ST. MARY UNIVERSITY

SCHOOL OF GRADUATE STUDIES

The Effect of Supply Chain Management on Organization performance, in case of Ethiopian Industrial Inputs Development Enterprise

A Thesis Submitted as a partial fulfillment for the Award of Master's Degree in Business Administration

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May, 2023

ADDIS ABABA, ETHIOPIA

Declaration

I, Yonatan Sisay, the under signed, declare that this thesis entitled: “The Effect of Supply Chain Management on Organization performance, in case of EIIDE.” is my original work. I have undertaken the research work independently with the guidance and support of the research advisor. This study has not been submitted for any degree or diploma program in this or any other institutions and that all sources of materials used for the thesis has been duly acknowledged.

Declared by

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Date 07/06/2023

Certificate

This is to certify that the thesis prepared by Yonatan Sisay, entitled "The Effect of Supply Chain Management on Organization performance, in case of EIIDE." and submitted in partial fulfillment of the requirements for the Degree of Masters of Arts in Business Administration /MBA/ complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Name of Advisor: _Temesgen B. (PhD)_ ; Signature:  _Date: 24/05/23___.

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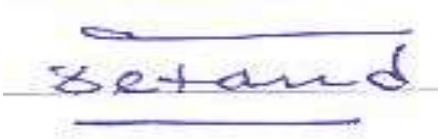
Dr. Getie Andualem	 ***10/08/2023***
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Abstract

The supply chain encompasses various activities involved in the movement of products and services, including financial, information, and material flows. Suppliers hold a crucial role and contribute significantly to the chain. In Ethiopia, Ethiopian Industrial Inputs Development Enterprise (EIIDE) is one of the key players involved in the sustainable supply of industrial inputs to different industries. This research focuses on EIIDE and aims to examine the impact of supply chain management on organizational performance, specifically studying the influence of strategic supplier partnerships, information sharing, postponement strategies, and customer relationships. Additionally, the study explores the challenges faced by EIIDE in implementing effective supply chain management practices.

To gather data on EIIDE's supply chain, a survey design was employed, utilizing a questionnaire covering various topics related to the organization's supply chain. The findings indicate a limited level of strategic supplier partnerships, a communication gap with suppliers, challenges in meeting delivery deadlines, and a lack of proactive communication from customers regarding changes in their needs and interests. The study also highlights instances of misconduct within the supply chain, reflecting unnecessary behaviour, as well as poor stock management practices.

Based on the findings, several recommendations are put forward. Firstly, it is advised that EIIDE works closely with legal consultants to establish robust contracts capable of incentivizing suppliers to fulfil their commitments. Furthermore, the enterprise should proactively foster strategic supplier partnerships by developing a formal plan and facilitating collaborative efforts in critical activities. Strengthening rules and regulations to address misconduct, corruption, and unnecessary behaviour is also crucial, with a focus on rigorous implementation.

Keywords: Organizational performance, customer relationship, quality information sharing, level of information sharing, strategic supplier partnership, postponement.

Acknowledgment

I would like to thank all those who tried their best to help me with the thesis work. To list some, I would like to appreciate our university: St. Mary University for facilitating this chance to equip ourselves with knowledge and the management team of EIIDE for being cooperative in the data collection process. My greatest gratitude also goes to my advisor Temesgen Belayineh (PhD) for his continuous support and also to all my family.

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Chapter One

Introduction

1.1. Background of the Study

Economic and technological forces have combined over the past few years to increase the importance of the supply chain in affecting company profitability and long-term business success (Yong, 2002). Supporting this Christopher (2001) stated that, nowadays very high attention is given to creating value and delivering to the target customers. Additionally, the market place in which businesses operate today is widely recognized as being complex and turbulent. The fast introduction of new products with shorter life cycle, growing customer satisfaction and ongoing development of information and communication technologies (ICT) and transportation infrastructure have forced businesses to give more impasses to supply chain.

Supply chain is defined as the simultaneous integration of customer requirements, internal requirements and upstream supplier performance (Tan et al., 2002). It can also be defined as a systemic coordination of the traditional business functions and tactics across these businesses functions within a particular organization and across businesses within the supply chain for the purposes of improving the long-term performance of the individual organizations and the supply chain as a whole (Li et al., 2006).

By focusing on the activities included in supply chain, Christopher (2001) further explained the concept as, supply chain consists of the whole activities associated with products and services movement from raw material stage to final products which are consumable by customers. This movement includes financial and information flow as well as material flow. In other words, supply chain is all about individual, is a network consisting of downstream and upstream organizations which are involved in different processes and activities that create value for end customers in the form of products and services.

In the case of Ethiopia, among the few giant enterprises involved in the sustainable supply of industrial inputs for different industries, Ethiopian Industrial Inputs Development Enterprise (EIIDE) is the main one. The enterprise is a public enterprise established by law to ensure, among other things, the sustainable supply of industrial inputs in the country.

As concluded by many researchers and research findings effective supply chain management can improve the performance, profitability, and competitive position of a firm. (Spekman et al., 1998; Ganeshan and Harrison, 1995; Harland, 1996; Anderson et al., 1997; Elliman and Orange, 2000; Jayanth et al., 2000; Lee, 2000; Christopher and Lee, 2001). Therefore, in this research by focusing on EIIDE, the effect of the supply chain management on the organization performance is assessed.

1.2. Problem Statement

A connected set of resources and processes that starts with the raw materials sourcing and expands through the delivery of finished goods to the end consumer is considered as a supply chain (Ridgefield Group, 2006).

Regarding the management of this supply chain, CSCMP (2017) stated that, Supply Chain Management (SCM) encompasses the planning and management of all activities involved in sourcing and procurement, conversion and all Logistic Management activities. It added that, SCM also includes coordination and collaboration with channel partners, which can be suppliers, intermediaries, third party service providers, and customers. Good management of the supply chain can play a major role in improving the overall performance of the organization (Fynes and Voss, 2002; Pyke and Johnson, 2002; Lee, 2002).

Among the giant public enterprises with many expectations from the general public and players in different industries, but less performance due to supply chain problem and other problems is Ethiopian Industrial Inputs Development Enterprise (EIIDE).

The preliminary interview with different position holders indicates that, Ethiopian Industrial Inputs Development Enterprise (EIIDE) is in a poor position to supply inputs to the manufacturing sector and it is still focusing on merchandising basic consumer goods including edible oil, sugar and other food stuff.

In addition, reports indicate that the Enterprise is struggling with a shortage of funds, which arise from different reasons, including mismanagement and inability to collect money from firms which purchased materials from the enterprise. Reports also indicate the enterprise is conducting a transaction which is below their plan; the report of some specific year indicates that, from the

goal of making transactions worth 8.2 billion birr, they have only made 4.2-billion-birr worth of transactions, which is 51.2 percent of their target. It is believed that problem on the supply chain is contributed a lot for this poor performance.

Therefore, in this research by focusing on the supply chain management, its performance and its effect on Organization performance is studied.

1.3. Research Questions

While assessing the Effect of Supply Chain Management on Organization performance and as an input for the assessment, the following questions are answered.

- How Strategic supplier partnership affect organizational performance?
- How customer relationship affecting organizational performance?
- How information sharing affecting organizational performance?
- What effect do quality information sharing has on organizational performance?
- How postponement affects organizational performance?
- What are the challenges in SCM practice?

1.4. Objective of the Study

This research assessed the effect of supply chain management on organization performance, and more specifically the research also has additional specific objectives.

- To study the effect of strategic supplier partnership on organizational performance.
- To study the effect of customer relationship on organizational performance.
- To study the effect of level of information sharing on organizational performance.
- To study the effect f quality information sharing on organizational performance.
- To study the effect of postponement on organizational performance.
- To assess the challenges in SCM practice.

1.5. Significance of the Study

This research can help the enterprise to identify the problems that it is facing regarding the supply chain. It will also help to solve the problems by suggesting well proven recommendations. Other than the enterprise, since the finding improve the supply chain performance, other firms which are doing business with the enterprise can also be benefited. Additionally, policy makers can use the finding of this research as an input in developing new policy or modification of existing one.

1.6. Scope of the Study

The research conceptually assessed only the effect of supply chain management on Organization performance, geographically it is delimited to EIIDE, and among the branches of EIIDE, by using judgmental sampling and by using the specific criteria of the branch's operation and the level of supply chain decision being made in the branches, three of them are selected. These branches are the head office in Addis Ababa, Branch from Oromia Region, and Branch from Amhara region

1.7. Limitation of the study

Even if there are other enterprises which need research in the topic only EIIDE is investigated, and in addition due to time limitation among all the branches of the enterprise, the study is focused only on the branches found in the three regions; which are Addis Ababa, Oromia, and Amhara region.

Chapter Two

Literature Review

2.1. Theoretical Review

2.1.1 Supply Chain

A supply chain can be considered as a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers (Ganeshan, & Harrison, 1995).

Chopra and Meindl, (2001) emphasizing on the components stated that, supply chain not only includes the manufacturer and its suppliers, but also transporters, warehouses, retailers, and consumers themselves. It includes, but is not limited to, new product development, marketing, operations, distribution, finance, and customer service.

According to Fredend & Hill, (2000) supply chain covers the area from the creation of raw materials to the delivery of the finished consumer goods. Many entities are parts in the entire supply chain of a product up to the ultimate delivery stage. This is why; it is difficult to link up actively all the supply chain points. But day by day companies are being interested to implement the supply chain concept in their business because of different changes in their environment. They added that, new communication technology has made easier the communication between members of the supply chain, new management models have been developed that are being used by the supply chain members to simplify the coordination of tasks, and for the development of highly trained work-force, it has become easier to assume the responsibility, make decisions quickly and take required actions to coordinate the supply chain.

2.1.2 Supply chain management

Regarding the term Supply Chain Management, Hugos (2006) stated that the term used for the first time in the late 1980s, and then it became familiar in 1990s. Before of that time the term “logistics” and “operations management” been used in different occasions.

The definition given by Larson and Halldorsson (2002), Shapiro (2001), and Coyle et al. (2003) have something in common, which is they considered SCM as the management of the entire

supply chain. Lambert, (2001) also considered SCM is management of the entire supply chain and he also added that, SCM involves three important elements, these are the supply network structure, the supply chain business process, and supply chain channel management.

Veen and Venugopal (2000) by focusing on the activities of SCM, explained the term as, it is management activities focused on the co-ordination of several entities in the supply chain in order to optimize the entire supply chain as if it were one unit, rather than optimizing each entity separately. Supporting this Hasan and Alim (2010) stated that, the concept of SCM emphasizes on co-ordination and collaboration within the firm and between the firms to achieve a win-win situation for all the firms involved. He added that, there is broad agreement among firms, that there is a need for co-ordination and collaboration within the firm and between the firms.

2.1.3. Supply Chain Management Practices

Supply Chain Management practices is a set of activities undertaken in an organization to facilitate effective management of its supply chain (Li, 2005). Research findings indicate that by implementing different SCM practice improvement of firm performance can be achieved. Tan (1998) describes that purchasing, quality and customer relations in his empirical study are the SCM practices that will help to improve firm performance while Donlon (1996) expressed that SCM practices include outsourcing, supplier partnership, cycle time compression, continuous process flow and information technology sharing. Chen and Paul raj (2004) uses long-term relationship, supplier base reduction, cross functional teams, communication and supplier involvement for SCM practices in their study.

Strategic supplier partnership is known as the long-term relationship between its supplier and the organization. The purpose of strategic supplier partnership is to leverage on the strategic and operational capabilities of individual participating organization in achieving significant ongoing benefit (Li, 2005).

Customer relationship is the practices of serving the purpose on building long term relationship with customers, managing on customer complaints and improving customer satisfaction (Li, 2005).

