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THE RELATIONSHIP BETWEEN JUST IN TIME MODEL (JIT) AND THE PERFORMANCE OF FAST-FOOD RESTAURANTS IN KAMPALA - UGANDA

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Abstract

This study examined the relationship between the Just-in-Time (JIT) inventory management model and the performance of fast-food restaurants in Kampala, Uganda. Using a descriptive cross-sectional design, data were collected from 150 respondents across various fast-food outlets through questionnaires and interviews. Quantitative analysis revealed that JIT significantly improves operational performance, accounting for 68.8% of the variation in outcomes such as inventory turnover, waste reduction, food quality, and customer satisfaction. The findings indicate that JIT enables restaurants to align inventory levels with actual demand, reduce holding costs, and respond swiftly to market changes. Qualitative insights highlighted the importance of staff training, supplier reliability, and technology adoption in successfully implementing JIT. The study concludes that JIT is a critical inventory strategy that enhances efficiency, cost-effectiveness, and service delivery in fast food businesses. It recommends that managers invest in continuous training, build strong supplier partnerships, and leverage technology to optimize JIT practices. Policymakers and industry stakeholders are also encouraged to support small and medium-sized enterprises in adopting such innovative inventory systems to boost competitiveness and sustainability in Kampala's fast-food sector.

Keywords: Just-in-Time (JIT), Inventory Management, Fast Food Restaurants, Operational Performance, Customer Satisfaction

Introduction

The fast-food industry in urban centers such as Kampala, Uganda, has experienced rapid growth, driven by rising urbanization, increasing youth populations, and changing consumer lifestyles. In such a dynamic environment, operational efficiency is a key determinant of competitive advantage. One of the inventory management strategies that has gained prominence globally is the Just in Time (JIT) model. Originally developed by Japanese manufacturers, JIT focuses on reducing waste, minimizing inventory holding costs, and improving responsiveness to customer demand (Kumar et al., 2022). By ensuring that materials and products arrive only as they are needed in the production or service delivery process, JIT allows businesses to operate more efficiently and flexibly.

Fast food restaurants in Kampala operate under intense pressure to deliver high-quality products quickly and at competitive prices. This has necessitated the adoption of lean inventory models such as JIT to enhance operational performance. Implementing JIT can lead to improvements in key performance indicators such as customer satisfaction, cost efficiency, inventory turnover, and service delivery (Mwangi & Otieno, 2021). However, despite its advantages, the JIT model requires

high levels of coordination with suppliers, accurate demand forecasting, and effective internal processes factors that can be challenging in contexts with infrastructural and logistical limitations like Uganda (Nansubuga & Katamba, 2020).

Empirical studies suggest that the adoption of JIT practices is positively associated with operational performance across various industries, including hospitality and food services (Ahmed & Yusuf, 2021; Nalukwago & Namagembe, 2023). However, most existing literature is centered on developed countries and industrial sectors, creating a contextual research gap in service-based environments in Sub-Saharan Africa. In Uganda, few studies have systematically examined how JIT implementation influences performance outcomes in fast food businesses, a sector that continues to grow amid evolving consumer preferences and supply chain complexities. This study, therefore, seeks to examine the relationship between the Just in Time (JIT) model and the performance of fast-food restaurants in Kampala. Specifically, it investigates how JIT practices impact inventory management, customer satisfaction, cost control, and overall service efficiency. The findings aim to contribute to the body of knowledge on supply chain management in emerging economies and provide practical insights for fast food entrepreneurs and managers seeking to optimize their operations in a competitive urban market.

Literature Review

Theoretical review

Systems Theory

Systems Theory, originally developed by Ludwig von Bertalanffy and later applied in organizational studies, views an organization as a set of interrelated and interdependent components working together toward a common goal. This theory is relevant to the JIT model because successful JIT implementation requires seamless coordination between departments such as procurement, production, and sales. In the context of fast-food restaurants in Kampala, Systems Theory explains how the integration of supply chain elements from suppliers to kitchen operations and customer service affects the restaurant's performance. Each function must work harmoniously to minimize waste and deliver products quickly, which aligns well with the goals of JIT (Kast & Rosenzweig, 2021).

