INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD)
© 2026 IJNRD | Volume 11, Issue 5, May 2026 | ISSN: 2456-4184 | IJNRD.ORG

# A STUDY ON FEASIBILITY OF JUST IN TIME IMPLEMENTATION STORAGE FACILITIES IN AMARJOTHI SPINNING MILLS LTD AT TIRUPUR

**Mr. P.Akash [1] | Dr. A.Jayanthi [2]**

**Student [1] | Associate Professor [2]**

*Dept. of Management Science (MBA)[1] | Dept. of Management Science (MBA)[2]*

**Hindusthan College of Engineering and Technology, Coimbatore**

## ABSTRACT

The Indian textile industry faces mounting pressures from global competition, currency volatility, and escalating production costs. Just-In-Time (JIT) manufacturing has emerged as a strategically significant operations management philosophy capable of addressing these challenges through systematic waste elimination, inventory reduction, and continuous process improvement. This study investigates the feasibility of implementing JIT at Amarjothi Spinning Mills Ltd., a leading melange yarn manufacturer located in Tirupur, Tamil Nadu. Using a structured survey administered to 150 employees across various functional departments, the study employs quantitative analytical tools including simple percentage analysis, Chi-square tests, Analysis of Variance (ANOVA), and correlation analysis. The findings reveal that 66.7% of respondents expressed high satisfaction with JIT operational feasibility, while 76.7% agreed or strongly agreed that JIT inventory management is effective within the firm. Chi-square analysis confirmed a statistically significant relationship ($p < 0.001$) between employee income levels and perceptions of JIT productivity enhancement. ANOVA results demonstrated a significant association ($F = 141.824$, $p < 0.001$) between educational qualification and acceptance of flexible workforce practices under JIT. The study concludes that JIT implementation is both feasible and beneficial for Amarjothi Spinning Mills, with particular strengths in quality control, scheduling efficiency, and supply chain responsiveness. Strategic recommendations are provided for broader industry adoption.

***Keywords:*** *Just-In-Time (JIT), Textile Industry, Inventory Management, Waste Elimination, Supply Chain Optimization, Operational Efficiency, Manufacturing Feasibility.*

## I. INTRODUCTION

The global textile and apparel industry is characterized by intense competitive pressures, rapidly shifting consumer preferences, and increasingly complex supply chain dynamics. Indian textile manufacturers, in particular, face a dual challenge: maintaining cost competitiveness in international markets while simultaneously adapting to domestic economic fluctuations including currency devaluation and rising labor costs. The traditional approach to material procurement and inventory management—characterized by bulk purchasing, large safety stocks, and extended delivery cycles—has proven increasingly untenable in an environment that demands agility, cost efficiency, and responsiveness.

Just-In-Time (JIT) manufacturing, a philosophy pioneered by Toyota Motor Corporation in the 1970s, offers a compelling alternative paradigm. JIT is fundamentally premised on producing and delivering the right product, in the right quantity, at exactly the right time, thereby eliminating all forms of waste across the production and supply chain continuum [1]. Unlike conventional batch production systems that operate on a push logic—generating inventory in anticipation of future demand—JIT functions as a pull system, triggering production only in response to actual downstream demand signals [6].

The Indian textile sector, which contributes approximately 14% of industrial production and accounts for nearly 16% of export earnings, occupies a position of strategic importance in the national economy. India is the world's second largest producer of textiles after China

and the third largest producer of cotton globally. Within this competitive landscape, operational efficiency is not merely an organizational objective but a survival imperative. States such as Tamil Nadu, home to major spinning and weaving clusters including Tirupur, play a pivotal role in driving this sector forward. Tamil Nadu alone accounts for over 893 of the 2,049 large and medium textile mills in the country.

Despite extensive global research on JIT, empirical studies focused on its feasibility and impact within Indian spinning mills—particularly in the Tirupur cluster—remain limited. Most existing studies examine JIT in the context of automotive or electronics manufacturing, leaving a notable research gap regarding its applicability to fiber and yarn processing industries. Furthermore, few studies have explored the relationship between employee demographic characteristics and their perceptions of JIT adoption, which is critical for successful change management.

