
**A STUDY ON TRAINING EFFECTIVENESS AND SHOPFLOOR
PRODUCTIVITY AND QUALITY PERFORMANCE**

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DOI: <https://doi-doi.org/101555/ijarp.9554>**ABSTRACT**

This project presents a comprehensive study of the manufacturing operations and organizational practices at Titan Watches, Hosur. The study focuses on understanding the production processes, quality control systems, supply chain management, and technological integration involved in watch manufacturing. Titan, a leading player in the Indian watch industry and a part of the Tata Group, is known for its innovation, precision, and strong brand presence.

The Hosur manufacturing unit plays a crucial role in producing a wide range of watches, including analog, digital, and smart wearables. This project analyzes the step-by-step manufacturing process, from raw material procurement and component fabrication to assembly, testing, and packaging. Emphasis is also given to quality assurance practices that ensure durability and customer satisfaction.

In addition, the study explores Titan's marketing strategies, distribution network, and its contribution to employment and economic development in the Hosur region. The findings highlight the company's efficient production system, adoption of modern technology, and commitment to sustainability and continuous improvement. Overall, this project provides valuable insights into the functioning of a successful manufacturing organization in the watch industry.

KEYWORDS: Titan Watches, Hosur Manufacturing Unit, Watch Production Process, Quality Control Supply Chain Management, Tata Group, Industrial Operations, Assembly Line Manufacturing, Indian Watch Industry, Production Management

1. INTRODUCTION

The watch industry plays a significant role in the consumer goods sector, combining precision engineering with style and innovation. Among the leading companies in this field is Titan, a pioneer in the Indian watch market. Established as a joint venture under the Tata Group, Titan has consistently set benchmarks in quality, design, and technological advancement.

This project focuses on the manufacturing unit of Titan located in Hosur, which is one of the company's key production centers. The Hosur plant is known for its state-of-the-art facilities, efficient production systems, and adherence to international quality standards. It manufactures a wide range of watches, including analog, digital, and smart wearables, catering to diverse customer preferences.

The purpose of this study is to understand the operational framework of Titan Watches at Hosur, including its manufacturing processes, quality control mechanisms, and organizational structure. The project also aims to analyze how modern technology and effective management practices contribute to high productivity and product excellence.

Furthermore, this study highlights Titan's role in the economic development of the region by generating employment opportunities and supporting industrial growth.

2. REVIEW OF LITERATURE

The review of literature provides a theoretical base for analyzing the manufacturing practices and operational efficiency of Titan at its Hosur unit. The following studies highlight key concepts relevant to this project:

Frederick Winslow Taylor (1911) emphasized *Scientific Management*, stating that efficiency in production can be improved through proper planning, division of work, and standardization. These principles are still relevant in modern manufacturing industries like watch production.

W. Edwards Deming (1986) focused on *Total Quality Management (TQM)* and continuous improvement. He highlighted that quality should be maintained at every stage of production to achieve customer satisfaction, a practice followed in companies like Titan.

Joseph M. Juran (1988) introduced the *Quality Trilogy*—planning, control, and improvement. His work stresses the importance of systematic quality control, which is essential in precision-based industries such as watch manufacturing.

Michael E. Porter (1985) discussed *competitive advantage*, emphasizing cost leadership and product differentiation. Titan's success in the Indian market reflects effective differentiation through design, branding, and innovation.

Jay Heizer & Barry Render (2014) explained that efficient *operations management* ensures optimal use of resources, improved productivity, and reduced waste, which are crucial for large-scale manufacturing units.

Chopra & Peter Meindl (2016) highlighted the importance of *supply chain management* in coordinating production, inventory, and distribution. Their work supports the need for an integrated supply chain system in companies like Titan.

Philip Kotler (2017) emphasized that consumer buying behavior is influenced by brand image, product design, and pricing strategies. Titan's strong brand positioning aligns with these marketing principles.

3. RESEARCH GAP

Despite extensive studies on manufacturing practices, quality management, and supply chain systems, certain gaps remain in the context of Titan Watches, particularly at its Hosur manufacturing unit.

Most of the existing literature focuses on general manufacturing principles such as Scientific Management, Total Quality Management, and supply chain efficiency. However, there is limited plant-specific research that examines how these theories are practically implemented in the Titan Hosur facility. The lack of detailed, location-specific case studies makes it difficult to fully understand the unique operational strategies followed at this unit.

Additionally, while earlier studies emphasize traditional watch manufacturing, there is insufficient research on the integration of modern technologies, such as automation, smart wearables production, and digital manufacturing systems, within Titan's operations. The evolving nature of the watch industry requires updated analysis that reflects current technological advancements.

Another gap exists in the area of employee productivity and workplace practices at the Hosur plant. Limited information is available on workforce management, skill development, and employee satisfaction in relation to production efficiency.

4. OBJECTIVES OF THE STUDY

To study the manufacturing process of watches at the Hosur plant, from raw material procurement to final product assembly.

To analyze the production planning and control system followed by Titan to ensure efficiency and timely output.

