

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF COMMERCE**  
**MASTER OF MARKETING MANAGEMENT PROGRAMME**

**SUPPLY CHAIN MANAGEMENT PRACTICES, CUSTOMER  
SATISFACTION AND CUSTOMER RETENTION AT  
NIPPON SANSO MYANMAR (NSM) COMPANY LIMITED**

**PHYO NYI NYI THANT**

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**SUPPLY CHAIN MANAGEMENT PRACTICES, CUSTOMER  
SATISFACTION AND CUSTOMER RETENTION AT  
NIPPON SANSO MYANMAR (NSM) COMPANY LIMITED**

A thesis submitted as a partial fulfilment towards the requirements for the  
degree of Master of Marketing Management (MMM)

**Supervised by:**

Prof. Dr. May Su Myat Htway Aung  
Professor  
Department of Commerce  
Yangon University of Economics

**Submitted by:**

Phyo Nyi Nyi Thant  
MMM-II-29  
3<sup>rd</sup> Batch (MMM)  
Yangon University of Economics

**JUNE 2025**

## ACCEPTANCE

Accepted by the Board of Examiners of the Department of Commerce, Yangon University of Economics, in partial fulfillment for the requirements of the Master Degree, Master of Marketing Management.

## BOARD OF EXAMINERS

-----  
(Chairperson)

Prof. Dr. Tin Tin Htwe

Rector

Yangon University of Economics

-----  
(Supervisor)

Prof. Dr. May Su Myat Htway Aung

Professor

Department of Commerce

Yangon University of Economics

-----  
(Chief Examiner)

Prof. Dr. Thynn Thynn Myint

Professor and Head

Department of Commerce

Yangon University of Economics

-----  
(Examiner)

Prof. Dr. Aye Thu Htun

Professor

Department of Commerce

Yangon University of Economics

-----  
(Examiner)

Prof. Dr. Aye Thanda Soe

Professor

Department of Commerce

Yangon University of Economics

**JUNE, 2025**

## **ABSTRACT**

This study focuses supply chain management (SCM) practices on customer satisfaction and customer retention at Nippon Sanso Myanmar Company Limited (NSM), an industrial gas supplier in Yangon. The primary objective is to examine how five SCM practices customer relationship, quality of information sharing, timely order fulfillment, conformity, and after-sales support influence customer satisfaction, and how satisfaction subsequently affects customer retention. A quantitative research method was adopted, using structured questionnaires collected from 154 respondents through simple random sampling. Descriptive statistics and multiple regression analysis were used to analyze the data. The findings reveal that customer relationships and conformity have the most significant influence on customer satisfaction, while information sharing and after-sales support also contribute positively. Timely order fulfillment, though rated above average, showed no significant impact in the regression model. Additionally, customer satisfaction was found to have a strong and direct effect on customer retention. Based on these findings, the study recommends that NSM should continue investing in strong relationship management, uphold conformity standards, enhance communication systems, and improve delivery efficiency.

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# CHAPTER I

## INTRODUCTION

Supply Chain Management (SCM) helps suppliers deliver goods and services to consumers. It involves planning, monitoring, and regulating supply chain activities to boost efficiency and satisfy customers. Effective SCM reduces costs, improves quality, and boosts customer happiness (Christopher, 2016). As competition increases, businesses must strengthen their SCM strategies to maintain a strong market position.

A well-managed supply chain allows businesses to allocate resources efficiently, maintain strong relationships with suppliers and customers, and improve overall operations. When supply chain processes run smoothly, companies can respond quickly to customer needs and market changes (Mentzer, 2001). On the other hand, weak SCM can cause delays, higher costs, and customer dissatisfaction. In industries that require a continuous supply of products, such as industrial gas supply, SCM is even more critical.

This study focuses on five SCM practices that affect customer satisfaction: Customer Relationship, Quality of Information Sharing, Timely Order Fulfillment, Conformity and After-Sales Support. Strategic Supplier Partnership ensures strong supplier relationships for reliable delivery and product quality. Customer Relationship involves managing interactions with customers to understand their needs and improve service. Quality of Information Sharing focuses on how well companies, suppliers, and customers communicate. Timely Order Fulfillment reflects the efficiency of supply chain processes and directly affects customer satisfaction and trust. Conformity ensures compliance with industry standards and regulations. After-sales Support includes services like installation, maintenance, warranty claims, and handling customer complaints, helping to build long-term loyalty and brand reputation. (Zhou, H., & Benton, W. C, 2017).

Companies' client satisfaction indicates how successfully they match expectations. Customers that are satisfied are more inclined to use, recommend, and stay loyal to the firm (Oliver, R. L, 1997). Dissatisfied clients may depart from competition, hurting business growth. Companies that optimize SCM can boost customer satisfaction and foster long-term connections.

Nippon Sanso Myanmar Company Limited (NSM Co. Ltd.) is an industrial gas supplier in Myanmar, providing essential gases such as oxygen, nitrogen, and carbon dioxide to industries including healthcare, manufacturing, and construction. Since these gases are essential for industrial operations, NSM must maintain a reliable supply chain to prevent service disruptions. Supply chain delays or quality issues can cause serious problems for customers and damage the company's reputation.

For NSM, SCM is a major factor in business success. NSM must coordinate with suppliers to maintain product availability, ensure on-time deliveries, and meet customer needs. Effective SCM allows NSM to reduce costs, improve service quality, and remain competitive (Chopra & Meindl, 2019). By strengthening its SCM practices, NSM can enhance customer satisfaction and increase customer retention.

This study explores how SCM techniques affect NSM client satisfaction and retention. These partnerships will help the organization discover supply chain improvements and build initiatives. These insights can help other organizations in comparable sectors enhance SCM and customer interactions.

## **1.1 Rationale of the Study**

The industrial gas industry plays a key role in many sectors, including healthcare, manufacturing, construction, and electronics. Medical treatments, metal manufacture, food preservation, and semiconductor fabrication require oxygen, nitrogen, and carbon dioxide (Harrison, 2018). As industrialization and technology advance, global demand for industrial gases continues to rise. Companies in this industry focus on improving SCM efficiency to meet customer needs.

In Myanmar, the industrial gas market is still developing. Companies face SCM challenges such as infrastructure limitations, high transportation costs, and regulatory compliance issues. For NSM, an efficient supply chain is necessary to meet customer expectations and maintain a competitive edge.

Supply chain management (SCM) plays a crucial role in ensuring the efficiency, reliability, and cost-effectiveness of industrial gas companies like Nippon Sanso Myanmar (NSM). Effective SCM practices, including procurement, production, logistics, and distribution, are essential to maintaining product quality and timely delivery, which directly impact customer satisfaction and retention. According to Chopra and Meindl (2019), a well-structured supply chain minimizes disruptions,

enhances responsiveness, and reduces costs, leading to improved operational performance and customer trust (Chopra & Meindl, 2019).

Companies that sell important items like industrial gases depend on customer pleasure. Suppliers are more likely to retain satisfied consumers, minimising the probability of moving to competitors. Parasuraman, Zeithaml, and Berry (1988) note that service reliability, responsiveness, and product quality greatly impact customer satisfaction, making effective SCM essential for uninterrupted supply and consistent product quality (Parasuraman, Zeithaml, & Berry, 1988).

Customer retention is another critical aspect that influences business sustainability and profitability. In the industrial gas sector, retaining customers is more cost-effective than acquiring new ones, as long-term relationships contribute to stable revenue streams. According to Kotler and Keller (2016), companies that invest in superior supply chain practices and customer service can build strong brand loyalty and long-term client relationships. By focusing on supply chain efficiency, companies can enhance customer satisfaction, leading to improved retention rates and a competitive advantage in the market (Kotler, P., & Keller, K. L, 2016).

Customers in the industrial gas sector expect on-time deliveries, product customization, and technical support (Christopher, 2016). Poor communication or lack of support leads to dissatisfaction and customer loss. A strong Customer Relationship helps businesses understand customer needs, provide tailored solutions, and respond effectively to issues. For NSM, improving customer interactions can lead to higher satisfaction and long-term business loyalty.

Effective information sharing is crucial for organizational success, as it facilitates collaboration, informed decision-making, and efficient workflow. High-quality information sharing involves accuracy, relevance, timeliness, and clarity, ensuring that all stakeholders have access to reliable data when needed. It also promotes transparency and trust within teams and across departments, ultimately enhancing performance and innovation. According to Wang and Wang (2006), the quality of knowledge sharing significantly impacts organizational effectiveness, particularly when information is communicated clearly and aligns with users' needs (Wang & Wang, 2006).

Timely order fulfillment is a critical component of customer satisfaction in modern supply chains, as it directly impacts a company's reputation and operational efficiency. Customers increasingly expect fast and reliable delivery of their orders,

which requires businesses to optimize their order processing systems. According to Chopra and Meindl (2016), timely fulfillment is not only about meeting customer expectations but also about ensuring that the right products are delivered to the right place at the right time (Chopra & Meindl 2016).

Conformity with industry standards and regulations is also essential. Companies must follow safety, environmental, and quality regulations to avoid legal penalties and maintain business credibility (Rao, P., & Holt, D, 2005). In Myanmar, industrial gas regulations are still developing, making compliance more challenging. By maintaining strict quality control and adhering to global safety standards, NSM can enhance its reputation and increase customer confidence.

After-sales assistance is crucial to client pleasure and loyalty. It ensures that consumers' complaints are resolved quickly after they buy a product or service. Customer satisfaction is improved via after-sales service, which builds trust and long-term partnerships (Parasuraman, Zeithaml, & Berry, 1988)

This study is important for the industrial gas industry because it identifies SCM challenges and explores how best practices can improve supply chain performance (Chopra & Meindl, 2019). The study shows NSM how SCM changes may boost customer satisfaction and retention. NSM can optimize its supply chain, decrease risks, and enhance service quality using these results.

## **1.2 Objectives of the Study**

The objectives of the study are:

- 1) To identify the supply chain management practices of NSM.
- 2) To examine the effect of supply chain management on customer satisfaction in NSM.
- 3) To analyze the effect of customer satisfaction on customer retention in NSM.

## **1.3 Scope and Method of the Study**

This study focuses on Nippon Sanso Myanmar Company Limited (NSM Co., Ltd.) in Yangon, Myanmar, and investigates how improvements in supply chain management (SCM) practices can enhance customer satisfaction, subsequently leading to increased customer retention. The research specifically examines the influence of five key SCM practices: Customer Relationship, Quality of Information

Sharing, Timely Order Fulfillment, Conformity, and After-Sales Service on customer satisfaction and retention.

The scope of the study is limited to NSM and its customers operating within Myanmar. NSM serves various industries including manufacturing, healthcare, construction, and food processing, all of which rely heavily on industrial gases. Given the critical role of SCM in product availability and service quality, the study targets customers who engage directly with NSM's supply chain operations.

To achieve the research objectives, a quantitative research approach was employed. Data were collected through a structured questionnaire survey conducted to 154 customers, selected from a population of 250 using a simple random sampling method. The respondents included procurement officers, supply chain managers, operations managers, individuals with direct experience and knowledge of NSM's supply chain practices. The questionnaire utilized a five-point Likert scale to assess customers' perceptions on SCM practices, customer satisfaction, and customer retention.