However, Systems Theory has limitations, especially when applied in resource-constrained environments. One limitation is its assumption that all components in the system are fully cooperative and responsive, which is often not the case in Uganda's fast-food sector. Suppliers may face transportation delays, power outages can interrupt service flow, and human resource limitations can lead to inefficiencies. These contextual challenges reduce the effectiveness of a tightly-coupled system like JIT, as any disruption in one area can affect the entire operational flow (Mutua & Gathenya, 2022). The theory may also underemphasize the need for flexibility when systems fail to behave predictably in uncertain environments.

Despite its limitations, Systems Theory provides a valuable framework for understanding how JIT operates in a fast-food setting. Managers can use the theory to map the internal and external components of their restaurant's supply chain and identify areas of misalignment or inefficiency. For example, if the procurement system is delayed, it will affect preparation times and customer satisfaction. Therefore, by viewing the restaurant as a system, managers can design control mechanisms, create contingency plans, and foster cross-departmental communication — all critical for effective JIT application in the fast-paced environment of Kampala's food service sector (Kast & Rosenzweig, 2021).

Contingency Theory

Contingency Theory asserts that there is no single best way to manage or organize a firm; instead, the optimal approach depends on the internal and external environment of the organization (Fiedler, 2020). In the case of JIT and performance in fast food restaurants, this theory suggests that the success of JIT is contingent upon various situational factors such as supplier reliability, infrastructure, workforce competence, and customer demand predictability. For fast food outlets in Kampala, this theory supports the idea that JIT may not be universally effective across all businesses but can produce favorable outcomes in environments that are well-aligned with the model's requirements.

A significant limitation of Contingency Theory is that it can be overly descriptive and lacks predictive precision. It provides little concrete guidance on what managers should do in complex or rapidly changing environments, which is a common reality in Kampala's fast-food industry. While it identifies that "fit" between context and strategy is essential, it doesn't provide detailed prescriptions for adjusting when the context shifts unexpectedly, such as during supply disruptions or economic fluctuations (Uzoечи & Okafor, 2021). As a result, managers might find it difficult to make real-time decisions based on this theory alone, especially when rapid adaptability is required in JIT systems.

Nevertheless, Contingency Theory is practically useful in assessing whether a fast-food restaurant in Kampala is well-positioned to benefit from JIT. By examining contextual variables such as delivery schedules, customer traffic flow, kitchen layout, and staffing, managers can determine whether JIT is a suitable inventory strategy. Restaurants in high-traffic areas with consistent supplier support may thrive under a JIT system, while others in less developed areas might require hybrid models. Thus, this theory aids in strategic decision-making by encouraging a tailored approach rather than a one-size-fits-all model (Fiedler, 2020; Uzoечи & Okafor, 2021).

Just in Time (JIT) Model and Performance of Fast-Food Restaurants

The Just in Time (JIT) inventory model was pioneered by Toyota Motor Corporation as a method to improve production efficiency by supplying only what is needed, when it is needed, and in the exact quantities required. The primary objective of JIT is to minimize waste and reduce the time between order placement and fulfillment, thereby enhancing operational flow and customer satisfaction (Krajewski & Ritzman, 2017). In fast food restaurants, this approach enables streamlined operations by facilitating clear communication, simplified workflows, and quicker service delivery. These businesses can benefit from shorter lead times and improved coordination, which contributes to higher service quality and overall performance.

JIT, as a method of inventory control, emphasizes holding only essential stock at precise locations and times. The system eliminates the need for bulk storage and instead relies on timely supplier deliveries to meet operational demands (Carlson, 2022). Initially implemented in Japanese manufacturing, the approach was intended to enhance return on investment by reducing excess inventory and the associated holding costs (Schonsleben, 2020). Central to the success of JIT is supplier dependability; disruptions in delivery schedules or quality inconsistencies can significantly affect operations due to the absence of safety stock. Consequently, businesses need reliable transportation systems and close geographical proximity to their suppliers (Kortz, 2018). By keeping inventory levels minimal, JIT helps reduce handling, storage, and waste-related expenses (Dimitrios, 2018).

