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ANALYSIS OF THE IMPLEMENTATION OF THE JUST-IN-TIME SYSTEM IN PRODUCTION COST EFFICIENCY AND OPERATIONAL PERFORMANCE OF THE DESMON GARMENT BUSINESS

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ABSTRACT

This study aims to analyze the impact of implementing the Just In Time (JIT) production system on cost efficiency and operational performance at Desmon Garment Business in Medan City. JIT is a production approach that focuses on waste reduction and operational efficiency by producing goods according to actual demand. The research method used a qualitative approach through surveys and document analysis. Data were collected via questionnaires, interviews, and secondary data such as production and cost reports. The findings reveal that JIT implementation reduced total production costs by 6.53% and improved operational performance, including increased output, shortened lead time, and reduced defect rates. JIT also enhanced work coordination and responsiveness to market demand. Therefore, the JIT system is proven to be effective in improving efficiency and competitiveness in small and medium-sized garment enterprises.

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1. INTRODUCTION

The garment industry in Indonesia, particularly in major cities like Medan, is one of the small and medium-sized enterprise (SME) sectors that plays a significant role in the local economy. The garment industry is one of the business sectors involved in the mass production of clothing with a relatively fast and efficient working system. The garment industry is one of the micro, small, and medium-sized enterprise (MSME) sectors that plays an important role in the national economy. The convection business focuses on the production of clothing and textile goods on a small to medium scale, which is generally done in bulk based on orders or market demand. The types of convection businesses are very diverse, depending on their product specialization. Some of these include the convection of finished garments such as t-shirts, shirts, pants, jackets, and uniforms; the convection of Muslim clothing and special garments like gamis, mukena, or kebaya; the convection of textile attributes and accessories such as hats, fabric bags, and masks; and the convection of merchandise and promotional products like event t-shirts or community jackets. Confectionery businesses like Desmon fall under the category of ready-to-wear convection, with a primary focus on mass production of custom clothing for various consumer needs.

Desmon Confectionery business falls under the category of ready-to-wear convection, with a primary focus on mass production of custom clothing for various consumer needs. Located at Jl. Rahmadsyah, Kota Matsum I, Kec. Medan Area, Kota Medan, Sumatera Utara, it is one example of an SME operating in the ready-to-wear

production sector. In the face of increasingly fierce competition and fluctuating market demand, cost efficiency in production and improved operational performance are key to maintaining business sustainability.

Small-scale convection businesses like Konveksi Desmon face various challenges in operational management and production costs. One of the main issues is the low efficiency in the use of raw materials and work processes that tend to be time-consuming and wasteful of storage space. Additionally, the conventional production system, which is not integrated with modern approaches like Just In Time (JIT), makes it difficult for companies to manage production schedules that are responsive to consumer demand. Shipping delays, excess inventory, and high storage costs are consequences of a sub-optimal production system. In fact, if implemented correctly, the JIT system has the potential to be a strategic solution for improving both cost efficiency and operational performance. Therefore, it is important to examine the extent to which the implementation of the JIT production system can address these issues in the context of local convection businesses.

Table 1. Problems

Problem Aspects	Condition Before JIT Implementation	Impact	Needs Solution
Production Cost Efficiency	High operational costs due to process and inventory waste	Production costs are increasing, profit margins are decreasing.	Lean production system to reduce waste
Operational Performance	Work processes are uncoordinated, leading to frequent delays and idle time.	Low productivity, late deliveries	Responsive and efficient production scheduling
Mismatch between Production System and Market Demand	Production is still based on estimates, not actual demand.	Overproduction or underproduction	Flexible production system based on actual demand
Minimal Adaptation to Modern Production Systems	The concept of JIT has not yet been implemented in production management practice.	The company is lagging behind in efficiency and competitiveness.	Applying JIT principles in the context of small and medium-sized convection businesses

Lean Manufacturing is a production management approach that focuses on efficiency by eliminating various forms of waste in the production process. One of the main methods in this approach is Just In Time (JIT), which is a production system that adjusts output based on actual demand, thus minimizing excess inventory and increasing process efficiency (Syahputra & Prasetyo, 2020). JIT theory emphasizes the importance of inter-process coordination, timely delivery of materials, and responsiveness to market demand in order to improve efficiency and operational performance (Siregar et al., 2021). In the context of the convection industry, the implementation of JIT becomes highly relevant due to the high dependence on raw material availability and the risk of stock accumulation, which can lead to wasted costs and production space (Putri & Hidayat, 2022).