#### **1.4 Organization of the Study**

This research has five chapters. Chapter I introduces the study, its purpose, objectives, scope, technique, and organization. Chapter II covers supply chain management (SCM) theories on customer satisfaction and retention. Chapter III profiles Nippon Sanso Myanmar Company Limited, covering its history, services, SCM methods, and Myanmar market presence. Chapter IV examines how Nippon Sanso Myanmar Company Limited's SCM processes affect customer satisfaction and retention. Chapter V summarizes the study's results and makes suggestions.

## **CHAPTER II**

### **THEORETICAL BACKGROUND**

Supply chain management theories and customer satisfaction and retention are covered in this chapter. It also examines other research and presents the theoretical basis for this investigation.

#### **2.1 Concept of Supply Chain Management**

Supply Chain Management (SCM) manages supplier-to-customer products, services, and information. Raw material acquisition, manufacture, distribution, and customer service are included. Effective SCM reduces costs, boosts efficiency, and meets customer need (Chopra & Meindl, 2019).

Supply chain management coordinates suppliers, manufacturers, logistics providers, and customers. Companies must develop strategies to manage inventory, transportation, and demand fluctuations. Proper supply chain planning ensures that materials are delivered on time, and products reach customers without delays (Christopher, 2016).

Technology plays a key role in SCM. Companies use digital tools to track shipments, monitor inventory, and improve communication between partners. Advanced SCM technologies, such as real-time tracking and automated systems, help businesses respond to market changes quickly (Mentzer, 2001).

SCM is not only operational but also strategic, as it contributes to achieving competitive advantage. By aligning supply chain strategies with business goals, firms can enhance value creation for customers and improve overall performance (Hugos, 2018) Integration of processes across the supply chain is critical for improving responsiveness and reducing inefficiencies (Lambert, D. M., Cooper, M. C., & Pagh, J. D, 1998)

Moreover, sustainable SCM practices have gained attention, where companies aim to minimize environmental impact while maintaining profitability. This includes optimizing transportation routes, reducing waste, and sourcing from environmentally responsible suppliers (Seuring, S., & Müller, M, 2008)

Globalization has also reshaped supply chain structures, leading companies to manage extended, international networks. As geopolitical conflicts, natural

catastrophes, and pandemics interrupt global supply lines, risk management has become more important (Tang, 2006)

Coordination, transparency, and trust are essential for SCM. Open communication between supply chain partners improves coordination, lowers costs, and boosts service (Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, 2008)

## **2.2 Supply Chain Management Practices**

Supply Chain Management (SCM) strategies boost efficiency and customer satisfaction. create long-term supplier relationships, manage customer contacts, share information, create trust, and follow industry norms. Companies may improve performance, decrease risks, and improve quality, cost, and customer happiness by focusing on these areas.

### **2.2.1 Customer Relationship**

Successful businesses depend on client loyalty, repeat business, and favorable word-of-mouth. Effective customer relationship management involves understanding customer needs, responding to their inquiries promptly, and delivering consistent, personalized experiences. Oliver (1997) states that quality-of-service interactions, trust, and perceived value affect customer satisfaction in positive relationship exchanges. Strong customer relationships include communication, service quality, and personalized interactions to build customer loyalty. Strong customer relationships lead to higher satisfaction and long-term retention (Morgan & Hunt, 1994).

Companies use customer feedback to improve products and services. Responding quickly to complaints and offering customized solutions increase customer confidence (Christopher, 2016).

### **2.2.2 Quality of Information Sharing**

All stakeholders need accurate, timely, and relevant data, therefore effective information sharing is essential in organizational and interpersonal communication. High-quality information sharing is characterized by clarity, completeness, and the ability to support informed decision-making.

According to Wang, R.Y., & Strong, D.M, (1996), quality information must be accurate, complete, relevant, and timely in order to be valuable to users. These attributes help organizations enhance productivity, reduce misunderstandings, and

improve collaboration among teams. When information is shared effectively, it contributes to transparency and trust within the organization. On the other hand, poor information sharing can result in misinformation, delays, and inefficiencies, which may ultimately impact decision-making and performance. Ensuring quality in information sharing requires not only the use of appropriate communication tools but also the establishment of clear protocols and responsibilities for disseminating information. As technologies evolve, organizations must continuously assess and adapt their information-sharing practices to maintain relevance and accuracy. Emphasizing training, feedback, and quality control mechanisms can further enhance the effectiveness of shared information (Wang & Wang, 2006).

### **2.2.3 Timely Order Fulfillment**

Achieving timely order fulfillment presents several challenges, including managing supply chain disruptions, handling high demand fluctuations, and ensuring proper inventory levels. Delays in any of these areas can lead to customer dissatisfaction and increased operational costs. Effective communication across the supply chain, real-time tracking systems, and strategic partnerships with reliable logistics providers are key strategies that can help companies overcome these challenges. As globalization and e-commerce continue to grow, the need for timely and accurate order fulfillment becomes increasingly important for maintaining competitive advantage (Christopher, 2016).

### **2.2.4 Conformity**

Conformity in the context of supply chain management (SCM) refers to an organization's adherence to established industry regulations, standards, and best practices. It plays a critical role in ensuring that operations align with legal requirements, safety protocols, environmental regulations, and quality assurance guidelines. Compliance with such standards not only enhances operational efficiency but also contributes to the overall credibility and sustainability of the supply chain (Rao, P., & Holt, D, 2005).

Companies that emphasize conformity not only reduce the risk of legal penalties and reputational damage but also enhance operational efficiency by ensuring consistency in processes and outputs. Conformity ensures that suppliers and partners

follow agreed-upon protocols, reducing variability and increasing supply chain reliability (Harrison, 2018).

Conformity in SCM also involves internal process standardization and audit mechanisms to maintain compliance throughout the supply chain network. Regular quality audits, supplier evaluations, and documentation practices are essential tools used by firms to monitor compliance and manage risk (Zhu, Q., Sarkis, J., & Lai, K.-H, 2007).

Moreover, regulatory conformity contributes to sustainability and corporate responsibility goals. As regulatory bodies increasingly emphasize environmental and social standards, companies that align their supply chains with such criteria demonstrate accountability, which can lead to competitive advantages and stronger stakeholder trust (Carter, C. R., & Rogers, D. S, 2008)

In global supply chains, conformity becomes even more critical due to differences in local laws and standards across countries. Multinational firms must navigate complex regulatory landscapes and ensure that their global partners also comply with applicable norms and certifications, such as ISO 9001 for quality management or ISO 14001 for environmental management (Giunipero, L. C., Hooker, R. E., & Denslow, D, 2012)

### **2.2.5 After Sales Support**

After-sales support also provides valuable feedback for companies to improve their products or services. By resolving issues and addressing concerns promptly, businesses can prevent dissatisfaction that could otherwise harm their reputation. Effective after-sales service requires well-trained staff, clear communication channels, and a commitment to resolving problems efficiently. As technology evolves, many companies have incorporated self-service options, such as online troubleshooting tools or FAQ sections, to meet customer needs around the clock. This blend of human and digital support has proven to enhance customer satisfaction and strengthen brand loyalty (Parasuraman, Zeithaml, & Berry, 1988).

### **2.3 Concept of Customer Satisfaction**

How effectively a corporation meets consumer expectations is customer satisfaction. Customers that are satisfied are more inclined to return and promote a firm. Product quality, service reliability, and price affect customer satisfaction (Oliver, R. L, 1997).

Customer satisfaction is essential to marketing and business management, indicating a company's capacity to match consumer expectations. It depends on product quality, service delivery, pricing, brand reputation, and customer experience. According to the Expectation-Disconfirmation Theory (Oliver, R. L., 1997), customer satisfaction arises when they compare their original expectations to actual performance. Positive disconfirmation increases customer satisfaction when perceived performance surpasses expectations. Dissatisfaction results from negative disconfirmation if the product or service falls short (Oliver, R. L, 1997).

SERVQUAL (Parasuraman, Zeithaml, & Berry, 1988) identifies five service quality tangibles—reliability, responsiveness, assurance, and empathy—that boost customer satisfaction in service-based enterprises. By building customer loyalty, lowering churn, and obtaining a competitive edge, companies that prioritize customer happiness succeed long-term. Therefore, organizations must grasp customer satisfaction theory to build strategies that improve client experiences and expand the company (Parasuraman, Zeithaml, & Berry, 1988).

### **2.4 Concept of Customer Retention**

A company's capacity to retain customers is called retention. Retaining clients is cheaper than obtaining new ones. Continuous service and value may develop brand loyalty and consumer loyalty (Christopher, 2016).

Customer retention is a business's ability to keep consumers coming back for more products or services. It measures long-term corporate performance and is tied to consumer happiness, loyalty, and brand commitment. Customer retention emphasizes customer loyalty and lifetime value, unlike customer acquisition, which seeks new customers. Customer retention is cheaper than customer acquisition since loyal consumers have lower churn rates and are more likely to suggest a firm (Reichheld, F. F., & Sasser, W. E, 1990).

## **2.5 Related Theories**

Several theoretical frameworks help explain how supply chain management (SCM) strategies affect customer satisfaction and retention. These theories help explain how internal resources, cost efficiency, and customer expectations influence organizational performance and long-term customer relationships. In particular, the Resource-Based View (RBV) highlights the strategic importance of unique internal resources in achieving competitive advantage. The Transaction Cost Theory (TCT) reduces supply chain operational inefficiencies, while the Expectation-Disconfirmation Theory (EDT) models consumer happiness and loyalty. These theories provide a solid platform for examining how SCM techniques like trust, information sharing, conformity, and customer relationship management affect customer satisfaction and retention at Nippon Sanso Myanmar Company Limited.

### **(i) The Resource-Based View (RBV)**

Theory suggests that a company's success depends on its unique resources and capabilities. By effectively managing resources like supplier networks, technology, skilled employees, and customer relationships, businesses can improve supply chain efficiency and customer satisfaction. Companies that develop these resources gain a competitive edge and perform better. The RBV theory explains that using resources like supplier relationships, information sharing, trust, and conformity can boost supply chain performance and customer satisfaction. When companies manage these factors well, they gain an advantage in their industry (Barney, 1991).

### **(ii) Transaction Cost Theory (TCT)**

Focuses on how businesses manage costs in supply chain operations. Companies aim to minimize costs related to supplier relationships, negotiations, logistics, and contract enforcement. Effective cost management boosts profitability and operational performance. TCT explains that reducing transaction costs in supplier partnerships, information sharing, trust-building, and conformity leads to better financial performance and customer satisfaction. By lowering unnecessary expenses, businesses can reinvest resources into supply chain improvements and better customer relationships (Williamson, 1981).