Globally, manufacturing firms have widely embraced the JIT model to optimize performance, although its adoption remains limited in many developing countries due to infrastructural and operational constraints. In such environments, organizations often continue to use outdated

production practices characterized by inefficiency and excess (Masudin & Kamara, 2018; Adeyemi, 2020). JIT procurement involves acquiring materials only when necessary, avoiding early procurement that leads to idle inventory and late procurement that causes service delays (Kabuga, 2022). Lean organizations often streamline procurement by working with a limited number of suppliers to ensure consistency and cost-effectiveness (Demeter & Losonci, 2018; Landry, 2008). Additionally, sourcing from nearby vendors helps reduce transportation expenses and inventory waste while increasing supply chain predictability (Cheng, 2011). In many cases, businesses choose certified suppliers to minimize the need for extensive quality checks (Singh et al., 2018).

When applied effectively, the JIT model enables businesses to align their operations with real-time customer demand, resulting in more efficient supply chains and lower operating costs. It eliminates non-value-adding activities, such as redundant purchasing, excess movement of goods, and unnecessary machine downtime (Dalci & Tanis, 2016). In the fast-food industry, this model is particularly effective as it supports on-demand food preparation, ensuring freshness while minimizing overproduction and spoilage. Performance indicators associated with JIT include reduced cycle times, increased responsiveness, and lower production overheads. However, for JIT to work optimally, organizations must invest in the right technologies and systems to monitor and manage inventory accurately. Ultimately, the model contributes to operational excellence by reducing costs, enhancing quality, and speeding up service delivery (Inman et al., 2019).

Methodology

Philosophical Assumptions

This study is grounded in the philosophy of pragmatism, which emphasizes practical solutions to real-world problems by integrating multiple methods to generate a deeper understanding (Creswell & Creswell, 2018). Pragmatism acknowledges that reality is experienced differently by individuals and that knowledge is derived from the interplay between actions, outcomes, and context. In this study, inventory management practices in fast food restaurants represent measurable operational activities, but their effects on performance can vary based on managerial decisions, customer flow, business models, and organizational culture.

By adopting a pragmatic stance, the study embraces both objective and subjective perspectives on inventory practices such as JIT implementation, supplier coordination, and stock control. It allows for the examination of quantitative indicators like sales growth and inventory turnover alongside qualitative insights from restaurant managers. This flexibility in methodological orientation provides a richer, more balanced understanding of how inventory practices influence performance in diverse fast-food settings.

This philosophical approach is particularly suitable for the Kampala context, where fast food restaurants face dynamic market conditions, resource constraints, and shifting consumer expectations. Pragmatism supports the use of mixed methods to explore not only the statistical relationships between variables but also the lived experiences of operators within the fast-food industry. This combination ensures a more comprehensive and context-sensitive evaluation of performance outcomes.

Research Paradigm

The study is guided by the positivist research paradigm, which holds that knowledge is best derived from empirical observation and objective measurement (Saunders, Lewis, & Thornhill, 2019). Positivism is appropriate for investigating causal relationships between inventory management practices and business performance in a structured and quantifiable manner. Under this paradigm,

the study employs structured questionnaires to gather consistent data across multiple fast-food restaurants.

This paradigm supports hypothesis testing and the use of statistical tools to evaluate patterns and correlations, which are crucial for determining the impact of JIT practices on performance metrics such as cost reduction, service speed, and customer satisfaction. By emphasizing observable evidence, positivism helps ensure that the study's conclusions are grounded in verifiable data and not subjective assumptions.

Although rooted in quantification, the study also incorporates structured interviews with selected participants. These interviews complement the numerical data by providing context and deeper insight into operational practices. The integration of both forms of data enhances the robustness and credibility of the research without compromising its empirical focus.

Research Design

The research adopted a descriptive cross-sectional survey design to examine the relationship between JIT inventory practices and the performance of fast-food restaurants in Kampala. This design is suitable for capturing the status of inventory systems and business performance at a specific point in time (Mugenda & Mugenda, 2003). The cross-sectional approach enables data collection from a wide sample within a limited period, making it ideal for the fast-moving nature of the fast-food industry.

This design allowed the study to describe and compare inventory management techniques—such as JIT, stock rotation, and supplier coordination and relate them to performance indicators like customer service efficiency, product freshness, and operational costs. It also supported the identification of differences across various types of restaurants, including local brands and international franchises.

To strengthen the validity of the findings, the study integrated both quantitative (survey) and qualitative (interview) data. Quantitative data provided measurable evidence of performance outcomes, while qualitative inputs added meaning to the numbers by explaining how and why certain inventory practices succeeded or failed within specific organizational settings.

