independent variables and all VIFs are less than ten (VIF <10).

D. Autocorrelation Test

The Durbin Watson test reports a test statistic, with a value from 0 to 4, where: 2 are no autocorrelation.0 to <2 are positive autocorrelation. >2 to 4 is negative autocorrelation. From our test, the value of Durbin Watson is about 1.763. Thus it lies between 0<1.763.

E. Homoscedasticity test

Figure 4.10: Scatter plot dependent variable organizational performance



Source- own survey SPSSv23 (2020)

The above scatterplot (figure 4.10) plotted between the standardized residual and standardize predicted values shows that it has no sign of association. Thus, the homoscedasticity of residuals assumption is considered satisfied.

Thus, from an explanation of the information presented in the entire five tests it can conclude that there are no significant data problems that would lead to say the assumptions of regressions have been seriously violated.

Table 4.21: Coefficient organizational performance

Coefficients										
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	.496	.182		2.721	.008	.134	.858		
	PC	.401	.083	.401	4.848	.000	.237	.566	***.311***	***3.210***
	QL	.263	.057	.331	4.640	.000	.150	.375	***.418***	***2.393***
	TM	.010	.055	.013	.182	.856	-.099	.119	***.402***	***2.486***
	DD	.209	.077	.245	2.722	.008	.057	.362	***.264***	***3.785***
a. Dependent Variable: ORP										

Source- own survey SPSSv23 (2020)

Table 4.22: Model summery organizational performance

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.898[a]	.806	.797	.24543	1.763
a. Predictors: (Constant), DD1, QL, TM, PC					
b. Dependent Variable: ORP					

Source- own survey SPSSv23 (2020)

The Adjusted R Square value from the Model Summary table 4.22 is evaluated to determine the proportion of variance explained by the independent variable. The adjusted R squared value was .797. Which implies that operation performance can account 79.7 % of the variance in supply chain management organizational performance was largely explained by the model. This in fact, is a strong explanatory power of regression.

Table 4.23: Anova organizational performance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.763	4	5.691	94.477	.000[b]
	Residual	5.481	91	.060		
	Total	28.244	95			
a. Dependent Variable: ORP						
b. Predictors: (Constant), DD, QL, TM, PC						

Source- own survey SPSS version 23 (2020)

Analysis of variance was used to test the significance of the regression model as pertains to differences in means of the dependent and independent variables as shown on table 4.23.

The Anova test produces this combination of variables significantly predicted operational performance, F (4, 91) = 94.47, and p= 0.000 which is significant at P <.05, with all four variables significantly contributing to the prediction.

The beta weights presented in table 4.21 all four variables positively contribute to this prediction this depicts that the regression model is significant at 95% confidence level. Thus, the regression model is statistically significant in predicting how Price/cost, quality, delivery, and time to market for predicting organizational performance.

Multiple regressions were conducted to determine the best linear combination of price/cost, quality, delivery dependability and time to market for predicting organizational performance.

The beta weights, presented in table 4.21 suggest that price/cost, and quality contribute most to predict organizational performance. Delivery dimension also has moderately predicts the organizational performance and time to market insignificantly predict the dependent value but it positively contribute to this prediction.

$Y= \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + e$ ..... (1)

$\beta_0 \beta_1 \beta_2 \beta_3 \beta_4$ are the coefficient of the variables.

e is the error term

Where, Y = Operation performance, X1 = price/cost, X2 = quality, X3 = delivery X4 = time to market

The regression equation can be constructed using the coefficient table 4.23 slope and constant found on the table as follows:

Y=0.496+.401(PC) +0.263(QL) +0.010(t m) +0.209(DD)

Ho: operational performance has no significant positive relationship with organizational performance

Therefore, hypothesis 2 that states "operational performance has a direct positive impact on organizational performance" is supported.