This paper addresses these gaps by empirically assessing JIT feasibility at Amarjothi Spinning Mills Ltd. The primary objective is to determine whether JIT can be practically implemented in a melange yarn spinning context, while secondary objectives include evaluating JIT's impact on production costs and its effects on supply chain performance. The study hypothesizes that: (H1) there is a significant relationship between employee income levels and perceived JIT productivity enhancement; and (H2) there is a significant relationship between employee educational qualification and satisfaction with JIT-based flexible workforce practices.

## II. LITERATURE REVIEW

The body of scholarly literature on JIT manufacturing is extensive and spans multiple decades of empirical and theoretical investigation. The following review synthesizes key contributions relevant to textile-sector JIT implementation and identifies the gaps that the present study seeks to address.

Delbridge [1] positioned JIT as a leading-edge technological and managerial advancement, arguing that effective JIT systems enable firms to minimize inventory costs while maintaining high production line performance. The author emphasized that rapid advances in global communication technologies have made real-time inventory coordination feasible, enabling companies to operate with minimal buffer stocks. In the textile context, Delbridge underscored JIT's role in helping manufacturers meet customer demands, remain competitive, and eliminate non-value-adding activities throughout the supply chain.

Wilson [2] extended this analysis by focusing on JIT's capacity to improve manufacturing efficiency through the elimination of non-value-adding activities and the reduction of excess inventory. The study highlighted JIT's people-oriented nature, noting that its successful implementation depends significantly on worker involvement, manpower flexibility, and organizational culture. Wilson's research drew on case evidence from North African textile firms to argue that JIT's rationalization of production processes leads to measurable improvements in machine utilization and labor productivity.

Singh and Garg [3] contextualized JIT within the global competitive marketplace, asserting that textile companies must adopt JIT principles to deliver quality products at competitive prices. Their research emphasized that incremental improvements are insufficient in fast-changing markets, and that organizations must strategically integrate JIT to achieve sustainable reductions in production costs. Gupta [4] further reinforced these findings by demonstrating JIT's capacity to enhance operational efficiency, organizational effectiveness, and quality standards in Indian manufacturing industries.

Abdulmale [5] provided a comprehensive review of JIT implementation across manufacturing and service sectors, confirming that JIT significantly increases value-added activities while reducing waste. Schonberger [6] offered a detailed comparative analysis of JIT pull systems versus conventional batch push systems, highlighting key structural differences in team composition, inventory information access, and worker interdependence. His work established the conceptual foundation for understanding how JIT fundamentally restructures production systems.

Gong [7] contributed empirical evidence demonstrating JIT's financial benefits for spinning mill organizations, showing significant correlations between JIT implementation levels and financial performance improvements resulting from reduced inventory holding costs. Mehra [8] described JIT as a manufacturing philosophy designed to produce and supply goods at the exact time and in the exact quantities needed, emphasizing waste elimination as a core organizational objective. Ankintoye [9] examined JIT in the construction materials sector, drawing parallels with textile component delivery that are relevant to yarn and fabric supply chains.

Brown and Mitchell [10] focused on JIT's impact on product quality, delivery time, and production costs, concluding that JIT implementation confers significant advantages including buffer stock removal, cellular manufacturing, and work-in-progress reduction. Khanna [11] provided a taxonomy of inventory types relevant to textile manufacturing—raw materials, work-in-process, and finished goods—and analyzed the conditions under which each inventory category can be minimized under JIT principles. Stevenson [12]

defined JIT as a repetitive production system in which material movement occurs precisely as needed, in small batches, emphasizing the importance of delivering finished goods just in time for sale.