Study Population and Sampling

The study population comprised fast food restaurants operating across Kampala's five divisions: Central, Nakawa, Rubaga, Kawempe, and Makindye. The businesses ranged from small independent eateries to larger franchise outlets. These restaurants were selected because they depend heavily on efficient inventory systems due to the high volume of transactions, perishable stock, and the need for quick service delivery.

A stratified random sampling technique was applied to ensure balanced representation across all divisions. A sample of 150 respondents was drawn, including restaurant managers, inventory supervisors, and procurement officers directly involved in supply and stock decisions. The sampling frame was based on the registered list of fast-food establishments provided by Kampala Capital City Authority (KCCA). An additional buffer of 15% was added to the sample size to mitigate non-responses.

In addition to the survey respondents, 12 key informants were purposively selected for in-depth interviews. These included experienced restaurant managers, operations supervisors, and supply chain coordinators who could provide valuable insight into the challenges and opportunities associated with implementing JIT and related inventory strategies in Kampala's fast-food sector.

Data Collection Methods

The study employed two main data collection methods: structured questionnaires and semi-structured interviews. The questionnaires were administered physically and electronically and consisted of closed-ended and Likert-scale items that focused on aspects such as inventory planning, stock control methods, procurement scheduling, and performance outcomes. This format ensured uniform responses and facilitated efficient analysis.

Semi-structured interviews were conducted with key informants to gather detailed insights into inventory practices that could not be fully captured through surveys. Each interview lasted approximately 30–40 minutes and was recorded with the participants' consent. Topics explored included supplier reliability, JIT system implementation, technology use, staff training, and inventory shrinkage management.

To ensure clarity and reliability, the research tools were pre-tested with a pilot group of 10 participants from fast food outlets not included in the final sample. Feedback from the pilot was used to refine ambiguous or unclear questions before full-scale data collection began.

Data Analysis

Quantitative data were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Descriptive statistics such as means, standard deviations, and frequencies were used to summarize data on inventory practices and performance indicators. Inferential statistics including Pearson correlation and linear regression analysis were applied to test the strength and direction of relationships between JIT practices and restaurant performance outcomes.

Qualitative data from interviews were transcribed and analyzed thematically, following the approach outlined by Braun and Clarke (2006). Codes were developed based on recurring topics such as stockouts, supplier coordination, inventory software, and waste reduction. The NVivo 12 software was used to assist with coding and thematic development to enhance interpretive clarity and ensure systematic data management.

The combination of both data types provided a more comprehensive understanding of how JIT and related inventory practices affect restaurant performance. Triangulation of data sources further validated the findings by revealing consistencies and discrepancies between reported practices and observed outcomes.

Ethical Considerations

Ethical approval for the study was secured from the relevant institutional review board and municipal authorities. All participants were fully informed about the nature and purpose of the study, and informed consent was obtained before data collection commenced. Participation was entirely voluntary, and respondents were allowed to withdraw at any stage without facing any penalty.

Confidentiality and anonymity were ensured by assigning codes to respondents instead of using names. Data collected were securely stored, both digitally and physically, and were accessed only by the research team. All findings were used solely for academic purposes, and any dissemination of results maintained the privacy and dignity of all participants.

Results

Just-in-Time Inventory Management and the Performance of Fast-Food Restaurants in Kampala, Uganda

Table 4.7 presents descriptive statistics illustrating the influence of the Just-in-Time (JIT) inventory management model on the operational performance of fast-food restaurants in Kampala, Uganda.

Table 4.7: Descriptive Statistics on Just-in-Time (JIT) Inventory Management Model

Items	Mean	SD
JIT has improved our inventory turnover rate.	4.65	0.29
JIT has reduced our food waste and spoilage.	4.41	0.37
JIT has helped us maintain optimal inventory levels, reducing excess inventory.	4.25	0.49
JIT has improved the freshness and quality of our food products.	4.08	0.55
JIT has enhanced our ability to respond quickly to changes in customer demand.	4.43	0.35
JIT has enhanced our customer satisfaction with food quality and freshness.	4.22	0.44
JIT has promoted efficiency and effectiveness in inventory replenishment processes.	4.00	0.57
Average Mean & SD	4.29	0.44
Overall Mean & SD	4.00	0.49

Source: Primary data, 2024

Table 4.7 presents the descriptive statistics on the relationship between the Just-in-Time (JIT) inventory management model and the operational performance of fast-food restaurants in Kampala, Uganda. The results reveal an overall mean of 4.00 and a standard deviation of 0.49, indicating a strong agreement among respondents that the JIT system positively contributes to performance outcomes.

