

Factors Affecting Supplier Selection Decisions in the Syrup Production Industry

Prakaydow Inmake¹, Phutthiwat Waiyawuththanapoom² and Supamit Srisawat³

¹⁻²College of Logistics and Supply Chain, Suan Sunandha Rajabhat University

E-Mail: prakaydowpan@gmail.com, phutthiwat.wa@ssru.ac.th, supamit.sr@ssru.ac.th

*Corresponding author

Abstract

This research examines the supplier selection process of syrup producers aiming to investigate the factors influencing decision-making in supplier selection for the syrup production industry. The study reviews relevant literature and research related to service quality and logistics management affecting supplier selection decisions. It employs a conceptual framework with independent variables being service quality and logistics management, and the dependent variable being supplier selection decisions.

Keywords : Supplier selection, logistics management, Procurement, Manufacturing business.

Article Type: Research Article

1. Introduction

Background and Significance of the Problem

Currently, Supply Chain Management (SCM) plays a crucial role in ensuring customer satisfaction. It covers various processes, including purchasing, production, storage, information technology, distribution, and transportation. These processes are not only confined to internal departments within an organization but are also connected to external organizations. This integration ensures effective coordination and information sharing, which helps reduce costs and maximizes the ability to meet consumer demands. Therefore, the significance of supply chain management lies in improving efficiency and convenience in the transportation of goods, from procurement to the end consumer. Logistics plays a vital role in the efficient movement of goods, linking upstream and downstream industries on a global scale, reducing expenses and lead times, ultimately lowering costs and enhancing production efficiency and profitability.

Effective supply chain management not only reduces operational costs but also enhances flexibility, reduces production and delivery times, and ensures timely delivery to customers. This process cannot be done in isolation, nor should it focus solely on individual components. It requires coordination between all involved parties, from upstream (raw material procurement) to downstream (delivering products to customers), with the use of advanced technologies and efficient methods.

Logistics, in particular, plays a critical role in the efficient transportation of goods. The transportation process involves more than just moving goods from one point to another. It requires maximizing resource utilization, such as choosing appropriate transportation methods,

scheduling deliveries to minimize time and cost, and managing inventory effectively to ensure that products reach customers on time.

Furthermore, supply chain management must also consider long-term sustainability, not only by reducing costs and improving production efficiency but also by addressing environmental impact, responsible resource use, and building strong relationships with business partners. Effective coordination between suppliers and organizations ensures confidence in the ability to deliver high-quality products and services, which results in long-term satisfaction for both customers and business partners.

Efficient supply chain management also helps in managing various risks, such as raw material shortages, uncertain economic conditions, or fluctuations in energy and fuel prices. Having backup plans or alternative sourcing and transportation options ensures the business runs smoothly and remains adaptable to changing demands.

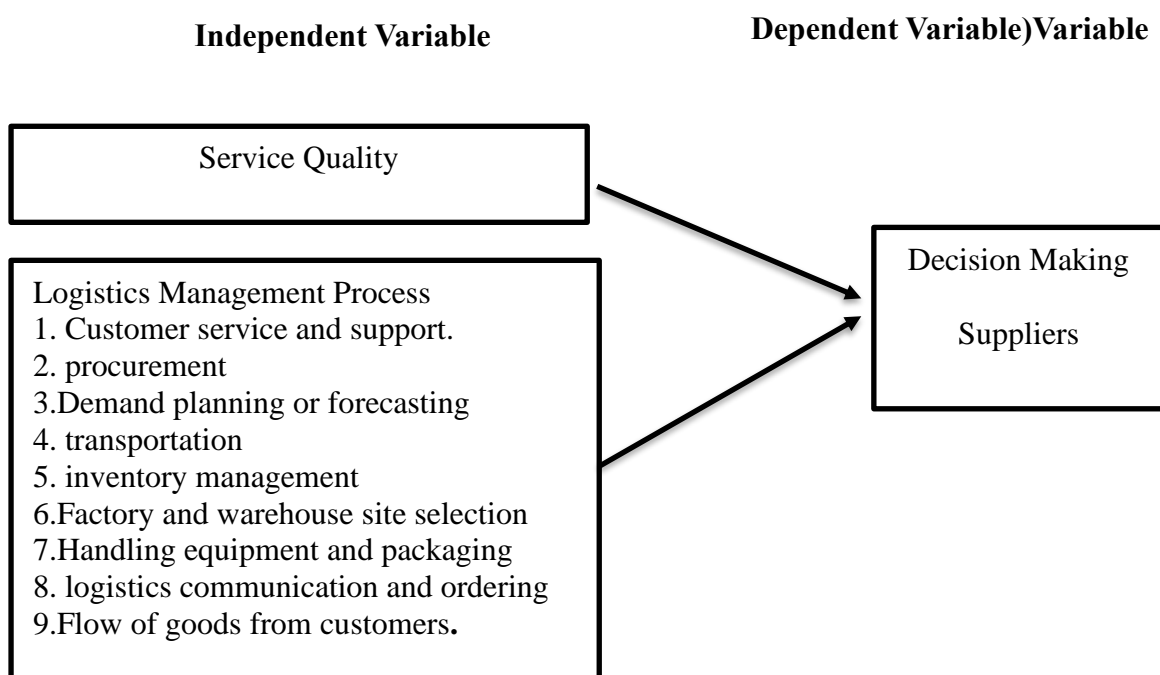
In today's highly competitive market, effective supply chain management has become an essential tool for businesses to compete efficiently and better meet consumer demands. At the same time, it can reduce costs and increase profits for organizations in the long run.