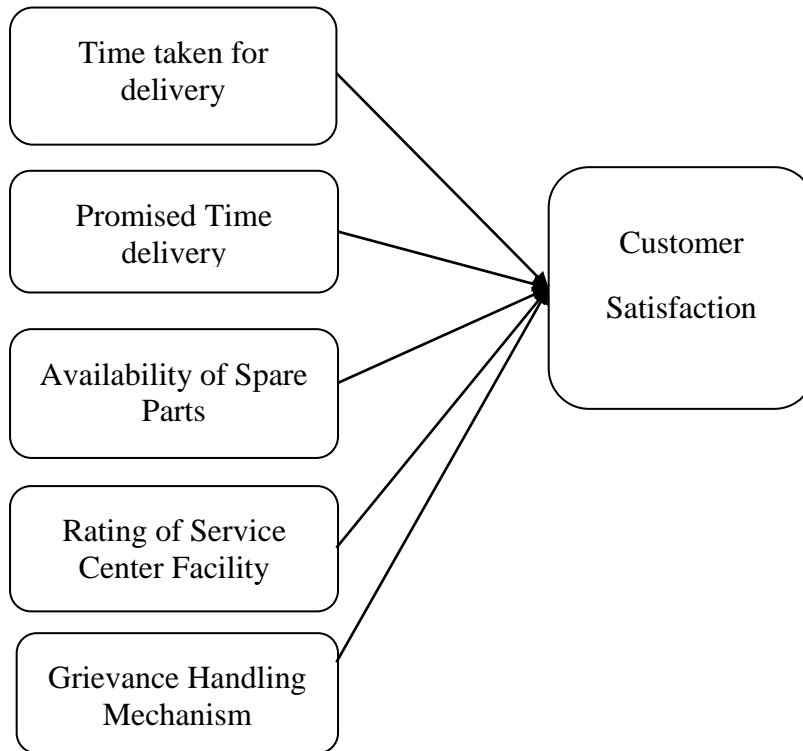
**(iii) Expectation-Disconfirmation Theory (EDT)**

One of the most popular customer satisfaction models is Oliver's 1980 Expectation-Disconfirmation Theory (EDT). According to the notion, people set expectations before buying. After using the goods, they compare it to their expectations. Positive disconfirmation leads to great pleasure when performance exceeds expectations. Dissatisfaction results from negative disconfirmation when performance falls short of expectations. This idea stresses managing client expectations to boost satisfaction and brand loyalty (Oliver, R. L, 1997).

**2.6 Previous Studies**

Maqsood Husain Junaidi (2017) studied Toyota and Tata Motors in Saudi Arabia to determine customer satisfaction with supply chain management strategies. The present study examined customer satisfaction with Toyota and Tata Motors' supply chain management techniques in KSA. A questionnaire was used to survey 250 randomly selected individuals.

**Figure (2.1) Customer Satisfaction, Supply Chain Management Practices: A Study of Toyota and Tata Motors in Kingdom of Saudi Arabia**

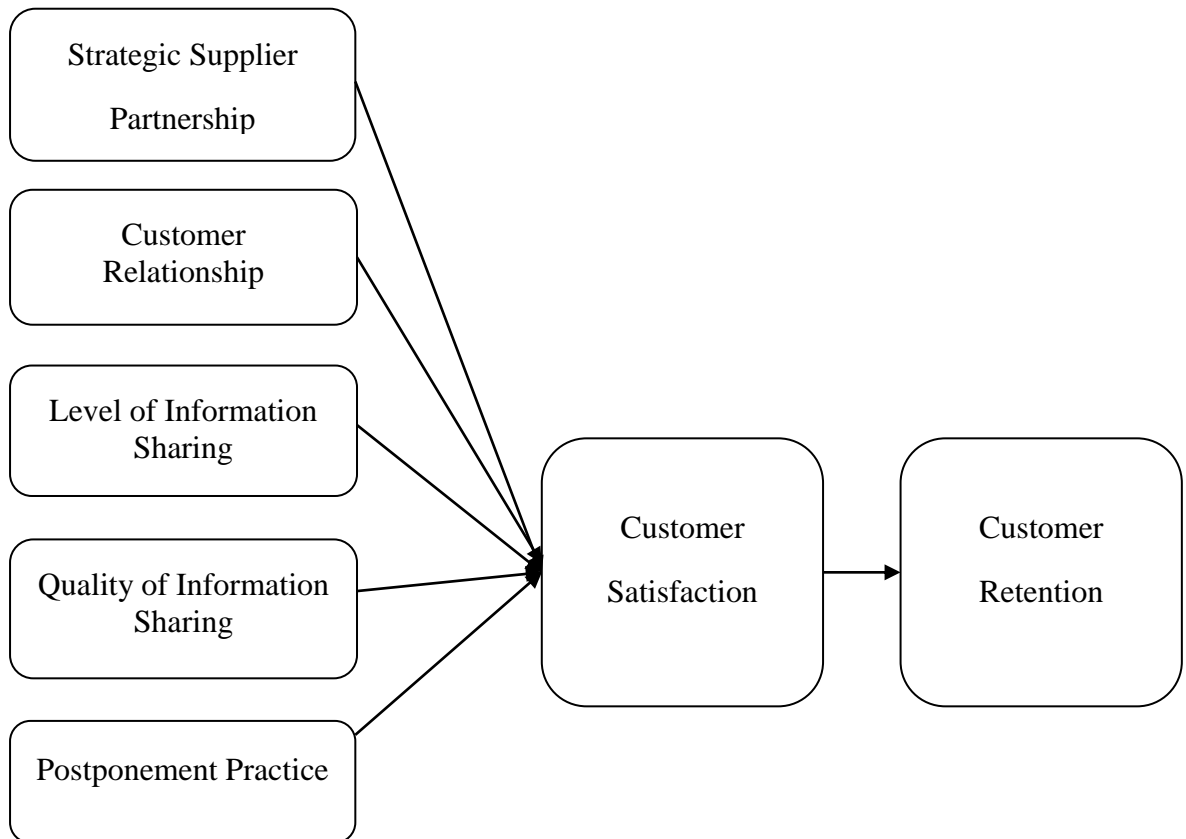


Source: Maqsood Husain Junaidi, (2017)

The survey concluded that Toyota customers are happier with delivery time, promised delivery time, accessories and spare parts, after-sales services, grievance handling, and supply chain management than Tata Motors customers. Younger customers are happier with Toyota, while older customers choose Tata Motors. Most clients of both firms are satisfied with Dealership network.

According to Ahmed (2021), supply chain management strategies improve customer satisfaction and retention in Saudi Arabia. The study examined how supply chain management techniques affect customer satisfaction and retention in large Southern Saudi Arabian retail food enterprises. Data was collected by questionnaire. With easy sampling, 208 workers were sampled. This study uses multiple linear regression with SSPS testing reliability and normalcy, correlation, hypothesis testing, simultaneous effect, and coefficient of determination.

**Figure (2.2) The Importance of Supply Chain Management Practices in Increasing Customer Satisfaction and Customer Retention: Evidence from Saudi Arabia**



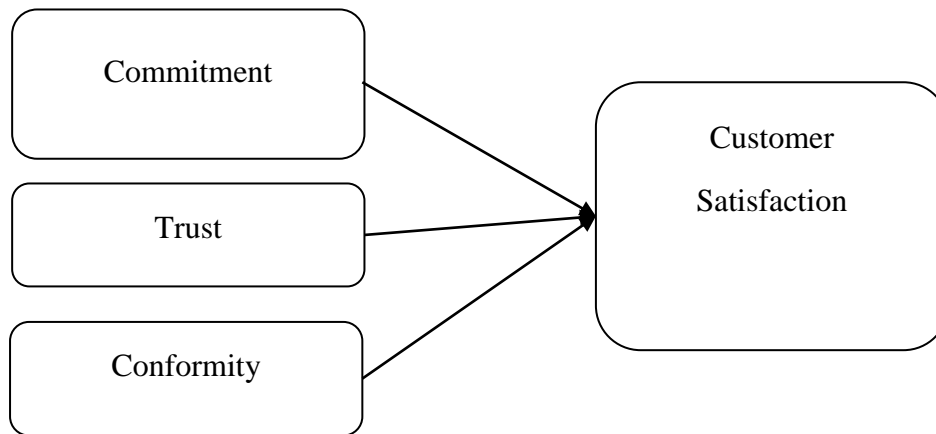
Source: Ahmed, A. (2021)

Strategic supplier partnership (SSP), customer relationship (CR), level of information sharing (LIS), level of information quality (LIQ), postponement practice (PP), and customer satisfaction (CS) are statistically significant and positively correlated. The association between customer relationship (CR) and customer satisfaction (CS) is negative and non-significant. Additionally, customer satisfaction (CS) predicts customer retention (CRe). This result can help retail food firms enhance supply chain management and consumer happiness and retention. However, the study's findings help companies enhance their services and products and prioritize consumers to keep them. Thus, these help customers suggest businesses. The results show how supply chain management affects customer satisfaction and retention in Saudi food retail.

Supply chain management affects customer satisfaction, according to Atadoga Mark Ojoajogu, Hussaini Yaro Ali, Samuel Yusuf Badi, and Muritala Habibu. This

study examines commitment, trust, and conformity as characteristics that create mutual relationships between the supplier(s), organization, and end users of the organization's products and services to meet their needs at a profit. The study used descriptive survey research. Primary sources (questionnaires) provided study data. Probability sampling was used to randomly choose 165 clients from 290. Only 143 completed and returned forms were analyzed. The correlation tool and mean were used in SPSS to evaluate the data.

**Figure (2.3) The Role of Supply Chain Management on Customer Satisfaction of Manufacturing firms at Nigeria**



Source: Atadoga, M. O., Ali, H. Y., Badi, S. Y., & Habibu, M. (2021)

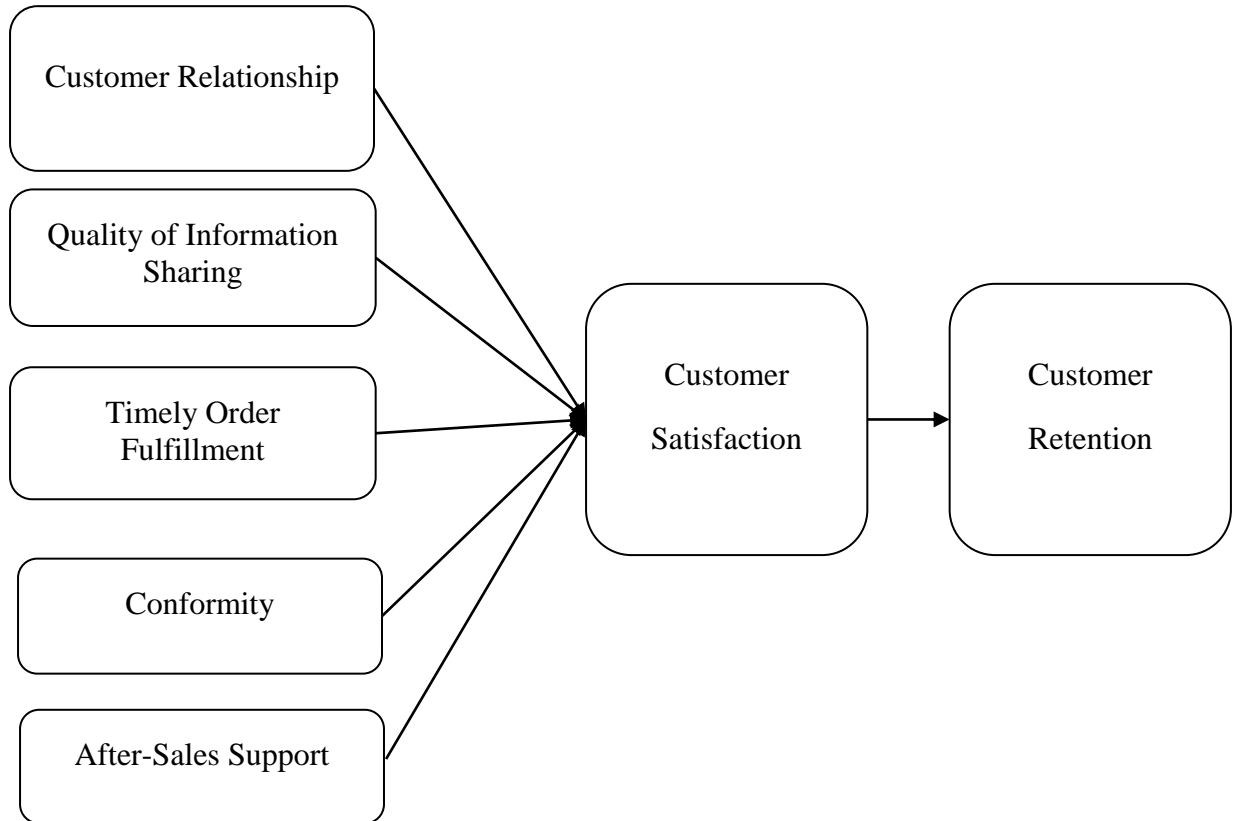
A positive and substantial correlation was established between buyer-supplier commitment and customer satisfaction ( $r = 0.276$ ;  $p < 0.01$ ). They also found that suppliers' commitment to timely material delivery would help the firm maintain enough inventory, which would allow manufacturing and distribution of items to customers through appropriate channel members. The study found that all departments must prepare corporately for a successful and efficient distribution system. Transport, sales, production, marketing, and buying should collaborate to maximize customer satisfaction.