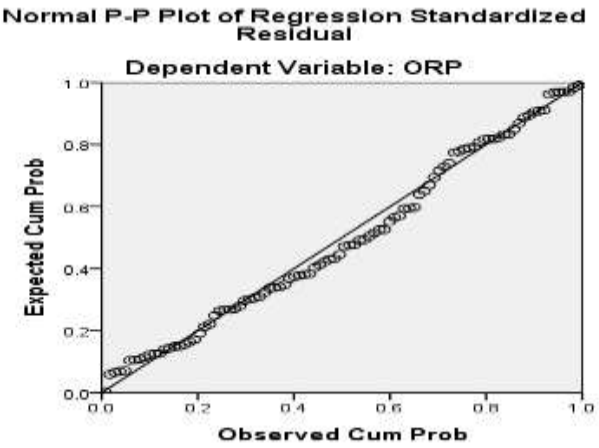
4.4.2.3. Regression analysis between supply chain management practice and organizational performance

Hypothesis 3

It was hypothesized that:'' There is a positive relation between SCM practice and organizational performance".

To test this hypothesis the assumption of multiple regressions were checked with the research data as follows.

4. **Linearity test**
5. Figure 4.11: p-p Plot dependent variable organizational performance

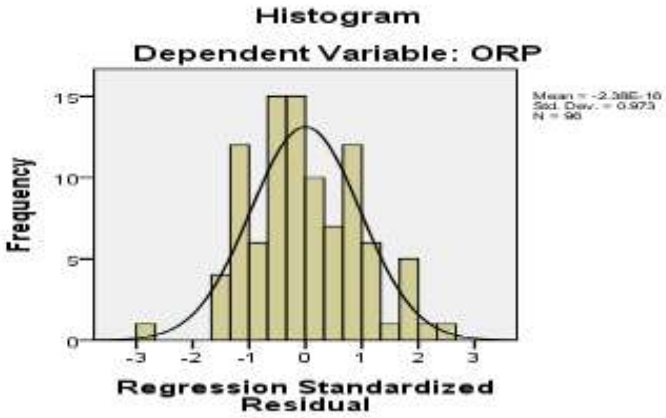


Source- own survey SPSSv23 (2020)

From the above graph the scatter plot of residuals shows no large difference in the spread of the residuals as you look from left to right on the diagonal on figure above. This result suggests that relationship we are trying to predict is linear.

B. Normality test

Figure 4.12: Histogram dependent variable ORP



Source- own survey SPSSv23 (2020)

The distributed or expected number of error values should be zero (E (ut) = 0) Based on the above figure 4.12 histogram it shows evidence that the residues are normal.

C. Multicollinearity test dependent variable organizational performance

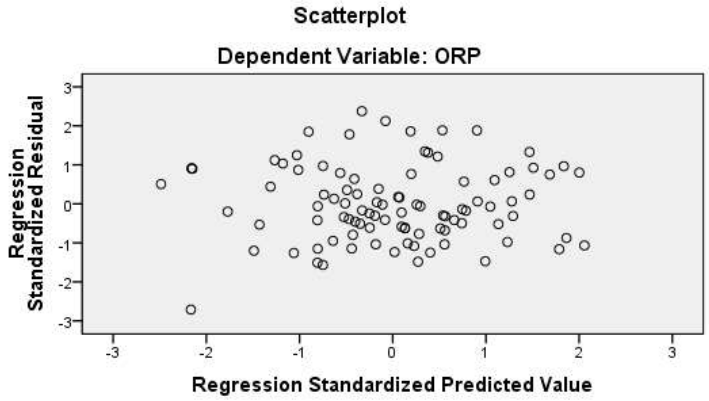
The coefficent table 4.27 are used to evaluate mulitcolinearity of The Tolerance and VIF columns.The results show that there is no range problem in the equilibrium between the independent variables as the tolerance value is greater than 0.1 for all independent variables and all VIFs are less than ten (VIF <10).

D. Autocorrelation Test dependent variable organizational performance

The Durbin–Watson (DW) statistic is scaled to be between 0 and 4. Values close to 2 indicate very little autocorrelation, values below 2 indicate positive autocorrelation, and values above 2 indicate negative autocorrelation. (Albright, Winston, & Zappe, 2011).From our test, shown on table 4.28 the value of Durbin Watson is about 1.697. Thus it lies between 0<1.697 the result as shown on the model summary table 4.28 below, the value is closer to 2.00. Therefore, the autocorrelation assumption is not violated.