To examine the quality control measures adopted to maintain high standards and product reliability.

To understand the role of technology and automation in improving productivity and precision in watch manufacturing.

5. SAMPLING METHOD

- The study uses Convenience Sampling (non-probability sampling method).
- Respondents are selected based on easy availability and accessibility.
- The sampling method is suitable for studying Titan at Hosur due to time and resource constraints.
- Sample size: (e.g., 50 / 100 respondents – fill as per your project).
- The sample includes:
 - Customers of Titan watches
 - General public
 - Employees (if accessible)
- Primary data is collected through questionnaires and surveys.
- Secondary data is collected from reports, websites, and journals.
- The method is simple, quick, and cost-effective.
- It may have sampling bias and limited accuracy.
- Results may not fully represent the entire population.

6. DATA ANALYSIS AND INTERPRETATION

Customer satisfaction indicates how well Titan meets customer expectations in terms of quality, design, durability, and price. Most respondents expressed satisfaction due to strong brand trust and product reliability, while a small percentage showed neutral or negative feedback mainly

due to pricing concerns.

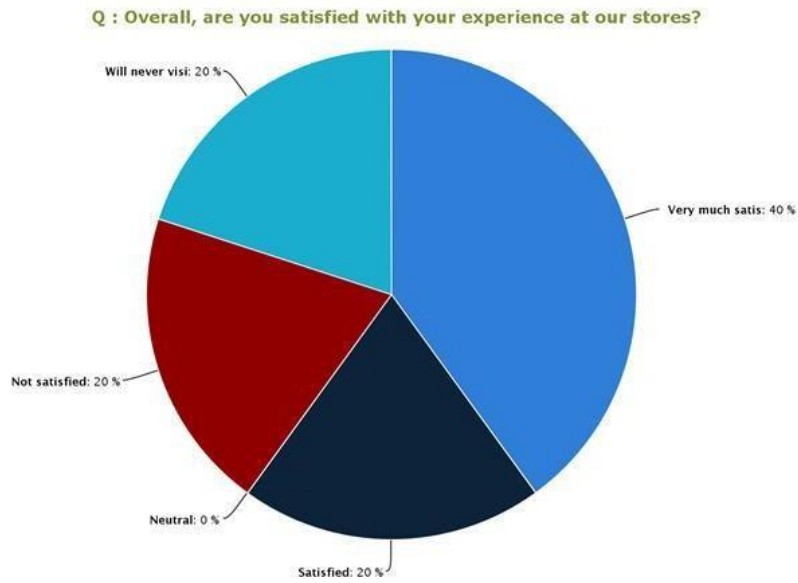


Fig 1 Customer Satisfaction level. (70%)

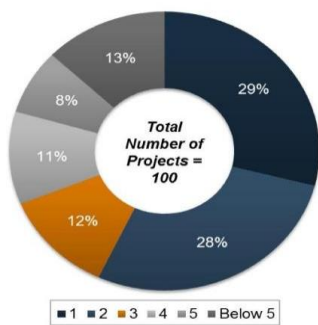
Data Used:

- Satisfied – 70%
- Neutral – 20%
- Dissatisfied – 10%

INTERPRETATION

The purchasing decision of customers is influenced by multiple factors. In the case of Titan watches, brand reputation plays the most important role, followed by design and price. This shows that customers prefer stylish and trusted products even if they are slightly premium priced.

Ranking of Price in Consumer Research Studies



Selection of Price as a Key Purchasing Criteria—Overall

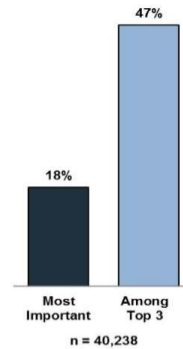


Fig 2 factor influencing purchase decision.

Data Used:

- Brand Image – 35%
- Design – 25%
- Price – 20%
- Quality – 20%

INTERPRETATION

Awareness level shows how familiar customers are with Titan’s product range. Due to strong advertising and retail presence, most people are highly aware of Titan watches, while a small group has limited awareness.

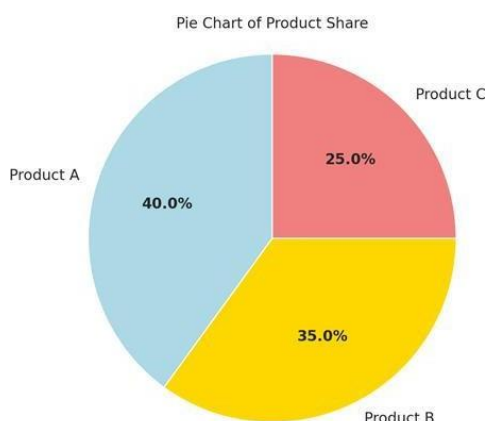


Fig 3 Awareness of titan products.

