Supply Chain Management Analysis of Raw Material Order Fulfillment at Dialoogi Coffee and Bistro Pasuruan City

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ABSTRACT

The culinary industry is one of the fastest-growing sectors in Indonesia, characterized by intense competition, fluctuating demand, and the need for consistent product quality. In this context, effective supply chain management plays a crucial role in ensuring that business operations run efficiently and customer satisfaction is maintained. Coffee shops and bistros, in particular, depend heavily on timely delivery and high-quality raw materials such as coffee beans, milk, and bakery ingredients. Any disruption in the supply chain can lead to production delays, reduced service quality, and potential financial losses. This study examines supply chain management in fulfilling raw material orders at Dialoogi Coffee and Bistro in Pasuruan City. The objective of this study is to understand how supply chain management supports operational efficiency and product quality in the culinary industry. A descriptive qualitative method was employed through interviews, observation, and documentation. The results show that the company has made efforts to improve efficiency through stock monitoring and the implementation of a digital ordering system. However, several challenges remain, including demand uncertainty, delivery delays, and inconsistent raw material quality. Communication among teams is essential, but responsiveness to urgent needs still requires improvement. The study concludes that enhancing inventory systems, diversifying suppliers, and strengthening quality control mechanisms are necessary to achieve sustainable operational performance and consistent customer satisfaction.

Keywords: Supply Chain Management, Order Fulfillment, Raw Materials

1. INTRODUCTION

The culinary industry is a dynamic and ever-evolving sector, requiring businesses to continually innovate and maintain operational efficiency to meet increasingly high consumer expectations. In this context, supply chain management (SCM) plays a crucial role as the backbone of business success, particularly in ensuring the availability and quality of raw materials. Heizer and Render (2015) define SCM as the integration of activities ranging from material and service procurement, transformation into finished or semi-finished goods, and delivery to consumers. The effectiveness of SCM not only contributes to increased operational efficiency and cost reduction but also strengthens a company's competitiveness in the market (Giannakis et al., 2004).

Dialoogi Coffee and Bistro, a leading destination in Pasuruan City, faces significant challenges in managing its raw material supply chain. Initial observations indicate issues related to fulfilling raw material orders, such as late deliveries, inconsistent quality, and inaccurate demand planning, resulting in menu shortages, particularly during peak hours or evenings. Akindipe (2014) emphasizes that raw materials are the most important factor in the production process, and without adequate availability, the company's operations cannot run optimally. These issues are exacerbated by reliance on a few suppliers and a lack of visibility in inventory management, which collectively reduce efficiency and potentially lower customer satisfaction.

Effective raw material order fulfillment involves a complex series of steps, from receiving and processing to timely and on-specification delivery (Frazelle, 2016). In the food and beverage industry, the quality and availability of raw materials directly impact product taste and customer satisfaction. Delays or discrepancies in supply can disrupt production processes, lead to customer dissatisfaction, and even loss of revenue.

Therefore, effective supply chain management strategies, including managing supplier relationships, utilizing information technology, and implementing best procurement practices, are essential (Gunasekaran et al., 2001).

Given the urgency of this issue, this study aims to conduct an in-depth analysis of supply chain management in fulfilling raw material orders at Dialoogi Coffee and Bistro in Pasuruan City. This analysis is expected to identify key factors influencing supply chain effectiveness, identify challenges faced, and formulate strategic recommendations for improvement. Thus, this study will not only provide theoretical insights into SCM in the culinary context but also offer practical benefits for Dialoogi Coffee and Bistro in optimizing operations and increasing customer satisfaction.

2. LITERATURE REVIEW

2.1. Supply Chain Management

Supply Chain Management (SCM) is defined as the process of planning, implementing, and controlling the efficient flow of goods, services, and information from origin to consumption to meet customer requirements (Mentzer et al., 2001; Simchi-Levi, 2008). Successful SCM involves managing relationships with customers, suppliers, and internal departments to improve operational efficiency, reduce costs, and enhance product quality (Lee et al., 2007; Christopher, 2016). Key indicators of SCM performance include procurement lead time, stock availability, order accuracy, procurement cost, and customer satisfaction (Christopher, 2016).

2.1.1. Inventory Management

Inventory management complements SCM by ensuring appropriate availability of raw materials, work-in-process, and finished goods, aiming to minimize storage costs and avoid stockouts (Heizer & Render, 2017). Effective inventory management improves operational efficiency, customer satisfaction, and supports strategic decision-making through accurate inventory data.

2.2. Order Fulfillment

Order fulfillment is a critical component involving receipt, processing, packaging, and timely delivery of orders, directly impacting customer satisfaction and competitive advantage (Bowersox et al., 2010; Frazelle, 2002). For the food and beverage industry, timely and accurate order fulfillment of raw materials greatly affects production continuity and product quality.