E. Homoscedasticity test dependent variable organizational performance

Figure 4.13: Scatter plot



Source- own survey SPSSv23 (2020)

The other figure scatterplot (figure 4.13) plotted between the standardized residual and standardize predicted values shows that it has no sign of association. Thus, the homoscedasticity of residuals assumption is considered satisfied.

Thus, from a justification of the information presented in the entire five tests one can conclude that there are no significant data problems that would lead to say the assumptions of regressions have been seriously violated.

Table 4.24: Coefficient matrix organizational performance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	Constant	.465	.410		1.134	.260	-.350	1.279		
	SSP	.105	.079	.118	1.329	.187	-.052	.262	.699	1.431
	CR	.114	.086	.118	1.322	.189	-.057	.285	.689	1.451
	LIS	.162	.073	.177	2.214	.029	.017	.307	.860	1.162
	LIQ	.303	.094	.329	3.215	.002	.116	.490	.524	1.907
	ILP	.216	.081	.272	2.675	.009	.056	.377	.530	1.886

Source- own survey SPSSv23 (2020)

Table 4.25: Model summery dependent variable organizational performance

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.711[a]	.506	.479	.39370	1.697
a. Predictors: (Constant), LIS, SSP, ILP, CR, LIQ					
b. Dependent Variable: ORP					

Source- own survey SPSSv23 (2020)

The Adjusted R Square value from the Model Summary table 4.25 is evaluated to determine the proportion of variance explained by the independent variable. The adjusted R squared value was .479. Which implies that SCM practices can account 47.9 % of the variance in supply chain management performance was largely explained by the model.

Table 4.26: Anova organizational performance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.294	5	2.859	18.443	.000[b]
	Residual	13.950	90	.155		
	Total	28.244	95			
a. Dependent Variable: ORP						
b. Predictors: (Constant), LIS, SSP, ILP, CR, LIQ						

Source- own survey SPSSv23 (2020)

Analysis of variance was used to test the significance of the regression model as pertains to differences in means of the dependent and independent variables as shown on table 4.26.
The ANOVA test produces this combination of variables significantly predicted operational performance, F (5, 90) = 18.44, and p=0.000 which is significant at P <.05, with all five variables significantly contributing to the prediction.

The beta weights presented in table 4.24 all five variables positively contribute to this prediction this depicts that the regression model is significant at 95% confidence level. Thus, the regression model is statistically significant in predicting how SCM practice predicting organizational performance.

Multiple Regression model equation analysis in this part multiple regressions were conducted to determine the best linear combination of SCM practice dimensions for predicting organizational performance. For all the hypotheses of the study below hypothesis test was used at 95% confidence interval. To know about the impact of the individual dimensions of SCM practice on organizational performance multiple regressions using the following model is run:

$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \beta 5X5 + e$ …… (1)

$\beta_0\beta_1$ β_2 β_3 $\beta_4\beta 5$ are the coefficient of the variables.

e is the error term

Where, Y = ORP , X1 = SSP, X2 = CR, X3 = LIS, X4 = LIQ, X5 = ILP

The beta weights, presented in table 4.25 suggest that level of information quality and internal lean practice contribute most to predict organizational performance, and customer relationship, level of information sharing, strategic supplier partnership positively contribute to this prediction.

The regression equation can be constructed using the coefficient table 4.25 slope and constant found on the table as follows:

Y=0.465+.105(SSP) +0.114(CR) +.162(LIS) +.303(LIQ) +.216(ILP)

Ho: Supply chain management practice has no significant positive relationship with organizational performance.

Therefore, hypothesis 3 that states "SCM practices have a direct positive relation on organizational performance "is supported

Hypothesis 4

Ho: operation performance does not a mediate the relationship between SCM practices and organizational performance.

H4: operation performance has a mediated the relationship between SCM practices and organizational performance of the firm.