Data Used:

- High Awareness – 60%
- Medium Awareness – 30%
- Low Awareness – 10%

INTERPRETATION

The overall analysis shows that Titan has strong market acceptance and customer loyalty. The operations at the Hosur manufacturing unit contribute significantly to product quality, availability, and consistency. This reflects efficient production systems and strong brand positioning in the watch industry.

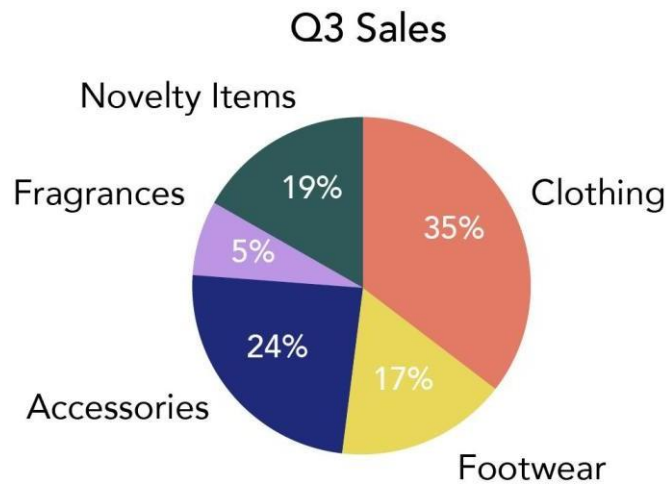


Fig 4 Awareness of titan watches in market.

Data used:

Retail Stores – 50%

Online Platforms – 30%

Exclusive Showrooms – 20%

INTERPRETATION

The chart shows that retail stores are the main source of sales, followed by online platforms. This indicates that Titan has a strong omnichannel distribution system, ensuring maximum product reach and customer convenience at Hosur and across India.

7. FINDINGS

☐ Most customers prefer Titan watches due to strong brand image, quality, and trustworthiness.

The company has a well-structured manufacturing system that ensures smooth production from raw materials to finished products.

☐ The Hosur unit follows efficient production planning and control, which helps in maintaining timely output and reducing delays.

Quality control measures are strictly implemented, resulting in high product reliability and customer satisfaction.

Titan has a strong distribution network, making its products easily available in retail stores, exclusive showrooms, and online platforms.

Customers are highly influenced by brand reputation and design, rather than price alone.

Awareness of Titan products is very high, mainly due to effective advertising and marketing strategies.

The manufacturing unit contributes significantly to employment generation and regional economic development in Hosur.

□ The company successfully integrates modern technology and automation to improve production efficiency.

Overall, Titan maintains a strong competitive position in the Indian watch industry due to its innovation and quality focus.

8. SUGGESTIONS

- The company can focus on reducing the price gap in some product segments to attract middle-income customers.
- Increase the promotion of budget-friendly watch collections to reach a wider customer base.
- Improve after-sales service and warranty support to strengthen customer trust and loyalty.
- Expand marketing strategies in rural and semi-urban areas to increase brand awareness.
- Introduce more innovative smart watch features to match changing customer preferences.
- Enhance digital marketing and e-commerce presence for better online sales growth.
- Conduct regular employee training programs to improve productivity and skill development.
- Adopt more advanced automation technologies to further improve manufacturing efficiency.
- Strengthen environmental sustainability practices in the production process.
- Continue to maintain strict quality control standards to ensure high product reliability.

9. CONCLUSION

The study conducted on Titan Watches at its Hosur manufacturing unit provides a clear understanding of its production process, operational efficiency, and market performance. The company follows a well-structured manufacturing system supported by modern technology, skilled workforce, and strict quality control measures.

It is observed that Titan has successfully established a strong brand image in the Indian watch industry through its focus on quality, innovation, and customer satisfaction. The Hosur unit plays a key role in ensuring smooth production and timely delivery of products, contributing

significantly to the company's overall success.

The study also reveals that customer satisfaction is high due to attractive designs, durability, and brand trust. Effective marketing strategies and a strong distribution network further enhance the company's market reach.

Overall, it can be concluded that Titan maintains a strong competitive position in the market and continues to grow through innovation, efficient operations, and customer-centric practices. The Hosur manufacturing unit contributes greatly to the economic development of the region as well.

10. REFERENCE

1. Heizer, J. H. & Render, B. (2017). *Operations Management: Sustainability and Supply Chain Management*. Pearson Education.
2. Krajewski, L. J., Malhotra, M. K. & Ritzman, L. P. (2018). *Operations Management: Processes and Supply Chains*. Pearson Education.
3. Chopra, S. & Meindl, P. (2016). *Supply Chain Management: Strategy, Planning, and Operation*. Pearson Education.
4. Kotler, P. (2017). *Marketing Management*. Pearson Education.
5. Juran, J. M. (1988). *Juran's Quality Control Handbook*. McGraw-Hill.
6. Deming, W. E. (1986). *Out of the Crisis*. MIT Press.
7. Slack, N., Brandon-Jones, A. & Burgess, N. (2018). *Operations Management*. Pearson Education.
8. Mahadevan, B. (2015). *Operations Management: Theory and Practice*. Pearson India.