MANAGING MARKETING RISKS IN GREEN PROCUREMENT: A VENDOR DEVELOPMENT MODEL FOR LARGE INDUSTRIAL ENTERPRISES

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Abstract*:This paper analyzes the marketing and economic risks arising during the transition to green procurement in large industrial enterprises. The study aims to identify the key risks associated with green procurement, assess their impact on enterprise performance, and propose an optimization model adapted to local market conditions. The research employs a systematic approach, risk management, marketing analysis, and supply chain management methods. The identified risks were assessed using a 5×5 matrix based on their probability and potential negative impact. The results indicate that greenflation received a risk score of 16, supplier shortages 15, greenwashing 12, and certification costs 8. The presented case study demonstrates that the rapid implementation of green procurement may increase dependence on imports and raise product costs by 22–28%. To mitigate these risks, a three-stage Vendor Development model comprising environmental auditing and segmentation, technical and marketing support, and phased certification is proposed. The model is designed to maintain the share of local suppliers, reduce the risk of supply chain disruptions, and support the systematic implementation of ecological transformation.*

Keywords: *green procurement, marketing risk, greenflation, supply chain, Vendor Development, ESG standards, greenwashing, environmental marketing, industrial transformation.*

Introduction: Current trends in global economic development require not only improvements in production efficiency but also reductions in environmental damage. Consequently, modernizing industrial enterprises in accordance with environmental principles has become one of the key directions of sustainable economic development. The modernization of Uzbekistan's strategic industries, including metallurgy, chemicals, mining, and energy, is also directly linked to green economy principles. Resolution No. PQ-436 of the President of the Republic of Uzbekistan identifies achieving carbon neutrality and improving energy efficiency in industrial sectors as priority objectives [1].

The implementation of international environmental standards and ESG principles in large industrial enterprises extends beyond upgrading production technologies. It also requires the restructuring of procurement policies, supplier relationships, and the entire supply chain in accordance with environmental requirements. According to the guidelines of the United Nations Global Compact and the OECD, an enterprise's level of sustainable development depends not only on its internal operations but also on the readiness of supply chain participants to meet environmental requirements [2].

The absence of ISO 14001 certification, CO_2 emissions accounting systems, and environmental management mechanisms among local suppliers complicates the implementation of green procurement. If large industrial enterprises abruptly impose a requirement to work exclusively with suppliers that comply with international environmental standards, the number of local suppliers may decline, raw material shortages may arise, and dependence on imports may increase. Consequently, production expenses and product costs may rise, reducing the price competitiveness of enterprises[3].

Furthermore, the falsification of environmental documentation by suppliers or discrepancies between their actual practices and reported information may create a risk of greenwashing. Such practices can negatively affect an enterprise's reputation in international markets, ESG ratings, and the confidence of foreign investors. Therefore, green procurement should be regarded not merely as an environmental requirement but as an integrated management process encompassing economic, marketing, and reputational risks.

This study aims to identify the main marketing risks arising from the implementation of green procurement in large industrial enterprises, assess their likelihood and potential negative impact, and develop approaches to optimizing these risks through a Vendor Development model focused on strengthening the capabilities of local suppliers. [4]

Materials and Methods

The study employed a systematic approach, marketing analysis, risk management, and comparative analysis methods. Risks associated with green procurement were assessed using a 5×5 matrix based on their likelihood and potential negative impact. As a case study, supply chains in Uzbekistan's chemical, metallurgical, and mining enterprises were examined. The effectiveness of a radical green procurement approach was also compared with that of the Vendor Development model.

Results

The analysis identified four major marketing risks associated with the implementation of green procurement in large industrial enterprises. The results of the risk assessment using the 5×5 matrix are presented in the following table.

Risk Type	Likelihood (1–5)	Negative Impact (1–5)	Risk Level
Greenflation	4	4	16 — High
Supplier Shortage	5	3	15 — High
Greenwashing Risk	3	4	12 — Moderate
Certification Costs	4	2	8 — Moderate

Table.1.

The highest score was assigned to the risk of "green inflation," which was rated at 16 points. The cost of environmentally friendly raw materials, energy-efficient technologies, and recyclable materials may be 15–40% higher than that of conventional alternatives. This may increase production costs and reduce the company's price competitiveness.

The shortage of suppliers was rated as a high risk, with a score of 15 points. The limited number of suppliers in the local market holding ISO 14001 and other environmental certifications may result in supply-chain disruptions and increased dependence on imports. [5]

The risk of greenwashing was assessed at 12 points. The unreliability of environmental documents provided by suppliers, or discrepancies between their actual practices and the information stated in these documents, may negatively affect the company's international brand reputation and ESG rating. Certification costs received a score of 8 points. The high cost of certification increases the risk of small and medium-sized suppliers being forced out of the market.

According to the results of the practical case study, more than 80% of local small and medium-sized suppliers lack both a CO_2 emissions accounting system and ISO 14001 certification. Under these conditions, the rapid implementation of green procurement may lead to a reduction in contracts with local suppliers and an increase in raw-material imports. Consequently, production costs may rise by 22–28%.

To mitigate the identified risks, a three-stage "Vendor Development" model was proposed. In the first stage, suppliers are subjected to an environmental audit and classified into groups based on their level of preparedness. In the second stage, they are provided with technical and marketing support. In the third stage, they are granted

a transition period of one to three years to obtain ISO 14001 or national environmental certification. This model can reduce the risk of supply-chain disruptions and help retain local suppliers. [6]

Discussion

The findings demonstrate that the implementation of green procurement generates not only environmental benefits but also economic and marketing risks. In particular, the high-risk ratings assigned to green inflation and the shortage of certified suppliers indicate that an abrupt transition to green procurement may not be effective for local industrial enterprises.

The limited number of local suppliers that meet environmental requirements may compel enterprises to rely on imported raw materials. This may increase production costs, disrupt supply chains, and reduce price competitiveness. Therefore, green procurement should be organized not merely as a process of selecting certified suppliers, but also as a mechanism for developing existing local partners.

The risk of greenwashing directly affects a company's reputation in international markets and its ESG rating. Therefore, verifying only the availability of environmental certificates is insufficient when evaluating suppliers. Their actual production processes, environmental performance, and the reliability of the information they provide should also be monitored.

The proposed "Vendor Development" model is designed to address these challenges gradually. Environmental audits make it possible to determine suppliers' actual level of preparedness; technical and marketing support facilitates their environmental transformation; and phased certification enables certification costs to be distributed over a specified period.

According to the comparative analysis, radical green procurement may increase raw-material costs by 15–40%. Under the "Vendor Development" model, however, the increase during the transition period is expected to remain at approximately 5–8%. Therefore, this model represents an appropriate approach to maintaining the share of local suppliers, reducing dependence on imports, and ensuring the sustainable improvement of the company's ESG performance.

Conclusion

The findings demonstrate that implementing green procurement in large industrial enterprises creates significant marketing and economic risks alongside environmental requirements. Green inflation, with a score of 16 points, and the shortage of suppliers, with 15 points, were identified as the most significant risks.

The absence of CO_2 emissions accounting systems and ISO 14001 certification among more than 80% of local suppliers complicates a rapid transition to green

procurement. Such an approach may increase dependence on imports and raise production costs by 22–28%.

To mitigate the identified risks, the application of a "Vendor Development" model consisting of environmental audits, technical and marketing support, and phased certification is recommended. This model can help retain local suppliers, reduce the risk of supply-chain disruptions, and ensure the sustainable improvement of enterprises' ESG performance. Therefore, green procurement should be implemented gradually, taking into account the capacities and conditions of the local market.

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