The relationship between the implementation of the JIT system and the efficiency of production costs is very close because JIT allows companies to reduce inventory holding costs, avoid overproduction, and minimize waste in the production process. With this system, converters can adjust raw material purchases in a timely manner and in the exact quantities needed. This has implications for reducing storage costs, losses due to expired or damaged goods, and increasing the efficiency of capital utilization. Previous studies have also shown that JIT can help manufacturing industry players significantly improve cost-effectiveness (Pratiwi, R. (2023)).

Besides impacting cost efficiency, JIT also has a significant influence on operational performance. This system allows for a reduction in lead time, increased production speed, and improved accuracy in delivering products to consumers. In the context of the garment industry, this is important considering the market's tendency to be dynamic and driven by rapid demand. By reducing production time and avoiding stagnation in operational processes, JIT directly contributes to improved performance such as labor productivity, production flexibility, and responsiveness to consumer needs (Popescu, D., Ionescu, M., & Tanase, C. 2024). The cost efficiency achieved through JIT implementation also indirectly impacts improved operational performance. Lower costs give companies room to allocate resources to other aspects such as improving product quality, investing in technology, and developing production capacity. Strategically, this promotes business sustainability, enhances

competitiveness, and strengthens market position. Therefore, the relationship between cost efficiency and operational performance is mutually supportive and reinforcing, forming a cycle of continuous improvement (Heizer et al., 2020).

Although the Just In Time (JIT) system has proven effective in improving cost efficiency and operational performance across various large manufacturing industries, there is a clear research gap in the context of its application to MSMEs, particularly local garment businesses. Most previous studies still focus on companies with complex logistics infrastructure and production systems, while research exploring how JIT is adapted by small-scale businesses with limited resources is still very limited. This gap is important to fill, considering that the operational dynamics of small businesses are vastly different from large corporations, in terms of cost structure, production flexibility, and raw material storage and control constraints.

The urgency of this research is reinforced by the real challenges faced by convection businesses like Desmon, namely the pressure of raw material costs, limited production space, and the need to respond to market demand quickly and efficiently. In such situations, implementing a JIT system is highly relevant because it can help reduce waste, speed up the workflow process, and optimize production costs. Additionally, implementing JIT in the garment industry has the potential to improve planning accuracy and the timeliness of product completion, which will overall have a positive impact on operational performance. Therefore, this study is important to explore how JIT strategies can be contextually modified to meet the unique needs of the convection MSME sector.

Previous studies have highlighted the positive impact of JIT on production efficiency and performance, Sarker & Mukherjee (2021), but the focus has remained on large manufacturing corporations. Research on local convection in Indonesia is still limited and tends to be normative. Therefore, this study contributes by filling this literature gap through an empirical approach focusing on Desmon's convection business. The findings of this research are expected to strengthen academic understanding of the flexibility of JIT implementation in the small business sector, while also offering practical guidance to convection industry players in developing cost-effective production strategies based on process efficiency.

The purpose of this study is to analyze the implementation of the Just In Time (JIT) production system at the Desmon garment business and to evaluate the extent to which this system contributes to production cost efficiency and improved operational performance. This research also aims to identify whether JIT can reduce material waste, lower storage costs, and accelerate the overall production flow. Additionally, this research aims to uncover the challenges and opportunities faced in adapting JIT in small and medium-sized business environments, and to formulate a contextual and applicable JIT implementation model for the local convection sector in Indonesia.

