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WAYS TO IMPROVE MANAGEMENT EFFICIENCY OF TEXTILE ENTERPRISES IN UZBEKISTAN

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Abstract. This article presents scientific and practical proposals to improve the management efficiency of textile and garment enterprises in Uzbekistan, based on statistical data covering the period 2018–2025. The study conducts a cause-and-effect analysis of the export decline that followed the record-high performance of 2023: a 7.4% contraction in 2024 and an additional 9.4% decline in 2025. Drawing on comparative benchmarking against China, Turkey, India, Bangladesh, and Vietnam, an expert survey of 120 enterprises (340 specialists), and Ishikawa diagram analysis, international best practices in production organization, information technology adoption, quality management, human capital development, supply chain optimization, and increasing the share of finished goods have been analyzed and adapted to Uzbekistan's specific conditions. The research substantiates that, by 2027, export volumes can reach USD 4.0–4.5 billion, labor productivity can increase by 35–40%, the product defect rate can fall to below 1%, and the share of finished products can exceed 60%.

Keywords: textile industry, management efficiency, lean manufacturing, ERP system, export potential.

ӨЗБЕКСТАНДАҒЫ ТОҚЫМА КӘСІПОРЫНДАРЫН БАСҚАРУ ТИІМДІЛІГІН АРТТЫРУ ЖОЛДАРЫ

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Түйіндеме. Бұл мақалада 2018–2025 жылдар аралығындағы статистикалық деректерге негізделген Өзбекстандағы тоқыма және киім кәсіпорындарын басқару тиімділігін арттыру бойынша ғылыми және практикалық ұсыныстар ұсынылған. Зерттеу 2023 жылғы рекордтық жоғары көрсеткіштерден кейін экспорттың төмендеуінің себеп-салдарлық талдауын жүргізеді: 2024 жылы 7,4%-ға қысқару және 2025 жылы қосымша 9,4%-ға төмендеу. Қытай, Түркия, Үндістан, Бангладеш және Вьетнаммен салыстырмалы бенчмаркингке сүйене отырып, 120 кәсіпорынның (340 маман) сараптамалық сауалнамасы және Ишикава диаграммасының талдауы, өндірісті ұйымдастыру, ақпараттық технологияларды енгізу, сапаны басқару, адами капиталды дамыту, жеткізу тізбегін оңтайландыру және дайын өнімдердің үлесін арттыру саласындағы халықаралық озық тәжірибелер талданып, Өзбекстанның нақты жағдайларына бейімделді. Зерттеу 2027 жылға қарай экспорт көлемі 4,0–4,5 миллиард АҚШ долларына жетуі мүмкін екенін, еңбек өнімділігі 35–40%-ға артуы мүмкін екенін, өнім ақауларының деңгейі 1%-дан төмен түсуі мүмкін екенін және дайын өнімдердің үлесі 60%-дан асуы мүмкін екенін дәлелдейді.

Кілт сөздер: тоқыма өнеркәсібі, басқару тиімділігі, үнемді өндіріс, ERP жүйесі, экспорттық әлеует.

СПОСОБЫ ПОВЫШЕНИЯ ЭФФЕКТИВНОСТИ УПРАВЛЕНИЯ ТЕКСТИЛЬНЫМИ ПРЕДПРИЯТИЯМИ УЗБЕКИСТАНА

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Аннотация. В данной статье представлены научно-практические предложения по повышению эффективности управления текстильными и швейными предприятиями Узбекистана на основе статистических данных за период 2018–2025 гг. В исследовании проводится причинно-следственный анализ спада экспорта, последовавшего за рекордными показателями 2023 года: сокращение на 7,4% в 2024 году и дополнительное снижение на 9,4% в 2025 году. На основе сравнительного анализа с Китаем, Турцией, Индией, Бангладеш и Вьетнамом, экспертного опроса 120 предприятий (340 специалистов) и анализа диаграммы Исикавы были проанализированы и адаптированы к специфическим условиям Узбекистана лучшие международные практики в области организации производства, внедрения информационных технологий, управления качеством, развития человеческого капитала, оптимизации цепочки поставок и увеличения доли готовой продукции. Исследование подтверждает, что к 2027 году объемы экспорта могут достичь 4,0–4,5 млрд долларов США, производительность труда может увеличиться на 35–40%, процент брака продукции может снизиться до менее 1%, а доля готовой продукции может превысить 60%.