Hernandez [13] framed JIT as a pathway to manufacturing excellence through continuous waste elimination and productivity improvement, aligning with the American Production and Inventory Control Society's definition of JIT as a philosophy of manufacturing excellence based on planned elimination of all waste. Fullerton [14] compared JIT with batch production, demonstrating that JIT firms exhibit superior performance across cost, quality, delivery, and flexibility dimensions. Torkko [15] examined the financial justification of JIT implementation, finding that the Kanban technique—a visible record used to control material flow—is central to effective JIT operation.

Synthesizing this body of literature, several key research gaps are evident. First, most empirical studies focus on automotive, electronics, or large-scale manufacturing contexts; studies specifically examining spinning mill environments in India are sparse. Second, while the operational benefits of JIT are well-documented, the socio-demographic factors influencing employee perceptions of JIT adoption remain under-researched. Third, there is a lack of quantitative studies examining the relationship between JIT implementation and specific operational metrics—such as flexible workforce management and overhead allocation—within textile spinning contexts. The present study directly addresses these gaps.

## III. RESEARCH METHODOLOGY

### *A. Research Design*

This study adopts a descriptive and analytical research design grounded in the positivist research paradigm. A quantitative survey methodology was employed to collect primary data from employees at Amarjothi Spinning Mills Ltd. The research design was selected on the basis of its suitability for measuring attitudes, perceptions, and behavioral responses toward JIT practices within a structured organizational setting.

### *B. Study Area and Population*

The study was conducted at Amarjothi Spinning Mills Ltd., Nambiyur, Tirupur, Tamil Nadu, India—a well-established manufacturer of color melange yarn founded in 1992 and operating with ISO certification and Oeko-Tex international standards. The target population comprised all employees across production, quality control, supply chain, and administration departments. The Tirupur location was selected due to its significance as a major textile hub within India's third-largest textile-producing state.

### *C. Sampling Design*

A convenience sampling method was employed for this study. A total of 150 respondents were selected using a multistage stratified purposive sampling procedure, ensuring representation across gender, age, educational qualification, experience levels, and income brackets. The sample size of 150 was deemed adequate for the application of the intended statistical techniques, including chi-square analysis and ANOVA, while also providing a sufficient power level to detect moderate effect sizes at the conventional alpha level of 0.05.

### *D. Data Collection Instrument*

Primary data were collected through a structured questionnaire comprising 26 items. The instrument was organized into two sections: (i) a demographic profile section capturing gender, age, marital status, educational qualification, work experience, and monthly income; and (ii) a JIT perception and feasibility section encompassing Likert-scale items and multiple-choice questions addressing JIT efficiency, implementation types, inventory management, workforce flexibility, overhead allocation, operational risks, continuous improvement cycles, and JIT techniques. Secondary data were sourced from peer-reviewed journal articles, industry reports, company publications, and relevant websites.

### *E. Statistical Analysis Tools*

Data were analyzed using SPSS statistical software. The following analytical methods were applied: (1) Simple percentage analysis for descriptive profiling of respondent characteristics and frequency distributions; (2) Chi-square ($\chi^2$) test of independence to examine the association between categorical variables, specifically between monthly income and JIT productivity enhancement perceptions; (3) One-way Analysis of Variance (ANOVA) to assess whether significant differences exist in JIT-related satisfaction levels across educational qualification groups; and (4) Pearson's correlation coefficient to examine the strength and direction of relationships between continuous variables. The level of significance was set at $\alpha = 0.05$ for all inferential tests.

## IV. DATA ANALYSIS AND RESULTS

### *A. Demographic Profile of Respondents*

The demographic characteristics of the 150 survey respondents are summarized in Table I. The sample was predominantly male (57.3%, n = 86), with female respondents comprising 42.7% (n = 64). The age distribution indicated that the largest cohort belonged to the 25–30 years bracket (44.0%, n = 66), followed by respondents aged 30–40 years (23.3%, n = 35), below 25 years (17.3%, n = 26), and above 40 years (15.3%, n = 23). With respect to marital status, 68.0% (n = 102) of respondents were married. The educational profile revealed that the majority held Higher Secondary Certificate (HSC) qualifications (36.7%, n = 55), while 25.3% were undergraduates, 20.0% held diplomas, and 18.0% were postgraduates. Regarding work experience, 42.7% (n = 64) reported 1–3 years of organizational tenure. In terms of monthly income, 42.0% (n = 63) earned below ₹30,000, indicating the predominantly entry- to mid-level nature of the workforce studied.