Information sharing is characterized as the impotency of the critical and proprietary information shared among the supply chain partner. (Li, 2005) and the information shared between the partner is very important contributor to the supply chain performance.

Postponement is termed as the exercise of moving forward one or more operations or activities which is included making, sourcing and delivering to a later point in the supply chain. The moving forward is caused by internal, external or even customer (Li, 2005).

Quality of information sharing is termed with the information exchanged in the supply chain is accurate, timely, complete, adequate and credible in order to make the entire supply chain more competitive and resourceful (Li, 2005).

An organizational performance is defined as how well the organization works on improving the company financial condition and be able to compete again the competitor. In this study, the organizational performance is categorized into financial performance and non financial performance. Both of the dimensions are defined as follows:

Financial performance is termed as performance related to the financial prospect such as measurement of increase in portion of market share, returns of investment growing, increase profit margin and enhances competitive position (Stock, 2000).

Non financial performance is termed as performance related to operational prospect such as response time on product design changes, time for product volume changes, processes accurate orders, increase speed of order handling and so on which are related to the operational performance that will not directly affect on the financial figure but will indirectly affect on the organizational performance (LaLonde, 1998).

2.1.4. Actors and the Structure of Supply Chain

The common structure of supply chain, it is an arrangement of a company and the suppliers and customers of that company. This basic group of participants forms a simple supply chain (Hugos, 2006).

Regarding the extended supply chains, Hugos (2006) added that, it involves three additional types of participants. First there is the supplier's supplier or the ultimate supplier at the beginning of an extended supply chain. Then there is the customer's customer or ultimate customer at the end of an extended supply chain. Finally, there is a whole category of companies who are service providers to other companies in the supply chain. These are companies who supply services in logistics, finance, marketing, and information technology.

According to Pyke and Johnson (2002), in a certain supply chain there is some combination of Companies which perform different functions. There are companies which are producers, distributors or wholesalers, retailers, and companies or individuals who are the customers, the final consumers of a product. To support these companies there are other companies who are service providers. They further explained the components as:

Producers- are firms which are responsible for manufacturing the product, and includes the companies that are producers of raw materials and companies that are producers of finished goods. Producers of finished goods use the raw materials and subassemblies made by other producers to create their products.

Distributors- includes firms which take inventory in bulk from producers and deliver a bundle of related product lines to customers. Distributors are also known as wholesalers. Usually, they sell to other businesses and they sell products in larger quantities than an individual consumer would usually buy. Distributors buffer the producers from fluctuations in product demand by stocking inventory and doing much of the sales work to find and service customers. For the customer, distributors meet up the time and place utility. They deliver products when and where the customer wants them. A distributor is typically taking the ownership of significant inventories of products that they buy from producers and sell to consumers. In addition to product promotion and sales, distributor performs some other functions like- inventory management, warehouse operations, and product transportation as well as customer support and

post-sales service. Without taking the ownership, a distributor as an organization brokers a product between the producer and the customer. This kind of distributor performs mainly the functions of product promotion and sales. As the needs of customers evolve and the range of available products changes in both of the cases, the distributor as an agent continually tracks customer needs and matches them with products that are available.

Retailers- they preserve the inventory and sells it to the general public in smaller quantities. This organization also closely monitors and analyzes the preferences and demands of the customers that it sells to. It advertises to its customers and often uses some combination of price, product selection, service and convenience as the primary draw to attract customers for the products it sells. Discount department stores attract customers using price and wide product selection.

Customers- are any organization that purchases and uses a product. A customer organization may purchase a product in order to incorporate it into another product that they in turn sell to other customers. Or a customer may be the final end user of a product who buys the product in order to consume it.

Service providers- these are the organizations that provide services to producers, distributors, retailers and customers. Service providers develop special expertise and skills that focus on a particular activity needed by a supply chain. For this cause, they are able to perform these services more effectively and at a better price than producers, distributors, retailers, or consumers could do on their own. Some common service providers in any supply chain are providers of transportation services and warehousing services. These are trucking companies and public warehouse companies and they are known as logistics providers. Financial service providers deliver services such as making loans, doing credit analysis, and collecting on past due invoices. These are banks, credit rating companies, and collection agencies. Some service providers deliver market research and advertising, while others provide product design, engineering services, legal services, and management advice. Other service providers offer information technology and data collection services. All these service providers are integrated to a greater or lesser degree into the ongoing operations of the producers, distributors, retailers and consumers in the supply chain.

2.1.5. Global Supply Chain and Factors Affecting Efficiency

Even if it looks, it is possible to be free from the influence of the global economy, you can't get through a day without the influence global economy touching you. Therefore, firms need to be aware of the changes in the global Supply Chain. According to Murphy (1999) Global supply-chain management is key to having sustainable competitiveness in the world economy. He further added that, it's one of the few areas where you can reduce costs and improve customer service.

Aa explained by Zuckerman (2000), to open the business in international market, companies are thinking globally to maintain a competitive edge. But when they move into global arena, their supply-chain problems multiply exponentially. To manage a supply chain across the border and between two continents it is suggested to be highly organized. There is no scope for error at border crossings. In the global operation of supply chain, many new issues arise. Besides the obvious transportation and logistical concerns, there are some hidden forces that should be considered seriously in a global supply chain.

The factors that must be considered in global supply chain management as explained by Zuckerman (2000) are:

Cultural and language barriers- There is no way to overlook or avoid the power and force of cultural differences and language barriers in the global marketplace. To maintain the flow of information and smooth supply chain operation, language barrier must be overcome. Cultural differences should be controlled. Regarding the import/export concern with clients, there can be different values and work practices. In this ground, cultural difference should be removed to succeed in supply chain operation.

Import/Export compliance- Companies do not have to be directly involved in international trade to find themselves meeting import/export requirements. If they supply manufacturers that sell overseas, they may very well find they have to comply with their own country or foreign regulations. Moreover, considering the chain of responsibility, all parties to an overseas transaction- suppliers, manufacturers and shipping professionals must ensure that regulations are met.

Standards and testing practices- Standards are the main pillar of manufacturing design. Testing practices provide customer assurance that a product has met health, safety and environmental standards and/or government regulations. If any company fails to meet up the national or regional standards and testing requirements, they are to be terminated from the markets and supply chain breaks down accordingly.

Advanced technology- although human interaction is essential to maintain a real global communication and human skills are vital factor to manage information flow of the supply chain, it is not possible to practice global supply chain management without advanced technology. Software solutions also abound for just about every supply chain function, from planning to warehouse inventory management and shipping.

Information management- no company can manage a global supply chain without being concerned about how information flows using its applied advanced technology tools. For just-in-time shipping and inventory control, accuracy is very important in particular points. An entire supply chain can be thrown off for inaccurate information and missing data. Employees of the company need to be trained to better management of information although advanced technology can provide some built-in accuracy checks.

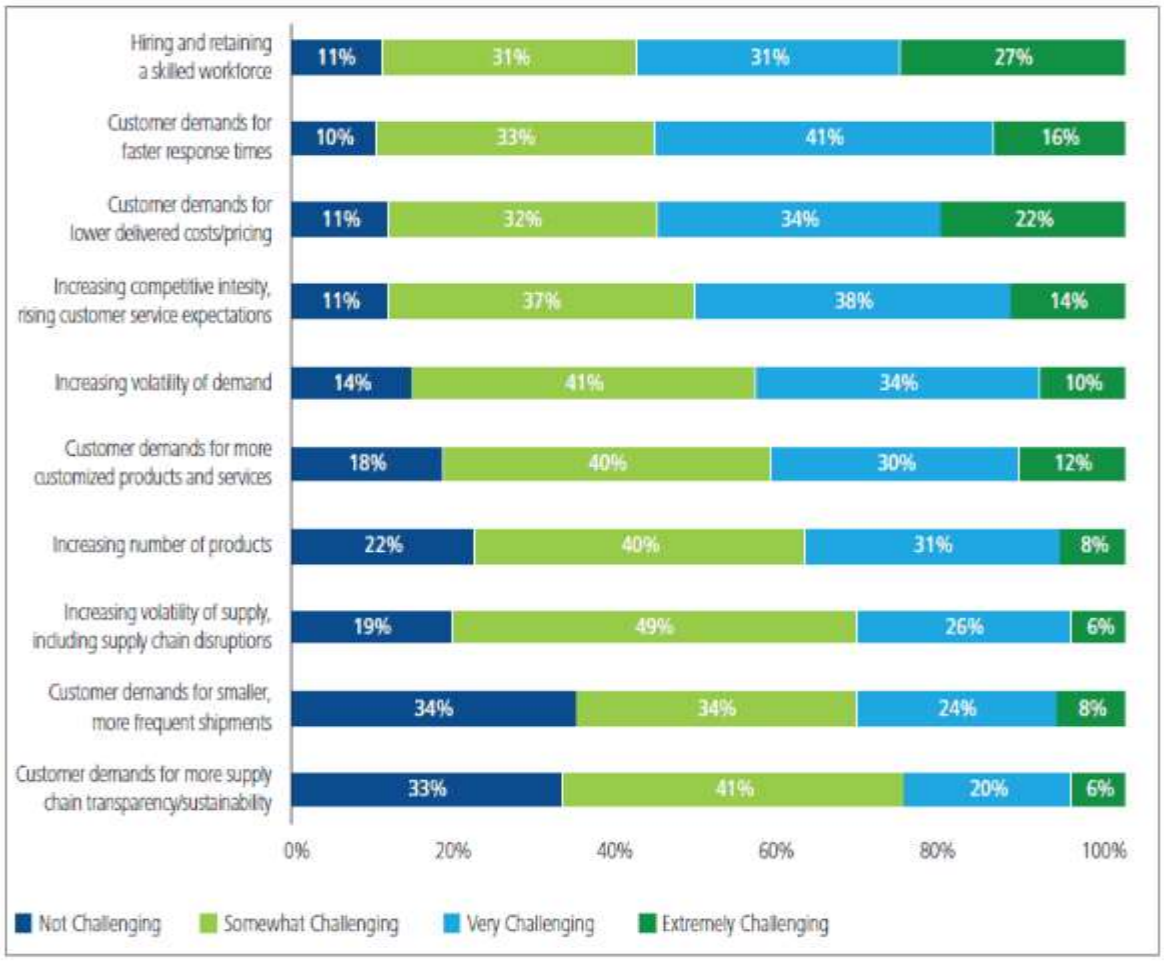
Prasad and Sounder Pandian (2003) added that to gain the competitive advantage, a company needs to examine its activities in relation to the comparative advantages, which is available in different countries. Corresponding these activities and the sourcing decisions with the imposed conditions of any particular country can lead to gain in cost, quality, lead times and perhaps innovation.

Supply Chain Challenges

The internationalization of business activities and markets has brought new competitors to the market and the business landscape is constantly changing, bringing new challenges to modern businesses. In such globalized environment, it is a huge challenge for companies to remain competitive, creating a responsive and cost-effective supply chain. To successfully fulfill the requirements of a consumer, offering a product at the right quantity, price, time and place, supply chains must be cost-efficient, responsive, efficient, flexible and agile (Milovanovic et.al., 2017) .

According to Canitz, (2016), supply chain challenges vary across industries, geographies and business strategies. Even though he claims that it is nearly impossible to predict these challenges, he considers the following as the most important ones: increased disruptions, mainly affected by today's supply chains which are increasingly more complex, volatile and unpredictable; supply chain cost reductions, stating that it will be more difficult to lower total costs with the rise in interest rates and a possible raise in fuel prices; increased customer service expectations due to a greater access to product and business information from the customer side; and demand unpredictability, which should led to more supply chains adopting software solutions to upgrade their planning capabilities.