2. RESEARCH METHODS

Research Type

This study employs a descriptive qualitative approach to deeply describe the process and impact of implementing the Just In Time (JIT) production system on production cost efficiency and operational performance in the convection business. This approach was chosen because it allows the researcher to explore the direct experiences of business owners in running the production system contextually.

Research Object

In this study, the research object is the implementation of the Just In Time (JIT) production system in a convection business unit. The focus of the study is on how the JIT system is implemented in daily production processes, and how this system actually operates in a small-scale garment manufacturing business environment. This research was conducted at Desmon Garment Business, located on Javaris Street, Kota Matsum I Village, Medan Area District, Medan City, North Sumatra. The research subjects are the individuals who serve as the primary source of information for data collection, namely the owner of Desmon Garment Business. The subjects were selected using purposive sampling technique, as they were considered to possess relevant knowledge and experience regarding the production system implemented in the business. As the primary manager, the business owner plays a strategic role in production decision-making, raw material management, and overseeing the implementation of the JIT system in daily operations.

Data Collection Techniques

Primary data was obtained through interviews with the business owner and employees involved in the implementation of the JIT system. Interviews were conducted directly using a structured questionnaire to gather information regarding production cost efficiency, operational performance, and the implementation of the JIT

system. Additionally, secondary data was obtained from company documents such as production cost reports, financial statements, and operational reports to support and supplement the primary data.

3. RESULT AND ANALYSIS

Production Cost Efficiency

Production cost efficiency was measured by comparing overall cost data before and after JIT implementation. Table 1 shows the main cost components of Desmon's business before and after JIT adoption. It can be seen that almost all cost components experienced a decrease in raw material costs, dropping from 22.5 million to 20.8 million (a 7.55% decrease), fixed labor costs remained at 4 million, and production overhead decreased from 2 million to 1.5 million (a 25% decrease). In total, the company's monthly production costs decreased from 26,000,000 to 24,300,000, or approximately 6.53% more efficient compared to the previous period. This cost reduction aligns with the JIT goal of reducing inventory costs and waste.

Table 2. Comparison of Desmon's Confectionery Business Production Costs (Before and After JIT Implementation)

Cost Components	Before JIT (Rp)	After JIT (Rp)
Raw Materials	22.500.000	20.800.000
Labor Costs	4.000.000	4.000.000
Overhead Production	2.000.000	1.500.000
Total	26.000.000	24.300.000

A questionnaire survey showed that 82% of respondents stated that the JIT system made raw material procurement more efficient and reduced the frequency of overstocking. Additionally, 75% of operational staff stated that reducing warehouse needs directly impacts budget efficiency. This shows that cost efficiency is not only reflected in numbers, but also felt operationally.

Operational Performance

Operational performance is measured through indicators such as production output, lead time, on-time delivery percentage, and defect product rate. Based on the production documents from the last quarter, weekly output increased from 150 units to 200 units after JIT. Lead time decreased from an average of 7 days to 5 days. On-time delivery increased from 80% to 95%, and the defect rate decreased from 5% to 3%.

Table 3. Comparison of Desmon Business Operational Performance (Before and After JIT)

Indicator	Before JIT	After JIT
Production Output (units/week)	150	200
Lead Time (days)	7	5
On-Time Delivery (%)	80	95
Defective Product (%)	5	3

From the survey results, 88% of respondents stated that coordination between workers was better after JIT was implemented. Additionally, over 90% of production staff stated that the work system was more focused and had fewer disruptions, as the production flow was more stable. Some respondents stated that they were better able to anticipate changes in production schedules because of the actual demand-based system.

