

# A Study on Evaluation of Chili Supplier Selection With Special Referance In Harithm Food Products

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**Abstract-** *In the dynamic landscape of operations management, the selection of chilli suppliers is pivotal for ensuring supply chain efficiency, quality, and competitiveness. Chilli is a crucial component in various industries, including food, pharmaceuticals, and cosmetics, necessitating a thorough evaluation process that takes into account geographical location, agricultural practices, certifications, pricing, logistics, and sustainability. This study evaluates Haritham Foods' chilli supplier selection process using comprehensive analysis tools such as supplier scorecards and risk assessment matrices. The findings highlight strengths and areas for improvement among suppliers, with recommendations for targeted enhancements. This approach aims to optimize costs, mitigate risks, and support sustainable practices, thereby strengthening long-term partnerships and operational excellence.*

**Keywords-** chilli supplier selection, supply chain efficiency, competitive advantage.

## I. INTRODUCTION

In the dynamic landscape of operations management, selecting the right chilli suppliers is crucial for ensuring efficiency, quality, and competitiveness in the supply chain. Chilli's importance across food, pharmaceuticals, and cosmetics industries necessitates a rigorous evaluation process that considers geographical location, agricultural practices, certifications, pricing, logistics, and sustainability. By employing comprehensive analysis tools like supplier scorecards and risk assessment matrices, companies can make informed decisions that enhance supply chain efficiency, mitigate risks, and support sustainable practices. This approach not only optimizes costs but also strengthens long-term partnerships and operational excellence.

### 1.1 INDUSTRY PROFILE

Throughout history, rice has been a crucial staple food, sustaining two-thirds of the global population. Archaeological evidence suggests rice cultivation dates back over 5,000 years. Today, agriculture forms the backbone of India's economy, engaging about 70% of its workforce. Rice, a

vital crop, is celebrated for its nutritional value, low fat content, easy digestibility, and distinctive aroma, making it integral to many Indian dishes. India, the world's second-largest food producer, has significantly advanced in rice production, reaching over 100 million tons annually. The food industry, encompassing various stages of food processing and value addition, plays a critical role in linking agriculture with broader markets, enhancing the economic impact and global reach of Indian produce.

### 1.2 COMPANY PROFILE

Haritham Foods, based in Calicut, has been a prominent player in the food products manufacturing industry since its inception in 1997. Founded by Shri M. K. Sethumadhavan, the company initially offered 50 varieties of products and has since expanded its reach to premium outlets across India and export markets in the UAE. Under the leadership of Shri K.V. Viswanathan, who became Chairman and Managing Director in 2007, Haritham Foods has seen significant strategic growth and profitability. The company's state-of-the-art facility in Calicut employs over 100 workers and combines modern technology with traditional methods to produce a wide range of products, including rice, wheat, masalas, chile powder, pickles, jam, palada mix, coconut oil, and snacks. Haritham Foods is dedicated to maintaining high standards and a customer-first approach in all its endeavors.

## II. LITRECTURE REVIEW

**Ravi Sharma, Tripti Sharma, and Abhinav Kumar (2024)** aim to understand the meaning of green suppliers and their selection process, methods, or models of green supplier selection while identifying gaps and roadblocks in the initial selection process and eventual benchmarking based on identified KPIs. The study relies on the application of the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach for data screening, sorting, and analysis. Key findings indicate that due to shifting consumption patterns and rising environmental concerns, companies innovate at the basic level of the supply chain, including green supplier selection. The study demonstrates that selection traits are independent, with few research

publications focusing on model integration, such as time series with fuzzy logic and the best–worst technique with TOPSIS. More work is needed in this area. Most models focus on ideal working conditions for suppliers, and bias exists in expert method selection criteria. Data are scarce on a more integrated strategy for selecting green suppliers and establishing an all-inclusive green supply chain.

**Hamed Taherdoost, Aurélie Brard (2019)** Supplier selection is the process by which firms identify, evaluate, and contract with suppliers. The supplier selection process deploys an enormous amount of a firm’s financial resources and plays crucial role for the success of any organization. The main objective of supplier selection process is to reduce purchase risk, maximize overall value to the purchaser, and develop closeness and long-term relationships between buyers and suppliers. The literature on supplier selection criteria and methods is full of various analytical approaches. Some researchers have developed hybrid models by combining more than one type of selection methods. The current paper provides an overall picture of research on supply chain management, supplier selection criteria and supplier selection evaluation methods (multi-criteria decision making). A summary of the process of supplier selection can be helpful for companies to have a clear understanding of the concept in order to improve their success and competitiveness. The results show that the application of a structured decision-making technique is vital, especially under the complex conditions that include both qualitative and quantitative criteria.