Fig. 2.1. Supply Chain Challenge



Source: Canitz, (2016)

Stonkutė, E. (2015) also made literature research and analyzed the challenges in supply chain management. He states that the main challenges will be related to the need to cope with supply chain risks and disruptions, the leadership within the supply chain; the importance to manage the timely delivery of goods and services; the need to innovate by drawing on the capabilities of the supply chain; and the need to implement appropriate information exchange technologies to increase supply chain visibility.

2.2. Empirical Review

Numerous empirical studies have investigated the influence of strategic supplier partnership, customer relationship, information sharing, and postponement strategies on organizational performance across diverse industries.

Chen and Paulraj (2004) conduct the research regarding supply chain management practices, and they identified that long-term relationship, cross-functional teams, supplier base reduction, and supplier involvement as a major factor which affect supply chain performance.

The same with Chen and Paulraj, Min and Mentzer (2004) also examined in their study long-term relationship, information sharing, cooperation process integration and supply chain leadership underlying the supply chain management practices.

According to Thatte (2007) finding the very important factors which affect the supply chain management performance are strategic supplier partnership, customer relationship, and information sharing.

Li et al. (2018) examined the impact of strategic supplier partnerships on organizational performance, highlighting that collaborative supplier relationships lead to improved supply chain efficiency and enhanced organizational outcomes.

Mentzer et al. (2001) conducted a study emphasizing the role of customer relationship in SCM. Their findings revealed that customer relationship management positively affects customer satisfaction, repeat business, and financial performance.

Barratt and Oke (2007**)** explored the relationship between information sharing and supply chain performance, indicating that higher levels of information sharing lead to reduced lead times, improved responsiveness, and enhanced organizational performance.

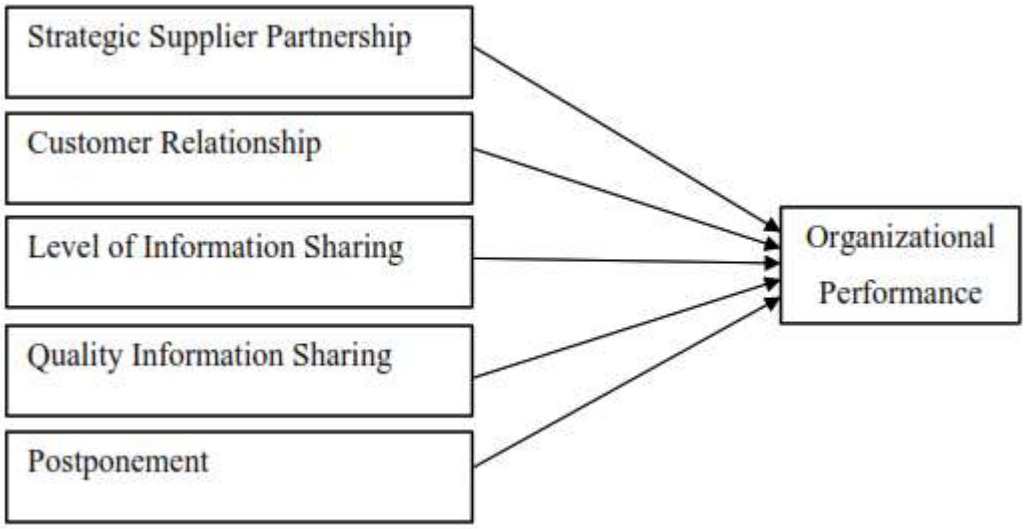
Fawcett et al. (2007) investigated the impact of information quality on supply chain performance, highlighting that accurate and timely information sharing contributes to better demand forecasting, inventory management, and overall organizational performance.

Swaminathan et al. (1994) studied the application of postponement strategy in SCM, indicating that postponement leads to efficient resource utilization, reduced costs, and improved organizational performance.

2.3. Conceptual Framework

The research will try to investigate how the listed independent variables affect the organizational performance.

Fig 2.2. Conceptual Framework



Source: Modified from Simão et al., (2016), Hussain et al., (2018), Sagawa & Nagano, (2015)

Organizational Performance

Organizational performance is related to achieving the goals that were given to you in convergence of enterprise orientations (Didier Noyé, 2002)

Customer Relationship

CR is concerned with how much the customer is satisfied from services and in what manner and to what extent their complaints about the products are being handled (Hussain et al., 2018).

Quality Information Sharing

It is about providing customers with valid and diversified information which could help customers to get a clear picture and access to their products (Sagawa & Nagano, 2015).

Level of Information Sharing

The level of movement or transferring of information regarding the product to other partners of the firm (Khan & Siddiqui, 2018).

Strategic Supplier Partnership

It is a long-term strategic coalition of two or more firms in a supply chain to facilitate joint effort and collaboration in one or more core value creating activities such as research, product development, manufacturing, marketing, sales, and distribution, with the objective of increasing benefits to all partners by reducing total cost of acquisition, possession, and disposal of goods and services (Maheshwari et al., 2006, Li et al., 2006).

Postponement

It is the way of firms tackle different risks or problems in SC and further enhance their performance by increasing profits (Simão et al., 2016).

Chapter Three

Research Methodology

This chapter presents the methodology through which the research is studied. It consists of specific methodology related topics like, research design, data type and source, data collection tools, sample size and sampling technique, and method of data analysis.

3.1. Research Design

The research design employed in this study is a mixed-methods approach, encompassing elements of both quantitative and qualitative research methodologies. As articulated by Bhattacherjee (2012), a survey method was utilized, involving the administration of standardized questionnaires and interviews to systematically gather data about individuals, their preferences, thoughts, and behaviors. This mixed-methods survey strategy offers a comprehensive framework for data collection, analysis, and interpretation.

Saunders et al. (2009) underscore the advantages of a mixed-methods survey strategy. It enables researchers to harness the benefits of both quantitative and qualitative data, thereby enhancing the depth and breadth of insights gained from the study. While quantitative data are collected and analyzed using descriptive and inferential statistical techniques, qualitative data are obtained through interviews and focus groups, capturing nuanced perspectives and non-numerical information.

In the context of this study, the mixed-methods approach offers a robust means to explore the complex interplay between supply chain management factors (strategic supplier partnership, customer relationship, levels of information sharing, quality of information sharing, postponement) and their impact on organizational performance within the Ethiopian Industrial Input Enterprise. By merging quantitative data analysis with qualitative insights, this research design enables a comprehensive understanding of the dynamics at play and contributes to a more holistic evaluation of the research objectives.

3.2. Data Type and Source

Both qualitative and quantitative data type are considered for the study. These data are collected from both primary and secondary sources. The primary data is collected from the suppliers of EIIDE, the management team of EIIDE, and the customers of EIIDE who are in different industries and using the material from the enterprise as an input. The secondary data is collected from manuals, quarterly and annual report of the enterprise, and all other relevant documents of contracts of the enterprise.

3.3. Sample Size and Sampling Technique

EIIDE has branches all over Ethiopia; there are a total of 83 branches in the 10 regions and the two city administrations. Among the branches, by using judgmental sampling and by using the specific criteria of the branches operation and the level of supply chain decision being made in the branches, three of them are selected.

These branches are the head office in Addis Ababa, Branch from Oromia Region, and Branch from Amhara region. These branches selected based on their level of operation. In the three branches there are around 173 employees. By assuming the respondents view is somewhat similar and homogeneous, it is decided to take a sample based on analysis on previous successful researches conducted in the area of the research topic and by using Cochran, (1963) formula. As indicated in the below calculation a total of 120 respondents, whose job is related with this research topic, is selected.

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

n= 173/ 1+175(0.05)2= 120

Regarding the suppliers of the enterprise, by considering the available historical data, the management of raw leather providing firms and cotton providing firms are contacted.

3.4. Data Collection Tools

The study used semi structured interview and a questionnaire as a tool of data collection. The Interview will offer a chance to explore topics in-depth and allows interaction between the researcher and respondents, who are the management team of EIIDE and other firm managers

who are involved in providing supply for EIIDE and firms who are buying from EIIDE. The researcher also distributed a questionnaire to collect data from non-managerial employees in EIIDE.

3.5. Method of data Analysis

To maintain the reliability and validity of the collected data, the researcher accomplished the task of data editing, coding, and entry. Both in-house and field editing is made. The collected data is processed and analyzed by classifying it into its homogeneity of responses.

The data which is collected using questionnaire from the employees of EIIDE, who are from different branch, is analyzed by using appropriate tools (STATA software) and presented by using descriptive statistics involving tables and charts. Finally, data obtained through both interview and questionnaire are presented coherently by substantiating one another.

CHAPTER FOUR

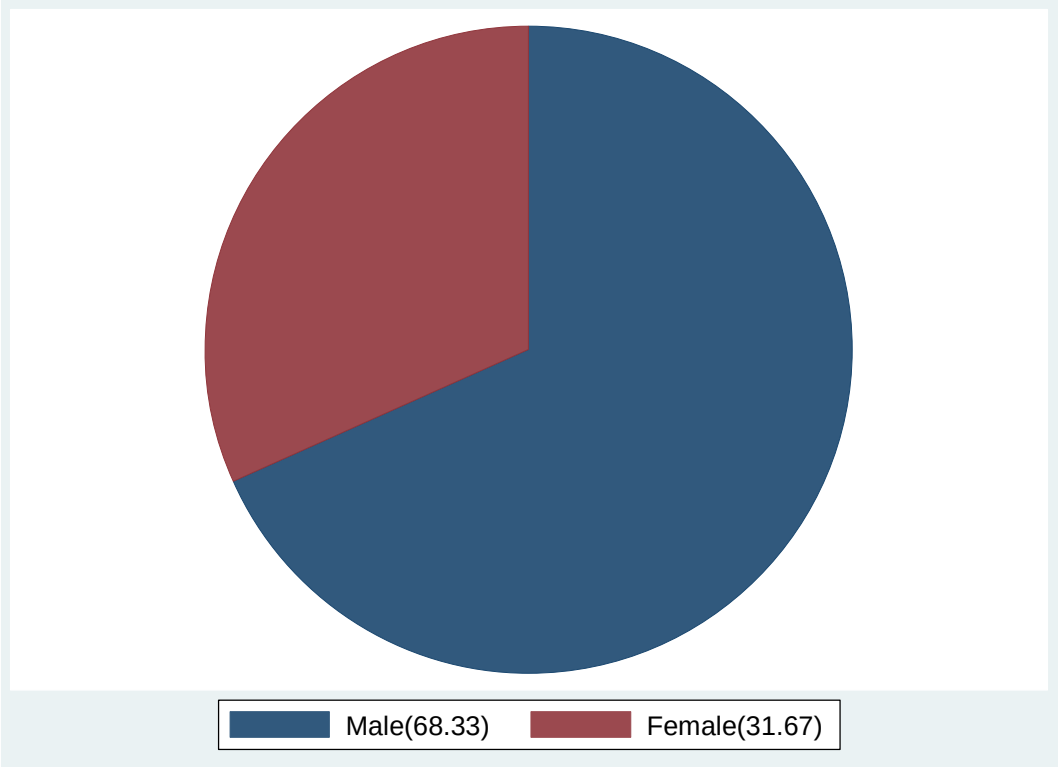
DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

In this chapter, the analysis made on the data collected from employees of EIIDE and managers, using questionnaire and interview, is included. The chapter is divided based on the dependent and the independent variables included in the research. The independent variables are customer relationship, strategic supplier partnership, quality information sharing, level of information sharing, and postponement.

4.1. General Information

As indicated the below chart, among the respondents 68.33% of them are male and the remaining 31.67 % are female. This gives a hint that majority of the employees are male.