The item with the highest mean score ($M = 4.65$, $SD = 0.29$) was the statement that JIT has improved inventory turnover rates. This reflects widespread recognition among restaurant managers that inventory moves more efficiently due to leaner procurement and stock control processes. This was supported by a restaurant supervisor who remarked, *"Before we adopted JIT, we used to overstock and run into issues with storage, but now, our inventory moves faster and matches demand patterns much better."*

The second-highest rated item ($M = 4.41$, $SD = 0.37$) pointed to a reduction in food waste and spoilage. Respondents reported that aligning deliveries closely with actual customer demand significantly minimized losses. One interviewee shared, *"Previously, we threw away a lot of food due to spoilage. Since switching to a JIT system, our waste bins are much lighter, and that's saving us money every week."*

In terms of optimal inventory levels, the mean score was 4.25 ($SD = 0.49$). This demonstrates that JIT enabled restaurants to reduce excess inventory while avoiding stockouts. An operations manager explained, *"We used to struggle with too much or too little stock. JIT has helped us balance now we only order what we're likely to sell in the short term."* This reduction in inventory holding also enhances cost efficiency and space utilization.

Participants also noted improvements in food freshness and quality, with a mean score of 4.08 ($SD = 0.55$). This supports the assertion that JIT facilitates the delivery of fresher ingredients due to shorter inventory cycles. One interviewee commented, *"Since JIT was implemented, customers have noticed the difference. They say our food tastes fresher—especially the salads and sandwiches."*

The ability to respond quickly to changes in customer demand also scored highly ($M = 4.43$, $SD = 0.35$), suggesting that JIT adds agility to operations. One branch manager noted, *"When we see a sudden spike in demand like during university events we can quickly restock without overcommitting. That flexibility has really helped us keep customers happy."*

JIT's contribution to customer satisfaction was also acknowledged, with a mean score of 4.22 ($SD = 0.44$). This finding reflects that timely service and improved food quality positively influence

customer perceptions. An employee affirmed, *"Our customers used to complain about stale food, but that has reduced drastically. They appreciate getting fresh meals consistently now."*

Lastly, the item assessing the promotion of efficiency and effectiveness in inventory replenishment scored a mean of 4.00 (SD = 0.57), further reinforcing the model's value in streamlining procurement cycles. An inventory clerk mentioned, *"We've simplified our stock replenishment schedule. Deliveries are more frequent but smaller, which keeps everything fresher and more controlled."* In summary, both the quantitative and qualitative data demonstrate that the adoption of the JIT inventory model in fast food restaurants in Kampala has led to tangible improvements in operational performance. These include enhanced inventory turnover, reduced waste, greater responsiveness, improved food quality, and higher customer satisfaction. However, successful implementation depends on the availability of reliable suppliers, robust demand forecasting, and effective communication between procurement and kitchen staff.

Discussion of the Study Findings

The findings from the study revealed that a significant majority of respondents agreed that the implementation of the Just-In-Time (JIT) inventory model had enhanced both efficiency and effectiveness in inventory replenishment processes, as reflected by the overall mean score of 4.00 and a standard deviation of 0.49. This indicates that in fast food restaurants operating within Kampala, Uganda, JIT adoption holds the potential to boost performance in critical areas such as cost savings, customer satisfaction, and product quality. However, for JIT to be effective, it requires deliberate planning, contextual adaptation, and adequate investment in employee training. One participant emphasized, *"With JIT, we've been able to reduce wastage and avoid stockouts, but it needs everyone to be trained and fully understand the system to avoid service delays."*

These findings are consistent with Kamakia (2017), who established that JIT adoption in production systems tends to increase efficiency, reduce unnecessary inventory holding costs, and ultimately improve customer-centric outcomes. Organizations that adopt JIT principles often gain a competitive advantage through the elimination of excess stock and better responsiveness to customer needs. However, for optimal results, JIT should be tailored to fit the specific industry context. The core of the JIT philosophy revolves around maintaining inventory levels that precisely match production and customer demands neither surplus nor deficit. This aligns with a manager's statement during the interview: *"We only prepare large batches of chicken during peak hours; otherwise, we produce based on ongoing customer demand to avoid waste."*

Dalci and Tanis (2016) also supported the notion that JIT aims to reduce work-in-progress and finished goods inventory, cut down lead times, and raise product quality. The JIT approach functions through a pull-based system, where production aligns strictly with customer demand rather than preset schedules or raw material availability. Production activities only commence upon confirmed customer orders. One restaurant supervisor explained, *"We wait for real-time customer orders before restocking or producing. That helps us control expenses and manage freshness."* In such systems, any additional customer request triggers an immediate response from the production team to meet demand efficiently.