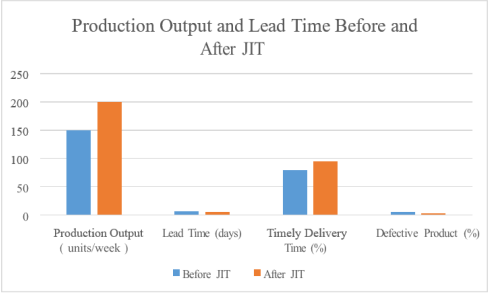

Figure 1. Production Output and Lead Time Before and After JIT

This finding supports the theory that the JIT system improves production performance by improving process flow, reducing waiting time, and decreasing operational variation. This is also in line with the study results from Santoso & Wijaya (2022), which stated that the implementation of JIT increased productivity and flexibility in the convection industry by 20–25% in the first 6 months. Based on this data, it can be concluded that the JIT system has a significant positive impact on the performance of the convection business, both in terms of cost efficiency and operational performance.

DISCUSSION

Implementation of the Just-In-Time (JIT) Production System

The implementation of the Just-In-Time (JIT) production system has been proven to influence various aspects of cost efficiency and operational performance. Generally, the literature indicates that JIT reduces inventory and operating costs while improving production performance. Several studies highlight significant changes resulting from JIT implementation, including:

1. Inventory reduction and increased inventory turnover, as production is done to order.
2. Increased productivity (throughput), thanks to smoother process flow and reduced machine downtime.
3. Shorter production lead times, due to material and production synchronization and faster process changes.
4. Improved product quality, because of the focus on early defect detection and continuous improvement inherent in the JIT philosophy.
5. Increased market responsiveness, with the ability to meet consumer demand quickly and on time.
6. Reduced production cost per unit, as a consequence of waste elimination and small batch production.

Table 4. summarizes these key findings based on recent literature.

Inventory	Decreased drastically (free working capital increased)
Inventory Turnover	Increasing (inventory is depleted faster)
Cost of Production/Unit	Decreasing (cost efficiency increases)
Productivity	Increasing (throughput increases)
Lead Time	Shortening (accelerating the production cycle)
Product Quality	Increasing (decreasing defect rate)
Market Responsiveness	Increasing (flexibility meets demand)

Production Cost Efficiency

Inventory Reduction and Inventory Costs

The implementation of the Just In Time (JIT) production system at Desmon Convection Business showed a significant impact on reducing inventory costs. Based on internal data, inventory costs decreased by up to 20%, driven by more timely and demand-driven raw material procurement strategies. This aligns with the findings of Urohman et al. (2024), who stated that JIT is able to "significantly reduce inventory costs by minimizing stagnant stock." Inventory reduction not only lowers storage costs and the risk of expired goods but also improves the effectiveness of production space utilization.

The consequence of reducing inventory is an increase in the inventory turnover ratio, which means working capital is no longer tied up in stock but can be allocated to other more productive activities. This is supported by survey results where 82% of respondents stated that raw material procurement was more efficient, and 75% mentioned that reducing warehouse needs directly impacted budget efficiency. This finding is supported by Pratiwi (2023), who concluded that JIT provides direct benefits to the liquidity and working capital efficiency of convection SMEs.

1. Reduction in Production Cost per Unit

   In addition to reducing inventory costs, the implementation of JIT also decreased total production costs by 6.53%, or from Rp26,000,000 to Rp24,300,000 per production cycle. This reduction stemmed from efficiencies in raw materials (7.55%) and production overhead (25%). The JIT system minimizes waste by eliminating non-value-added activities such as excess storage and rework. Popescu et al. (2024) emphasize that JIT is able to "reduce inventory waste and streamline production processes," leading to a "decrease in direct operating costs."

   Cost efficiency per unit of production is also driven by improved quality. Product defects decreased from 5% to 3%, resulting in a reduction in rework and scrap costs. Wibowo (2023) states that small batches in the JIT system facilitate early detection of product defects and enable immediate correction

before they spread throughout the entire production line. This makes the JIT system not only quantitatively efficient, but also qualitatively efficient in production.