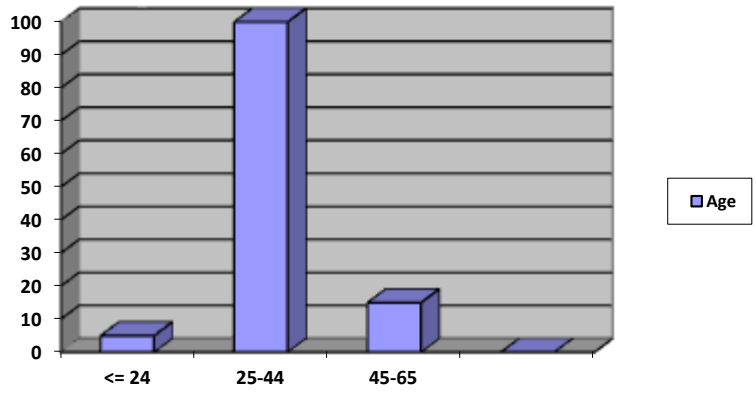
Fig. 4.1. Sex of respondents



Source: Own survey, 2023

Regarding age of respondents, limited number of them (4.17 %) are in the age group less than 24 years, majority of them (80%) are in the age group of 25- 44, and the remaining 15.83% of them are in the age group of 45 to 65.

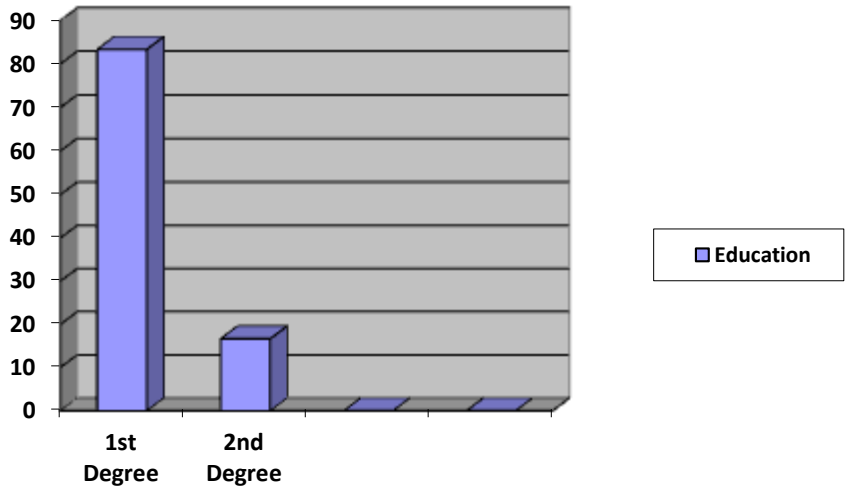
Fig 4.2. Age of Respondents



Source: Own Survey, 2023

Respondents were also asked about their education level, their response indicate that majority of them are 1st degree holders (83.33%) and the remaining (16.67%) are 2nd degree holders.

Fig 4.3. Education Level of Respondents



Source: Own Survey, 2023

4.2. Strategic Supplier Partnership

A total of eight questions which are related with strategic supplier partnership are included in the questionnaire. The analysis is made based on the following criteria; if the mean value is from 1 to 1.80, it is analyzed as "strongly disagree", if it is from 1.81 until 2.60 it represents 'disagree', from 2.61 until 3.40 represents "Neutral", from 3:41 until 4:20 represents "agree", and finally if it is from 4:21 until 5:00 represents "strongly agree".

Regarding the first question, which states "there are suppliers who are identified as key suppliers" and which is represented with "ssp1", the mean value is 2.65, indicating that majority of the respondents are not sure about the existence or non-existence of key suppliers.

The respondents were also asked if the existing key suppliers participate in the planning of the enterprise. As indicated by "ssp2" the mean value is 2.05, which is interpreted as majority of the respondents disagree on the existence of key supplier participation in the planning of the enterprise.

For the question regarding the existence of a plan to strengthen the relationship with key suppliers (ssp3), majority have a view which is in-between, this is indicated with a mean value 2.74.

Similar to the previous response the respondents have a neutral view for the question "key suppliers participate in the research activity of the enterprise" which is represented with the code ssp4 and a mean value of 2.69.

Different from the previous two responses the respondents disagreed on the availability of key suppliers' participation in sales strategy development; this is indicated with a code "ssp5" and a mean value of 2.29.

The other question raised for the respondents was about whether key suppliers participate in distribution strategy development of the enterprise or not. As indicated in the below table, the mean value of the question which is represented by "ssp6" is 2.3, and this show the respondents disagreement on the key suppliers participation in distribution strategy development of the enterprise.

Table 4.1. Strategic Supplier Partnership

```
. mean ssp1 ssp2 ssp3 ssp4 ssp5 ssp6 ssp7 ssp8

Mean estimation                 Number of obs   =       120
```

	Mean	Std. Err.	[95% Conf.	Interval]
ssp1	2.65	.0816925	2.488241	2.811759
ssp2	2.058333	.0693061	1.9211	2.195566
ssp3	2.741667	.1021449	2.539409	2.943924
ssp4	2.691667	.1096185	2.474611	2.908722
ssp5	2.283333	.124225	2.037356	2.529311
ssp6	2.3	.1288823	2.0448	2.5552
ssp7	3.025	.1100436	2.807103	3.242897
ssp8	2.616667	.1053096	2.408143	2.82519

Source: Own Survey, 2023

As indicated in the above table the respondents have a neutral view regarding the statement “key suppliers take part in the changes that happen in the enterprise”, this is reflected with the mean value of 3.025.

The last question raised regarding strategic supplier partnership is stated as “when major problems occur the suppliers also allowed to participate in the solution”. Similar to most of the questions included in this category, the respondents have a neutral view about the issue. This is represented by the code “ssp8” and mean value of 2.61.

From the above findings it can be concluded that limited level of strategic supplier partnership exist and also the participation of those key suppliers in different kinds of decisions is very insignificant. This result is consistent with what is obtained from the interview made with the management team; they expressed that even if they believe some suppliers can be considered as very important comparing with the others, there is no experience of working in a very close way.

4.3. Customer Relationship

Among six questions regarding customer relationship the first question raised is “the enterprise evaluates customer satisfaction”. As indicated in the below table, represented with the code “cr1”, majority of the respondents have a neutral view; this is shown with the mean value of 3.00.

Regarding, the question whether the enterprise is supplying best quality items to customers or not which is represented with the code “cr2” the mean value indicates 4.32, this shows that majority of the respondents agree that what the enterprise is supplying is a quality item.

The other indicator for good customer relationship is the efficiency of complaint handling. Regarding this, majority of the respondents have a neutral view. This is represented with the mean value of 3.26 and the code “cr3”.

Different from the previous response, majority of the respondents agree that, with mean value of 3.66, the enterprise reacts to all of the complaints made by the customers.

Table 4.2. Customer Relationship

```
. mean cr1 cr2 cr3 cr4 cr5 cr6

Mean estimation                 Number of obs   =       120
```

	Mean	Std. Err.	[95% Conf.	Interval]
cr1	3.008333	.1277339	2.755408	3.261259
cr2	4.35	.1015634	4.148894	4.551106
cr3	3.258333	.1209763	3.018788	3.497879
cr4	3.658333	.1041814	3.452044	3.864623
cr5	3.65	.1022506	3.447534	3.852466
cr6	4.416667	.0715801	4.274931	4.558402

Source: Own Survey, 2023

As indicated in the above table, the last two questions in this category which states "the enterprise determine customer expectations and whenever a contract couldn't performed the enterprise inform and discuss the issue with the customers", both got a positive response with a mean value of 3.65 and 4.42, respectively.

From the above responses it can be concluded that the enterprise is performing good from the angle of customer relationship because it is serving quality service, reacting to all complaints, determining customers' expectation, and also communicating and providing information whenever there is contract failure.

Similarly, the interview with the management team also indicate that the enterprise is good in its customer relationship, even different from the questionnaire result, they emphasized they continually check the customers satisfaction and also try to develop solution whenever they understand the existence of problem.

4.4. Level of Information Sharing

Under this topic five questions, which can show the level of information sharing, are included. The first question states "the enterprise informs suppliers in advance changes in customers' needs", this question is represented with a code "lis1". The mean response for this question is

3.49, which indicates majority of the respondents agree that the enterprise informs suppliers in advance changes in customers' need.

Respondents also agreed that the enterprise informs customers in advance whenever there is change in policies. As indicated in the below table this is represented by the code "lis2" and the mean value of 3.68.

Regarding the question "customers inform the enterprise, in advance, change in their need", respondents indicated their neutral view with a mean value of 3.32. This indicates that even if the enterprise is informing suppliers whenever there is a change in customers need, the customers are reluctant to immediately inform the enterprise regarding their need change.

Table 4.3. Level of Information Sharing

```
. mean lis1 lis2 lis3 lis4 lis5

Mean estimation                 Number of obs   =       120
```

	Mean	Std. Err.	[95% Conf.	Interval]
lis1	3.483333	.1004077	3.284516	3.682151
lis2	3.675	.1059587	3.465191	3.884809
lis3	3.316667	.1122618	3.094377	3.538956
lis4	2.791667	.116494	2.560997	3.022336
lis5	3.633333	.1374708	3.361127	3.905539

Source: Own Survey, 2023

As indicated in the above table, the fourth question regarding the level of information sharing raised is "the enterprise informs suppliers in advance changes in policies", for this question majority of the respondents indicated their neutral view; this is reflected with their mean response of 2.8. Therefore, even if there is good communication with customers related with change in policy, there is a gap in communication with suppliers.

Finally, the reverse for the previous question is "the suppliers inform the enterprise in advance changes in their policy", which is represented in the above table with lis5, the mean value is 3.63

and indicates that the respondents agreed that the suppliers communicate their policy change to the enterprise.

4.5. Quality of Information Sharing

Under this topic questions which will help to analyze the quality of information sharing are analyzed. The first question states “there is clear information flow between the enterprise and the suppliers”; as indicated in the below table with a code qis1, majority of the respondents, with mean value of 3.56, agreed on the existence of clear information flow between the enterprise and the suppliers.

For the question “there is clear information flow between the enterprise and the buyers” which is indicated in the below table with the code “qis2”, and for the question “there is timely information flow between the enterprise and the suppliers” represented with the code “qis3” majority of the respondents, with the mean of 2.87 and 3.39, respectively, indicated their neutral view.

Regarding the availability of timely information flow between the enterprise and the buyers, which is coded with “qis4”, majority of the respondents which is indicated with the mean of 3.3416 are agreed.

Table 4.4 Quality of Information Sharing

```
. mean qis1 qis2 qis3 qis4 qis5 qis6

Mean estimation                 Number of obs   =       120
```

	Mean	Std. Err.	[95% Conf.	Interval]
qis1	3.575	.1163536	3.344608	3.805392
qis2	2.866667	.1364482	2.596486	3.136848
qis3	3.391667	.1092987	3.175244	3.608089
qis4	3.341667	.1106992	3.122471	3.560862
qis5	3.725	.0989882	3.528993	3.921007
qis6	3.575	.0966255	3.383672	3.766328

Source: Own Survey, 2023

Regarding the content of the information two questions are raised, they are stated as “the content of the information that flow between the enterprise and the suppliers is right” coded as “qis5” and “the content of the information that flow between the enterprise and the buyers is right” coded as “qis6”. As indicated in the above table, for both questions the respondents indicated their agreement with mean value of “3.73” and “3.58”, respectively.

4.6. Postponement

The last independent variable included in this research is postponement. Regarding this variable two questions are raised for the respondents. The first question is stated as “most of the items that the enterprise supplies are general products”, which is represented with the code “p1”. Majority of the respondents, indicated with the mean of 4.49, agreed.

As indicated in the below table, same to the first question for the second question, “the enterprise has a system to modify a generic product on customers demand” coded with “p2”, majority of the respondents indicated their agreement.

Table 4.5. Postponement

```
. mean p1 p2

Mean estimation                 Number of obs   =       120
```

	Mean	Std. Err.	[95% Conf.	Interval]
p1	4.483333	.0729369	4.338911	4.627756
p2	3.491667	.0729489	3.347221	3.636113

Source: Own Survey, 2023

Supporting the above finding, the interview with the management team indicates that, even if what commonly the enterprise providing is standardized products, it is capable of serving a unique product for any customer group which has unique need.