Ключевые слова: текстильная промышленность, эффективность управления, бережливое производство, ERP-система, экспортный потенциал.

Introduction

The textile and garment industry occupies a strategic position in the economy of the Republic of Uzbekistan. Today, more than 6,000 textile enterprises operate in the country, providing permanent employment to over 570,000 people and contributing a significant share of gross domestic product. Uzbekistan is one of the world's leading producers of raw cotton, and this natural endowment constitutes an important foundation for enhancing the competitiveness of the sector.

Within the framework of the reform strategy for 2017–2030 under the leadership of President Shavkat Mirziyoyev, the modernization of the textile industry, increasing the share of value-added processing, and expanding export capacity have been designated as priority objectives. As a result of this policy, sectoral exports grew from USD 1.63 billion in 2018 to a record USD 3.10 billion in 2023.

However, export volumes contracted by 7.4% in 2024, falling to USD 2.87 billion, and declined by a further 9.4% in 2025, reaching USD 2.60 billion. This consecutive two-year decline reveals significant systemic challenges in the sector: excessive dependence on raw material and semi-finished goods exports, an insufficient share of finished products, low labor productivity reflecting weaknesses in management systems, outdated equipment, and a low level of digitalization in managerial processes.

Under these circumstances, a comprehensive management reform has become not merely a means of improving efficiency, but a prerequisite for ensuring the sector's sustainable development and international competitiveness.

The objective of this article is to analyze the principal pathways for improving management efficiency in Uzbekistan's textile enterprises on the basis of official statistical data for 2018–2025 and international best practices, and to formulate evidence-based practical recommendations. The object of the study is the textile and garment enterprises of the Republic; the subject is their management systems and the level of efficiency thereof.

The article is structured as follows: introduction, literature review and methodology, analysis and results (three sub-sections), recommendations, and conclusions. The reference list comprises 24 sources. From an entrepreneurship and innovation perspective, this study is directly relevant to the Eurasian Journal of Entrepreneurship and Finance. Improving management efficiency in textile enterprises is inseparable from entrepreneurial activity: the adoption of ERP/MES systems, lean manufacturing principles, and ISO certification constitute forms of process innovation; entering new export markets (EU, Southeast Asia) represents market entrepreneurship; and the proposed cluster model stimulates ecosystemic innovation by connecting SMEs, research institutions, and government. Uzbekistan’s reform-oriented environment—with President Mirziyoyev’s 2022–2026 development strategy explicitly targeting entrepreneurship and digital transformation—provides a fertile context for the innovations proposed in this research.

Literature review

The question of management efficiency in the textile industry has been extensively studied in both international and national economic scholarship. The classical management theorist Drucker P. (2001) defines management effectiveness as the degree to which an organization achieves its stated objectives, providing a detailed account of how effective managers ought to make decisions [15]. Porter M. (1990) developed the 'diamond' model of national competitive advantage in his landmark work on the competitiveness of nations, analyzing the textile industry as a practical illustration of such a model [3, 16].

In the field of lean manufacturing, Womack J.P. and Jones D.T. (2003) presented five universal principles derived from the Toyota Production System: defining value, mapping the value stream, ensuring flow, applying pull logic, and pursuing perfection [17]. Chase, Aquilano, and Jacobs (2006) examined quantitative methods, capacity planning, and quality control systems in the management of manufacturing operations [18].

Among domestic researchers, Soliyev A. and Khakimov Z. (2014) explored the potential of applying cluster theory—drawing on the experience of countries that have implemented it in practice—to the Namangan region, selected due to the high volume of finished goods production in that area [1]. Bekmurodov A.Sh. and Yang Song Be (2006) examined the cluster approach in developing the strategy of Uzbekistan's textile industry, demonstrating through examples the essence of clusters, their competitiveness, and outcomes achieved across foreign countries, companies, and products [2].