## 2.7 Conceptual Framework of the Study

This study explores how Supply Chain Management (SCM) methods affect customer satisfaction and retention in Nippon Sanso Myanmar Company Limited. This conceptual framework comprises five independent variables: Strategic Supplier

Partnership, Customer Relationship, Information Sharing, and Conformity. This study's conceptual framework is shown in Figure 2.4.

**Figure (2.4) Supply Chain Management Practices, Customer Satisfaction and Customer Retention at Nippon Sanso Myanmar Company Limited**



Source: Own Compilation (2025)

These SCM practices influence Customer Satisfaction, which serves as the dependent variable. When customers are satisfied with the company's supply chain performance, they are more likely to remain loyal, leading to Customer Retention. This framework helps understand how improving SCM practices can enhance business success by strengthening customer relationships and ensuring long-term retention.

## **Working Definitions**

**Customer Relationship** in this study means regular communication, deliver respectful and responsive service, value customer feedback, and foster long-term, trust-based connections that go beyond single transactions.

**Quality of Information Sharing** in this study means to provide accurate, timely, and trustworthy information through multiple channels, ensuring that product updates, order changes, and support documents are communicated clearly and in an organized manner.

**Timely Order Fulfillment** in this study means to deliver orders within the promised timeframe by providing accurate delivery estimates, proactively communicating delays, ensuring reliable logistics, managing inventory effectively, and handling urgent orders efficiently.

**Conformity** in this study means to which a company's products or services consistently meet described specifications, industry standards, regulations and best practices.

**After-Sales Support** in this study means to the assistance and services provided by a company after a purchase to ensure customer satisfaction, including issue resolution, accessibility, and maintenance.

**Customer Satisfaction** in this study means to the overall positive experience and perceived value customers receive from a company's products, services, and support.

**Customer Retention** in this study means to a company's ability to maintain long-term relationships by encouraging repeat purchases, brand loyalty, and ongoing customer engagement.

## **CHAPTER III**

### **PROFILE AND SUPPLY CHAIN MANAGEMENT**

This chapter outlines the company profile and key supply chain management (SCM) practices of Nippon Sanso Myanmar (NSM). It begins with a brief background of NSM, highlighting its role in supplying industrial and medical gases in Myanmar. The chapter then presents the organizational structure to show how responsibilities are distributed across departments. Finally, it examines five core SCM practices implemented at NSM such as Customer Relationship, Quality of Information Sharing, Timely Order Fulfillment, Conformity, and After-Sales Support providing a practical foundation for understanding their impact on customer satisfaction and retention discussed in the next chapter.

#### **3.1 Profile of Nippon Sanso Myanmar**

Nippon Sanso Myanmar is a subsidiary of Nippon Sanso Holdings Corporation, a global leader in the industrial gas industry based in Japan. The company plays a vital role in supplying industrial, medical, and specialty gases in Myanmar, catering to a wide range of sectors including manufacturing, healthcare, electronics, and energy (Nippon Sanso, 2025). Established to support the country's growing demand for high-quality gas solutions, Nippon Sanso Myanmar emphasizes safety, innovation, and environmental responsibility in its operations. Leveraging advanced Japanese technology and global best practices, the company ensures a reliable supply of oxygen, nitrogen, argon, carbon dioxide, and various gas mixtures tailored to specific industrial requirements. Furthermore, the firm actively contributes to the development of Myanmar's industrial infrastructure by offering comprehensive technical support, installation services, and maintenance solutions. Its presence signifies the increasing foreign direct investment in Myanmar's industrial sector and represents a strategic collaboration between Japan and Myanmar in advancing sustainable industrial development (Nippon Sanso, 2025).

The core operations of Nippon Sanso Myanmar include the manufacturing, distribution, and installation of gas-related systems, such as air separation units, pipeline systems, gas cylinders, and on-site gas generation equipment. The company supplies a wide range of industrial gases, including oxygen, nitrogen, argon, carbon

dioxide, and specialty gases that meet international safety and quality standards. These gases are used in various applications from welding and metal fabrication to laboratory research and hospital care. Moreover, the company offers technical consulting, plant engineering, and system maintenance services, ensuring clients receive end-to-end solutions that optimize productivity, safety, and efficiency.

A defining feature of Nippon Sanso Myanmar is its use of advanced Japanese technology and adherence to stringent global quality standards. By incorporating automated production systems and rigorous quality control measures, the company ensures the purity, consistency, and safety of its gas products. This technological advantage allows the firm to meet the specialized demands of high-precision industries such as electronics and semiconductors. In addition, the company places strong emphasis on occupational safety and environmental protection, following practices that minimize emissions, reduce energy consumption, and support sustainable industrial growth.

Nippon Sanso Myanmar's contribution extends beyond commerce; it actively supports the broader socio-economic development of Myanmar. Through partnerships with local businesses and institutions, the company provides training, knowledge transfer, and technical assistance, helping to build local capacity in gas technology and safety standards. Its operations also reflect a significant inflow of Japanese foreign direct investment into Myanmar's industrial sector, signaling trust and long-term commitment. By aligning with Myanmar's industrialization goals and international partnerships, Nippon Sanso Myanmar serves as a model for how multinational corporations can drive sustainable progress in emerging economies.

### **3.2 Organization Structure**

Nippon Sanso Myanmar adopts a functional organizational structure, designed to ensure specialization, operational efficiency, and clear lines of authority within its industrial and medical gas operations. The company is led by a President, who serves as the highest authority in the local management team and is responsible for strategic direction, corporate governance, and coordination with Nippon Sanso Holdings Corporation in Japan. Reporting directly to the President are heads of key functional departments, each responsible for managing core aspects of the business.

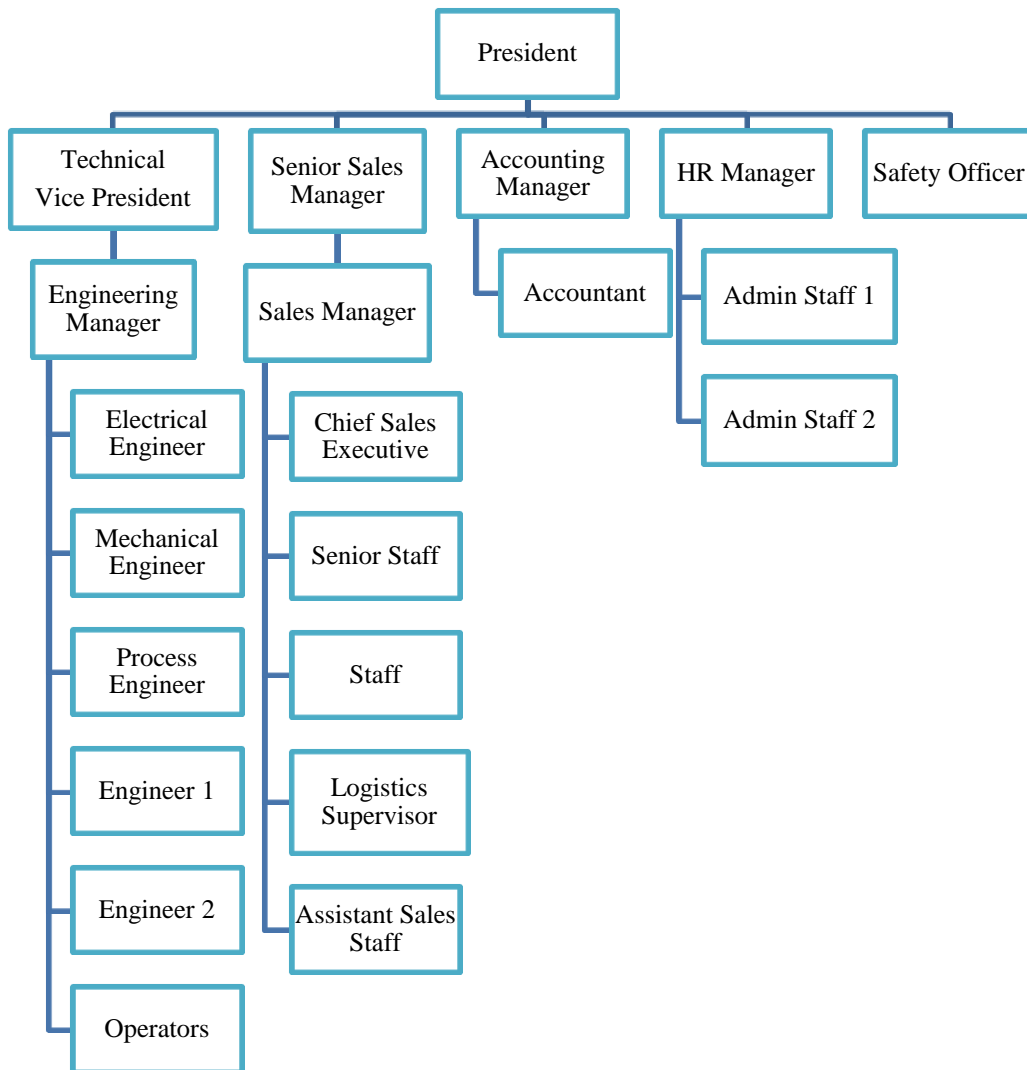
The Production Department is led by a Technical Vice President who oversees gas production facilities, ensuring consistent quality, safety compliance, and process

optimization. The Sales and Marketing Department is directed by a Senior Sales Manager who formulates sales strategies, manages client relationships, and explores new market opportunities. The Engineering and Technical Services Department, typically led by an Engineering Manager, provides customized solutions, system installations, and technical support to customers. The Logistics and Distribution Department ensures the timely and safe transportation of gases across Myanmar, managed by a Logistics Supervisor or Fleet Manager.

Supporting these operational units are the Accounting and Finance Department, headed by an Accounting Manager responsible for financial planning, internal audits, and cost control, and the Human Resources Department, which manages talent acquisition, employee training, and regulatory compliance related to labor laws. Additionally, a Safety Officer reports to top management to enforce safety protocols and environmental standards across all operational sites.