**TABLE I. Demographic Profile of Respondents**

| Variable | Category | N | % |
|---|---|---|---|
| Gender | Male | 86 | 57.3 |
| | Female | 64 | 42.7 |
| Age | Below 25 years | 26 | 17.3 |
| | 25–30 years | 66 | 44.0 |
| | 30–40 years | 35 | 23.3 |
| | Above 40 years | 23 | 15.3 |
| Marital Status | Married | 102 | 68.0 |
| | Unmarried | 48 | 32.0 |
| Education | Diploma | 30 | 20.0 |
| | HSC | 55 | 36.7 |
| | Undergraduate | 38 | 25.3 |
| | Postgraduate | 27 | 18.0 |
| Experience | < 1 year | 22 | 14.7 |
| | 1–3 years | 64 | 42.7 |
| | 3–5 years | 23 | 15.3 |
| | > 5 years | 41 | 27.3 |
| Monthly Income | Below ₹30,000 | 63 | 42.0 |
| | ₹30,000–₹40,000 | 44 | 29.3 |
| | ₹40,000–₹50,000 | 31 | 20.7 |
| | Above ₹50,000 | 12 | 8.0 |

### *B. JIT Operational Perceptions*

Analysis of JIT operational perceptions revealed several significant findings. With regard to JIT manufacturing efficiency, 36.0% of respondents identified high-quality control as the primary efficiency driver, followed by limited wastage (24.0%), adherence to schedules (21.3%), and rewards and recognition (18.7%). Regarding JIT method utilization, scheduling the output was the most commonly adopted practice (32.7%), followed by multi-skilled labour deployment (28.7%), equipment maintenance (21.3%), and defect elimination (17.3%). In terms of JIT implementation type, JIT distribution was the predominant form employed (58.7%), with JIT purchasing accounting for 41.3% of responses.

Concerning the prerequisites for successful JIT production, equipment maintenance was ranked as the most critical requirement (36.0%), followed by materials planning systems (28.7%), production scheduling (18.0%), and supplier management (17.3%). On the dimension of JIT synchronization and balance, maximum efficiency was identified as the primary characteristic (48.7%), followed by bottleneck reduction (30.0%) and capacity optimization (21.3%). These findings collectively suggest that respondents perceive equipment reliability and production scheduling as foundational pillars for effective JIT operationalization.

### *C. JIT Feasibility and Inventory Effectiveness*

Table II presents the distribution of respondent satisfaction with JIT operational feasibility. Combining highly satisfied and satisfied categories, 66.7% of respondents expressed overall satisfaction with JIT feasibility, while only 13.3% reported dissatisfaction. This positive reception signals organizational readiness for deeper JIT integration.

**TABLE II. Satisfaction with JIT Operational Feasibility**

| Feasibility Level | N | % | Cumulative % |
|---|---|---|---|
| Highly Satisfied | 52 | 34.7 | 34.7 |
| Satisfied | 48 | 32.0 | 66.7 |
| Neutral | 30 | 20.0 | 86.7 |
| Dissatisfied | 17 | 11.3 | 98.0 |
| Highly Dissatisfied | 3 | 2.0 | 100.0 |
| Total | 150 | 100.0 | — |

With respect to JIT inventory effectiveness, 76.7% of respondents agreed or strongly agreed that JIT inventory management is most effective in their firm, with 44.7% selecting 'Agree' and 32.0% selecting 'Strongly Agree.' Only 11.3% expressed disagreement. This finding is consistent with the extant literature [7, 14] demonstrating that JIT inventory systems yield significant operational benefits when properly implemented.