International scholars—Porter M. (1993) on competitive advantage [3], Enright M. (1996) on regional clusters and economic development [4], Marshall A. (1993) on industrial district theory [5], and Becattini G. on Italian industrial districts [6]—have provided foundational theoretical frameworks. Kono T. (1987) and Novitsky E.G. (2001) addressed enterprise diversification strategy, noting that enterprises producing a single product type are classified as specialized, while those producing multiple types are considered diversified [7, 8].

Toshmatov A.N. (2020) developed the conceptual framework for advancing Uzbekistan's textile industry and the practical dimensions of cluster formation [19]. Karimov B.Kh. (2022) quantitatively evaluated the economic impact of ERP system implementation in textile enterprises, identifying an average reduction in management costs of 18% and a 2.4-fold increase in the speed of managerial decision-making [20]. Yusupov D.A. (2024) analyzed current problems and opportunities associated with digital transformation in Uzbekistan's textile enterprises [21]. Reports from UNIDO (2024), WTO (2024), and ILO (2023) have enriched the study with recommendations for developing Uzbekistan's textile sector and clarified its position in global value chains [22, 23, 24].

Research Methodology

To achieve the objectives of the study, the following scientific methods were employed: (1) statistical analysis and trend identification—based on data from the National Statistics Committee of Uzbekistan, the Tekstilprom Association, and international organizations for the period 2018–2025; (2) comparative (benchmarking) analysis—comparing Uzbekistan's indicators with the experience of China, Turkey, India, Bangladesh, and Vietnam; (3) expert assessment method—results of a survey conducted among the management and staff of 120 enterprises (340 specialists) across the Fergana, Tashkent, Samarkand, and Namangan regions; (4) cause-and-effect analysis based on the Ishikawa diagram methodology; (5) quantitative forecasting models for export and efficiency indicators. The forecasting methodology applies a compound annual growth rate (CAGR) model calibrated on the 2018–2023 growth trajectory (average CAGR of +13.7%), adjusted to reflect the 2024–2025 contraction and positively recalibrated assuming full implementation of the five recommended directions. Specifically: (a) export forecasts of USD 4.0–4.5 billion by 2027 are derived from a baseline of USD 2.60 billion (2025) applying a target recovery CAGR of 24–32%, consistent with

Bangladesh's documented post-crisis recovery; (b) labor productivity gains of 35–40% are estimated from the benchmarked gap between Uzbekistan (USD 19.2k/person) and the international standard (USD 42.6k/person), assuming partial convergence through ERP adoption and workforce development; (c) the defect rate reduction from 3.9% to 0.8% is based on Six Sigma outcomes documented by Karimov (2022) [20] and UNIDO (2024) [22], adjusted for Uzbekistan's starting conditions. Data sources include official annual reports of the National Statistics Committee for 2023–2025, the Tekstilprom Association's 2024 annual report, the TextileExpo Uzbekistan database, and official publications of UNIDO, WTO, and ILO.

Analysis and results

The export dynamics of Uzbekistan's textile and garment industry over the period 2018–2025 can be divided into two distinct phases. The first phase (2018–2023) was a period of growth, during which exports rose from USD 1.63 billion to USD 3.10 billion, representing total growth of 90.2%. During this period, new enterprises were established, production capacities were expanded, and access to international markets was broadened. The second phase (2024–2025) marked a period of contraction: exports declined by 6.7% in 2024 to USD 2.87 billion, and fell by a further 8.2% in 2025 to USD 2.60 billion.