### III. OBJECTIVES OF THE STUDY

#### Primary Objective

- Evaluation of chili supplier selection, HARITHM FOOD PRODUCT CALICUT

#### Secondary Objectives

- Evaluation of the supplier based on performance metrics
- Identification of the right supplier
- Suggestion for improvement on selection of the supplier

### IV. RESEARCH DESIGN

The research design adopted for this study is descriptive research. Descriptive research is a type of research that aims to describe the characteristics of a phenomenon or a group of people. This method focuses on the "what" rather than the "why" or "how" something happens. It is often used

to gain an understanding of the current state of affairs or to identify patterns and trends.

### 4.1 TOOLS AND TECHNIQUES

#### Evaluation Criteria

1. **On-Time Delivery:** Timely delivery of chili shipments is crucial to maintaining production schedules and meeting customer demands. Suppliers should consistently meet agreed-upon delivery deadlines to avoid disruptions in operations.
2. **Order Fulfilment:** The supplier's ability to fulfil orders accurately and completely is essential for smooth operations. Reliability in providing the specified quantity and quality of chili products is paramount to avoid shortages or overages.
3. **Lead Time:** Understanding the lead time required by the supplier is critical for effective inventory management and production planning. Shorter lead times allow for more flexibility and responsiveness to changing market demands.
4. **Cost Variance:** Evaluating cost variances between different suppliers helps in determining the most cost-effective option without compromising quality. Transparent pricing structures and competitive rates contribute to long-term cost savings.
5. **Defect Units:** Assessing the quality of chili supplied, including the incidence of defect units, is vital to maintaining product standards and customer satisfaction. Suppliers with low defect rates demonstrate commitment to quality control.
6. **Return Rate:** The percentage of delivered chili products that are returned by customers due to quality issues or defects. A lower return rate indicates higher supplier reliability and product quality.
7. **Response Time:** The time taken by the supplier to respond to inquiries, orders, or issues. Faster response times indicate better communication and customer service, critical for timely deliveries and problem resolution.
8. **Production Down Time:** The amount of time the supplier's production is halted due to equipment failures, maintenance, or other issues. Lower downtime suggests a more efficient and reliable production process, ensuring consistent supply.
9. **Back order:** A backorder occurs when a product is out of stock but can still be ordered. It means the item is temporarily unavailable but will be restocked. Customers can place orders for backordered items and receive them once they become available again.
10. **Order Cycle:** The total time from placing an order with the supplier to receiving the delivery. Shorter order cycles

mean quicker turnaround times, essential for maintaining inventory levels and meeting production schedules.

**V. DATA ANALYSIS**

**SCORECARD** enable the creation of numerical rating systems for evaluation criteria's, facilitating the comparisons of vendors by providing measureable data for each supplier

**SCORE CARD**

Criteria	weight (%)	Eltee overseas, india	Aiswarya exporters Kerala	Draamila ,kerala	gupta trading company, kerala	future india exim, india	Ms.kiran miriyala kereala
On time Delivery	10	9.72	7.33	8.12	8.6	8.75	9
Order fill Rate	10	10	8.6	9.032	9.5	9.66	9.3
Defect rate	10	9.2	8.5	8.5	9.6	9.6	8.2
Cost variance	10	8	9.7	9.7	9.7	9	8.4
Lead time	10	9.2	9.3	9.3	9.7	9.2	8.4
Return rate	10	8.4	8.4	8.5	9.8	9.7	8.4
Response Time	10	9.7	9.3	8.5	9.6	8.4	9.7
Production Down time	10	9.7	7	9.7	9.7	8.5	9.7
Back order	10	9.7	7	9.4	8.4	9.2	9.2
Order cycle time	10	9.2	7	9.4	9.6	9.2	9.7
Total	100	92.82	82.13	90.15	94.2	91.1	90