### *D. JIT Impact on Operational Management*

Table III summarizes respondent satisfaction levels across five key operational management dimensions affected by JIT. Greater productivity received the highest proportion of 'Highly Satisfied' responses (43.3%), suggesting that productivity enhancement is the most salient benefit perceived by employees. Smoother production flow and lower cost received the highest combined satisfaction scores (satisfied + highly satisfied), with 70.7% and 67.3% respectively.

**TABLE III. JIT Impact on Operational Management Dimensions**

| Factor | Highly Satisfied % | Satisfied % | Neutral % | Dissatisfied % | Highly Dissatisfied % |
|---|---|---|---|---|---|
| Waste Reduction | 34.7 | 30.0 | 20.0 | 11.3 | 4.0 |
| Improved Efficiency | 32.0 | 36.7 | 19.3 | 10.0 | 2.0 |
| Greater Productivity | 43.3 | 22.7 | 22.7 | 8.7 | 2.7 |
| Smoother Production Flow | 32.0 | 38.7 | 16.7 | 9.3 | 3.3 |
| Lower Cost | 29.3 | 38.0 | 22.0 | 8.7 | 2.0 |

### *E. Chi-Square Analysis: Income vs. JIT Productivity Enhancement*

To test Hypothesis H1—that there is a significant association between monthly income of respondents and their perceptions of JIT productivity enhancement—a Chi-square test of independence was conducted. The cross-tabulation revealed distinct patterns:

respondents earning below ₹30,000 predominantly associated JIT productivity enhancement with Product Turnaround (n = 44), while those in the ₹30,000–₹40,000 income bracket favored Shorter Production Runs (n = 44), and higher-income respondents (₹40,000–₹50,000 and above ₹50,000) were predominantly associated with Simplify Change Orders. The resulting Chi-square statistic was highly significant ($\chi^2 = 192.1$, df = 6, $p < 0.001$), as shown in Table IV. The Cramer's V value of 0.800 indicated a strong association between variables, leading to rejection of the null hypothesis H0. Consequently, H1 is accepted: there exists a statistically significant relationship between employee income level and perceptions of JIT productivity enhancement mechanisms.

**TABLE IV. Chi-Square Test Results: Income vs. JIT Productivity Enhancement**

| Statistic | Value | df | p-value |
|---|---|---|---|
| Pearson Chi-Square | 192.1 | 6 | < 0.001 |
| Likelihood Ratio | 207.124 | 6 | < 0.001 |
| Phi | 1.132 | — | < 0.001 |
| Cramer's V | 0.800 | — | < 0.001 |
| N of Valid Cases | 150 | — | — |

### *F. ANOVA: Educational Qualification vs. JIT Flexible Workforce Satisfaction*

To test Hypothesis H2—that educational qualification significantly influences satisfaction with JIT-based flexible workforce practices—a one-way ANOVA was conducted. The descriptive statistics revealed a clear monotonic pattern: respondents classified as 'Highly Satisfied' recorded a mean educational qualification score of 1.50 (SD = 0.504), compared to means of 2.44 (Satisfied), 3.25 (Neutral), and 4.00 (Dissatisfied and Highly Dissatisfied groups). The overall ANOVA result was highly significant ($F(4, 145) = 141.824$, $p < 0.001$), as detailed in Table V. Post-hoc tests using the Student-Newman-Keuls and Duncan procedures confirmed that all satisfaction groups belonged to distinct homogeneous subsets, indicating that educational qualification significantly differentiates employee perceptions of JIT flexible workforce practices. H2 is therefore accepted.

**TABLE V. ANOVA Results: Educational Qualification vs. JIT Flexible Workforce**

| Source | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 119.762 | 4 | 29.941 | 141.824 | < 0.001 |
| Within Groups | 30.611 | 145 | 0.211 | — | — |
| Total | 150.373 | 149 | — | — | — |

The ANOVA findings imply that more highly educated employees—typically occupying managerial or technical supervisory roles—exhibit greater satisfaction with JIT's flexible workforce requirements. This is theoretically consistent with the expectation that employees with greater cognitive flexibility and organizational awareness are more receptive to multi-skilling and cross-functional task assignments inherent in JIT production environments [2, 8].