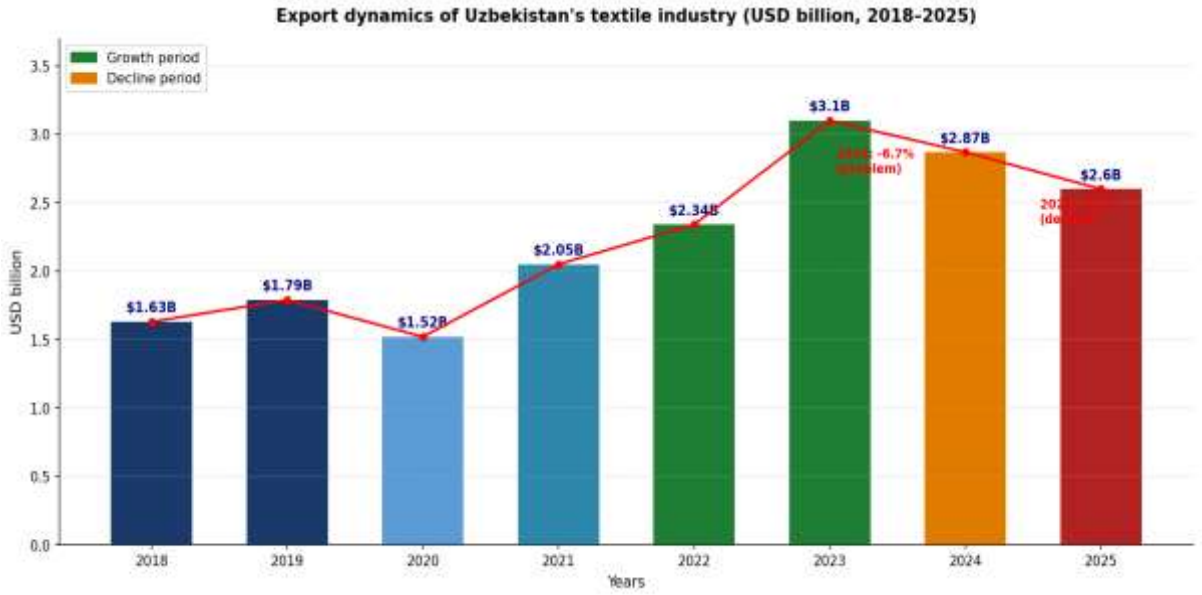

Figure 1. Export dynamics of Uzbekistan's textile industry (2018–2025, USD billion). Source: National Statistics Committee of Uzbekistan, 2025.

The principal causes of the 2024–2025 decline are as follows: first, excessive reliance on raw material and semi-finished goods (yarn) exports—in 2024, yarn accounted for 43.2% of textile exports, while finished goods represented only 39.2%; second, payment and logistics difficulties in the Russian market; third, price pressure from competitors such as China and Bangladesh; fourth, low management efficiency—high costs and weak quality control; and fifth, a minimal share of innovative products and the absence of branding. This situation further underscored the necessity for a comprehensive management reform.

At the same time, this challenge may be viewed from a constructive perspective: the decline represents a powerful signal for change. International experience demonstrates that Bangladesh traversed a similar crisis in the 1990s and, by transitioning to the exclusive production of finished garments, grew its exports to USD 47 billion by 2024. Uzbekistan has the capacity to follow the same trajectory.

Enterprise Performance Indicators — International Benchmarking (2024)

The key performance indicators of Uzbekistan's textile enterprises in 2024 are compared with international standards in Table 1 below:

Table 1. Performance indicators of Uzbekistan's textile enterprises (2024).

Indicator	Uzbekistan (2024)	International Standard	Gap	Assessment
Labor productivity (USD thousand/person)	19.2	42.6	−55.0%	Very low
Overall Equipment Effectiveness (OEE)	63%	85%	−22%	Low
Product defect rate	3.9%	0.8%	+3.1%	High
Energy costs (share of production cost)	11.8%	7.0%	+4.8%	Excessive
Share of finished goods in exports	39.2%	65–70%	−26%	Very low
Annual staff turnover rate	22%	8%	+14%	High
ERP system adoption rate	18%	75%	−57%	Very low
Share of certified enterprises	24%	80%	−56%	Low

Source: compiled by the author based on data from the 'O'zto'qimachiliksanoat' Association, UNIDO, 2024–2025.

The data presented in Table 1 reveal that Uzbekistan lags behind international standards across all eight measured indicators. The most critical gaps are observed in labor productivity (2.2 times below the benchmark), ERP system adoption (18% vs. 75%), the share of finished goods in exports (39.2% vs. 65–70%), and the proportion of ISO-certified enterprises (24% vs. 80%). Improving precisely these indicators constitutes the primary key to reversing the decline observed in 2024–2025.