4.7. Challenges in SCM Practice

Research identified some common challenges related with supply chain management; based on the findings the respondents were asked if there are the listed problems in the enterprise. The data is inserted in the STATA software by representing strongly agree with 1, agree with 2, neutral 3, disagree 4, and strongly disagree with 5. For the first challenge raised "there is suppliers' inability in keeping their promise" which is represented with the code "ch1", majority of the respondents, with mean of 3.73, indicated their disagreement on the existence of the problem.

Regarding the second statement, "the employees of the enterprise are unreliable in performing their duty" which is represented with "ch2", majority of the respondents indicated their disagreement on the existence of the problem; this is represented with the mean value of 3.69.

Table 4.6. Challenges in SCM Practice

```
. mean ch1 ch2 ch3 ch4 ch5 ch6 ch7 ch8

Mean estimation                   Number of obs    =       120
```

	Mean	Std. Err.	[95% Conf.	Interval]
ch1	3.725	.0989882	3.528993	3.921007
ch2	3.683333	.1224078	3.440954	3.925713
ch3	3.9	.102763	3.696519	4.103481
ch4	3.35	.1187293	3.114904	3.585096
ch5	2.441667	.1140027	2.21593	2.667403
ch6	2.525	.1235348	2.280389	2.769611
ch7	3.3	.12276	3.056923	3.543077
ch8	1.983333	.1090982	1.767308	2.199359

Source: Own Survey, 2023

As indicated in the above table, the respondents disagreed that the buyers are not capable of making their payment on time. This is represented with the code "ch3" and the mean value of 3.9.

Different from the previous questions, the respondents indicated their neutral view for the question "there is stock problem because of wrong orders", this is represented by the code "ch4" and the mean value of 3.35.

Different from the previous questions the response from the questions, “there is mischief by the parties involved in the supply chain”, which is represented by “ch5” and “suppliers are late in supplying items in the right date specified in the contract”, which is represented by “ch6”, the respondents agreed on the existence of the problem with the mean value of 2.44 and 2.53, respectively.

The next question is stated as “the plan being prepared by the enterprise considers the capacity of the enterprise”, majority of the respondents indicated their neutral view. This is represented with the code and “ch7’ and the mean value of 3.3.

The last question included in this topic is “there is stock problem because of improper distribution”. As indicated in the above table, represented with the code “ch8” majority of the respondents, with a mean of 1.99, agreed that there is a problem of stock because of improper distribution.

To support the above finding interview was also made and the management team requested to mention some of the challenges that the enterprise facing. Most of the challenges listed above are also listed by the management team but some of the information is inconsistent with the above finding. They reflected that there is no problem with the plan and they also believe that the plan considers the capacity of the enterprise.

4.8. Organizational Performance

To measure the organization’s performance three questions are included. These are “the enterprises sales level is growing”, “the enterprise is getting new customers time to time”, and “the enterprise is profitable”; these questions are coded as op1, op2, and op3, respectively.

Table 4.7. Organizational Performance

```
. mean op1 op2 op3

Mean estimation                 Number of obs   =       120
```

	Mean	Std. Err.	[95% Conf.	Interval]
op1	4.2	.0833473	4.034964	4.365036
op2	3.933333	.0906971	3.753744	4.112923
op3	4.05	.0818638	3.887902	4.212098

Source: Own Survey, 2023

As indicated in the above table, the mean values 4.2, 3.93, and 4.05, indicates that the respondents' agreement on the enterprises' sales growth, the enterprise's getting new customer, and the enterprise is profitable, respectively.

4.9. The Effect of the Independent Variables on Organizational Performance

Under this topic the effect of the independent variables, which are strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement on organizational performance is discussed. With this regard, correlation analysis and regression analysis are applied.

4.10. Correlation

A correlation coefficient is a single number that represents the degree of association between two sets of measurements. Here under the correlation between organizational performance and the independent variables, which are strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement is investigated. The correlation table is indicated below.

Correlation Result of the Variables

According to Evans (1996) suggestion for the absolute value of r is indicated below

0.80-1.0 "very strong"

0.60-0.79 "strong"

0.40-0.59 “moderate”

0.20-0.39 “weak”

0.00-0.19 “very weak”

The correlation between the variables is indicated below.

Table 4.8. Correlation Result

```
. corr avgop avgssp avgp avgcr avgqis avglis
(obs=120)
```

	avgop	avgssp	avgp	avgcr	avgqis	avglis
avgop	1.0000					
avgssp	0.3382	1.0000				
avgp	0.3958	0.2206	1.0000			
avgcr	0.3849	0.2375	0.1003	1.0000		
avgqis	0.3816	0.1423	0.0603	0.1655	1.0000	
avglis	0.2824	-0.0276	0.2255	0.0711	-0.1426	1.0000

Source: Own Survey, 2023

As indicated in the above table, with the exception of postponement, which has moderate correlation, the other four which are strategic supplier partnership, customer relationship, level of information sharing, and quality of information sharing has a weak correlation which are represented with the figure 0.3382, 0.3849, 0.3816, and 0.2824, respectively, has a weak

correlation. This indicates that the independent variables has a linear relationship which is positive with the dependent variables, and the relationship varies from weak to Moderate.

4.11. Regression Result

Under this topic, mainly a regression analysis is conducted; but before the analysis, the assumptions and requirements of the regression analysis are checked.

Assumptions of Regression

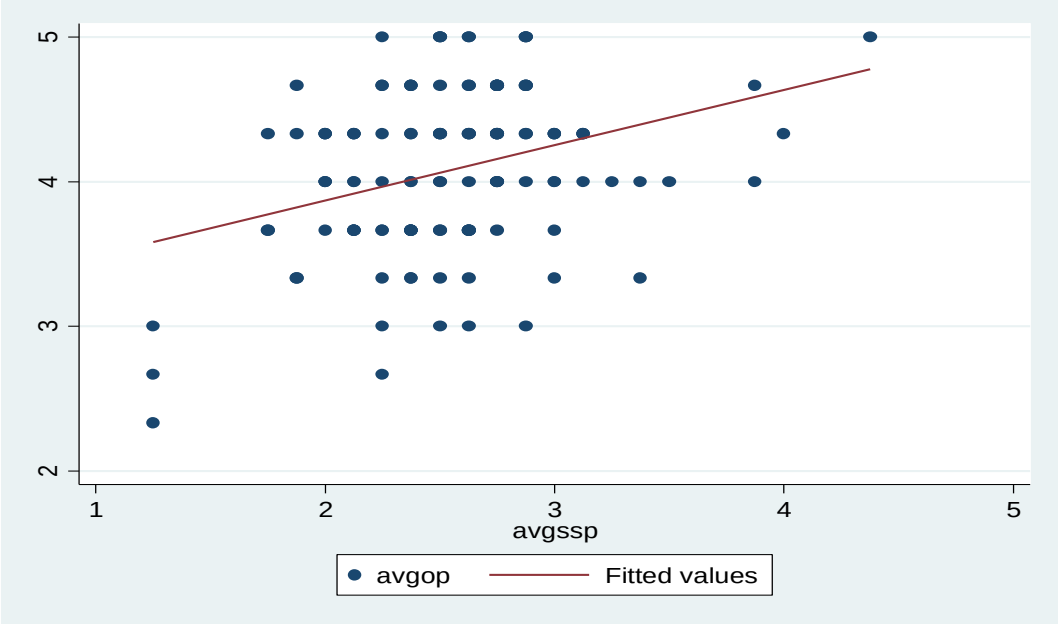
There are common assumptions that must be meet to apply regression. These assumptions are:

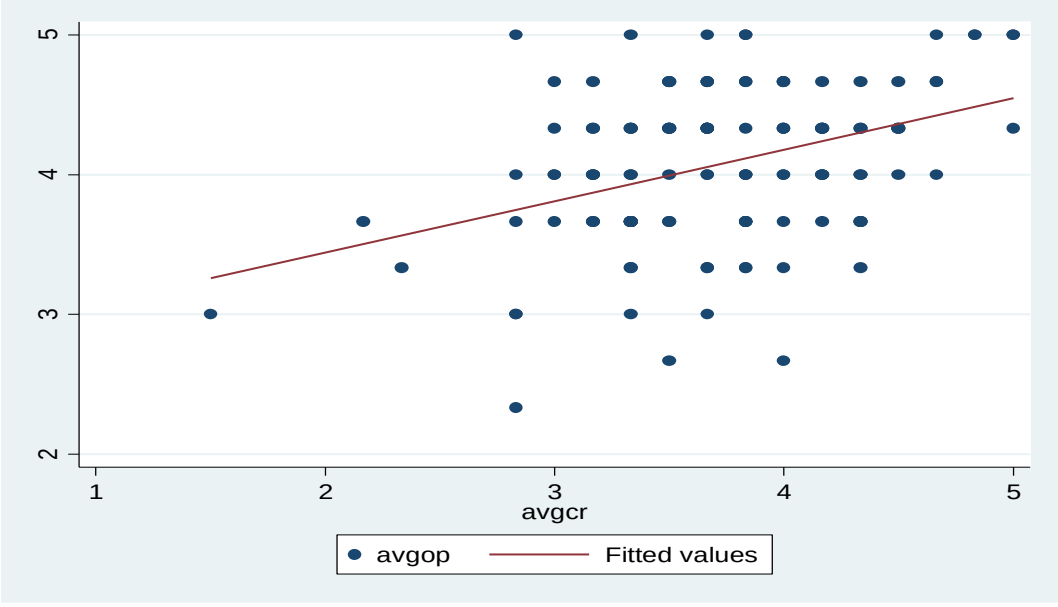
Assumption 1: The variables should be continuous

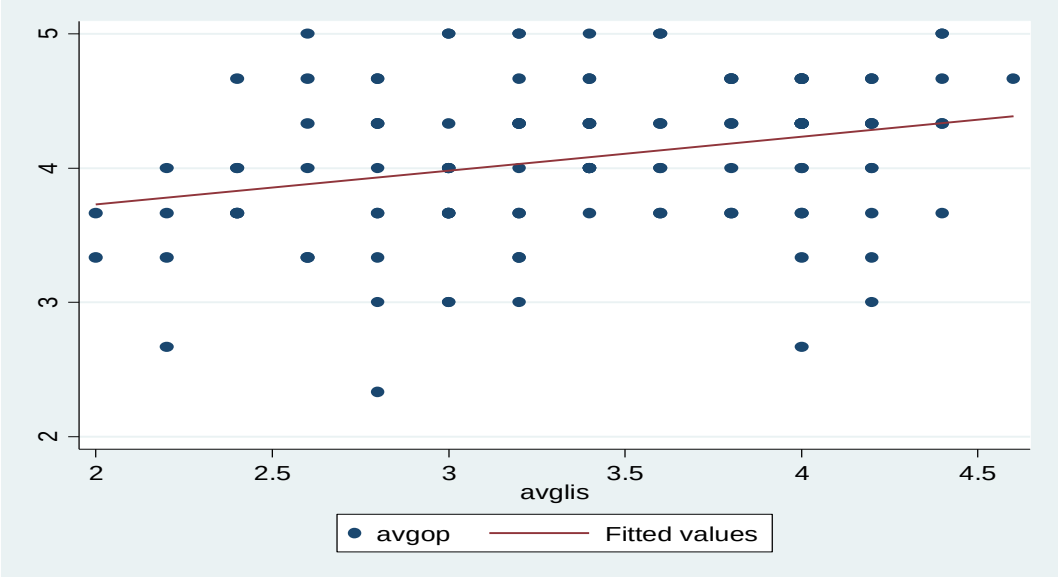
The variables investigated in this research can be considered continuous because the analysis is depending on the mean of the dependent and independent variables, and since in this case, the mean can be any number in the range 1 to 5, it can be considered that the variables are continuous.