The management team of Nippon Sanso Myanmar combines local expertise with international leadership, ensuring that global standards are integrated into the local business context. Regular training, performance evaluations, and reporting structures contribute to transparency, accountability, and continuous improvement. This well-defined structure enables Nippon Sanso Myanmar to maintain operational excellence, adapt to market changes, and uphold its commitment to quality and safety in the Myanmar industrial gas sector.

**Figure (3.1) Organization Structure of Nippon Sanso Myanmar**



Source: Nippon Sanso, (2025)

### 3.3 Supply Chain Management Practices in Nippon Sanso Myanmar

Nippon Sanso Myanmar, a subsidiary of Nippon Sanso Holdings Corporation, specializes in industrial and medical gases, with an organized supply chain system supporting its operations across Myanmar. The supply chain management (SCM) process in the company is designed to ensure efficient sourcing, production, distribution, and customer satisfaction while maintaining strict safety and quality standards.

### **3.3.1 Customer Relationship**

Nippon Sanso Myanmar places strong emphasis on building long-term, trust-based relationships with its customers. The company adopts a customer-centric approach by assigning dedicated account managers to key clients, ensuring personalized communication and proactive service. Regular site visits, technical consultations, and feedback sessions are conducted to understand the evolving needs of customers, especially in the medical and industrial sectors. By providing tailored gas solutions and maintaining open lines of communication, the company ensures high levels of customer satisfaction and loyalty.

The company organizes regular customer engagement programs, such as technical seminars, product usage training, and safety workshops to educate clients and strengthen partnerships. Moreover, feedback mechanisms such as customer satisfaction surveys and periodic review meetings help the company identify service gaps and continuously improve. These relationship-building efforts enhance trust, improve communication, and foster long-term customer loyalty.

### **3.3.2 Quality of Information Sharing**

Effective and transparent information sharing is a core part of Nippon Sanso Myanmar's operations. The company uses integrated systems, such as Enterprise Resource Planning (ERP) tools, to provide real-time data on inventory, delivery schedules, product specifications, and safety guidelines. Customers receive timely updates on their orders, including expected delivery times and any disruptions. Technical documentation, safety data sheets (SDS), and compliance certificates are also readily shared to support customer audits and regulatory compliance.

Product specifications, Material Safety Data Sheets (MSDS), gas purity levels, safety protocols, and regulatory documentation are readily shared with clients to ensure compliance and safe handling. Information is communicated via multiple channels, including email notifications, printed delivery notes, and online dashboards for large clients. During emergency scenarios or system updates, customers are informed immediately to avoid disruptions. This level of transparency and accuracy builds trust and improves operational planning on the customer's end.

### **3.3.3 Timely Order Fulfillment**

Timely order fulfillment is a top priority at Nippon Sanso Myanmar, particularly due to the critical nature of its gas supplies to hospitals and industries. The company operates an efficient logistics network with well-maintained delivery vehicles and strategically located distribution centers. Orders are processed using automated scheduling systems that optimize delivery routes and reduce lead times. Emergency delivery services are also available for clients in the healthcare sector. As a result, the company maintains a high order fulfillment rate, contributing to strong customer satisfaction.

The company maintains a fleet of specialized vehicles, including high-pressure cylinder trucks and cryogenic tankers, operated by trained drivers adhering to strict safety protocols. Orders are scheduled based on forecasted demand, and emergency response plans are in place for critical deliveries particularly for medical oxygen.

Moreover, a system of buffer stocks and strategic distribution hubs enables the company to serve clients in remote areas with minimal delays. As a result, Nippon Sanso Myanmar consistently achieves high levels of on-time delivery, helping customers plan their operations more reliably.

### **3.3.4 Conformity**

Nippon Sanso Myanmar strictly adheres to national and international standards to ensure product conformity. All gases are produced and tested in accordance with ISO certifications and internal quality assurance protocols. Each product batch is subjected to rigorous quality checks for purity, composition, and pressure, ensuring they meet the technical specifications agreed with customers. The conformity process also includes proper labeling, packaging, and certification to ensure traceability and compliance with regulatory requirements.

The company maintains a fleet of specialized vehicles, including high-pressure cylinder trucks and cryogenic tankers, operated by trained drivers adhering to strict safety protocols. Orders are scheduled based on forecasted demand, and emergency response plans are in place for critical deliveries particularly for medical oxygen.

Moreover, a system of buffer stocks and strategic distribution hubs enables the company to serve clients in remote areas with minimal delays. As a result, Nippon Sanso Myanmar consistently achieves high levels of on-time delivery, helping customers plan their operations more reliably.

### **3.3.5 After-Sales Support**

After-sales support is a critical component of Nippon Sanso Myanmar's customer service strategy. The company offers comprehensive support services including equipment maintenance, troubleshooting, technical training, and emergency response. A dedicated technical support team is available to assist clients with installation, usage guidance, and safety procedures. Customers can also request routine inspections or receive assistance with regulatory documentation. This commitment to after-sales service reinforces customer trust and promotes long-term business partnerships.

The company also provides routine maintenance and calibration services to maintain the accuracy and efficiency of gas delivery infrastructure. These services are vital to preventing leaks, ensuring consistent pressure, and minimizing the risk of system failures, especially in critical applications such as hospitals and industrial plants.

To further enhance operational safety, technical training programs are regularly offered for customer personnel. These cover essential topics such as proper cylinder handling, leak detection procedures, equipment operation, and emergency response protocols. By empowering clients with practical knowledge, the company reduces safety risks and promotes responsible gas usage.

In cases of urgent need, Nippon Sanso Myanmar ensures 24/7 emergency support, particularly crucial for healthcare institutions that rely on continuous medical oxygen supply. Rapid response teams are on standby to address breakdowns, resupply needs, or technical malfunctions at any time of day.

In addition, the company conducts periodic safety audits at client facilities and provides guidance to help customers stay compliant with evolving safety and environmental regulations. The customer service team is also well-trained to manage technical inquiries, handle warranty claims, and respond to feedback effectively. Through these holistic after-sales support activities, Nippon Sanso Myanmar builds long-term partnerships and ensures its clients operate safely and efficiently.

## **CHAPTER IV**

### **ANALYSIS OF SUPPLY CHAIN MANAGEMENT PRACTICES, CUSTOMER SATISFACTION AND CUSTOMER RETENTION**

This chapter analyses the data to determine how supply chain management (SCM) methods affect customer satisfaction and retention at Nippon Sanso Myanmar. The primary objective of this chapter is to assess how various elements of SCM such as customer relationship, information sharing, order fulfillment, product conformity, and after-sales support influence customer perceptions and behaviors.

#### **4.1 Research Design**

This research solely examines how supply chain management affects Nippon Sanso Myanmar Co., Ltd. customer satisfaction and retention. To support research goals, primary and secondary data are used. The target population includes procurement officials, supply chain managers, and material buying staff. A standardized questionnaire with a 5-point Likert scale measures respondents' impressions of customer interaction, information sharing, order fulfillment, conformance, after-sales service, satisfaction, and retention for primary data gathering.

This study adopts simple random sampling method. 154 customers were selected out of a total population of 250 using (Yamane, 1967) formula for sample size determination:

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

$$n = 250 / 1 + 250 (0.05)^2 = 154$$

where:

n = the sample size

N = the population size (250), and

e = the level of precision (0.05).

Substituting the values:

A sample of 154 respondents was determined to be sufficient for statistical reliability.

The survey was conducted during the period from 10 Jun 2024 to 15 June 2025 using an online Google Form to collect responses from customers of Nippon Sanso Myanmar. Primary and secondary data on SCM, customer satisfaction, and retention were collected from books, journal papers, and corporate records. This combination strategy improves study validity and allows for a thorough investigation of critical variable interactions.

To summarize replies, descriptive statistics were used. Multiple regression analysis was used to investigate how SCM procedures affect customer satisfaction and retention. The investigation determined which SCM practices most affect customer satisfaction and if better satisfaction levels boost NSM client loyalty.

#### **4.2 Profile of Respondents**

This section describes this study's survey respondents' demographics and shopping habits. The respondents' backgrounds are important for examining their views on supply chain management (SCM), customer satisfaction, and customer retention in Nippon Sanso Myanmar Company Limited.

Respondents are procurement and supply chain decision-makers in their firms. The procurement officers, supply chain managers, and operational staff have personal familiarity with NSM's supply chain activities. The profile covers key demographic variables such as gender, age group, marital status, education level, and monthly personal income. It also includes purchase-related characteristics such as the duration of their relationship with NSM, frequency of purchase, and the main product or service they procure from the company. Information helps in identifying patterns and variations in customer experiences and expectations based on their demographic and purchasing characteristics. It also aids in segmenting customer responses for further analysis of how different groups perceive the effectiveness of NSM's supply chain practices. In the following sections, the data is summarized using descriptive statistics and presented in frequency and percentage formats to provide a clear understanding of the respondent base for this study.

**Table (4.1) Profile of Respondents**

<b>Items</b>	<b>Particular</b>	<b>No. of Respondents</b>	<b>Percent (%)</b>
<b>Total</b>		<b>154</b>	<b>100</b>
Gender	Male	95	61.5
	Female	59	38.5
Age	16 – 20 years	6	3.9
	21 – 25 years	23	14.9
	26 – 30 years	23	14.9
	31- 35 years	44	28.6
	Above 35 years	58	37.7
Marital Status	Single	38	24.7
	Married	112	72.7
	Other	4	2.6
Education Level	Under Graduated	39	25.4
	Graduated	95	61.7
	Master	17	11
	Ph.D.	3	1.9
Monthly Income (Kyats)	Below 500,000	7	3
	500,001 to 1,000,000	42	27
	1,000,001 to 1,500,000	54	35
	1,500,001 and above	51	33
Being a customer	Less Than 1 year	12	7.8
	1 year to 3 years	56	36.4
	3 years to 6 years	72	46.8
	More than 6 years	14	9
Frequency of Purchased	Weekly	39	25.4
	Monthly	47	30.5
	Quarterly	39	25.3
	Occasionally	29	18.8

Source: Survey Data, 2025

The demographic and purchase-related profile of the 154 respondents offers valuable insight into the customer base of Nippon Sanso Myanmar Company Limited. Out of 154 respondents, 61.7% were male and 38.3% were female, indicating a male-dominant customer segment. This is likely due to the technical nature of the company's industrial products and the high involvement of men in roles such as procurement, operations, and engineering in related sectors. The majority of respondents fall in the above 35 years (37.7%) and 31–35 years (28.6%) age categories. This shows that most customers are mature and experienced professionals, which aligns with the technical expertise required to manage industrial gas supply. Younger respondents (ages 16–25) made up a smaller proportion (only 18.8% combined), suggesting fewer early-career professionals are involved in purchasing roles.

A significant portion of respondents are married (72.7%), while 24.7% are single and a small group (2.6%) indicated "Other." This further supports the finding that most respondents are older, experienced decision-makers. In terms of education, the majority of respondents are university graduates (61.7%), followed by undergraduates (25.3%). Those holding Master's degrees account for 11.0%, while only 1.9% have PhDs. This highlights that most customers are well-educated, likely equipped with the knowledge required for supply chain and procurement roles.