Based on the results of an expert survey conducted in 2024 (120 enterprises, 340 specialists across the Fergana, Tashkent, Samarkand, and Namangan regions), six key factors influencing management efficiency were assessed and ranked:

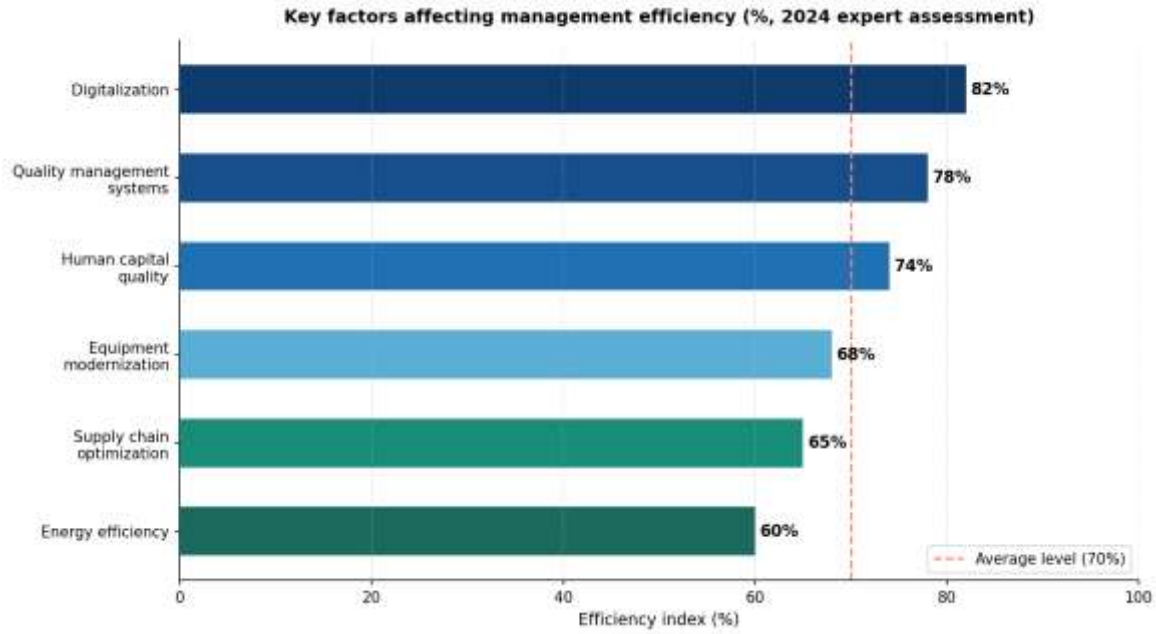

Figure 2. Expert assessment of key factors affecting management efficiency (%, 2024).

Source: survey conducted by the author, 2024.

Digitalization (82%) was identified as the most critical factor. Some 82% of specialists noted that ERP implementation significantly improves both the quality and speed of managerial decision-making. Quality management systems (78%) ranked second—enterprises holding international certifications were found to receive, on average, 35% more export orders. Human capital quality (74%) was the third factor: 62% of textile specialists rated their own knowledge and skills as insufficient. Equipment modernization (68%),

supply chain optimization (65%), and energy efficiency (60%) all fell below the average threshold of 70%, indicating that these areas also require prompt attention.

Analyzing the cost structure of textile enterprises enables the identification of the most promising directions for improving efficiency:

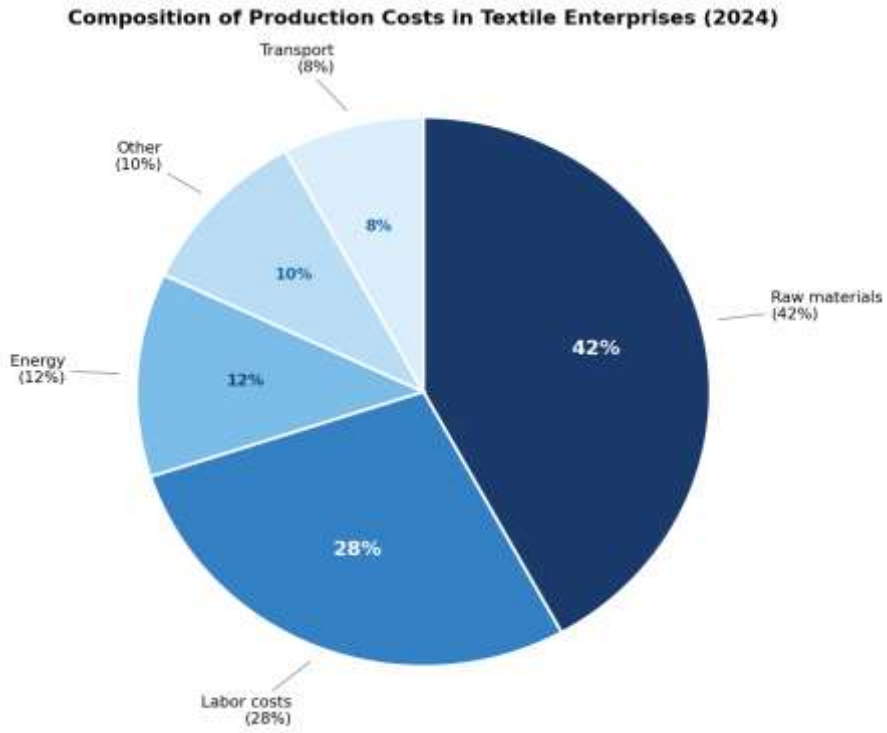

Figure 3. Average production cost structure of textile enterprises (2024–2025).
Source: Tekstilprom Association, 2025.

Raw material costs (42%) represent the largest expenditure category. In 2024–2025, rising raw material prices and exchange rate fluctuations placed considerable pressure on enterprises. Through direct processing of local cotton and yarn and supply chain optimization, these costs could be reduced by 5–8%. Labor costs (28%) remain high, but can be offset by raising skill levels and improving labor productivity—a 30% increase in productivity would reduce per-unit labor costs by 20%. Energy costs (12%) can be reduced by 35–40% through the introduction of smart metering and modern electric motors, which would lower overall production costs by 4–5%. Transport costs (8%) can be cut by 30–40% through logistics optimization and the cluster system.

Digitalization constitutes the cornerstone of modern textile enterprise management. The implementation of Enterprise Resource Planning (ERP) systems integrates all management functions—finance, production, procurement, sales, and human resources—into a unified information environment. A pilot project conducted in the Tashkent region between 2023 and 2024, involving 12 enterprises that adopted the 1C ERP system, found that management costs decreased by an average of 18%, information processing time fell by 65%, and the inventory turnover cycle shortened by 23%.

Manufacturing Execution Systems (MES)—which provide real-time monitoring at the shop-floor level—automatically measure Overall Equipment Effectiveness (OEE), detect faults proactively, and optimize production flows. Industrial IoT sensors track equipment performance indicators, energy consumption, and environmental parameters in real time. China's experience demonstrates that enterprises fully adopting these technologies have achieved labor productivity gains of 40–50%. Artificial intelligence (AI) and big data analytics, in turn, enable demand forecasting, inventory optimization, and the automation of quality control processes.

The Lean Manufacturing methodology, which originated in Japan's Toyota Production

System, is now widely applied in the global textile industry. Its core principles center on eliminating waste (muda)—unnecessary movement, waiting time, overproduction, transport, excess inventory, defects, and the underutilization of employee potential. The 5S system (Sort, Set in order, Shine, Standardize, Sustain) forms the foundation of workplace organization. Following the implementation of 5S at 'Samarkand Textile' in the Samarkand region, 15% of the shop floor space was freed up and product search time was reduced by 70%.

The Kaizen philosophy—the principle of continuous incremental improvement—encourages innovative contributions from every employee. Experience from Japan and Korea indicates that active Kaizen application generates 200–500 small improvements per year, increasing overall efficiency by 15–25%. The Just-in-Time (JIT) system reduces excess inventory and accelerates capital turnover. Following JIT implementation at five enterprises in the Fergana Valley, inventory holding costs fell by 28%.