2.2.1. Raw Materials

Raw materials, especially in the culinary sector, must meet specific quality standards as they influence the final product's quality (Heizer et al., 2020). Factors affecting raw material order fulfillment include planning accuracy, inventory management, supplier communication, market availability, price fluctuations, and logistics (Tien et al., 2019). Challenges include demand fluctuations, supply uncertainties, quality issues, inventory mismanagement, and procurement costs (Frazelle, 2016).

2.3. Strategic Approaches

Strategic approaches to raw material fulfillment emphasize supplier selection, contract negotiation, supplier diversification, automation, staff training, and collaborative relationships to ensure continuity, cost control, and quality (Monczka et al., 2009; Krajewski et al., 2010). Indicators to monitor include on-time delivery rate, order accuracy, fulfillment cycle time, supply disruption frequency, and internal production satisfaction (Heizer et al., 2020).

2.4. Previous Research

Prior studies in supply chain management within SMEs and culinary businesses highlight the importance of communication, technology adoption, Just-In-Time manufacturing, and supplier evaluation for enhancing supply chain performance and order fulfillment (Fole et al., 2024; Rozaki et al., 2024; Rahmania et al., 2022)

3. RESEARCH METHODS

3.1. Research Design

This study adopted a descriptive qualitative approach to analyze supply chain management in fulfilling raw material orders at Dialoogi Coffee and Bistro in Pasuruan City. The qualitative method was chosen because it allows researchers to understand the phenomenon in depth from the perspective of informants and explore the complexity of interactions and processes occurring within the supply chain. The descriptive design aims to provide a comprehensive overview of current supply chain management practices, identify influencing factors, and address challenges and strategies.

3.2. Research Sample

The research subjects were selected using a purposive sampling technique, where informants are selected based on specific criteria relevant to the research objectives and their ability to provide rich and in-depth information (Creswell, 2017; Bungin, 2007). The key informant in this study was the Manager of Dialoogi Coffee and Bistro, who has strategic insight and experience in overall supply chain management. Key informants included three suppliers (an ice supplier, a vegetable supplier, and a supplier from Malang for milk, syrup, coffee beans, and meat), who could provide insight into the order fulfillment process from their perspective, including challenges and interactions with the company. Additional informants were two operational staff (kitchen staff and bar staff), who provided direct perspectives regarding the use of raw materials and their impact on work processes and the quality of the final product. A total of six informants participated in this study.

3.3. Data Collection Tools and Procedure

Data collection was conducted through three main techniques: observation, in-depth interviews, and documentation. Participatory observation was conducted to record and directly observe the operational processes related to fulfilling raw material orders at Dialoogi Coffee and Bistro. In-depth interviews were conducted in an unstructured and open manner with all informants to explore their views, experiences, and opinions regarding supply chain management and fulfilling raw material orders. Documentation involved collecting notes, reports, or internal data relevant to the research topic, such as data on delivery delays.

3.4. Data Analysis

To ensure data validity, this study employed triangulation techniques, specifically technical triangulation and source triangulation. Technical triangulation was conducted by comparing data obtained from observations, interviews, and documentation for the same data source. Source triangulation was conducted by obtaining data from different informants (managers, suppliers, staff) regarding the same phenomenon. The purpose of triangulation was to enhance the researcher's understanding of the findings and ensure data consistency and completeness (Sugiyono, 2013).

3.5. Ethical

The data management process involves three stages: data condensation, data presentation, and conclusion drawing/verification (Miles & Huberman, 1994). Data condensation involves simplifying, grouping, and filtering relevant information from interview transcripts and observation notes. Data presentation is done by organizing the condensed information in the form of narrative descriptions, tables, or charts to facilitate analysis. Finally, conclusions are drawn by formulating answers to the problem formulation based on the analyzed data, supported by valid evidence from the interviews and observations.

4. RESULTS AND DISCUSSION

This discussion provides an in-depth analysis of supply chain management in fulfilling raw material orders at Dialoogi Coffee and Bistro in Pasuruan City, based on data obtained from interviews with Managers, Suppliers, and Kitchen & Bar Staff. This analysis focuses on four main aspects: supply chain management, order fulfillment, raw material characteristics, and raw material quality, and identifies challenges and implemented strategies.

4.1. Supply Chain Management

Dialoogi Coffee and Bistro's operational efficiency in the context of supply chain management demonstrates positive efforts through regular stock monitoring and the use of a digital ordering system. Managers report an 85% on-time delivery rate for raw materials, a fairly good indicator. However, this efficiency is often hampered by unforeseen external factors, such as adverse weather conditions (heavy rain and flooding) that disrupt supplier transportation and logistics, as well as unpredictable fluctuations in market demand. A delay in syrup delivery due to supplier vehicle repairs (Table 3, 2025-02-06) is a concrete example of how internal supplier issues can directly impact Dialoogi's operations. Uncertain demand, particularly during peak hours or during promotions, makes inventory planning difficult, forcing kitchen and bar staff to adapt to sudden menu changes, which in turn reduces productivity and work efficiency.