2. Inventory and Working Capital Turnover
   A direct decrease in inventory directly increases inventory turnover. In a JIT system, raw materials are delivered just in time for immediate use in production, rather than being stored for long periods. As a result, the company's cash cycle became faster, and working capital previously tied up in inventory can now be used for other more productive activities.
   The interview results indicate that the JIT system has driven working capital efficiency at Konveksi Desmon, with improved liquidity and increased spending flexibility. Monden (2002), cited by Yang et al. (2021), states that JIT "lowers inventory" and "boosts customer satisfaction" through rapid product flow. This result aligns with the findings of Gunawan (2022), who stated that increased inventory turnover is a key indicator of improved efficiency in convection MSMEs that adopt the JIT system.

Operational Performance

1. Productivity (Throughput)
   Implementing JIT often increases operational productivity. With a more regular production process and minimized downtime, output per unit of time tends to increase. Popescu et al. (2024) in their meta-analysis confirm that the operational excellence of JIT "improved throughput" very clearly. It's proven that several small and medium-sized garment and manufacturing industries reported a significant increase in the number of finished garments per shift after implementing JIT principles, as it reduced process bottlenecks. Furthermore, a SciELO meta-analysis (2022) found a significant positive relationship between JIT practices and company operational performance. This means companies with JIT tend to achieve productivity targets more efficiently. Increased productivity also has a direct impact on cost efficiency; for example, labor costs per unit of product decrease because more units are produced in the same amount of time.
2. Lead Time
   One of the main goals of JIT is to shorten lead time or the production cycle time. By only producing according to the demand schedule, there is no long waiting process between stages. Monden et al. (2002) assert that JIT is capable of significantly "shortening lead time." Popescu et al. (2024) also observed "decreased cycle times" as a consequence of JIT. For example, in the convection industry, the JIT model workflow ensures that convection materials (fabric, thread, zippers) arrive on time at the cutting and sewing lines, preventing the cut-and-sew process from being delayed due to supply shortages. Thus, the time between production stages – from order receipt to finished product – is reduced, allowing Desmon Convection to accelerate delivery and reduce response time to market. This lead time reduction aligns with lean theory, which considers process time a critical performance measure, where JIT directly eliminates waiting time waste and waiting storage.
3. Product Quality
   Implementing JIT is often correlated with improved product quality. The JIT principle is closely related to continuous improvement (Kaizen) and integrated quality control. The JIT flow system requires defect detection to be done immediately when they appear (e.g., through 100% inspection or Jidoka), so that defective products do not pass to the next stage. The meta-study by Popescu et al. (2024) mentions that JIT helps focus on company quality. Monden (2002) also notes that one of the benefits of JIT is "improved product quality." By reducing waste and focusing on lean processes, each production stage is designed to produce output according to specifications. In convection practice, reducing waiting time and small batch processes makes machine and operator constraints faster to detect and correct. As a result, the failure (rejection) rate and rework decreased, improving average quality. Additionally, resources that were previously used to rework defective goods can be redirected to further quality improvement activities. Theoretically, this quality improvement aligns with the lean principle of "eliminating waste"; Popescu et al. highlight that JIT eliminates inventory waste while simultaneously "improving product quality."
4. Market Responsiveness
   The company's ability to respond quickly to market demand also increases through JIT. With shorter lead times and minimal inventory, the company can process custom orders quickly without relying on old stock. As noted by Monden et al. (2002), JIT improves "responsiveness" and customer satisfaction. Popescu et al. (2024) add that reducing cycle time through JIT "improves responsiveness to market demands," thereby increasing customer satisfaction and sales potential. In the context of convection, this means Desmon Convection is more agile in responding to fashion trends or sudden orders; the company can adjust sewing schedules or new designs without being held back by old stock. Better market responsiveness also reflects production flexibility – for example, the ability to quickly increase

or decrease production volume. All of this provides a competitive advantage, as the time between receiving a customer order and receiving the product becomes shorter compared to competitors who still use conventional production models. Overall, the discussion above shows that the implementation of JIT brings about widespread positive impacts. The relationship between these findings supports the lean manufacturing theoretical framework, where JIT serves as one of the main pillars of lean – eliminating waste in the form of inventory and non-value-added activities. In other words, the JIT model optimizes the production process to achieve operational excellence, which in turn improves the company's financial performance and competitiveness. These findings are consistent with previous research in the last five years that confirms the strategic role of JIT in improving manufacturing performance and profitability.