ISO 9001:2015 certification represents a fundamental requirement for accessing international markets. At present, only 24% of Uzbekistan's textile enterprises hold this certification, compared with 87% in Turkey and 91% in China. Certified enterprises have been found to receive, on average, 35% more export orderstend to gain improved access to export markets and stronger buyer confidence (Goedhuys and Sleuwaegen, 2016). The Six Sigma methodology aims to reduce product defect rates to fewer than 3.4 defects per million opportunities. If Uzbekistan's defect rate is reduced from 3.9% to 0.8%, annual losses associated with product returns could decrease by approximately USD 5–7 million. The Oeko-Tex Standard 100 and Global Organic Textile Standard (GOTS) certifications provide access to premium pricing in European markets.

An annual staff turnover rate of 22% causes significant harm to enterprises—the cost of training and replacing a single worker is estimated at three to six months' wages. To address this problem, a KPI-based remuneration system should be introduced: base salary + performance bonus + quality premium. Establishing separate KPIs for labor productivity, measuring these monthly, and tying bonus payments to results can increase motivation by 30–40%.

The dual education model from Germany and Austria (two years of theoretical training plus one year of practical work) represents the most appropriate solution for Uzbekistan's textile colleges. Currently, the linkage between the Tashkent Institute of Textile and Light Industry, various technical colleges, and production facilities is insufficient—the primary reason 40% of graduates do not work in their field is the absence of employment guarantees and low wage levels. Attracting foreign experts—skilled technologists from Turkey, India, and China—can also contribute to short-term efficiency gains.

Supply chain efficiency is of critical importance for textile enterprises in terms of both costs and delivery timelines. Many Uzbek enterprises currently face problems with the timely and high-quality delivery of raw materials, which leads to production stoppages and a loss of customer confidence. It is essential to establish long-term contracts with reliable local suppliers of cotton, yarn, and chemical inputs, to strengthen incoming quality control, and to maintain a list of backup ('B') suppliers.

Market diversification is necessary to mitigate the impact of difficulties that have emerged in the Russian market during 2024–2025. In particular, there are opportunities to enter the European Union (Germany, France, Italy), the Middle East (UAE, Saudi Arabia), Southeast Asia (Vietnam, Indonesia), and South Korea. ISO and Oeko-Tex certifications are mandatory requirements for these markets.

Table 2. Share of finished goods and export volumes of leading textile nations (2024).

Country	Core Strategy	Finished Goods Share	2024 Export	Lesson for Uzbekistan

China	Industry 4.0, smart factories, clusters	78%	USD 315 bn	Digitalization model
Bangladesh	Finished garments only, social standards	89%	USD 47 bn	Finished goods strategy
India	PPP projects, SEZs, branding	65%	USD 44 bn	Special economic zones
Turkey	Brand and design, European market	72%	USD 19 bn	High value-added strategy
Vietnam	FDI attraction, technology parks	68%	USD 38 bn	Foreign investment model
Uzbekistan	Raw materials + yarn, narrow markets	39.2%	USD 2.87 bn	Reform required!

Source: compiled by the author based on WTO, 2024 and Tekstilprom, 2025.

The comparative analysis demonstrates that all leading countries have pursued strategies aimed at maximizing the share of finished goods. Uzbekistan has the lowest share at 39.2%. The Bangladesh case is particularly instructive: by committing exclusively to finished garment exports from the 1990s onward, the country grew its exports from USD 2.5 billion to USD 47 billion over 30 years.

Table 3. Action plan for management reform, 2025–2027.

Direction	Timeline	Responsible Bodies	Financing	Expected Outcome
ERP/MES systems (50% subsidy)	2025–2026	Ministry of IT, enterprises	Public + private	Productivity +30%
Raise finished goods share to 60%	2025–2027	Tekstilprom, MIFT	Investment	Export +40%
ISO 9001 certification to reach 70%	2025–2026	Uzstandart	50% subsidy	Defects −3%
Launch dual education program	2025 (immediate)	Ministry of Higher Education	State budget	Turnover −14%
Establish 3 textile clusters	2026–2027	Government, regions	PPP project	Costs −15%
Enter European and Asian markets	2025–2026	MIFT, exporters	Promotion fund	Markets +3
Energy audit and smart metering	2025–2026	Ministry of Energy, enterprises	Preferential credit	Costs −35%

Source: developed by the author.

