APPLYING PRODUCTION AND TECHNOLOGICAL MANAGEMENT MECHANISMS IN TEXTILE INDUSTRY ENTERPRISES

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Abstract: *The textile industry, particularly textile and garment manufacturing, plays a strategic role in employment generation, export growth, and industrial diversification in developing economies. However, many textile industry enterprises continue to face challenges related to low productivity, inefficient resource utilization, outdated technologies, and weak production coordination. This article explores the possibilities of applying production and technological management mechanisms in textile industry enterprises as a key driver of operational efficiency and competitiveness. The study systematizes modern production and technological mechanisms, analyzes their functional role in enterprise management, and hightextiles the economic and organizational outcomes of their implementation. The results show that integrated production and technological mechanisms significantly improve production efficiency, product quality, and managerial decision-making.*

Keywords: *production management, technological mechanisms, textile enterprises, operational efficiency.*

Introduction

Textile industry enterprises operate in a highly competitive and cost-sensitive environment, where production efficiency and technological adaptability determine long-term sustainability. In recent years, increasing globalization, rapid technological change, and growing quality requirements have intensified the need for effective production and technological management mechanisms.

Traditional management approaches in many textile and garment enterprises are often characterized by fragmented production planning, weak process standardization, and limited use of modern technologies. As a result, enterprises face production delays, excessive waste, high defect rates, and low labor productivity. Addressing these challenges requires the systematic application of production and technological mechanisms that align production processes with strategic management objectives.

This article aims to analyze the opportunities and effectiveness of applying production and technological management mechanisms in textile industry enterprises, with particular attention to textile and garment manufacturing.

Theoretical Background and Literature Review

Production management mechanisms are defined as a set of organizational, technical, and economic tools used to plan, organize, control, and optimize production processes. Technological mechanisms, in turn, focus on the application of production technologies, automation systems, and digital solutions that enhance operational performance.

Previous studies emphasize that modern production management in manufacturing industries increasingly relies on lean production principles, total quality management (TQM), and digital manufacturing technologies. Researchers hightextile that the integration of technological innovation with production planning leads to improved flexibility and responsiveness to market changes.

In the context of textile industry, scholars argue that technological modernization alone is insufficient without corresponding changes in production organization, workforce skills, and managerial control systems. Therefore, production and technological mechanisms should be implemented as an integrated management system rather than isolated tools.

Production and Technological Management Mechanisms in Textile Industry Enterprises

1. Production Management Mechanisms

Production management mechanisms in textile industry enterprises include:

- process-based production organization;
- standardization of technological operations;
- production scheduling and capacity planning;
- labor norm-setting and productivity monitoring;
- quality control at each production stage.

The application of process-based management allows enterprises to reduce idle time, eliminate bottlenecks, and improve coordination between production units. Standardized production processes ensure stable quality and predictable output levels, which are essential for export-oriented enterprises.

2. Technological Management Mechanisms

Technological mechanisms focus on the modernization and digitalization of production processes, including:

- ✓ implementation of modern sewing and textile equipment;
- ✓ automation of repetitive operations;
- ✓ application of digital production planning systems (ERP, MES);
- ✓ real-time monitoring of equipment performance;

The introduction of digital technologies enables enterprises to monitor production indicators in real time, detect deviations early, and make data-driven management

decisions. Technological mechanisms also contribute to energy efficiency and material savings, which directly affect production costs.

Opportunities and Effects of Applying Production and Technological Mechanisms

The combined application of production and technological management mechanisms creates multiple opportunities for textile industry enterprises.

First, production efficiency increases due to reduced downtime, optimized workflows, and improved labor utilization. Second, product quality improves as standardized processes and technological control systems reduce defect rates and production variability. Third, technological mechanisms enhance management transparency by providing accurate and timely production data.

Furthermore, enterprises that adopt integrated production and technological mechanisms demonstrate higher adaptability to market fluctuations and customer requirements. This is particularly important in the textile and garment industry, where product life cycles are short and demand patterns change rapidly.

Discussion

The findings suggest that production and technological management mechanisms should not be viewed as short-term operational tools, but as strategic instruments of enterprise management. Their effectiveness depends on organizational readiness, workforce competence, and managerial commitment.

In developing economies, textile industry enterprises often face financial and institutional constraints that limit large-scale technological investments. However, gradual implementation of production standardization, lean principles, and digital monitoring systems can generate significant efficiency gains even with limited resources.

From a managerial perspective, the integration of production and technological mechanisms strengthens the link between operational activities and strategic objectives, contributing to long-term competitiveness.

Conclusion

This study demonstrates that the application of production and technological management mechanisms plays a crucial role in improving the performance of textile industry enterprises. By optimizing production processes and introducing modern technologies, enterprises can achieve higher productivity, better product quality, and more effective management control.

The results confirm that an integrated approach—combining production organization with technological modernization—is essential for sustainable development in the textile industry sector. Future research may focus on quantitative evaluation models and empirical case studies to further assess the economic impact of these mechanisms.

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