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THEORETICAL AND METHODOLOGICAL FOUNDATIONS FOR THE DEVELOPMENT OF GREEN PROCUREMENT MARKETING IN LARGE INTERNATIONAL INDUSTRIAL ENTERPRISES

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Abstract. This article examines the theoretical and methodological foundations for developing green procurement marketing in large international industrial enterprises. The strengthening of environmental requirements in the global economy, the need for the rational use of natural resources, and the widespread implementation of ESG principles in international business practices require industrial enterprises to reconsider their procurement policies. In this context, it is important to move from procurement based only on the lowest purchase price to a marketing-oriented approach that considers the product life cycle, energy efficiency, carbon footprint, and environmental responsibility of suppliers. The study employs systematic analysis, comparative analysis, benchmarking, generalization, and grouping methods. The experience of large international industrial enterprises in sustainable procurement, the requirements of the ISO 20400 standard, and ESG criteria are examined. As a result, the main principles for developing green procurement marketing are identified, and a methodological approach is proposed for evaluating suppliers according to economic, environmental, social, and marketing criteria. The proposed approach can reduce long-term procurement costs and risks, improve corporate reputation, and increase the investment attractiveness and competitiveness of industrial enterprises in international markets.

Keywords: green procurement, industrial marketing, procurement marketing, ESG principles, ISO 20400, sustainable supply chain, carbon footprint, supplier, investment attractiveness, competitiveness.

Annotatsiya. Ushbu maqolada xalqaro yirik sanoat korxonalarida “yashil xaridlar” marketingini rivojlantirishning nazariy va uslubiy asoslari tadqiq etilgan. Jahon

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iqtisodiyotida ekologik talablarning kuchayishi, tabiiy resurslardan oqilona foydalanish zarurati hamda ESG tamoyillarining xalqaro biznes amaliyotiga keng joriy etilishi sanoat korxonalarining xarid siyosatini qayta ko‘rib chiqishni talab qilmoqda. Shu nuqtai nazardan, xarid faoliyatini faqat eng past narx asosida tashkil etishdan mahsulotning hayotiylik davri, energiya samaradorligi, uglerod izi va yetkazib beruvchining ekologik mas’uliyatini hisobga oluvchi marketing yondashuviga o‘tish muhim ahamiyat kasb etadi. Tadqiqotda tizimli tahlil, qiyosiy tahlil, benchmarking, umumlashtirish va guruhlash usullaridan foydalanilgan. Xalqaro sanoat korxonalarining barqaror xaridlar sohasidagi tajribasi, ISO 20400 standarti hamda ESG mezonlari o‘rganilgan. Tadqiqot natijasida yirik sanoat korxonalarida “yashil xaridlar” marketingini rivojlantirishning asosiy tamoyillari aniqlanib, yetkazib beruvchilarni iqtisodiy, ekologik, ijtimoiy va marketing mezonlari asosida baholashga mo‘ljallangan uslubiy yondashuv taklif etilgan. Mazkur yondashuv korxonaning xaridlar bilan bog‘liq uzoq muddatli xarajatlari va risklarini kamaytirish, xalqaro bozordagi korporativ imijini yaxshilash, investitsiyaviy jozibadorligi hamda raqobatbardoshligini oshirishga xizmat qiladi.

Kalit so‘zlar: yashil xaridlar, sanoat marketingi, xaridlar marketingi, ESG tamoyillari, ISO 20400, barqaror ta’minot zanjiri, uglerod izi, yetkazib beruvchi, investitsiyaviy jozibadorlik, raqobatbardoshlik.

Аннотация. В статье исследованы теоретические и методические основы развития маркетинга «зелёных закупок» в крупных международных промышленных компаниях. Усиление экологических требований в мировой экономике, необходимость рационального использования природных ресурсов и широкое внедрение принципов ESG в международную деловую практику требуют пересмотра закупочной политики промышленных предприятий. В связи с этим особое значение приобретает переход от организации закупок исключительно на основе минимальной цены к маркетинговому подходу, учитывающему жизненный цикл продукции, энергетическую эффективность, углеродный след и экологическую ответственность поставщиков. В исследовании использованы методы системного и сравнительного анализа, бенчмаркинга, обобщения и группировки. Изучены опыт международных промышленных компаний в сфере устойчивых закупок, требования стандарта ISO 20400 и критерии ESG. В результате исследования определены основные принципы развития маркетинга «зелёных закупок» и предложен методический подход к оценке поставщиков на основе экономических, экологических, социальных и маркетинговых критериев. Предложенный подход способствует снижению долгосрочных закупочных затрат и рисков, улучшению корпоративного

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имиджа, повышению инвестиционной привлекательности и конкурентоспособности промышленных предприятий на международном рынке.

Ключевые слова: зелёные закупки, промышленный маркетинг, маркетинг закупок, принципы ESG, ISO 20400, устойчивая цепочка поставок, углеродный след, поставщик, инвестиционная привлекательность, конкурентоспособность.