Table 4:27: Mediator analysis

Model : 4

Y : ORP

X : SCMP

M : OP

Sample

Size: 96

OUTCOME VARIABLE:

OP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7667	.5878	.1300	134.0443	1.0000	94.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-.2910	.3609	-.8062	.4221	-1.0076	.4256
SCMP	1.0763	.0930	11.5778	.0000	.8917	1.2609

OUTCOME VARIABLE:

ORP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.8531	.7278	.0827	124.3105	2.0000	93.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.4715	.2888	1.6327	.1059	-.1020	1.0450
SCMP	.1289	.1155	1.1161	.2673	-.1004	.3581
OP	.7601	.0822	9.2423	.0000	.5968	.9234

OUTCOME VARIABLE:
ORP

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6912	.4777	.1569	85.9825	1.0000	94.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	.2503	.3965	.6313	.5294	-.5369	1.0376
SCMP	.9470	.1021	9.2727	.0000	.7442	1.1497

DIRECT AND INDIRECT EFFECTS OF X ON Y

Direct effect of X on Y:

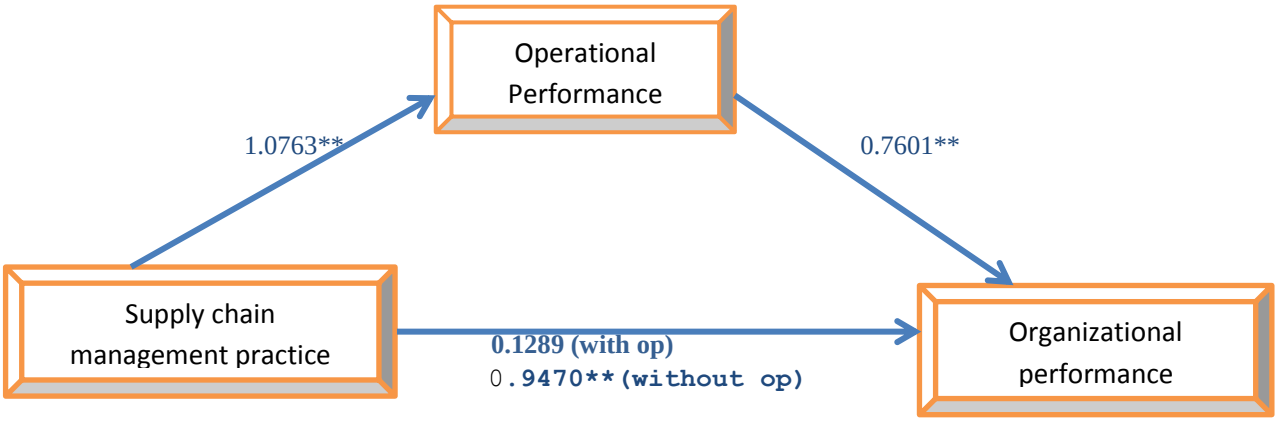
Effect	se	t	p	LLCI	ULCI	c'_ps	c'_cs
.1289	.1155	1.1161	.2673	-.1004	.3581	.2363	.0941

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
OP	.8181	.1490	.5563	1.1464

Source spss v 23 process macro3.5 (2020).

Figure 4.13: Mediation report result



Source: spss v 23 process macro3.5 (2020)

Based on the result provided by table 4.28, &figure 4.13. The indirect effect of operation performance on the relation between supply chain management practice and organizational performance was estimated 0.8181 (IE= 1.0763*0.7601) this value was considered to be statistically significant.

(IE=.8181 is in between LLCI =.5563 and ULCI=1.1464).

Therefore, the null hypothesis represented by the main one is rejected concluding that operational performance (op) mediates the relationship between SCM practice affects organizational performance at 0.05.