Further analysis through regression revealed that the JIT model accounted for approximately 68.8% of the variation in performance among fast food restaurants in Kampala, as indicated by an R-squared value of 0.688. This strongly suggests that JIT plays a substantial role in determining operational performance. The model's significance was also statistically confirmed by an F-value of 56.956 and a significance level (p-value) of 0.000, well below the conventional threshold of 0.05.

This means the relationship between JIT practices and performance is not only strong but statistically significant, showing that improvements in JIT directly lead to better organizational outcomes.

Additionally, the correlational analysis showed a moderately strong and significant positive relationship between JIT implementation and performance (Pearson correlation coefficient = 0.640, $p < 0.01$). This confirms that any enhancements in JIT practices are likely to yield corresponding improvements in performance levels of fast-food restaurants in Kampala. One operations manager remarked, *“Ever since we moved to JIT, service time has improved, customers are happier, and we save more on storage costs.”*

These findings also align with Weele (2016), who highlighted that the effectiveness of procurement processes significantly influences organizational performance. Institutions assess performance by examining goals and identifying gaps that need strategic improvement, often implementing process enhancements like JIT to address those areas. In a related context, Gardenal (2018) proposed an e-procurement performance evaluation framework focused on key dimensions such as transparency, dematerialization, efficiency, competitiveness, and overall effectiveness. This further supports the assertion that systems designed for lean and timely procurement such as JIT contribute directly to improved operational outcomes.

Conclusions

With respect to the first objective, the study concludes that the Just-in-Time (JIT) inventory management approach plays a critical role in enhancing the performance of fast-food restaurants operating within Kampala. The regression analysis demonstrated that JIT alone accounts for 68.8% of the variance in performance levels, signifying a substantial contribution. This strong influence is attributed to the JIT model's capacity to streamline inventory processes, reduce holding and wastage costs, and ensure timely alignment between stock levels and actual consumer demand. By minimizing excess inventory and focusing on efficiency, JIT emerges as a strategic tool for boosting service delivery, cost-effectiveness, and overall operational productivity in fast food establishments. These findings strongly support the adoption of JIT as a foundational inventory management technique for businesses aiming to enhance performance in competitive and fast-paced markets.

Recommendations

Based on the findings of the study, it is recommended that fast food restaurants in Kampala adopt and fully integrate the Just-in-Time (JIT) inventory management system as a key operational strategy. Given its significant contribution (68.8%) to organizational performance, JIT should be viewed not merely as a cost-saving mechanism, but as a competitive advantage for improving efficiency, reducing inventory waste, and enhancing customer satisfaction through timely service delivery.

Secondly, restaurant managers should invest in training their staff and suppliers on JIT principles and practices. Successful implementation of JIT requires synchronized coordination with suppliers, reliable lead times, and staff who understand the importance of timely inventory replenishment and quality control. Training can foster a culture of responsiveness and precision, which is vital for maintaining the JIT system.

Thirdly, fast food restaurants should establish strong supplier partnerships to ensure a consistent and dependable flow of inventory. Developing collaborative relationships with suppliers will reduce the risk of stockouts and delays, which are common challenges in JIT systems. Negotiating flexible and reliable supply contracts can significantly enhance JIT effectiveness.

Fourth, technological tools such as inventory tracking software, point-of-sale analytics, and automated ordering systems should be implemented to monitor demand patterns and adjust orders accordingly. By leveraging real-time data, restaurants can improve demand forecasting and maintain optimal stock levels, a core principle of the JIT model.

Finally, policymakers and business associations in Uganda's food and hospitality sector should promote awareness and provide support frameworks for small- and medium-sized fast-food operators to adopt inventory management innovations like JIT. Government and industry bodies could offer incentives, training programs, and digital solutions to ease the transition toward more efficient inventory systems, ultimately contributing to better service delivery and business sustainability in the sector.