## V. DISCUSSION

The empirical findings of this study yield several important insights that collectively affirm the operational feasibility and strategic value of JIT implementation at Amarjothi Spinning Mills, while simultaneously contributing to broader theoretical understanding of JIT adoption in the Indian textile sector.

The first and most fundamental finding is that a substantial majority of employees (66.7%) expressed satisfaction with JIT operational feasibility, and 76.7% affirmed the effectiveness of JIT inventory management. This positive organizational reception is a critical prerequisite for successful JIT adoption, as prior literature consistently emphasizes that JIT is fundamentally a people-oriented philosophy that requires employee buy-in and organizational commitment [2, 13]. The fact that JIT distribution (58.7%) was more widely practiced than JIT purchasing (41.3%) suggests that Amarjothi has achieved greater maturity in downstream logistics

coordination than in upstream supplier collaboration—an asymmetry that presents a clear opportunity for strategic investment in supplier relationship management.

The finding that equipment maintenance is perceived as the most critical success factor for JIT production (36.0%) is theoretically grounded in the JIT principle of total productive maintenance (TPM). Under JIT, machine downtime is particularly costly because the absence of buffer inventories means that equipment failure immediately propagates as a production stoppage. This finding resonates with Brown and Mitchell's [10] emphasis on machinery reliability as a foundational JIT requirement. Organizations seeking to enhance JIT performance should therefore prioritize preventive maintenance schedules and invest in condition monitoring technologies.

The chi-square analysis revealing a significant relationship between income levels and JIT productivity perceptions ($\chi^2 = 192.1$, $p < 0.001$, Cramer's V = 0.800) offers novel empirical evidence that was absent from prior Indian textile JIT studies. The strong effect size (Cramer's V = 0.800) indicates that income serves as a meaningful proxy for organizational role and expertise level, with higher-earning employees—likely occupying more technically sophisticated positions—appreciating JIT benefits related to order management and change simplification. This finding carries important managerial implications: JIT training and awareness programs should be tailored to the specific operational responsibilities of different income and role cohorts to maximize adoption effectiveness.

The ANOVA results demonstrating that educational qualification significantly differentiates JIT flexible workforce satisfaction ($F = 141.824$, $p < 0.001$) reinforce the theoretical position that JIT's multi-skilling requirements are better appreciated by employees with higher cognitive flexibility and broader organizational awareness. This is consistent with Wilson's [2] characterization of JIT as people-oriented and Mehra's [8] emphasis on human resource development as a pillar of JIT success. It suggests that investing in employee education and professional development is not merely an HR priority but a strategic enabler of JIT implementation.

The finding that 43.3% of respondents reported high satisfaction with JIT's impact on greater productivity—the highest among all five operational management dimensions tested—aligns with Fullerton's [14] and Schonberger's [6] arguments that productivity enhancement is the most consistently measurable JIT benefit. The relatively lower satisfaction with waste reduction (combined satisfaction: 64.7%) compared to productivity (combined: 66.0%) may reflect the nascent stage of JIT adoption at Amarjothi, where waste consciousness has not yet been fully embedded at the shop-floor level. This suggests that targeted lean awareness training could yield significant additional gains.

## VI. CONCLUSION

This study provides systematic empirical evidence that Just-In-Time manufacturing is both feasible and operationally beneficial within the context of Amarjothi Spinning Mills Ltd., a representative organization in the Indian melange yarn textile sector. The investigation, conducted through a structured survey of 150 employees and rigorous quantitative analysis, demonstrates that JIT implementation yields measurable improvements across productivity, operational efficiency, inventory effectiveness, and production flow.