2. Research objectives

- 1.To study the factors used in the selection of suppliers for syrup manufacturers.
- 2.To propose methods for the selection of raw material suppliers for syrup manufacturers through a review of literature and research related to service quality and logistics management.

3. Conceptual framework

Figure 1: Research Conceptual Framework



4. Related literature

4.1 Service quality concepts

In service operations, the ability to provide services that meet or exceed customer expectations is critical. Providing quality service creates satisfaction and leaves a positive impression on the customer, leading to trust in the service. Quality service effectively meets customer needs and can create long-term satisfaction. Each organisation may have different processes and criteria for operations, depending on its management practices.

Aoruma Watthanasak (2017) conducted a study on supplier selection in the Thai food industry using AHP analysis, and found that price and after-sales service are secondary factors influencing producers' decision-making process.

Kritiya Kerdphol and Aoruma Watthanasak (2017) also conducted a study on supplier selection in the Thai food industry using AHP analysis, and found that price and after-sales service are secondary factors influencing the producers' decision-making process.

Duangjai Chantrakul (2018) focused on supplier selection factors in the Thai food industry and found that product quality and competitive pricing are crucial factors in supplier selection, along with on-time delivery and after-sales service, which also significantly influence the decision-making process.

Chanikarn Sunthornkorn and Nittaya Rattanusupha (2020) focused on evaluating suppliers in the Thai food industry using SWOT and AHP analysis and found that product quality and on-time delivery were the most important factors in supplier selection.

The study by Vijayakumar et al. (2019) found that supplier selection criteria are essential for building long-term relationships between buyers and suppliers.

In the research by Prachaporn Sathitsethian and Kritiya Kerdphol (2019) for "Nam Petch Glass and Aluminum", ABC classification and visual control were used to classify products, which reduced the lead time for goods issue by 48.17% and improved the efficiency of warehouse management.

Aghazadeh & Uzan (2012) - Supplier selection in the food industry: This study examined supplier selection in the food industry, especially for high quality products such as syrup. The study found that product quality is the most important factor in supplier selection, followed by timely delivery and price, which influence long-term decisions. The study highlights the importance of selecting suppliers who can guarantee product quality and timely delivery.

Liu & Hai (2014) - Supplier selection in the food industry using the AHP method: This study used AHP to select suppliers in the food industry and found that product quality and delivery capability are the most important factors, followed by cost and after-sales service. In addition, the ability to adapt to demand and sustainability also play a role in long-term supplier selection.

Teerawut Leusawasdi & Suwit Jirapinyo (2021). A study on supplier selection for food and beverage manufacturers in Thailand using the AHP technique found that delivery capability and the ability to meet short-term demands were the most influential factors in the supplier selection decision.

Chanikan Suntharakorn & Nittaya Rattanasupha (2020). This study focuses on evaluating suppliers in the Thai food industry using SWOT and AHP analysis. It found that product quality and on-time delivery are the key factors in supplier selection.

The concepts, theories and related research have been used to create a conceptual framework for this study. In order to obtain high quality and efficient raw materials, which in turn ensure the production of quality products at reasonable prices, this study examines supplier selection for syrup producers. The framework illustrates the independent and dependent variables that influence each other. The components of the variables used in the research are shown in Figure 1: Research Conceptual Framework.