**SCORE CARD**

Criteria	weight (%)	Thejus Pirayiri, Kerala	Pallathil Traders Kerala	Palia Brothers Kerala	Padinjarethala Utility Hub Kerala	Bharat International Kerala	SAI company, Kerala
On time Delivery	10	9.3	9.6	8.5	10	8	10
Order fill Rate	10	9	9.6	9	9.5	9.06	10
Defect rate	10	9.7	9.7	8.5	9.2	9.6	8.5
Cost variance	10	9.6	9.7	9.5	8.5	9.7	9.4
Lead time	10	8.5	9.7	8.5	8.5	9.6	9.4
Return rate	10	9.3	9.7	8.5	9.2	9.6	9.7
Response Time	10	9.7	9.7	8.5	9.6	9.6	9.8
Production Down time	10	9.7	9.2	7.5	9.3	9.6	9.7
Back order	10	9.4	9.7	8.5	9.6	8.5	9.7
Order cycle time	10	9.3	8.5	9.3	9.3	9.6	9.3
Total	100	93.5	95	86.3	92.7	93.4	95.5

**VI. FINDINGS**

- On time delivery**  
 The highest on-time delivery score is shared by SAI Company, Kerala, and Padinjarethala Utility Hub, Kerala (both scored 10).  
 Aiswarya Exporters, Kerala, has the lowest score (7.33) in on-time delivery.
- Order fill rate**  
 Ms. Kiran Miriyala Kerala, and SAI Company, Kerala, have the highest scores (9.66 and 10 respectively). Thejus Pirayiri, Kerala, and , Palia Brothers Kerala, have the lowest scores in this criterion (both scored 9).
- Defect Rate:**  
 Eltee Overseas, India, has a high score (9.2), but several other companies also have comparable or higher scores, indicating good performance across the board.  
 Draamila, Kerala, and Palia Brothers, Kerala, both have lower scores (8.5).
- Cost Variance:**  
 Multiple companies scored similarly high, with Pallathil Traders, Kerala, and Bharat International, Kerala, among the top (both scored 9.7).  
 Eltee Overseas, India, scored lower (8), indicating relatively higher cost variance.
- Lead Time:**  
 Gupta trading company and pallathil traders have high scores (both scored 9.7).  
 Ms kiran miriyala , has a lower score (8.5).
- Return Rate:**  
 Gupta traiding company , have the highest scores (scored 9.8).  
 Draamila, Kerala, and , Kerala, ms kiran miriyala have lower scores (scored 8.4 )
- Response Time:**  
 SAI Company, Kerala, have the highest scores ( scored 9.8 respectively).  
 Future india exim, scored lower ( scored 8.4).
- Production Down Time:**  
 Several companies scored high (9.7) indicating minimal downtime, with Eltee Overseas, India, among them.  
 Aiswarya Exporters, Kerala, and Palia Brothers, Kerala, scored lower (7)

- Back Order:  
Eltee Overseas, India, pallathil traders and SAI Company, Kerala, have high scores (both scored 9.7).  
Aiswarya Exporters, Kerala, has the lowest score (7).
- Order Cycle Time:  
Ms kiran miriyala , scored the highest (9.7).  
Aiswarya Exporters, Kerala, scored the lowest (7).

## VII. SUGGESTIONS

On-Time Delivery Implement stricter scheduling and tracking mechanisms to improve punctuality. Consider using advanced logistics software to monitor and manage deliveries. Streamline order processing and inventory management. Training staff and adopting lean manufacturing principles can help reduce cycle time. Conduct a thorough review of the production process to identify and eliminate common sources of defects. Implementing Six Sigma or other quality control systems can be beneficial.

## VIII. CONCLUSION

The assessment of supplier performance across various criteria reveals both strengths and areas for improvement within the supply chain network. While top-performing companies like Gupta Trading Company, Kerala, and SAI Company, Kerala, demonstrate commendable efficiency and reliability across multiple metrics, there are clear opportunities for enhancement among others. Aiswarya Exporters, Kerala, and Draamila, Kerala, stand to benefit from targeted improvement initiatives, focusing on aspects such as on-time delivery, defect reduction, and response time. Leveraging the strengths of leading performers through knowledge-sharing and collaboration can catalyzed overall improvement within the supply chain ecosystem. Investments in technology, training, quality control, and customer engagement are paramount to sustainably elevate performance levels. By fostering a culture of continuous improvement, promoting innovation, and nurturing collaborative relationships, the supply chain can evolve into a more agile, responsive, and competitive entity, poised to meet the dynamic demands of the marketplace.

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