INTRODUCTION.

Environmental sustainability, efficient resource use, and the reduction of the environmental impact of production are becoming increasingly important in the global economy. Climate change, limited natural resources, rising energy prices, and stricter environmental requirements are encouraging large industrial enterprises to reorganize their activities according to new economic and marketing principles. In this context, procurement and supply policies play an important role in ensuring sustainable development.

Traditional procurement systems usually focus on the lowest purchase price. However, this approach often ignores energy consumption, maintenance costs, waste disposal, environmental damage, and supplier responsibility. As a result, a product that initially appears cheaper may generate higher long-term costs and operational risks.

Green procurement means selecting products, services, and technologies based on economic, environmental, and social criteria. It considers the entire product life cycle, including production, transportation, use, maintenance, and disposal. Therefore, green procurement can help enterprises reduce costs, improve resource efficiency, lower environmental risks, and strengthen their corporate image.

Today, the competitiveness of large industrial enterprises depends not only on product quality and price but also on compliance with ESG principles. Investors, customers, and international partners increasingly consider supply-chain transparency, supplier responsibility, and environmental performance when evaluating companies.

Large international companies such as Rio Tinto, BHP, and Glencore already use environmental certificates, carbon emissions, energy efficiency, occupational safety, and corporate governance criteria in supplier selection. This transforms procurement from a routine operational function into a strategic marketing and management tool.[1]

Uzbekistan is also implementing reforms aimed at developing a green economy, improving energy efficiency, reducing industrial waste, and introducing

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international environmental standards. Nevertheless, procurement decisions in many large industrial enterprises are still mainly based on price and short-term economic benefits. Environmental responsibility, life-cycle cost, and carbon footprint are not yet sufficiently considered.

The purpose of this study is to examine the theoretical and methodological foundations of green procurement marketing in large international industrial enterprises and to develop proposals for evaluating suppliers according to economic, environmental, social, and marketing criteria.[2]

The main objectives of the study are to identify the economic role of green procurement, analyze international experience, assess the importance of ESG principles and ISO 20400, compare traditional and green procurement, and propose a multi-criteria supplier evaluation method.

The research object is the procurement and supply activity of large international industrial enterprises. The research subject includes the economic, environmental, social, and marketing relations arising in the development of green procurement marketing.[3]

The scientific significance of the study lies in considering green procurement as a separate direction of industrial marketing. Its practical significance is related to the use of the proposed recommendations for improving procurement policies, evaluating suppliers, and developing sustainable supply chains.

RESEARCH METHODOLOGY.

This study is based on a systematic analysis of the economic, environmental, and marketing processes related to the development of green procurement marketing in large international industrial enterprises. The research focuses on explaining the theoretical meaning of green procurement marketing, evaluating international experience, and developing methodological approaches suitable for industrial enterprises.

The study applies systematic analysis, comparative analysis, benchmarking, grouping, generalization, and multi-criteria evaluation methods. Systematic analysis was used to examine green procurement marketing in connection with corporate marketing strategy, supply-chain management, environmental policy, and investment attractiveness.

Comparative analysis was applied to identify the main differences between traditional and green procurement. The comparison covered purchase price, life-cycle costs, energy efficiency, environmental safety, supplier relations, logistics, and corporate reputation.

Benchmarking was used to study the sustainable procurement practices of large international companies such as Rio Tinto, BHP, and Glencore. Their

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environmental and social requirements for suppliers, procurement policies, ESG reports, and supply-chain management mechanisms were analyzed.[4]

The information base of the study included scientific literature, international standards, corporate sustainability reports, and regulatory documents related to green procurement, industrial marketing, sustainable supply chains, and ESG principles. ISO 20400:2017, *Sustainable Procurement — Guidance*, was used as the main methodological reference.

The Life Cycle Costing approach was applied to evaluate products and services economically. This method considers not only the initial purchase price but also delivery, installation, operation, maintenance, energy consumption, and disposal costs.

A multi-criteria supplier evaluation approach was proposed. The criteria were divided into four groups:

1. Economic criteria — purchase price, operating costs, maintenance expenses, and delivery costs.
2. Environmental criteria — energy efficiency, carbon emissions, recyclability, and environmental certification.
3. Social criteria — occupational safety, employee rights, and social responsibility.
4. Marketing criteria — market reputation, brand reliability, cooperation experience, and information transparency.

Each criterion was assigned a weight according to its importance. The supplier with the highest overall score was identified as the most suitable partner for green procurement.

The methodology also included a comparison of traditional and green procurement and the development of implementation stages, including procurement policy analysis, definition of environmental criteria, supplier evaluation, pilot procurement, and performance monitoring.

This methodology makes it possible to assess the impact of green procurement marketing on corporate costs, environmental performance, reputation, and investment attractiveness.[5]

RESULTS.