Table 4.28: Summary of the regression analysis (Hypothesis Testing)

No	Hypothesis	Independent variable	Dependent variable	R	R2	Adjusted r	Df	F	Sig	Decisions on hypothesis
1	SCMP and OP	SCMP	OP	.791	.625	.604	(5,90)	30.01	.000	Accepted
2	OP and ORP	OP	ORP	.898	.806	.797	(4,91)	94.47	.000	Accepted
3	SCMP and ORP	SCMP	ORP	.711	.506	.471	(5,90)	18.44	.000	Accepted
4	SCMP.>OP>ORP			.766	.587		(1,94)	134.04	.000	Accepted

Source: spss v 23 (2020)

CHAPTER FIVE

SUMMARY, CONCLUSION AND SUGGESTIONS

5.1. Introduction

In this chapter summary of findings, conclusion and recommendations are discussed based on the findings from the study. Based on the findings and conclusions drawn recommendations are suggested for practitioners and further researchers.

5.2. Summary of the Findings

The research was intended to test if there is a relationship between SCM practices, operational performance, and organizational performance at the case company. The following is a summary of the main findings based on the results of the study.

The point of SCM practice was analyzed by using descriptive statistics based on the rankings; it can be conclude that supply chain management dimensions practiced in Hafde Tannery.

The relationships (correlations) between SCM practice and operational and organizational performance was tested through Pearson correlation analysis and the findings show that there is a positive relationship among SCM dimensions, operational performance and organizational performance.

Multiple regression analysis was used to test how supply chain management practice construct can predict both operational and organizational performance .In addition to this; it was also used to test if operational performance can predict organizational performance. The multiple regression analysis showed that SCM practice can predict both SCM operational and organizational performances.

The result indicates that SCM practice has a positive and strong relationship with a correlation of (r=767) with an operational performance $p<0.05$. Additionally, SCM practices have also contributed an enormous amount for the variability of operation performance with 60.4%. On the other hand SCM practice and organizational performance has a significant positive correlation

r=69.1 at a significant level less than 0.05. In another way, SCM practice have also contributed 47.9% for the variability of organizational performance .Lastly the test result of operational performance and organizational performance shows operational performance is positively correlated to organizational performance with a coefficient of (r=.851) with the significant value less than 0.05 and the regression result of operational performance and organizational performance indicates operational performance contributed 79.7% for the variability of organizational performance.

The multiple regression analysis shows that strategic supplier partnership practice is found the highest construct and level of information sharing with the least and insignificant predictor for operation performance among the different SCM practice constructs.

Based on the study result, it also depicts that Price/cost has the highest construct of operational performance to predict organizational performance. Also, strategic supplier partnership and time to market and has insignificant effect to predict organizational performance among the different SCM practice construct.

The findings are consistent with many earlier studies. A study by li,et al.(2006) found statistically significant impact of SCM practice on operation and organizational performance. Although, a study by Mustefa (2014) found that SCM practice has significant impact on operation and organization performance in the leather sector in case company Awash Tannery. Similarly, a research by Elisabeth (2016) found significant relationship between SCM practice dimension and operation and organization performance in the case of food processing company in Ethiopia. Another study by Meseret (2016) likewise shows significant relations between SCM practice on operation and organization in Agro processing related firm in Ethiopia.

5.3. Conclusion

Based on the findings of the study and the summary of the following conclusion are given. There is a direct and positive relation between SCM practice and operational and organizational performance. Besides, SCM practice has a direct significant influence on both operational and organizational performance. The operation performance mediates the relationship between the SCM practice and organizational performance. Also, operational performance positively and

genuinely correlates with organizational performance. As far as their causal relationship is concerned, operational performance influences organizational performance. The study that the combination of strategic supplier partnership, customer relation, level of information sharing and quality and internal lean practice together have significant effect on operational performance. On the contrary, level of information sharing has insignificant effect on operation performance .In addition to that on the study of the relation between Operational performance and organizational performance the combination of price, quality, delivery and time to market have a significant effect on organizational performance but time to market has insignificant effect on organizational performance even if it have a positive beta coefficient. Therefore, current research and practice within operational and organizational performance literature have to consider all as critical dimensions for quality management domain.