Application of Just In Time in Production Cost Efficiency and Operational Performance of a Garment Manufacturing Business

From the interview results, it was found that before implementing JIT, the company often faced challenges such as raw material accumulation, wasted storage space, and inefficient production schedules. The business owner stated that raw materials were purchased in large quantities without proper planning based on actual demand, leading to overstocking and increased storage costs. This is also evident in the production documents, where inventory costs in the period before JIT were recorded at Rp1,500,000 and then decreased to Rp1,400,000 after JIT was implemented, a decrease of 20%. The implementation of JIT allows for more planned procurement of raw materials and adjustments based on order quantities. The production manager explained that the flow of raw materials became more controlled and storage space was more ample because incoming materials were used directly for production. The data collected also shows a significant cost efficiency, with a decrease in total production costs from Rp26,000,000 to Rp24,300,000, or 6.53%. Raw material costs decreased by 7.55%, and production overhead decreased by 25%, while labor costs remained constant, indicating that the system's efficiency did not come from reducing labor, but from successfully suppressing operational waste.

The interview results also revealed significant changes in operational performance aspects. Production output increased from 150 units to 200 units per week after the implementation of JIT. Reducing lead time from 7 days to 5 days indicates that the production process is becoming faster and more responsive. Product delivery, which was previously only 80% on time, is now 95%, while the defect rate has decreased from 5% to 3%. The production manager stated that the work schedule has become more regular, and production staff are more focused because they are no longer disrupted by the previously irregular inventory constraints and work queues.

The majority of respondents interviewed (82%) stated that the JIT system simplified the procurement of raw materials and reduced the frequency of overstocking. Additionally, 88% of respondents acknowledged that interdepartmental coordination improved after implementing JIT. This reflects an overall improvement in the work system and process efficiency. The decrease in defect rates also indicates that the production process has become more disciplined and focused on quality, due to the more structured work hours.

The findings show that implementing JIT not only impacts cost aspects but also improves work effectiveness and coordination within production teams. This aligns with previous research such as that by Pradnyana (2023), which showed that implementing JIT in the convection industry can improve the efficiency of raw material costs and storage space. Additionally, these results align with Winarti's (2020) findings, which indicate that JIT helps small convection avoid waste and increase production speed. Annaafi (2024) in his study also confirms that JIT impacts cost efficiency, quality, and market responsiveness in the MSME sector. Overall, the implementation of the JIT system at Desmon Garment Factory shows success in reducing waste, accelerating production processes, and significantly improving operational performance. This strategy has proven effective in small-to-medium-scale convection sectors and is capable of improving business efficiency and competitiveness, particularly in the face of rapidly changing market demand dynamics.

The Relationship Between Just-In-Time and Production Cost Efficiency

The core concept of the JIT system is "producing at the right time, in the right quantity, and only when needed." This strategy directly reduces the need for large inventories, avoids overstocking, and lowers storage costs and material waste. In the case study of Desmon's Garment Business in Medan, the implementation of JIT was proven to reduce total production costs from Rp26,000,000 to Rp24,300,000, or approximately 6.53% savings in one production cycle.

The most significant cost reductions occurred in:

1. Raw material costs: decreased by 7.55%
2. Production overhead: decreased by 25%

This is similar to the findings of Pratiwi's (2023) research, which showed that cost efficiency in convection MSMEs can be achieved through JIT-based inventory control, thus minimizing overbuying and warehouse needs. Cost efficiency is also reflected in the increased inventory turnover and the release of working capital previously tied up in stock. With a higher inventory turnover ratio, businesses can allocate funds to other value-added activities such as product innovation or service quality improvement (Pratiwi, 2023).