In terms of personal income, most respondents earn between 1,000,001 and 1,500,000 kyats (35%), followed closely by those earning above 1,500,001 kyats (33%), and 27% earning between 500,001 and 1,000,000 kyats. Only a small percentage (3%) earns below 500,000 kyats. This indicates that most respondents are in mid to high-income brackets, consistent with professional-level positions. Nearly 47% of respondents have been customers for 3 to 6 years, and 36.4% have worked with NSM for 1 to 3 years. Only 7.8% are new customers, and 9% have been customers for over 6 years. This indicates that NSM has built long-term relationships with the majority of its customers.

Regarding purchasing behavior, the largest group of respondents (30.5%) makes purchases monthly, followed by weekly and quarterly buyers (both at 25.3%). Occasional buyers account for 18.8%. This reflects a consistent purchasing pattern, with most customers requiring regular gas supply for continuous operations.

### 4.3 Reliability Test for Variables

The reliability of measuring scales, especially Likert-type questions, was extensively assessed in this area to assure data consistency and correctness.

For each scale, Cronbach's alpha was determined to assess internal consistency. Table (4.2) shows the reliability test results and Cronbach's alpha values for each variable.

**Table (4.2) Reliability Test for Variables**

No.	Scale	Cronbach Alpha	No. of Item
1	Customer Relationship	.872	7
2	Quality of Information Sharing	.842	7
3	Timely Order Fulfillment	.849	7
4	Conformity	.852	7
5	After-Sales Support	.909	7
6	Customer Satisfaction	.899	10
7	Customer Retention	.876	10

Source: Survey Data, 2025

Table 4.2 shows the reliability analysis findings for each research variable. The measuring scales' reliability was verified using Cronbach's alpha, a well acknowledged internal consistency indicator. As indicated in the table, all scales surpassed 0.70, suggesting strong internal dependability across all structures.

### 4.4 Descriptive Statistics of Supply Chain Management Practices

This section analyses the study's key Supply Chain Management (SCM) practices. Nippon Sanso Myanmar Company Limited (NSM) uses these operational and strategic strategies to manage its supply chain for efficiency, responsiveness, and customer satisfaction. The research examines five SCM practices: Customer Relationship, Information Sharing Quality, Order Fulfillment Speed, Conformity, and After-Sales Support.

NSM consumers completed a standardized Google Forms questionnaire. Structured questions on a five-point Likert scale, from “Strongly Disagree” to “Strongly Agree,” quantified consumer perceptions of supply chain management

procedures. This study sought to discover the characteristics that most affect industrial gas supplier customer satisfaction and retention.

For accurate and meaningful interpretation of the quantitative data collected through the Likert-scale responses, this study adopted the mean rating scale developed by (Best, 1917) As shown in Table (4.3), Best’s framework was applied to interpret the mean scores of each variable, allowing for a systematic evaluation of customer responses. This analytical method enables a clear understanding of how each supply chain management dimension such as customer relationship, information sharing, order fulfillment, conformity, and after-sales support impacts overall customer satisfaction. Furthermore, it helps in assessing the extent to which satisfied customers are likely to maintain long-term business relationships with Nippon Sanso Myanmar.

**Table (4.3) Mean Rating Scale**

<b>No.</b>	<b>Score Range</b>	<b>Mean Rating</b>
1	1.00 – 1.80	Very Low
2	1.81 – 2.60	Low
3	2.61 – 3.40	Average
4	3.41 – 4.20	High
5	4.21 – 5.00	Very High

Source: Best, 1977

Table (4.3) displays the analyzed survey results based on the application of the mean rating scale proposed by (Best, 1917). This widely recognized framework categorizes average scores into five defined levels, enabling a structured interpretation of the data. By using this classification system, the study ensures a consistent and objective analysis of respondent opinions across different items in the questionnaire. The categorized mean score ranges provide meaningful insight into how participants perceive various aspects of Nippon Sanso Myanmar’s supply chain management practices, customer satisfaction, and retention strategies.

#### **4.4.1 Customer Relationship at Nippon Sanso Myanmar**

This subsection explores how customers perceive their relationship with the company. Table (4.4) presents the mean scores for the items related to customer

relationship, reflecting the level of trust, communication, and engagement experienced by clients.

**Table (4.4) Customer Relationship at Nippon Sanso Myanmar**

<b>No.</b>	<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
1.	The company maintains regular communication with customers.	4.33	.549
2.	The company understands customer needs and preferences.	4.23	.581
3.	The company makes customers to feel valued.	4.25	.586
4.	The company resolves complaints in a respectful manner.	4.08	.571
5.	The company provides exceptional service quality that encourages customer recommendations.	4.15	.534
6.	The company takes seriously about customer's suggestions and concerns.	4.12	.676
7.	The company builds long-term relationships rather than one-time transactions.	4.36	.624
<b>Overall Mean</b>		<b>4.21</b>	

Source: Survey Data, 2025

Table (4.4) shows that the overall quality of information sharing at Nippon Sanso Myanmar is rated Very High, with an average mean score of 4.21. Among all evaluated aspects of customer relationship, the highest mean score 4.36 highlights the company's strong emphasis on cultivating lasting customer loyalty. This result reflects the company's likely investment in ongoing engagement, consistent support, and communication, all of which contribute to long-term retention.

#### **4.4.2 Quality of Information Sharing at Nippon Sanso Myanmar**

This part examines the effectiveness and clarity of information exchanged between the company and its customers. It evaluates whether customers receive accurate, timely, and relevant information regarding products and services. Table

(4.5) summarizes the responses related to the information provided about the product quality, accuracy, and compliance.

**Table (4.5) Quality of Information Sharing at Nippon Sanso Myanmar**

<b>No.</b>	<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
1.	The company provides clear and accurate product/service details.	4.36	.570
2.	The company communicates promptly about orders information. (e.g., delays, changes)	4.08	.578
3.	The company shares relevant updates (e.g., promotions, policies) effectively.	4.32	.613
4.	The company ensure trustworthiness by providing valuable information.	4.14	.499
5.	The company uses multiple channels (e.g., email, SMS) to share information.	4.15	.624
6.	The company provides technical/product support documents when needed.	4.12	.528
7.	The company delivers updates in a timely and organized manner.	4.28	.492
	<b>Overall Mean</b>	<b>4.20</b>	

Source: Survey Data, 2025

Table (4.5) shows that the overall quality of information sharing at NSM is rated Highly, with an average mean score of 4.20. The highest-rated item in the quality of information sharing 4.36 reflects that customer perceive NSM as highly effective in providing clear and accurate product/service information. Providing correct product or service information likely minimizes complaints and errors, leading to a more efficient purchasing process.

**Table (4.6) Timely Order Fulfillment at Nippon Sanso Myanmar**

<b>No.</b>	<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
1.	The company delivers the order within the promised timeframe.	3.88	.640
2.	The company provides realistic delivery time estimates.	3.59	.805
3.	The company communicates proactively for delays (if any).	3.48	.725
4.	The company runs the order with satisfactory speed for processing.	3.33	.776
5.	The company has a reliable logistics/delivery system.	3.90	.557
6.	The company handles promptly and efficiently for urgent orders.	3.45	.750
7.	The company is well managed for inventory availability to prevent delays.	3.86	.525
	<b>Overall Mean</b>		<b>3.64</b>

Source: Survey Data, 2025

Table (4.6) shows that the overall timely order fulfillment at NSM is rated High, with an average mean score of 3.64. The highest mean score 3.9 result shows that among all factors influencing timely order fulfillment, reliability of the logistics and delivery system is perceived as NSM's strongest area. A reliable delivery system indicates that NSM has well-established logistics processes that consistently meet customer expectations.

#### **4.4.3 Conformity at Nippon Sanso Myanmar**

The focus is on the company's ability to deliver products and services that meet industry standards, regulations and customer expectations. Table (4.7) summarizes the responses related to product quality, accuracy, and compliance.

**Table (4.7) Conformity at Nippon Sanso Myanmar**

<b>No.</b>	<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
1.	The company matches the products/services as descriptions accurately.	4.50	.629
2.	The company meets quality of deliveries with the expectations.	4.42	.569
3.	The company occurs rarely errors or discrepancies in the orders.	4.09	.503
4.	The company adheres to agreed-upon standards.	4.55	.627
5.	The company maintains consistent quality across multiple purchases.	4.46	.526
6.	The company checks product quality before delivery.	4.38	.639
7.	The company meets industry and safety standards.	4.55	.595
	<b>Overall Mean</b>	<b>4.42</b>	

Source: Survey Data, 2025

Table (4.7) shows that the overall quality of information sharing at NSM is rated Very High, with an average mean score of 4.42. The highest mean scores prove that conformity to standards both internally agreed-upon and externally mandated (industry and safety) is a strong aspect of NSM's operations. Customers or stakeholders perceive the company as being highly compliant and consistent with standards, which reflects well on its quality assurance and reliability.

#### **4.4.5 After-Sales Support at Nippon Sanso Myanmar**

This subsection discusses the support provided to customers after the purchase is made. Table (4.8) includes the mean scores on aspects such as maintenance, customer service, technical assistance, and emergency response.

**Table (4.8) After-Sales Support at Nippon Sanso Myanmar**

No.	Statement	Mean	Std. Deviation
1.	The company provides helpful post-purchase assistance.	4.12	.666
2.	The company resolves the issues (e.g., returns, defects) efficiently.	3.92	.646
3.	The company's customer service support is easily accessible (e.g., phone, chat).	3.96	.808
4.	The company always follow-ups to ensure to have satisfy products/service.	3.94	.556
5.	The company clearly explains about warranty/return policies.	3.92	.548
6.	The company's support staffs are knowledgeable and courteous.	4.05	.640
7.	The company provides regular service reminders or maintenance support.	4.05	.587
	<b>Overall Mean</b>	<b>3.99</b>	

Source: Survey Data, 2025

Table (4.8) shows that after-sales support at NSM is rated High, with an average mean score of 3.99, the highest mean value is 4.12, reflect that NSM likely prioritizes customer care after transactions, creating a sense of trust and reliability in their service. This can positively influence repeat business and long-term customer relationships.

**Table (4.9) Overall Mean Score of Key Variables**

No.	Variables	Mean Score
1.	Customer Relationship	4.21
2.	Quality of Information Sharing	4.20
3.	Timely Order Fulfillment	3.64
4.	Conformity	4.42
5.	After-Sales Support	3.99

Source: Survey Data, 2025

Table (4.9) shows that total mean scores of key variables of NSM. All the above results indicate that the mean scores of key supply chain management practices

including customer relationship, quality of information sharing and conformity were above 4. That demonstrated respondents had generally positive perceptions of these practices and are likely contributing positively to NSM’s organizational performance.

#### 4.4.6 Customer Satisfaction at Nippon Sanso Myanmar

This section presents how satisfied customers are with the overall service they receive from the company. Table (4.10) highlights customer evaluations on different aspects of their experience with Nippon Sanso Myanmar. the company. Table (4.10) highlights customer evaluations on different aspects of their experience with Nippon Sanso Myanmar. This final subsection assesses the likelihood of customers continuing to do business with the company.