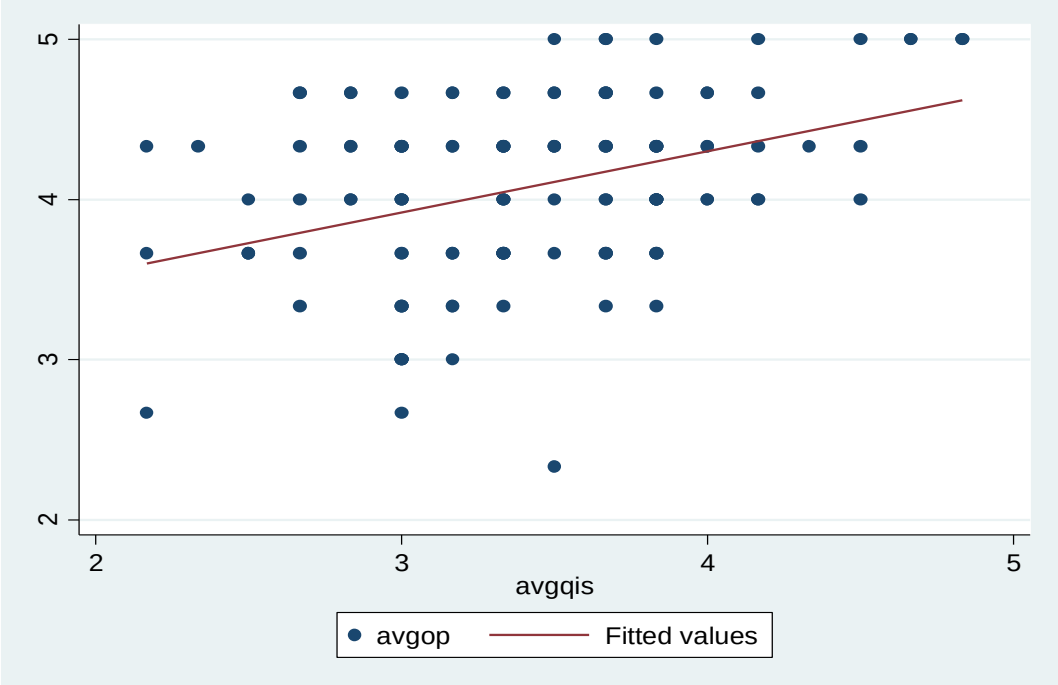
Assumption 2: There should be linear relationship between the dependent and independent variables.

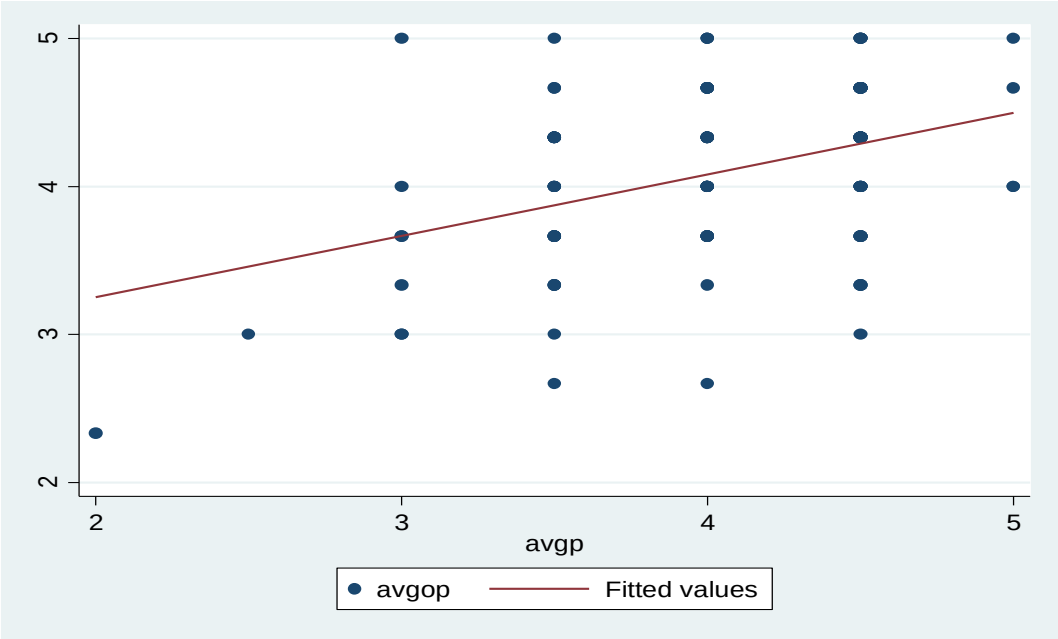
Scatter graph and fitted line on the graph can help to visualize the relationship in a graph. As indicated on the below scatter graph strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement and the dependent variable organizational performance have a positive linear relationship.


5
4
3
2
1
2
3
4
5
avgssp
avgop
Fitted values


5
4
3
2
1
2
3
4
5
avgcr
avgop
Fitted values


5
4
3
2
2
2.5
3
3.5
4
4.5
avglis
avgop
Fitted values


5
4
3
2
2
3
4
5
avgqis
avgop
Fitted values



Assumption 3: There should be no significant outliers.

Outliers is a single data points within the data that do not follow the usual pattern. As checked using different methods including the scatter graphs included in the previous assumption there is no significant outlier.

Assumption 4: No Multicollinearity

Multicollinearity is a high degree of correlation among the independent variables, and this makes the variables give same information. This is checked in two ways, first by looking at the correlation of the independent variables, and the other method is by determining the variance inflation factor (VIF).

Applying the first method, even if there is no specific scientific boundary to call a correlation high or low, by using rule of thumb method a correlation which is below 0.5 is considered as low correlation. As indicated in the below correlation table, the correlation between all of the variables is below 0.5, which indicates that there is no problem of multicollinearity.

```
. corr avgssp avgp avglis avgcr avgqis
(obs=120)
```

	avgssp	avgp	avglis	avgcr	avgqis
avgssp	1.0000				
avgp	0.2206	1.0000			
avglis	-0.0276	0.2255	1.0000		
avgcr	0.2375	0.1003	0.0711	1.0000	
avgqis	0.1423	0.0603	-0.1426	0.1655	1.0000

Source: Own Survey, 2023

The second method applied in checking multicollinearity involves determining variance inflation factor (VIF). It shows the standard error's inflation rate and there is a common understanding that higher level of VIF indicates the variables are highly related.

Therefore, as indicated in the below table the vif for "avgssp" is 1.12, "avgp" is 1.12, "avglis" is 1.09, "avgcr" is 1.09, and "avgqis" is 1.07. Since they all are less than 4, it can be concluded that there is no problem of multicollinearity.

```
. vif
```

Variable	VIF	1/VIF
avgssp	1.12	0.889699
avgp	1.12	0.893316
avglis	1.09	0.913290
avgcr	1.09	0.915931
avgqis	1.07	0.935276
Mean VIF	1.10	

Assumption #5: The data needs showed homoskedasticity.

According to this assumption the variances along the line of best fit must remain similar as you move along the line. In checking for homoskedasticity, Breusch-Pagan test is applied; this test checks for heteroskedasticity.

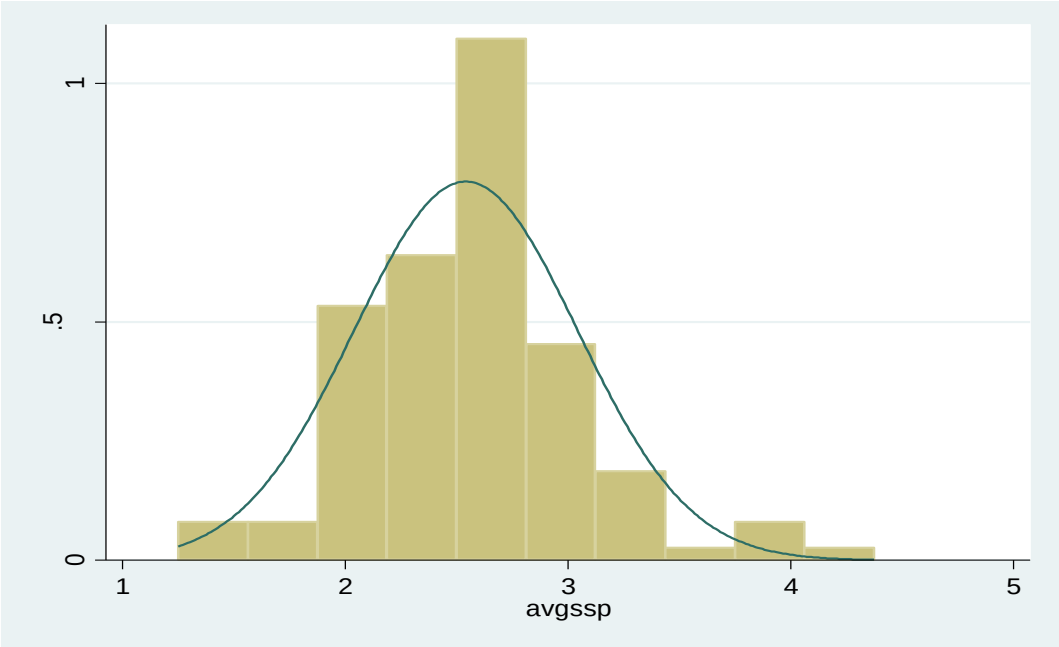
```
. hettest, rhs fstat

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: avgssp avglis avgqis avgp avgcr

         F(5 , 114)   =     0.58
         Prob > F     =   0.7176
```

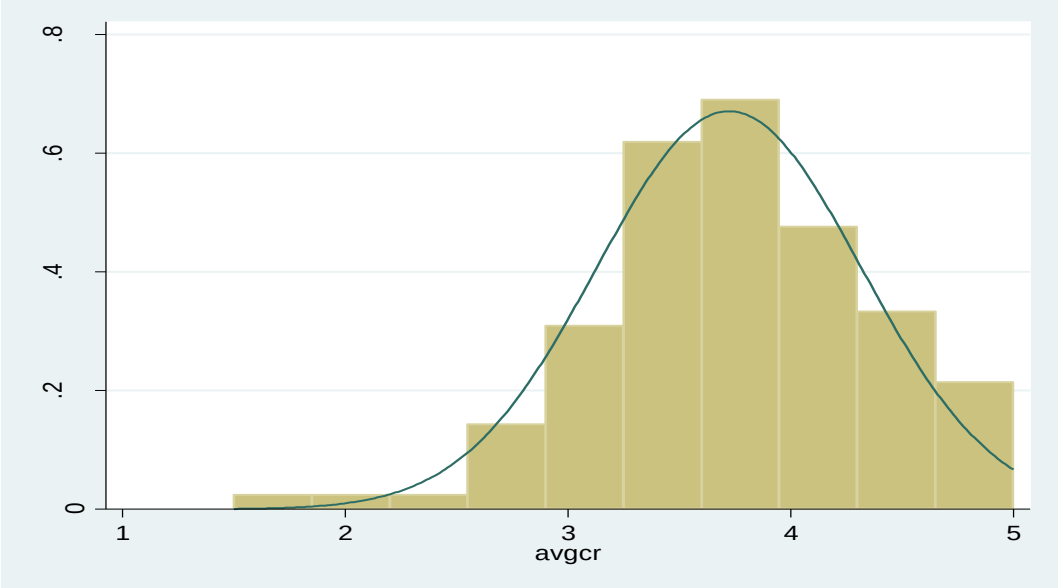
As indicated in the above STATA output, P Value is 0.7176. Since it is greater than o.o5, it can be concluded that there is no problem of heteroskedasticity. Therefore, it can be concluded that the data shows homoskedasticity.