5.4. Recommendations

This research has shown that supply chain management practices are statistically significant in enhancing operational and organizational performance. All business organizations are advised to practice and they can secure the benefits of adopting these practices.

Based on the finding of the analysis, the following recommendations are given which are helpful for the Hafde tannery company supply chain management practice and operational performance in order to reduce supply chain members relation difficulties as to upsurge customers and supplier satisfaction.

- To advance the organizational performance in marketing and financial performance in the long-run through enhancing organizational performance especially for the manufacturing organization like the case company. Since their market competition is global, it is better to give due attention on supply chain management practices and operation performance.
- To make the business standards up to date and compatible with real market situations, it is recommended to evaluate their output and outcomes (i.e. proper customer and supplier service and overall satisfaction) periodically and based on the evaluation, the department shall make adjustments on its weaknesses. The service standards of the office should be well presented for the chain members to enable them to exercise their right and to discharge their duties as well.

- To be competitive enough, it is better for the organization to give due attention to supply chain management practices for more improvement of their operational performance. Furthermore, to lessen the inconsistency challenge between the office‘s professionals on interpreting supply chain management manuals, the top management shall set a frame work or definite work procedure. Moreover, the organization should evaluate employee’s performance continuously. Learning involves both the development and modification of thoughts and behaviors, therefore the company continuously track capacity building, monitoring, and motivating of employees of the supply chain management.
- The case company (Hafde Tannery) also advised to comprehensively practice the current practice since the company compete in the global market .based on the study current practice of the case company shows to strengthen its level of information sharing of SCM practice and from constructs of operation performance, time to market and delivery and durability has a lowest significant hence to compete globally it needs a well-practiced supply chain management to enhance these practices.

5.5. Suggestions for future research

It should be noted that SCM practices can be influenced by appropriate factors, such as industry type, firm size, firm position in the supply chain, supply chain length, and supply chain type. For example, the level of customer relationship practice measured by customer satisfaction and expectations may be higher for a company located at the end of the supply chain (closer to the customer).

The concept of SCM practices is difficult and includes a network of various parties in its effort in producing and delivering a product or service to the final consumer. These include suppliers, producers, customers, and several other parties around. This includes banks, insurance companies, and governmental organizations (like customs, revenue authority, and other regulatory bodies) in which most supply chain management researchers are not considering in their studies. These parties may have a significant impact on the performance of the supply chain.

Future research can expand the domain by considering extra dimensions such as geographical proximity, cross-functional coordination, which have been unobserved from this study.

There are many different additional supply chain functions like logistics integration, outsourcing, geographical proximity, risk and award sharing, cross-functional coordination, agreed supply chain leadership that needs to be addressed in SCM researches. These domains were not included in this research as all domains cannot be covered in just one study.

It will also be remarkable to use the respondents from pairs of organizations at two ends of supply chains. By comparing different views of the SCM practices of organizations around the chain, it is possible to identify the strengths and weaknesses of the chain and the best general SCM practices.

This research focuses on showing the connection between SCM practices and performance at the organization level Therefore, future researches can expand the domain of the practices considering these additional supply chain dimensions and level. Furthermore, the future study shall be done with multiple organizations and with a large number of respondents.it can also examine the proposed relationships by bringing some contextual variables into the model, such as organizational size and structure.

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Web Source

All African leather http;www.Allafrican leather.com reviewed January 1,2021

Hafde tannery http;www.hafde.com. Reviewed December 2020

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

MASTERS OF MANAGEMENT

QUESTIONNAIRE

Dear respondents, the purpose of this questionnaire is to gather data on the supply chain management practices and firm performance in HAFDE Tannery. The study is purely for academic purpose and thus not affects you in any case. Therefore, I kindly request you to respond to each items of the question very carefully.

General Instructions

- there is no need of writing your name
- Where answer options are available please tick (√) in the appropriate box for part I and circle for your response to each statements of part II.

Contact Address If you have any query, please do not hesitate to contact me and I am available as per your convenience at (Mobile: 09-13-08-23-47 or e-mail: yekeef@gmail.com)

Thank you for scarifying your precious time in advance!