**Table (4.10) Customer Satisfaction at Nippon Sanso Myanmar**

<b>No.</b>	<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
1.	The company’s products and services is high for overall satisfaction.	4.45	.637
2.	The company consistently meets or exceeds expectations.	4.23	.581
3.	The company gives generally positive customer experiences.	4.34	.585
4.	The company provides reasonable value for the price paid.	4.72	.589
5.	The company attracts for repeat purchases are likely.	4.40	.651
6.	The company handles problem resolution satisfactorily.	4.22	.563
7.	The company has superior overall experience compared to other suppliers.	4.54	.538
8.	The company provides consistent service quality regardless of staff or location.	3.95	.684
9.	The company is smooth and convenient for making business transactions.	4.20	.598
10.	The company provides quality of service justifies the associated costs.	4.56	.647
	<b>Overall Mean</b>	<b>4.36</b>	

Source: Survey Data, 2025

Table (4.10) indicates a high level of customer satisfaction, with an average mean score of 4.36, reflecting generally positive perceptions toward the company's products and services. The highest mean value is 4.72, showing strong agreement that customers perceive the value received as reasonable for the price paid. The next highest ratings relate to the overall experience being superior compared to other companies and the quality of service justifying the cost.

#### 4.4.7 Customer Retention at Nippon Sanso Myanmar

This final subsection assesses the likelihood of customers continuing to do business with the company. Table (4.11) displays the mean scores that reflect customer loyalty, repeated purchases, and long-term relationship intentions.

**Table (4.11) Customer Retention at Nippon Sanso Myanmar**

No.	Statement	Mean	Std. Deviation
1.	The company is preferred over its competitors.	4.44	.510
2.	The company tends to receive repeat purchases over extended periods.	4.44	.498
3.	The company is likely to receive continued patronage.	4.44	.511
4.	The company offers appealing loyalty programs.	4.30	.500
5.	The company proves a strong sense of brand loyalty among customers.	4.31	.554
6.	The company is forgivable for occasional service errors due to overall service quality.	4.23	.534
7.	The company is recommended due to active customer loyalty.	4.27	.572
8.	The company attracts customers to remain despite lower prices offered by competitors.	4.25	.679
9.	The company connects its brand with an emotional experienced.	4.22	.597
10.	The company actively works to retain its customers.	4.40	.491
	<b>Overall Mean</b>	<b>4.16</b>	

Source: Survey Data,2025

Table (4.11) reveals a highly positive outlook on customer retention at Nippon Sanso Myanmar, with an average mean score of 4.31. This indicates that customers generally feel loyal and are likely to continue their relationship with the company. The highest mean values, all at 4.44, reflect strong customer preferences for the company over competitors, as well as a tendency to make repeat purchases over time and continue patronage. The lowest mean score, 4.22, relates to the emotional connection to the brand, suggesting this area may have slightly less impact but still remains positive. Overall, the consistently high mean scores across all items demonstrate a strong foundation of customer loyalty and retention.

#### **4.5 Analysis on the Effect of Supply Chain Management Practices on Customer Satisfaction**

Various supply chain management (SCM) strategies affect Nippon Sanso Myanmar customer satisfaction. Customer happiness is intimately linked to product availability, service quality, and responsiveness, thus effective SCM is crucial. This study examines how SCM factors like customer relationship, information sharing quality, timely order fulfillment, conformity, and after-sales support affect customer satisfaction to determine which practices positively impact customer experiences.

Regression analysis will be used to establish the strength and direction of these correlations using survey data. This study will help the organization improve supply chain strategy, customer happiness, and retention.

**Table (4.12) Analysis of the Effect of Supply Chain Management Practices on Customer Satisfaction**

Variable	Unstandardized Coefficient		Standardized Coefficient	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	.495	.338		1.464	.145	
Customer Relationship	.626***	.076	.630	8.254	.000	1.776
Quality of Information Sharing	.058**	.089	.168	.309	.023	2.979
Timely Order Fulfillment	.029	.064	.033	.451	.652	1.594
Conformity	.225***	.074	.217	3.049	.003	1.543
After-Sales Support	.147**	.065	.172	2.273	.024	1.753
R				.717		
R Square				.514		
Adjusted R Square				.498		
F Value				31.318***		

Source: Survey Data, 2025

Notes: \*\*\* significant level at 1%, \*\* significant level at 5%, \* significant level at 10

According to regression analysis, four supply chain management techniques affect customer satisfaction with standardized beta coefficients and statistical significance thresholds. Customer link is the most influential, with a beta value of 0.630 and a p-value of 0.000, showing a strong positive link. Increasing customer relationship management may significantly boost customer satisfaction. Conformity has a moderate but substantial positive effect with a beta of 0.217 and p-value of 0.003. This implies supply chain norms and expectations improve consumer happiness. The beta of After-Sales help is 0.172 and the p-value is 0.024, demonstrating that efficient post-purchase help also improves customer satisfaction. Finally, Quality of Information Sharing has a beta of 0.168 and a p-value of 0.023, indicating that supply chain transparency and accuracy improve customer experience.

These findings demonstrate the relevance of relational and operational approaches in supply chain management to customer satisfaction.

#### 4.6 Analysis on the Effect of Customer Satisfaction on Customer Retention

This section focuses on evaluating how customer satisfaction influences customer retention at Nippon Sanso Myanmar. Customer retention is vital for the sustained growth and profitability of any business, and it is widely acknowledged that satisfied customers are more likely to remain loyal and continue their relationship with a company. By examining the relationship between customer satisfaction and retention, this study seeks to determine the extent to which satisfaction drives repeat business and long-term loyalty. Using statistical analysis based on survey data, the study will assess the strength and significance of this relationship, providing insights that can help Nippon Sanso Myanmar develop effective strategies to foster customer loyalty through enhanced satisfaction.

**Table (4.13) Analysis on the Effect of Customer Satisfaction on Customer Retention**

Variable	Unstandardized Coefficient		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	2.320	.276		8.398	.000
Customer Satisfaction	.460	.063	.810	7.307	.000
R	.510				
R Square	.547				
Adjusted R Square	.555				
F Value	53.396				

Source: Survey Data, 2025

Notes: \*\*\* significant level at 1%, \*\* significant level at 5%, \* significant level at 10

Customer retention at Nippon Sanso Myanmar is strongly and statistically significantly positively correlated with customer satisfaction. The corrected R-square value of 0.555 indicates that the model explains 55% of customer retention variation.

The high t-value (7.307) and p-value (0.000) suggest that customer happiness significantly affects retention, as shown by the standardized coefficient (Beta = 0.810). These findings demonstrate that customer pleasure is crucial to customer loyalty and repeat business, highlighting the necessity to focus customer experience to retain customers.

## **CHAPTER 5**

### **CONCLUSION**

This final chapter presents a summary of the key findings, discusses their implications, and offers suggestions for improving supply chain management practices at Nippon Sanso Myanmar. It also highlights the study's limitations and identifies areas for future research.

#### **5.1 Findings and Discussions**

The main objective of this study is to examine the impact of supply chain management (SCM) practices on customer satisfaction and how this, in turn, affects customer retention at Nippon Sanso Myanmar (NSM) Company Limited. This research employed a quantitative research method to analyze the relationship between SCM practices and customer-related outcomes. The study used descriptive statistics to assess general perceptions and multiple regression analysis to evaluate the influence of SCM variables on customer satisfaction and retention.

In this study, 154 respondents were surveyed to gather opinions related to the research objectives. Regarding the demographic characteristics of the respondents, the majority were male, aged over 30, and married. Most of the participants were bachelor's degree holders, working as procurement officers, supply chain managers, or operations personnel. In addition, the majority had been working with NSM for 3 to 6 years and reported a monthly income between 1,000,001 and 1,500,000 Kyats. These respondents represent experienced and knowledgeable professionals who directly engage with the company's supply chain operations, making their insights valuable for evaluating SCM performance.

The study's findings indicate that Nippon Sanso Myanmar (NSM) demonstrates generally strong performance across all five evaluated supply chain management (SCM) practices, as perceived by its customers. Among these, conformity received the highest mean score, reflecting the company's strong adherence to both internal and external standards, including product specifications, industry regulations, and safety protocols. Customers consistently acknowledged that the products and services delivered by NSM meet the expected quality and match their descriptions accurately, with few discrepancies or errors. This indicates a well-

established system of quality control and regulatory compliance that enhances operational credibility and builds customer trust.

Customer relationship also scored very highly, indicating that NSM places considerable emphasis on developing long-term, trust-based connections with its clients. Respondents recognized the company's efforts to maintain regular communication, listen to customer feedback, and provide responsive, respectful service. The highest-rated statement within this category emphasized that the company builds lasting partnerships rather than engaging in one-time transactions underscoring the strategic importance NSM places on relationship continuity.

Closely following customer relationship is the company's quality of information sharing, which was also rated highly by respondents. Customers valued the clarity, timeliness, and reliability of the information provided, particularly regarding product details, order updates, and compliance documentation. NSM's use of multiple communication channels such as email, messaging apps, and in-person visits allows for effective and transparent information exchange. This not only supports better customer decision-making but also reinforces trust in the company's responsiveness and professionalism. The provision of technical support documents and prompt updates about changes or delays were specifically appreciated, reflecting the company's strength in operational transparency.

After-sales support was viewed positively, with customers acknowledging the helpfulness and accessibility of the company's post-purchase assistance. Respondents reported satisfaction with issue resolution, maintenance services, and the professionalism of support staff. While this category ranked slightly lower than conformity, customer relationship, and information sharing, it still achieved a high overall mean score, indicating that NSM is attentive to customer needs even after the sale is completed. The company's emergency support services, routine maintenance, and technical training were particularly appreciated in sectors such as healthcare and manufacturing, where safety and reliability are paramount. These services help deepen customer relationships and contribute to repeat business.

In contrast, timely order fulfillment received the lowest mean score among the five SCM practices, although it still fell within the "high" range according to the Likert-scale interpretation. Customers acknowledged the general reliability of NSM's logistics system, especially for routine and planned orders. However, areas such as delivery speed, urgent order handling, and proactive communication of delays were

noted as requiring improvement. Despite this, customers did recognize that the company maintains a dependable delivery network and uses forecasting to manage inventory effectively. Nevertheless, further enhancement in delivery accuracy and speed would likely strengthen NSM's customer satisfaction even more, especially in industries that rely on uninterrupted supply like hospitals and factories.

Regression analysis supported the descriptive findings by highlighting which SCM practices most significantly influence customer satisfaction. The analysis showed that customer relationship is the strongest predictor of customer satisfaction, demonstrating the importance of interpersonal engagement, trust, and service responsiveness. Conformity also had a substantial and statistically significant impact, reaffirming the importance of meeting product standards and expectations. After-sales support and quality of information sharing both contributed positively and significantly to customer satisfaction, suggesting that continued investments in service quality and communication systems are essential. Interestingly, timely order fulfillment, while positively correlated, did not show a statistically significant effect in the regression model. This finding implies that although delivery timeliness is important, it may be outweighed by relational and quality factors in shaping customer satisfaction at NSM.

According to the second objective, it is noted that independent variables of the study customer relationship, quality of information sharing, conformity and after-sales support apart from the timely order fulfillment to have above the somewhat significant effect on customer satisfaction at Nippon Sanso Myanmar.

Based on the third objective, it can be said that Regression indicates that customer satisfaction has positive and above somewhat significant effect on customer retention. Moreover, customer satisfaction was shown to have a strong, direct impact on customer retention, as confirmed by a separate regression model. Satisfied customers were more likely to continue purchasing from NSM, recommend the company to others, and remain loyal despite occasional service issues or lower prices offered by competitors. This reinforces the conclusion that well-managed SCM practices not only enhance immediate satisfaction but also contribute to long-term business success through improved customer retention.