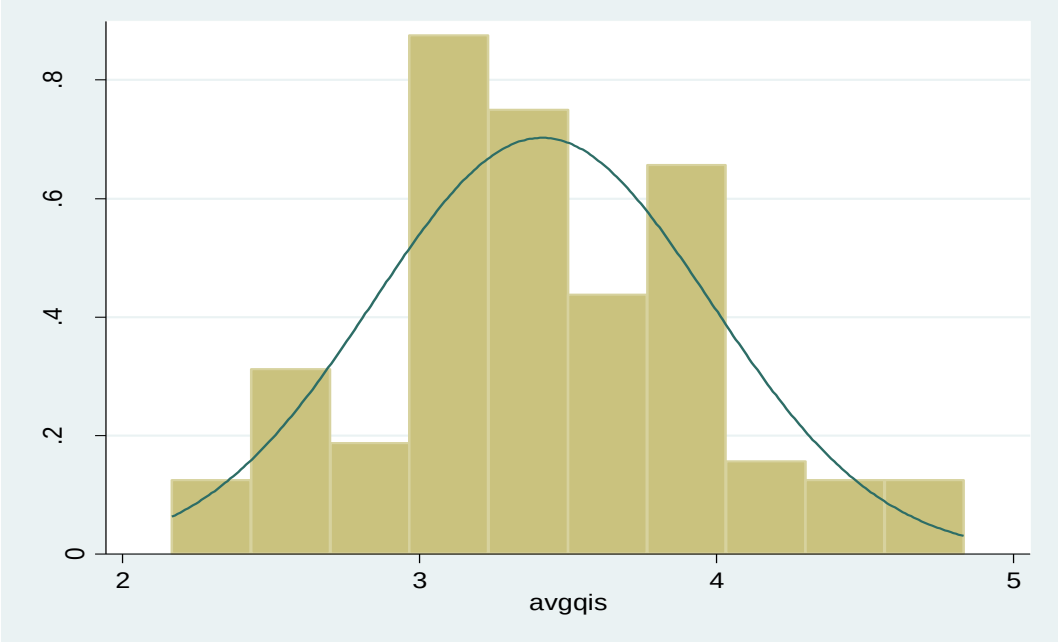
Assumption 6: Normal Distribution

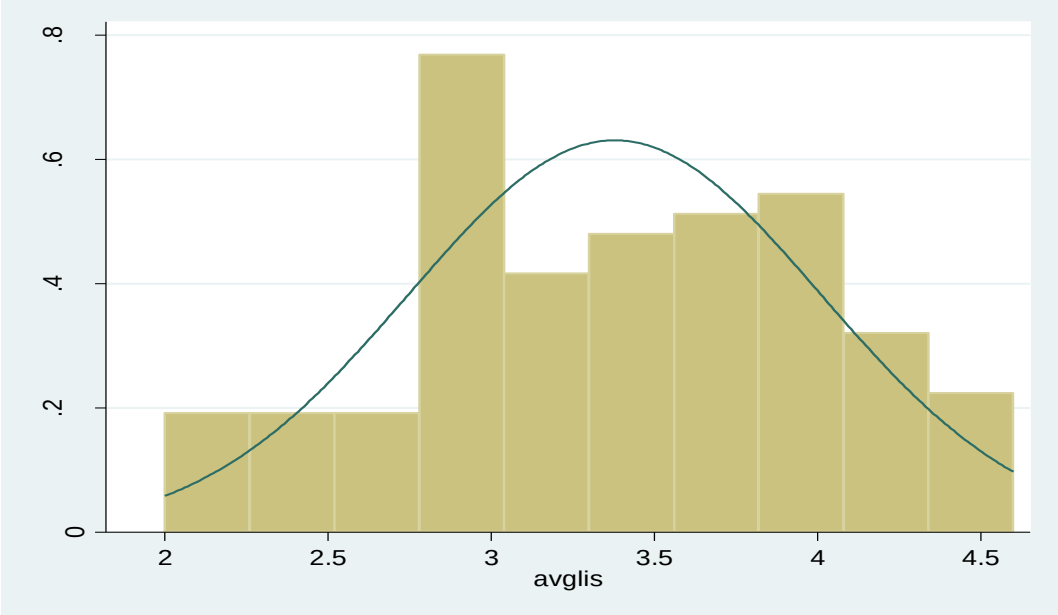
Finally, the residuals (errors) of the regression line need to be approximately normally distributed. This assumption is cheeked in two ways. First, by visually looking a histogram of each variable.

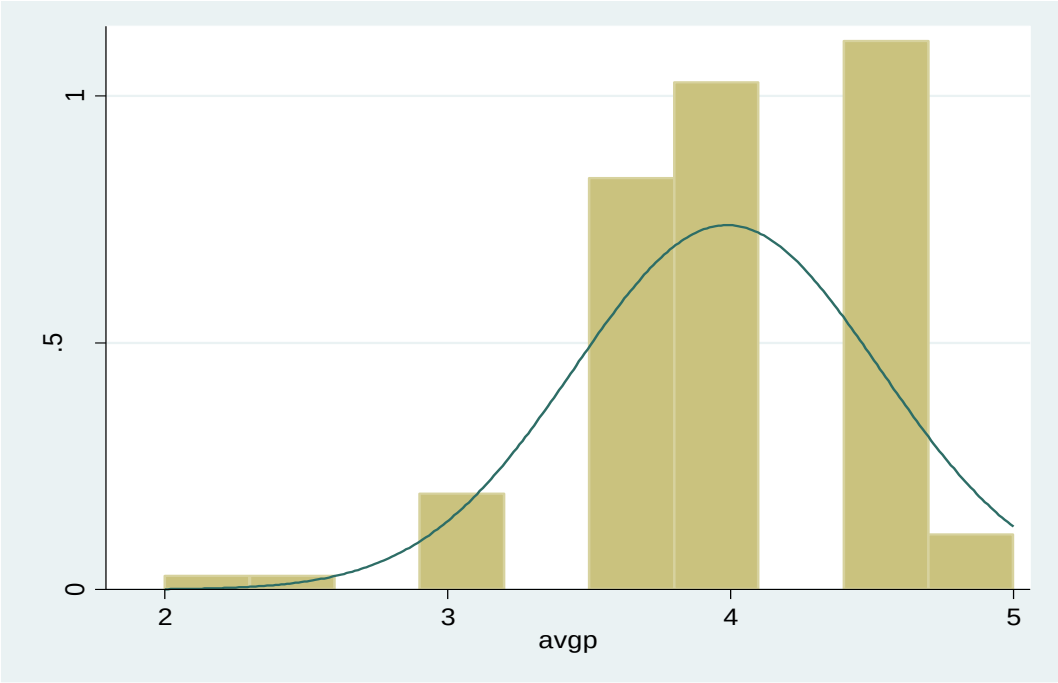
As clearly indicated in the below graphs all of the five variables have a bell shaped curve and this indicates that they are normally distributed. The graphs are shown below;


0
.5
1
1
2
3
4
5
avgssp


0
.2
.4
.6
.8
1
2
3
4
5
avgcr


0
.2
.4
.6
.8
2
3
4
5
avgqis


0
.2
.4
.6
.8
2
2.5
3
3.5
4
4.5
avglis



The visual method which look for bell shaped curve, sometimes will not provide absolute

confidence in concluding the residuals are normally distributed. It involves high level of subjectivity. Therefore, the residuals tested with Shapiro-Wilk W test for normal data. The null-hypothesis of this test is that the population is normally distributed. Thus, if the p value is less than the chosen alpha level, then the null hypothesis is rejected and there is evidence that the data tested are not normally distributed. Based on the tests made the p values are above 0.05. Therefore, it can be concluded that the variables are normally distributed.

Analysis on the Regression Report

Under this topic the regression table which is developed from a data collected from 120 sample respondents and created by STATA software is included. The interpretation made from the figures in the output, is also included.

As indicated in the below table strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement are the independent variables and organizational performance is the dependent variable.

Table 4.9. Regression Result

```
. reg avgop avgssp avglis avgqis avgp avgcr
```

Source	SS	df	MS	Number of obs	=	120
				F(5, 114)	=	19.23
Model	17.5645679	5	3.51291357	Prob > F	=	0.0000
Residual	20.8206158	114	.182636981	R-squared	=	0.4576
				Adj R-squared	=	0.4338
Total	38.3851837	119	.322564569	Root MSE	=	.42736

avgop	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
avgssp	.2087101	.0826629	2.52	0.013	.0449555	.3724647
avglis	.2351059	.0648278	3.63	0.000	.1066825	.3635292
avgqis	.3375801	.0713236	4.73	0.000	.1962885	.4788717
avgp	.264325	.0767241	3.45	0.001	.1123353	.4163148
avgcr	.2304544	.068835	3.35	0.001	.0940929	.366816
_cons	-.3110706	.4516469	-0.69	0.492	-1.20578	.5836384

Source: Own Survey, 2023

P value

The p value helps to test the five hypotheses which are already developed. These hypotheses are:

H01: Strategic supplier partnership has no effect on organizational performance.

H11: Strategic supplier partnership has an effect on organizational performance.

H02: Customer relationship has no effect on organizational performance.

H12: Customer relationship has an effect on organizational performance.

H03: Level of information sharing has no effect on organizational performance.

H13: Level of information sharing has an effect on organizational performance.

H04: Quality of information sharing has no effect on organizational performance.

H14: Quality of information sharing has an effect on organizational performance.

H05: postponement has no effect on organizational performance.

H15: postponement has an effect on organizational performance.

As indicated in the above table of regression the p-value of strategic supplier partnership (avgssp) is 0.013 ; since it is below 0.05, the null hypothesis which states strategic supplier partnership has no effect on organizational performance is rejected and the alternative hypothesis

which states, strategic supplier partnership has an effect on organizational performance is accepted.

The p-value of customer relationship (cr) is 0.001; similar to the above case since it is below 0.05, the null hypothesis which states, customer relationship has no effect on organizational performance is rejected and the alternative hypothesis which states, customer relationship has an effect on organizational performance, is accepted.

For the next variable, which is level of information sharing, also the p-value is 0.000; similar to the above cases since it is below 0.05, the null hypothesis which states, level of information sharing has no effect on organizational performance is rejected and the alternative hypothesis which states, level of information sharing has an effect on organizational performance, is accepted.

For the fourth variable, which is quality of information sharing, the p-value indicates 0.000. Since it is below 0.05 the null hypothesis which states quality of information sharing has no effect on organizational performance is rejected and the alternative hypothesis which state quality of information sharing has an effect on organizational performance is accepted.

Regarding the last variable, which is postponement, the p-value indicates 0.001, since it is below 0.05 the null hypothesis which states Postponement has no effect on organizational performance is rejected and the alternative hypothesis which states, postponement has an effect on organizational performance, is accepted.

Since in all of the variables the null hypotheses are rejected and the alternatives accepted, it can be concluded that strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement are important variables in affecting organizational performance.

In addition, the p-value associated with the F value (prob>F) is 0.0000, which is less than the alpha level (0.05). Depending on this, it can be concluded that strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and

postponement are reliable predictors of the dependent variable, which is organizational performance.

Coefficient

The regression coefficients represent the mean change in the organizational performance for one unit of change in the predictor variables while holding other predictors in the model constant. All of the five independent (predictor) variables have a positive value, indicating a positive relationship which shows the increase in the predictors will also lead to the increase in the level of organizational performance. Which is a positive change in strategic supplier partnership, customer relationship, organizational performance, information sharing, and Postponement will lead to positive change in performance; the opposite is also true.