PART I: Demographic Information

1. Educational Qualification:

1. Grade 10 completed ☐ Grade 12 completed ☐ certificate ☐

4. College diploma ☐ First Degree ☐ Second Degree and above ☐

2. Gender

1.MALE ☐ 2.Female ☐

2. job title/ relation with the company

Department manager ☐ finance and administration ☐

Purchaser ☐ Marketing ☐ customer ☐

3. Years stayed at the organization:

Under 1 years ☐ 1-3 years ☐ 4-6 years ears ☐ above 6 years ☐

PART II: In Relation to Supply chain management practice of Hafde tannery

Please circle the correct number to show how much you agree or disagree with each statement. With **5 = strongly agree, 4 = agree, 3 = neutral, 2 =disagree, 1 = strongly disagree**

	1.strategic supplier partnership	5	4	3	2	1
	The company reflects quality as number one criterion in choosing suppliers.					
2	The company frequently solves difficulties jointly with your suppliers					
3	The company have helped our suppliers to improve their product quality					
4	The company stays improvement programs that include key supplier.					
5	The company includes key supplier in planning goal setting activities.					
6	The company actively involve key supplier in new product development process.					
	2.Customer relation	5	4	3	2	1
1	The company frequently cooperate with customers to set reliability , and other standards for the company.					
2	The company often measure and assess customer satisfaction.					
3	The company often control future customer expectation.					
4	The company enable customers' ability to seek assistance from us.					
5	The company periodically evaluate the importance of relation with customers.					
	3.Level of information sharing	5	4	3	2	1
1	The company inform trading partners in advance of changing needs.					

2	The company trading partners share branded information with your company					
3	The company trading partners keep your fully informed about issues that affect your company bossiness					
4	The company trading partner share business knowledge of core business process with your company					
5	The company and our trading partner exchange information that helps establishment of business planning					
6	The company exchange of information with your company partners is regularly					
7	We and our trading partners keep each other informed about events or changes that may affect the other partner.					
	4.Quality of information sharing :	5	4	3	2	1
1	information exchange between our trading partners and us is timely					
2	Information exchange between your trading partner and us is accurate.					
3	Information exchange between our trading partners and us is complete.					
4	Information exchange between our trading partners and us is adequate.					
5	Information exchange between our trading partners and us is reliable.					
	5.Internal lean practice	5	4	3	2	1
1	The company organization reduces process set up time					
2	The company has continuous quality Improvement programs.					
3	The company produces only what has been ordered by customers (pull production System).					
The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree,						
	Price/cost	5	4	3	2	1

1	The company are able to offer prices as low or lower than our competition					
2	The company capacity utilization is very good					
3	The company inventory turnover is high.					
4	The company run operation with less production cost					
5	The company offer competitive prices					
	Quality	5	4	3	2	1
1	The company are able compete based on quality.					
2	The company offer products that are highly reliable					
3	The company offer products that are very durable.					
4	The company offer high quality products to our customer					
Delivery dependability: an organization is capable of providing on time the type and volume of product required by customer(s)						
	Delivery dependability	5	4	3	2	1
1	The company deliver the kind of products needed.					
2	The company delivery customer order on time.					
3	The company provides dependable delivery.					
4	The company Time to solve customer complaints is short.					
5	The company Customer orders processing time is short.					
Time to market: an organization is capable of introducing new products faster than major competitors						
	Time to market	5	4	3	2	1
1	The company deliver product to market quickly.					
2	The company has time to market lower than industry average.					
3	The company is first in the market in introducing new product.					
4	The company has fast product development.					

PART III: Related to level of organizational performance						
1 = significant decrease, 2 =Decrease, 3=same as before, 4=increase, 5=significant increase.						
	Organizational performance: how well an organization achieves its Market-oriented goals as well as its financial goals in the past five years?	1	2	3	4	5
1	The company market share					
2	The company return on investement					
3	The company growth of market share					
4	The company growth of sales					
5	The company growth on return of investment					
6	The company profit margin on sale					
7	The company overall competitive position					