Relationships with local suppliers are a priority for Dialoogi, recognized by suppliers as solid partnerships based on open communication. However, the quality and reliability of some suppliers remain an issue. Supplier stock shortages, as mentioned by managers, are often the cause of order quantity discrepancies. This indicates that despite Dialoogi's efforts to build good relationships, more rigorous evaluation and monitoring of supplier performance is still needed to ensure consistent supply.

Internal communication and coordination between teams (managers, kitchen, and bar) are considered critical and are regularly evaluated. Managers emphasize that good communication prevents ordering errors. However, operational staff expect a faster and more flexible response to urgent needs, indicating a gap in the speed of adaptation to critical situations. Communication with suppliers also needs to be improved to minimize miscommunication and expedite problem resolution.

In the face of disruptions, Dialoogi has implemented a flexibility strategy by maintaining safety stock and having alternative suppliers. Managers stated they are striving to avoid relying on a single supplier. This approach is crucial given the ongoing occurrence of external challenges such as bad weather and transportation issues. This proactive strategy helps mitigate risk, but unexpected fluctuations in demand remain a challenge that requires stronger contingency plans.

4.2. Order Fulfillment

The availability of finished products (menu items) at Dialoogi is often disrupted, particularly for evening meals or seasonal ingredients. Managers attribute this to a reliance on inconsistent suppliers, which can decrease customer satisfaction. Kitchen staff complain about seasonal ingredient shortages two to three times a month, which directly impacts menu availability for customers.

Order fulfillment cycle times for raw materials vary. Fresh ingredients like vegetables and ice have a fast fulfillment time (1-2 hours), while other ingredients can take 2-3 business days. However, delivery delays, such as for vegetables due to bad weather or ice due to transportation issues (Table 3), significantly impact the work processes of kitchen and bar staff, causing delays in serving menu items and beverages.

Raw material order accuracy reached 90%, but discrepancies in quantity still occurred, often due to supplier stock constraints. Although suppliers claimed to conduct pre-shipment checks, quantity issues persisted, highlighting the need for closer evaluation and monitoring of delivery accuracy.

Ingredient shortages and delays in serving menu items directly reduce customer satisfaction. While staff try to adapt by finding alternative ingredients (e.g., coffee beans), the customer experience can be compromised if desired menu items are unavailable or served late. This underscores the importance of consistent order fulfillment to maintain reputation and customer loyalty.

4.3. Raw Materials

While most ingredients meet standards, kitchen and bar staff complained about instances of less than fresh or defective ingredients (e.g., coffee beans). Kitchen staff stated, "However, sometimes we receive less than fresh ingredients," and bar staff noted, "We are quite satisfied with the availability of ingredients, although sometimes we have to find alternatives when certain ingredients are unavailable, such as coffee beans." These quality issues, despite suppliers' claims of strict controls, still reach the end user and directly impact the product's taste and presentation.

Raw material availability is also affected by seasonal factors and supplier delivery schedules. Managers highlighted issues with seasonal raw material availability and irregular meat deliveries, which add complexity to planning. Efficient stock management is challenging due to fluctuating demand and occasional inaccuracies in inventory tracking.

4.4. Raw Material Quality

Efforts are made to ensure raw materials meet standards through regular inspections. Kitchen and bar staff have procedures in place to report non-conforming ingredients, and suppliers are committed to replacing them. However, the frequency of quality issues (substandard ingredients, defective coffee beans) indicates gaps in quality control processes, both at the supplier level and upon receipt at Dialoogi.

The impact of inconsistent raw material quality directly impacts the quality of the final product served to customers. The kitchen and bar staff are particularly concerned about this because "it directly impacts the taste and presentation of the product, so it's a top priority." This confirms that raw material quality issues are not just an internal operational issue, but also have direct implications for the customer experience and reputation of Dialoogi Coffee and Bistro.

Overall, although Dialoogi Coffee and Bistro has implemented several supply chain management strategies, significant challenges remain related to accurate demand forecasting, accurate delivery quantities, and consistent raw material quality. These issues, as identified by various informants, directly impact operational efficiency, menu availability, and customer satisfaction. Improved communication, supplier diversification, and a more sophisticated inventory management system are key to addressing these challenges and optimizing the supply chain in the future.

5. CONCLUSIONS

Supply Chain Management and Order Fulfillment: Dialoogi Coffee and Bistro has strived to improve operational efficiency through inventory monitoring and a digital ordering system. However, this efficiency remains hampered by uncertain customer demand, delayed supplier deliveries (especially for seasonal or non-daily ingredients), and inconsistent ingredient quality. These challenges require staff to adapt to sudden menu changes, which reduces work efficiency and impacts menu availability and customer satisfaction.

Quality of Raw Materials and Communication: Despite efforts to maintain order quality and accuracy, instances of substandard or defective raw materials are still found, highlighting gaps in quality control at both the supplier and receiving end. Communication between internal teams is considered essential, but responsiveness to urgent needs needs to be improved. Overall, supply chain management at Dialoogi Coffee and Bistro plays a crucial role but still faces significant challenges that require systematic improvement.

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