5. Research Methodology

This study adopts a quantitative research approach. Data was collected from suppliers using a questionnaire divided into five sections:

Section 1: Personal Information

Section 2: Service Quality Information

Section 3: Logistics Management Process

Section 4: Supplier Selection Decision

Section 5: Recommendations

6. Research Results

The study found that the total number of respondents was 385. The majority were female, aged between 31 and 40, with a Bachelor's degree. Most of the respondents were from companies and their professional position was purchasing. With regard to the factors influencing the selection of suppliers in the syrup manufacturing industry, specifically in terms of service quality, logistics management processes and supplier selection decision making, the study found that overall service quality was rated highly. The factors were ranked from most to least important as follows: service quality and logistics management processes.

The overall rating for quality of service was high. When looking at each factor individually, respondents most strongly agreed that suppliers provide product information quickly and accurately. On the other hand, the least emphasised factor was the ability of suppliers to communicate.

The overall rating for logistics management processes was also high. When looking at specific aspects, on-time delivery was rated the highest, while order acceptance was rated the lowest.

The study also examined the relationship between service quality and logistics management processes. It was found that both service quality and logistics management processes have a positive relationship with factors influencing supplier selection in the syrup manufacturing industry.

7. Research Conclusion and Discussion

The study results revealed that both service quality and logistics management processes were rated highly. This reflects the increasing importance that businesses place on service quality in today's market. Specifically, service quality is a crucial factor in evaluating and selecting suppliers. Additionally, the logistics management processes of suppliers are vital in the decision-making process for selecting suppliers to be part of the supply chain. The study also found that order acceptance was rated lower in importance compared to on-time delivery.

Therefore, when developing supplier quality, it is essential to focus on both service quality and logistics management processes, which are key components of business operations. These findings align with previous research by Kritiya Koetphon and Arooma Watthanask (2017).

8. Recommendations

8.1 Recommendations for the application of research findings

1. The supplier development process should focus on service processes that respond quickly to customer needs and provide high quality service. This includes focusing on good communication of information, on-time delivery and building trust in the company and its people. A strong and trustworthy image will reflect positively on the organisation, which will help operators to effectively select suppliers to work with. This approach will also have an indirect positive effect on business efficiency, leading to customer satisfaction through the ability to respond effectively, ultimately encouraging repeat business.

2. Recommendations for the application of research findings. The findings of this study should be applied in the evaluation and selection of suppliers for the company to ensure a more effective selection process. This will help to identify suppliers who provide high quality service and are able to meet both the company's and customer's needs efficiently.

8.2 Recommendations for future research

1. Future research should explore other factors that may affect the selection of effective suppliers, such as information technology, human resources and logistics management. Research should focus on understanding customer needs and involve customers or service users more actively in the research process.

2. Complementary qualitative research would be beneficial as customer satisfaction research may reveal certain truths that cannot be captured by quantitative methods. Customer opinions often change over time due to factors such as the business environment, market trends, competition and many other related factors.

References

- Aruma Wattanasak. (2017). Supplier Selection in the Thai Food Industry Using AHP Analysis. *Journal of Research and Development*, 14(2), 45-60.
- Kritiya Kerdpol and Aruma Wattanasak. (2017). Supplier Selection in the Thai Food Industry. Source: Using AHP in Supplier Selection with a Focus on Price and After-Sales Service as Key Factors.

- Duangjai Chantarakul. (2018). Factors in Supplier Selection in the Food Industry of Thailand. Source: A study that explores the key factors in supplier selection in the Thai food industry, focusing on product quality and reasonable pricing.
- Naveen Jain and A. R. Singh. (2020). Supplier Selection Strategies for Spare Parts Inventory and Consumables in the Eyewear Industry, Nonthaburi Province.
- Vijayakumar, Rahim, Ahmi, and Rahman. (2019). Supplier Selection Strategies for Spare Parts Inventory and Consumables in the Eyewear Industry, Nonthaburi Province.
- Prachaphorn Setthaset, Kritiya Kerdpol. (2019). Enhancing Warehouse Management Efficiency.
- Aghazadeh, S., & Uzan, M. (2012). Supplier Selection in the Food Industry: A Case Study of Suppliers in the Food Industry. *International Journal of Business and Management*, 7(14), 145-152.
- Liu, H., & Hai, Y. (2014). Supplier Selection in the Food Industry Using the AHP Method. *Food Control*, 42, 58-64.
- Teerawut Leusawasdi & Suwit Jirapinyo (2021). Supplier Selection in the Food and Beverage Industry in Thailand. Source: A research study using AHP analysis that found delivery capability and the ability to meet short-term demands as the main factors in supplier selection.
- Chanikarn Suntharakorn & Nittaya Rattanasupha (2020). Supplier Evaluation in the Thai Food Industry. Source: A study on the use of SWOT and AHP analysis to evaluate suppliers in the food industry.