## 5.2 Suggestions and Recommendations

Based on the findings of the study, several suggestions and recommendations can be made to help Nippon Sanso Myanmar (NSM) further improve its supply chain management practices and strengthen its organizational performance through enhanced customer satisfaction and retention.

Firstly, since conformity was rated the highest among all SCM practices, NSM should continue to prioritize strict adherence to product specifications, safety standards, and regulatory compliance. Regular quality audits, updated certifications, and staff training should be maintained to ensure consistent delivery of high-quality gases that meet both local and international standards.

Secondly, the company's strong performance in customer relationship significantly influenced customer satisfaction. To build on this strength, NSM is encouraged to deepen its customer engagement by offering personalized service, proactive support, and loyalty programs. Maintaining open communication and responding quickly to customer feedback will further enhance trust and loyalty.

Quality of information sharing was also viewed positively, yet it remains an area that can benefit from technological enhancement. NSM is advised to expand its digital platforms for real-time communication, automate order tracking, and ensure that technical documents and updates are easily accessible through multiple channels. Improving the speed and accuracy of information flow can lead to more efficient decision-making for customers.

While after-sales support received a generally favorable response, the study suggests strengthening this area by improving follow-up procedures and accessibility. NSM could implement a more structured system for scheduling maintenance, offering technical training, and tracking service performance. Enhancing customer service responsiveness especially for emergency needs in sectors like healthcare will reinforce long-term client relationships.

The lowest-rated practice was timely order fulfillment, though it still had a positive perception overall. NSM should improve logistics coordination by investing in real-time delivery tracking, increasing transport capacity, and maintaining strategic inventory levels to minimize delays. Clear communication about delivery timelines and proactive updates during disruptions are crucial to rebuilding confidence in this area.

Lastly, the regression results showed that customer relationship, conformity, after-sales support, and information sharing have a significant and positive effect on

customer satisfaction, which in turn has a strong impact on customer retention. Therefore, NSM should focus its resources on maintaining these high-impact areas while strategically improving the weaker link in the chain order fulfillment. These efforts will not only enhance the customer experience but also help the company retain its competitive advantage in Myanmar's industrial gas sector.

### **5.3 Needs for Further Study**

While this study provides valuable insights into the relationship between supply chain management practices and organizational performance at Nippon Sanso Myanmar, there are several areas that warrant further research.

Firstly, this study focused only on the customer perspective. Future research could include internal stakeholders such as NSM employees, suppliers, and logistics partners to obtain a more comprehensive view of the supply chain ecosystem. Their input could help identify operational bottlenecks and internal process improvements that are not visible from the customer side.

Secondly, this research was limited to a single company in the industrial gas sector. To improve generalizability, future studies could compare similar supply chain practices across different companies or industries, such as manufacturing, retail, or logistics. Comparative analysis may reveal industry-specific challenges and best practices.

Thirdly, the study used a quantitative method only. Future research could adopt a mixed-methods approach, combining surveys with qualitative interviews or case studies, to explore customer expectations and organizational strategies in more depth.

Additionally, this study did not fully explore the role of technological innovation and digital transformation in SCM. Future research should examine how tools such as ERP systems, IoT-based delivery tracking, and supply chain analytics contribute to performance improvement, information sharing, and customer satisfaction.

Lastly, further research may also focus on the long-term impact of customer satisfaction on financial performance, including revenue growth, cost savings, and market share thereby linking SCM practices not only to customer loyalty but also to overall business sustainability.

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## **APPENDIX A**

### **QUESTIONNAIRE SURVEY**

**Dear Respondents,**

I am one of the master students majoring a Master of Marketing Management at Yangon University of Economics. For the completion of master program, I am researching “**SUPPLY CHAIN MANAGEMENT PRACTICES, CUSTOMER SATISFACTION AND CUSTOMER RETENTION AT NIPPON SANZO MYANMAR (NSM) COMPANY LIMITED**”. This survey is part of my Master’s thesis. Therefore, I would like to request to complete your responses in this survey. This questionnaire will take your time about five minutes to ten minutes. This research is basically for academic purposes; thus, your responses will be kept strictly anonymous and confidential. Thank you very much for giving your precious time.

#### **SECTION A: Demographic Profiles of Respondent**

Instruction: For the following items, please select the option that the best describe you.

##### **1. Gender**

1. Male
2. Female

##### **2. Age**

1. 16 – 20 years old
2. 21 – 25 years old
3. 26 – 30 years old
4. 31 – 35 years old
5. Above 35 years old

##### **3. Marital Status**

1. Single
2. Married
3. Other

##### **4. Education Level**

1. Under Graduated
2. Graduated
3. Master

4. Ph. D

**5. Personal Monthly Income (Kyats)**

1. Below 500,000 Kyats
2. 500,001 Kyats to 1,000,000 Kyats
3. 1,000,001 Kyats to 1,500,000 Kyats
4. 1,500,001 Kyats and above

**6. How long have you been a customer of Nippon Sanso Myanmar?**

1. Less than 1 year
2. 1 year to 3 years
3. 3 years –6 years
4. More than 6 years

**7. How frequently do you purchase from Nippon Sanso Myanmar?**

1. Weekly
2. Monthly
3. Quarterly
4. Occasionally (as needed)

**8. What is the main product/service you purchase from Nippon Sanso Myanmar?**

1. LOX/LIN (ISO tank, LGC, Dewar)
2. GOX/GAN (Cylinder)
3. Carbon Dioxide (ISO tank, Cylinder)
4. Argon and Other High Purity Gases (Cylinder)

**SECTION B: The Effect of Supply Chain Management Practices on Organizational Performance**

Instruction: Based on your opinion, please indicate the most appropriate response with the scale given below.

(1)= Strongly Disagree, (2) = Disagree, (3) = Neutral, (4) = Agree, (5) = Strongly Agree

**1. Customer Relationship**

No.	Questions	1	2	3	4	5
1	The company maintains regular communication with customers.					
2	The company understands customer needs and preferences.					
3	The company makes customers to feel valued.					
4	The company resolves complaints in a respectful manner.					
5	The company provides exceptional service quality that encourages customer recommendations.					
6	The company takes seriously about customer's suggestions and concerns.					
7	The company builds long-term relationships rather than one-time transactions.					

**2. Quality of Information Sharing**

No.	Questions	1	2	3	4	5
1	The company provides clear and accurate product/service details.					
2	The company communicates promptly about orders information. (e.g., delays, changes)					
3	The company shares relevant updates (e.g., promotions, policies) effectively.					
4	The company ensure trustworthiness by providing valuable information.					

5	The company uses multiple channels (e.g., email, SMS) to share information.					
6	The company provides technical/product support documents when needed.					
7	The company delivers updates in a timely and organized manner.					

### 3. Timely Order Fulfillment

No.	Questions	1	2	3	4	5
1	The company delivers the order within the promised timeframe.					
2	The company provides realistic delivery time estimates.					
3	The company communicates proactively for delays (if any).					
4	The company runs the order with satisfactory speed for processing.					
5	The company has a reliable logistics/delivery system.					
6	The company handles promptly and efficiently for urgent orders.					
7	The company is well managed for inventory availability to prevent delays.					

### 4. Conformity

No.	Questions	1	2	3	4	5
1	The company matches the products/services as descriptions accurately.					
2	The company meets quality of deliveries with the expectations.					
3	The company occurs rarely errors or discrepancies in the orders.					
4	The company adheres to agreed-upon standards.					

5	The company maintains consistent quality across multiple purchases.					
6	The company checks product quality before delivery.					
7	The company meets industry and safety standards.					

### 5. After-Sales Support

No.	Questions	1	2	3	4	5
1	The company provides helpful post-purchase assistance.					
2	The company resolves the issues (e.g., returns, defects) efficiently.					
3	The company's customer service support is easily accessible (e.g., phone, chat).					
4	The company always follow-ups to ensure to have satisfy products/service.					
5	The company clearly explains about warranty/return policies.					
6	The company's support staffs are knowledgeable and courteous.					
7	The company provides regular service reminders or maintenance support.					

### 6. Customer Satisfaction

No.	Questions	1	2	3	4	5
1	The company's products and services are high for overall satisfaction.					
2	The company consistently meets or exceeds expectations.					
3	The company gives generally positive customer experiences.					

4	The company provides reasonable value for the price paid.					
5	The company attracts for repeat purchases are likely.					
6	The company handles problem resolution satisfactorily.					
7	The company has superior overall experience compared to other suppliers.					
8	The company provides consistent service quality regardless of staff or location.					
9	The company is smooth and convenient for making business transactions.					
10	The company provides quality of service justifies the associated costs.					

### 7. Customer Retention

No.	Questions	1	2	3	4	5
1	The company is preferred over its competitors.					
2	The company tends to receive repeat purchases over extended periods.					
3	The company is likely to receive continued patronage.					
4	The company offers appealing loyalty programs.					
5	The company proves a strong sense of brand loyalty among customers.					
6	The company is forgivable for occasional service errors due to overall service quality.					
7	The company is recommended due to active customer loyalty.					
8	The company attracts customers to remain despite lower prices offered by competitors.					
9	The company connects its brand with an emotional experienced.					
10	The company actively works to retain its customers.					

## APPENDIX B

### Reliability Statistics

#### Correlations

Customer Relationship	Cronbach Alpha	No. of Items
	.872	7

Quality of Information Sharing	Cronbach Alpha	No. of Items
	.842	7

Timely Order Fulfillment	Cronbach Alpha	No. of Items
	.849	7

Conformity	Cronbach Alpha	No. of Items
	.852	7

After-Sales Support	Cronbach Alpha	No. of Items
	.909	7

Customer Satisfaction	Cronbach Alpha	No. of Items
	.899	10

Customer Retention	Cronbach Alpha	No. of Items
	.876	10

## Analysis on the Effective of Supply Chain Management Practices on Customer Satisfaction

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.717 <sup>a</sup>	.514	.498	.31252	.514	31.318	5	148	.000

a. Predictors: (Constant), TotalCR, TotalQI TotalTOF, TotalC, TotalASS

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			VIF
		B	Std. Error				Beta	Lower Bound	Upper Bound	Zero-order	Partial	
1	(Constant)	.495	.338		1.464	.145	-.173	1.164				
	TotalCR	.626	.076	.630	8.254	.000	.476	.776	.663	.561	1.776	1.776
	TotalQI	.058	.089	.168	.309	.023	.325	.105	.513	-.083	2.979	2.979
	TotalTOF	.029	.064	.033	.451	.652	-.097	.155	.310	.037	1.594	1.594
	TotalC	.225	.074	.217	3.049	.003	.079	.370	.394	.243	1.543	1.543
	TotalASS	.147	.065	.172	2.273	.024	.019	.276	.299	.184	1.753	1.753

a. Dependent Variable: TotalCF

## Analysis on the Effect of Supply Chain Management Practices on Customer Retention

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	2.320	.276		8.398	.000					
	TCS	.460	.063	.510	7.307	.000	.510	.510	.510	1.000	1.000

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.510 <sup>a</sup>	.547	.555	.32458	.547	53.396	1	152	.000	1.354

a. Predictors: (Constant), TCS

b. Dependent Variable: TCL

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	-.245	.303		-.809	.420			
	TotalCF	1.011	.069	.765	14.640	.000	.765	.765	.765