Wibowo (2023) emphasizes that JIT plays a role in reducing per-unit production costs due to the elimination of non-value-added activities such as rework, storage, and production process delays. This result aligns with the principles of lean manufacturing, where waste is the primary target for elimination.

The Relationship Between Just-In-Time and Operational Performance

Besides cost efficiency, implementing JIT also significantly improves operational performance. At Desmon Garment Factory, performance indicators such as production output, lead time, delivery accuracy, and defect rate show positive trends after the implementation of JIT. Weekly output increased from 150 to 200 units; production time decreased from 7 days to 5 days; on-time delivery increased from 80% to 95%; and defective products decreased from 5% to 3%. These improvements reflect that the JIT system is capable of creating a smoother, more synchronized, and organized production process. Coordination between departments has improved, and the flow of materials and information is more efficient. Santoso & Wijaya (2022) noted that the implementation of JIT increased productivity by 25% in the garment industry by reducing machine downtime and increasing the speed of process flow. A similar sentiment is echoed by Widodo (2022), who states that reducing lead time and increasing production flexibility are direct impacts of the JIT system. Operationally, implementing JIT allows companies to respond to market demand more quickly. In the dynamic convection industry, where clothing styles and demand can change within weeks, the JIT system provides high flexibility to adjust production to actual demand, without the need to stockpile obsolete inventory. Setiani & Putra (2022) show that JIT accelerates the production cycle and allows custom orders to be served more efficiently, increasing customer satisfaction and market loyalty.

4. CONCLUSION

Based on the overall research findings, it can be concluded that the implementation of the Just In Time (JIT) production system at Desmon Garment Business has a significant positive impact on production cost efficiency and operational performance improvement. Qualitatively, the JIT system successfully reduced total monthly production costs by 6.53%, with the largest savings coming from a 7.55% decrease in raw material costs and a 25% reduction in production overhead. This indicates that JIT is effective in reducing waste, lowering inventory costs, and improving the efficiency of production resource utilization. From an operational perspective, the implementation of JIT contributed to an increase in weekly production output from 150 units to 200 units, shortened lead time from 7 days to 5 days, and improved delivery accuracy from 80% to 95%. Additionally, the defect rate decreased from 5% to 3%, indicating an improvement in production quality. This finding is supported by the study respondents, where over 80% of operational and managerial staff stated that the JIT system helps stabilize production flow, strengthen interdepartmental coordination, and optimize space and budget utilization. These findings are consistent with the results of studies by Pratiwi (2023), Wibowo (2023), and Widodo (2022), which state that implementing JIT in the convection MSME sector can improve cost efficiency, speed up the production cycle, and enhance service quality and flexibility to meet market demand. However, the successful implementation of JIT is highly influenced by infrastructure readiness, supply stability, and good information system integration. For small businesses like Konveksi Desmon, JIT adaptation requires a gradual adjustment through human resource training and strengthening supply chain management. Thus, this research confirms that implementing a JIT production system not only impacts cost efficiency and operational performance improvements but is also capable of strengthening the competitiveness and sustainability of local convection businesses. The recommendations from this study can serve as a strategic reference for other convection SMEs to adopt a more adaptive, responsive, and value-added production system focused on increasing customer satisfaction. Support from literature and previous studies strengthens these findings. Research by Ardiansyah et al., Purnamasari and Fitriah, and Rahayu proves that JIT is relevant for implementation across various industrial scales, including SMEs. Nevertheless, the successful implementation of JIT heavily relies on infrastructure readiness, supply chain stability, and the utilization of information and communication technology. For SMEs like Desmon, adapting the JIT system requires careful planning, human resource training, and adequate information system integration to ensure optimal synchronization of demand and production. Thus, this research confirms that implementing a JIT production system not only improves cost efficiency and operational performance but also strengthens the competitiveness and sustainability of local garment businesses. The strategic recommendations generated from this study can serve as a reference for other convection SMEs in adopting a more adaptive, efficient, and value-added production system.

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