References

- 1) Adeyemi, S. (2020). Modern production systems and their adoption in Sub-Saharan Africa. *Journal of Operations and Logistics*, 5(2), 44–56.
- 2) Ahmed, R., & Yusuf, M. A. (2021). Just-in-time strategy and supply chain responsiveness: Evidence from the service industry in Africa. *International Journal of Operations Management*, 9(2), 45–58.
- 3) Carlson, R. (2022). *Inventory control systems in modern enterprises*. Springer.
- 4) Cheng, Y. (2011). Supply chain uncertainty and vendor reliability in lean manufacturing. *Journal of Supply Chain Strategy*, 9(1), 38–47.
- 5) Dalci, I., & Tanis, V. N. (2016). The role of JIT practices in reducing manufacturing costs: A lean management approach. *Cost Management Journal*, 30(4), 25–33.
- 6) Demeter, K., & Losonci, D. (2018). Supplier relationship strategies and lean procurement in SMEs. *Production and Inventory Management Journal*, 54(3), 19–28.
- 7) Dimitrios, S. (2018). Lean thinking in hospitality operations: Implications for inventory handling. *International Journal of Services Management*, 29(1), 55–70.
- 8) Fiedler, F. E. (2020). *Contingency theory of leadership: Situational determinants of leadership effectiveness*. Organizational Science Classics.
- 9) Inman, R. A., Sale, R. S., Green, K. W., & Whitten, D. (2019). Agile manufacturing and firm performance: The role of JIT and supply chain integration. *Journal of Business Research*, 101, 660–667.
- 10) Kabuga, C. (2022). Lean procurement strategies and performance of retail firms in East Africa. *African Journal of Business and Management*, 12(1), 75–88.
- 11) Kast, F. E., & Rosenzweig, J. E. (2021). *Organization and management: A systems and contingency approach* (2nd ed.). McGraw-Hill.
- 12) Kortz, A. (2018). Logistics infrastructure and JIT reliability in developing countries. *Global Operations Review*, 6(2), 93–104.
- 13) Krajewski, L. J., & Ritzman, L. P. (2017). *Operations management: Processes and supply chains* (11th ed.). Pearson.
- 14) Kumar, S., Patel, M., & Singh, R. (2022). Just-in-time inventory practices and firm performance: Evidence from food processing SMEs. *Journal of Supply Chain Management Research*, 15(1), 22–34. <https://doi.org/10.1016/jsmr.2022.03.005>
- 15) Landry, S. (2008). Just-in-time supply in food retail: Supplier integration and performance outcomes. *Supply Chain Forum: An International Journal*, 9(2), 14–22.
- 16) Masudin, I., & Kamara, R. (2018). The influence of lean principles on the productivity of SMEs in low-income economies. *Operations Management Journal*, 15(3), 101–112.

- 17) Mutua, M. M., & Gathenya, J. (2022). Application of systems theory in enhancing service delivery in the Kenyan hospitality industry. *African Journal of Management and Strategy*, 17(2), 88–102.
- 18) Mwangi, P., & Otieno, D. (2021). Lean operations and service quality in fast food outlets: The mediating role of inventory control. *African Journal of Business and Economic Research*, 16(3), 128–142.
- 19) Nalukwago, R., & Namagembe, S. (2023). Operational efficiency and inventory management practices in Uganda's food service industry. *Uganda Journal of Management and Public Policy Studies*, 2(1), 56–70.
- 20) Nansubuga, H., & Katamba, D. (2020). Logistics challenges and performance of small-scale food vendors in Kampala: A lean management perspective. *Makerere Business Journal*, 11(2), 101–117.
- 21) Schonsleben, P. (2020). *Integral logistics management: Operations and supply chain management within and across companies*. CRC Press.
- 22) Singh, R. K., Gunasekaran, A., & Kumar, P. (2018). Evaluating lean practices using supplier certification criteria in SMEs. *Benchmarking: An International Journal*, 25(6), 1650–1672.
- 23) Uzoechi, E., & Okafor, C. (2021). Contextual fit and operational strategies in African SMEs: A contingency theory perspective. *Journal of African Business Research*, 10(4), 112–130.