The coefficients also indicate that, for every additional level of strategic supplier partnership, organizational performance is expected to increase by 0.21 level; for every additional level of customer relationship, organizational performance is expected to increase by 0.23, for every additional level of information sharing, organizational performance is expected to increase by 0.23 level; for every additional level of quality of information sharing, organizational performance is expected to increase by 0.33, and for every additional level of Postponement, organizational performance is expected to increase by 0.26.

From this it can be concluded that the five predictor variables can be putted in their order of importance in the following way. The first is quality of information sharing, the second is postponement, the third is level of information sharing, the fourth customer relationship, and the fifth is strategic supplier partnership.

Adjusted R-squared

From the regression table it can be identified that the Adjusted R-squared (R2) is 0.4338, this indicates 43% of the variance of the organizational performance being studied is explained by the variance of strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement. This is similar to what other researchers found

about the relationship between the dependent variable and independent variables. As an indicator the finding of Takaro and Sridavi (2016) can be mentioned, they were able to find 52% of the changes in the dependent variable was due to the independent variables.

Chapter Five

Summary Conclusion and Recommendation

5.1. Summary

The study's findings indicate that a majority of respondents are male (68.33%) and hold first degrees (83.33%). Key suppliers are not actively involved in enterprise planning, sales, or distribution strategies. However, the enterprise excels in customer relationship aspects, offering quality service and addressing complaints effectively.

Correlation analysis shows weak to moderate positive relationships between strategic supplier partnership, customer relationship, information sharing (both level and quality), and organizational performance.

Regression analysis reveals that strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement significantly impact organizational performance ($p < 0.05$). The Adjusted R-squared of 0.4338 indicates that 43% of organizational performance variance is explained by these variables.

5.2. CONCLUSION

Under this topic, major conclusions which are made about strategic supplier partnership, customer relationship, information sharing, quality of information sharing, and postponement is discussed. The conclusion is made from the analysis of the primary and secondary data which is gathered from different sources.

- Limited level of strategic supplier partnership exist and also the participation of those key suppliers in different kinds of decisions is very insignificant. This is reflected by the respondents' lack of information about the existence of strategic supplier partnership and

the non-participation of these few partners in the planning, sales strategy development, and distribution strategy development.

- Regarding the future plan to strengthen relation with key suppliers, it can be concluded that it is low. Sufficient plan is not prepared or the decision makers are not thinking about improving the relationship of the enterprise with key suppliers.

- The level of customer relationship is good. All of the questions analyzed regarding level of customer relationship indicates the enterprise is doing a good job; it is serving quality service, reacting to all complaints, determining customers' expectation, and also communicating and providing information whenever there is contract failure.

- It can be concluded that there is satisfactory level of information sharing specially from the enterprise side because the enterprise informs suppliers in advance changes in customers' needs and also the enterprise informs customers in advance whenever there is change in policies.

- Taking the specific case of change in policy, it can be concluded that even if there is good communication with customers, there is a gap in communication with suppliers.

- A problem is identified in the communication between the customers and the enterprise. The customers are not informing the enterprise, in advance, change in their need and interest.

- There is no significant problem related to quality of information sharing; the information flow between the enterprise and the suppliers is clear, the information flow between the enterprise and the buyers is also clear, and there is timely information flow between the enterprise and the buyers. In addition, as "the content of the information that flow between the enterprise and the suppliers is right" coded as "qis5" and "the content of the information that flow between the enterprise and the buyers is right"

- With regards to postponement, the items the enterprise supplies are general products but it can be concluded that the enterprise has a system to modify a generic product on customer's demand.

- Additionally, the analysis result clarified the existence of mischief by the parties involved in the supply chain and they reflect unnecessary behavior.

- Suppliers are being late in supplying items in the right date specified in the contract. In the future, this can affect the performance and the reputation of the enterprise and create major dissatisfaction on the enterprise's customers.

- With the size of the enterprise and the type of customers it serves, it will be a major chaos if the enterprise become out of stock. The Analysis result shows there are indicators for the existence of this problem; and according to the analysis the main cause for this problem is improper distribution system.

- Regarding the organization's performance, it can be concluded that the enterprises' sales is growing, the enterprise is getting new customer, and the enterprise is profitable.

- There is positive relationship between the independent and dependent variables; and with the exception of postponement, which has moderate correlation, the other four which are strategic supplier partnership, customer relationship, level of information sharing, and quality of information sharing has a weak correlation.

- From the regression analysis it can be concluded that strategic supplier partnership has an effect on organizational performance, customer relationship has an effect on organizational performance, level of information sharing has an effect on organizational performance, quality of information sharing has an effect on organizational performance, and postponement has an effect on organizational performance. This indicates strategic supplier partnership, customer relationship, level of information sharing, quality of information sharing, and postponement are important variables in affecting organizational performance.

- Based on the coefficient of the regression the variables can be adjusted in their power of affecting performance. Their order is the first is quality of information sharing, the second is postponement, the third is level of information sharing, the fourth customer relationship, and the fifth is strategic supplier partnership.

5.3. RECOMMENDATION

Based on the study's findings, the following recommendations are suggested to enhance the enterprise's performance. These recommendations focus on addressing specific challenges identified in the study:

1. **Strengthen Customer Relationship and Information Sharing:** The enterprise should build upon its strong customer relationship and information sharing practices. By enhancing communication and information exchange, the enterprise can further improve customer satisfaction and operational efficiency.

2. **Foster Strategic Supplier Partnerships:** To maximize benefits and cost savings, the enterprise should actively cultivate strategic supplier partnerships. Developing a formal plan and fostering collaboration with key suppliers will lead to reduced acquisition and distribution costs.

3. **Enhance Supplier Communication:** The enterprise should establish transparent communication channels with suppliers, including policy changes. This will enhance trust, prevent conflicts, and ensure smoother operations.

4. **Strengthen Supplier Contracts:** To address delays in item delivery, the enterprise should collaborate with legal experts to create robust supplier contracts that incentivize timely fulfillment of commitments.

5. **Combat Mischief and Corruption:** The enterprise should implement stringent rules against mischief and corruption, coupled with awareness training for employees and customers. This proactive approach will deter unethical behavior and maintain a transparent business environment.

6. **Implement Digital Stock Management System:** Addressing stock problems requires implementing a digital stock management system to optimize inventory levels, streamline ordering, and improve distribution efficiency.

7. **Optimize Payment Collection:** The enterprise should prioritize on-time collection of payments by establishing clear contractual terms with customers. A focused approach to

timely payments and diversifying merchandise offerings will enhance long-term profitability.

8. **Sequentially Address Variables:** Prioritize addressing variables based on their impact on performance. Start by focusing on improving the quality of information sharing, followed by addressing postponement and the level of information sharing. Subsequently, enhance customer relationship and strategic supplier partnerships.

By implementing these recommendations, the enterprise can enhance its overall performance, streamline operations, and achieve sustainable growth. These strategic actions will not only address current challenges but also position the enterprise for long-term success.

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Appendix

ST. MARY UNIVERSITY

SCHOOL OF GRADUATE STUDIES

This is a research survey which takes approximately 20 minutes to complete, although it could take longer or less depending on the individual. The purpose of distributing this questionnaire is to study The Effect of Supply Chain Management on Organization performance, in case of EIIDE

By completing the questionnaire, you are giving your permission to the researcher to use your anonymous responses for use at professional meetings and in research publications. This survey has been approved by St. Mary University, School of Graduate Studies.

note

- Your opinions are valued! Your responses are strictly anonymous and your participation is completely voluntary.

Thank you in advance for your participation.

1. General Questions

1.1. Sex: Male Female

1.2. Age: < 24 25-44

45-64 65+

1.3. Education Level: Degree Masters PhD

1.4. Work Experience: < 3 years 3-6 years 6-9 years > 9 years

For the following supply chain related questions, by choosing from one to five, show your agreement level.

1. Strongly disagree
2. Disagree
3. Medium
4. Agree
5. Strongly agree

#	Question	1	2	3	4	5
2. Strategic supplier partnership						
2.1	There are suppliers who are identified as key suppliers					
2.2	Key suppliers participate in the planning of the enterprise.					
2.3	There is a plan to strengthen the relationship with key suppliers					
2.4	Key suppliers participate in the research activity of the enterprise					
2.5	Key suppliers participate in sales strategy development					
2.6	Key suppliers participate in distribution strategy development of the enterprise					

2.7	Key suppliers take part in the changes that happen in the enterprise.					
2.8	When major problems occur the suppliers also allowed to participate in the solution.					
3. customer relationship						
3.1	The enterprise evaluate customer satisfaction					
3.2	The enterprise is supplying best quality items to customers					
3.3	The enterprise handles complaints appropriately					
3.4	The enterprise reacts to all of the complaints.					
3.5	The enterprise determine customer expectations.					
3.6	Whenever a contract couldn't performed, the enterprise inform and discuss the issue with the customers.					
4. level of information sharing						
4.1	The enterprise informs suppliers in advance change in customers' needs.					
4.2	The enterprise informs customers in advance changes in policies					
4.3	Customers inform the enterprise, in advance, change in their need					
4.4	The enterprise informs suppliers in advance changes in policies					

4.5	The suppliers inform the enterprise in advance changes in their policy					
5. quality information sharing						
5.1	There is clear information flow between the enterprise and the suppliers					
5.2	There is clear information flow between the enterprise and the buyers					
5.3	There is timely information flow between the enterprise and the suppliers					
5.4	There is timely information flow between the enterprise and the buyers					
5.5	The content of the information that flow between the enterprise and the suppliers is right.					
5.6	The content of the information that flow between the enterprise and the buyers is right. -					
6. postponement						
6.1	Most of the items that the enterprise supplies are general products.					
6.2	The enterprise has a system to modify a generic product on customers demand.					

For the following challenges related questions, by choosing from one to five, show your agreement level.

1. Strongly disagree

2. Disagree

3. Medium

4. Agree

5. Strongly agree

#	Question	1	2	3	4	5
7.The challenges in SCM practice						
7.1	There is suppliers' inability in keeping their promise.					
7.2	The employees of the enterprise are unreliable in performing their duty.					
7.3	Buyers are not capable of making their payment on time.					
7.4	There is stock problem because of wrong orders.					
7.5	There is mischief by the parties involved in the supply chain.					
7.6	Suppliers are late in supplying items in the right date specified in the contract.					
7.7	The plan being prepared by the enterprise considers the capacity of the enterprise.					
7.8	There is stock problem because of improper distribution					

7.8. Specify other supply chain related challenges in the enterprise

For the following organizational performance related questions, by choosing from one to five, show your agreement level.

1. Strongly disagree

2. Disagree

3. Medium

4. Agree

5. Strongly agree

#	Question	1	2	3	4	5
8.Organizational Performance						
8.1	The enterprises sales level is growing					
8.2	The enterprise is getting new customers time to time					
8.3	The enterprise is profitable					

ST. MARY UNIVERSITY

SCHOOL OF GRADUATE STUDIES

Interview Questions

The purpose of this interview is to assess the effect of supply chain management on organization performance, in case of EIIDE. A list of general question is raised to have a brief understanding about the variables and the challenges the enterprise is facing.

1. Could you identify the primary categories of products/services that your organization supplies to its customers?
2. What is the nature of the items that you are serving (are they items which are general or items which can be modified based on customers interest)?
3. What are some of the most significant challenges that your enterprise is currently confronting within its supply chain management?
4. From your perspective, how effective has the enterprise's strategic plan been in achieving its supply chain and performance-related goals?
5. How would you describe the flow of information within the organization's supply chain? Are there areas where improvements could be made?
6. Is there an established mechanism in place to gauge and measure the level of customer satisfaction with your products/services?
7. Within your supplier network, do you consider certain suppliers as key partners? If so, could you elaborate on the criteria used for this designation?
8. To what extent are these key suppliers involved in the decision-making processes of the enterprise, especially those related to supply chain management?