The statistically significant findings from chi-square ($\chi^2 = 192.1$, $p < 0.001$) and ANOVA ($F = 141.824$, $p < 0.001$) analyses confirm the two research hypotheses: that employee income levels and educational qualifications are meaningful predictors of JIT adoption perceptions. These findings expand the academic understanding of JIT implementation dynamics beyond purely operational and technical dimensions, highlighting the socio-organizational factors that modulate employee receptivity to JIT philosophy.

The study's findings carry several strategic implications for practitioners. First, organizations contemplating JIT adoption should invest in graduated JIT training programs customized to employee role levels and educational backgrounds. Second, equipment maintenance infrastructure should be treated as a prerequisite for JIT implementation, given its identification as the most critical success factor. Third, supply chain managers should prioritize strengthening upstream supplier partnerships to complement already-developed JIT distribution capabilities. Fourth, management should institutionalize lean waste-reduction awareness programs at the shop-floor level to accelerate the cultural transformation necessary for sustained JIT success.

The study acknowledges certain limitations. The convenience sampling method may limit the generalizability of findings to other textile organizations. The cross-sectional design precludes causal inference, and the reliance on self-reported data introduces potential response biases. Future research should employ longitudinal designs and objective operational performance metrics—such as inventory turnover ratios, defect rates, and on-time delivery percentages—to more rigorously quantify JIT impact. Comparative studies across multiple textile clusters in India would further enrich the evidence base and enable broader theoretical generalizations.

In conclusion, JIT implementation represents a viable and strategically significant pathway for Indian textile manufacturers seeking to enhance competitive positioning in an increasingly demanding global market. The present study contributes empirical evidence and practical guidance to support this transformative journey.

## REFERENCES

[1] R. Delbridge, "Just-In-Time Manufacturing: Inventory Management and Production Line Efficiency," Data Systems, vol. 101, no. 3, pp. 106–113, 2017.

[2] S. Wilson, "Total Quality Management and JIT in the Textile Industry: A Case Study of North Africa," in Proc. International Quality Conference, Tripoli, Libya, 2017.

[3] S. Singh and D. Garg, "JIT Sequencing Problem with Multiple Objectives," Journal of Artificial Intelligence in Engineering, vol. 15, pp. 309–317, 2018.

[4] Y. P. Gupta, "Relevance of JIT Purchasing in Indian Textile Industries," International Journal of Production Management, 2018.

[5] F. A. Abdulmale, "Employee Involvement in JIT Success: Eicher Experience," Productivity, vol. 33, pp. 366–369, 2018.

[6] R. J. Schonberger, "Managing Productivity in Textile JIT Operations and Measurements," International Journal of Operations Management, 2019.

[7] Z. Gong, "Implementing Just-In-Time Production and Procurement Strategies," International Journal of General Management, pp. 83–91, 2019.

[8] S. Mehra, "A Feasibility Study of JIT Purchasing Systems Implementation in a Manufacturing Facility," International Journal of Production Management, 2019.

[9] A. Ankintoye, "Just-In-Time Application and Implementation for Building Material Management," Journal of Construction Management, 2020.

[10] K. A. Brown and T. R. Mitchell, "Just-In-Time Management on Precast Textile Components," Journal of Manufacturing Systems, 2020.

[11] V. B. Khanna, "Inventory Control and Resistance in a Japanese Transplant," Journal of Operations Management, vol. 32, pp. 803–817, 2020.

[12] W. Stevenson, "The Just-In-Time/Total Quality Control Production System," International Journal of Manufacturing, 2021.

[13] J. Hernandez, "The Impact of Just-In-Time Manufacturing and Its Infrastructure on Manufacturing Performance," Management Science, vol. 43, no. 9, pp. 1246–1257, 2021.

[14] R. R. Fullerton, "A Comparison of Just-In-Time and Batch Manufacturing: The Role of Performance in the Textile Industry," Academy of Management Journal, vol. 4, no. 4, pp. 906–917, 2022.

[15] M. Torkko, "Financial Justification of JIT Implementation," International Journal of Operations and Production Management, vol. 13, no. 4, pp. 32–39, 2022.