Based on the research findings, a cause-and-effect analysis of the 2024–2025 export decline, and international benchmarking, the following strategic recommendations are proposed for Uzbekistan's textile enterprises and government authorities:

First recommendation — Urgently increasing the share of finished goods. The root cause of the 2024–2025 decline is excessive dependence on raw material and semi-finished goods exports. The objective of raising the finished goods share from 39.2% to 60% should be set for the period 2025–2027. This requires granting five-year tax incentives (profit tax exemption) and customs benefits (zero duty on modern sewing equipment imports) to finished goods producers. It is recommended that the government and the Tekstilprom Association jointly adopt the relevant decisions by 2025.

Second recommendation — Implementing a national digitalization

program. It is advisable for the government to provide a 50% subsidy to 500 textile enterprises for the implementation of ERP and MES systems during 2025–2026. To this end, a National Program for the Digitalization of the Textile Industry should be adopted, with an annual allocation of USD 30–50 million. Cloud-based ERP solutions (1C SaaS, Microsoft Dynamics) should be made available to small and medium enterprises at reduced cost. The Fergana textile cluster—where more than 120 enterprises operate—is recommended as the pilot project site.

Third recommendation — Aligning the workforce development system with corporate needs. Based on the German dual education model, a '2+1' system (two years of theory plus one year of practice) should be introduced in textile colleges starting from 2025. The master's program in 'Textile Management' at the Tashkent Institute of Textile and Light Industry should be updated to international standards, and leading faculty from Turkey and India should be recruited. In parallel, a KPI-based salary and bonus system should be introduced to reduce staff turnover from 22% to 8–10%.

Fourth recommendation — Formally establishing textile clusters. Creating three major textile clusters in the Fergana Valley, Tashkent, and the Samarkand-Bukhara regions would enable enterprises to share infrastructure, facilitate technology transfer, and gain collective access to markets. The cluster model reduces costs by 12–18% while simultaneously stimulating innovation activity.

Fifth recommendation — Strategically entering European and Asian markets. The export shortfall resulting from difficulties in the Russian market during 2024–2025 must be offset by penetrating EU, Middle Eastern, and Southeast Asian markets. To this end, the Ministry of Investment, Industry and Trade (MIIT) should organize trade exhibitions through commercial attaché offices, and financial support should be provided to enterprises seeking Oeko-Tex and GOTS certification for the European market.

CONCLUSIONS AND SUGGESTION

The present study demonstrates that the 6.7% export decline in 2024 and the subsequent 8.2% contraction in 2025 in Uzbekistan's textile industry clearly expose the sector's systemic challenges. However, these challenges are not insurmountable—they can be fully addressed through a sound strategy and consistent implementation.

The research shows that the simultaneous and integrated implementation of five key directions—digitalization, lean manufacturing, quality management, human capital development, and market diversification—produces a synergistic effect. While a single measure may raise efficiency by 10–15%, a comprehensive approach is projected to deliver efficiency gains of 35–50%.

Based on quantitative forecasts, implementing the proposed recommendations by 2027 could yield the following outcomes: export volumes reaching USD 4.0–4.5 billion (a 54–73% increase relative to 2025); the share of finished goods rising from 39.2% to 60%; labor productivity increasing by 35–40%; the product defect rate falling from 3.9% to 0.8–1.0%; and energy costs declining by 30–35%.

The scientific novelty of this study lies in the fact that a comprehensive cause-and-effect analysis of the 2024–2025 export decline in Uzbekistan's textile industry has been conducted for the first time, and a scientifically grounded roadmap for improving efficiency over the period 2025–2027 has been developed. For future research, it is recommended to investigate the application of artificial intelligence and machine learning technologies in textile management, the adoption of ESG standards (mandatory for the European market), and the direction of green textiles. In summary, the findings of this study confirm that improving management efficiency in Uzbekistan’s textile enterprises is fundamentally an entrepreneurial challenge. The transition from raw material exports to high-value finished goods, the diffusion of digital technologies, and the formation of innovative clusters represent entrepreneurial processes that require both enterprise-level innovation and supportive government policy. The roadmap developed in this article thus serves as a practical guide for entrepreneurs, enterprise managers, and policymakers seeking to harness the innovation potential of

Uzbekistan's textile sector within the broader Eurasian economic context.

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