The analysis showed that green procurement marketing in large international industrial enterprises differs significantly from traditional procurement systems. Traditional procurement mainly focuses on the lowest price, short delivery times, and compliance with technical requirements. In contrast, green procurement also considers the entire product life cycle, energy efficiency, environmental safety, and the social responsibility of suppliers.

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Based on the research results, the main differences between traditional and green procurement marketing were systematized as follows.

Table 1

Comparative Characteristics of Traditional and Green Procurement Marketing

Analysis criterion	Traditional procurement	Green procurement marketing
Main objective	Purchasing at the lowest price	Creating long-term economic and environmental value
Procurement criterion	Initial purchase price	Life-cycle costs
Relationship with suppliers	Short-term and competition-based	Long-term strategic partnership
Product evaluation	Based on technical requirements and price	Based on economic, environmental, social, and marketing criteria
Logistics requirement	Minimum time and cost	Minimum carbon footprint and resource efficiency
Main documents	Technical specifications and commercial offer	Environmental declaration, ESG information, and certificates
Performance evaluation	Short-term savings	Long-term economic efficiency and corporate reputation

The table shows that purchase price is not the only criterion in green procurement marketing. Procurement decisions are based on the total cost of using a product throughout its life cycle and its environmental impact. Therefore, a product with a higher initial price may be more economically efficient if it is energy-efficient, durable, and recyclable.[6]

As a result of the study, four main groups of criteria were developed for supplier evaluation. Their recommended shares were determined as follows:

Table 2

Structure for Evaluating Suppliers Based on Green Procurement Criteria

Criteria group	Recommended share, %
Economic criteria	35
Environmental criteria	30

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Social criteria	15
Marketing criteria	20
Total	100

Economic criteria included product price, delivery costs, energy consumption, maintenance expenses, and disposal costs. Environmental criteria covered the product's carbon footprint, energy efficiency, recyclability, and the availability of environmental certificates. Social criteria included occupational safety, compliance with employee rights, and indicators of social responsibility. Marketing criteria consisted of the supplier's market reputation, brand reliability, information transparency, and previous cooperation experience.

During the study, a multi-criteria evaluation model was proposed for the development of green procurement marketing. Under this model, each supplier is rated from 1 to 5 points according to the selected criteria. Each score is then multiplied by the relevant weight coefficient, and the total result is calculated. The supplier with the highest overall score is identified as the most suitable partner for sustainable procurement.

The proposed evaluation system reduces the risks associated with selecting suppliers solely on the basis of price. For example, a supplier offering a lower price may provide a product with high energy consumption or a short service life. In such cases, the enterprise may face higher operating and maintenance costs in the future. Multi-criteria evaluation makes it possible to identify these hidden costs before a procurement decision is made.

The analysis of international industrial enterprises showed that supplier requirements should be clearly defined in advance to ensure the effective implementation of green procurement. These requirements should be included in procurement documents as environmental and social criteria, while suppliers should be required to provide relevant certificates and supporting information.

Based on the research results, the following stages for implementing green procurement marketing in large industrial enterprises were developed:

1. Analyze the enterprise's existing procurement policy.
2. Identify environmentally and economically significant procurement categories.
3. Establish green criteria and minimum requirements for suppliers.
4. Evaluate suppliers using a multi-criteria system.
5. Calculate the life-cycle costs of the selected product or service.
6. Conduct pilot green procurement projects.
7. Monitor results using economic, environmental, and marketing indicators.
8. Extend successful practices to other procurement areas.

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These stages allow green procurement to be introduced gradually rather than simultaneously across all areas. This approach helps reduce organizational costs and implementation-related risks.

The analysis also showed that green procurement marketing provides several economic and marketing advantages for large industrial enterprises. First, the use of energy-efficient and durable products reduces operating costs. Second, long-term cooperation with responsible suppliers lowers the risk of supply-chain disruptions. Third, compliance with environmental standards strengthens the enterprise's credibility among investors and international partners.

Green procurement marketing also improves the enterprise's market position. Companies with environmentally responsible procurement policies can promote their products as sustainable, safe, and responsibly produced. This contributes to stronger corporate brand value and creates an important advantage when entering new markets.

Overall, the research findings show that the development of green procurement marketing transforms procurement from a routine supply function into a strategic management tool that increases the long-term value of the enterprise.

DISCUSSION.

The research findings show that the development of green procurement marketing significantly changes the role of procurement in large international industrial enterprises. Unlike traditional procurement, which mainly focuses on the initial purchase price, green procurement considers long-term economic, environmental, and marketing outcomes. Therefore, it should be viewed as a strategic management tool rather than a routine supply function.

The proposed multi-criteria evaluation approach allows suppliers to be assessed according to economic, environmental, social, and marketing indicators. This helps enterprises identify hidden costs before making procurement decisions. A low-priced product may have high energy consumption, a short service life, or expensive maintenance requirements, which can increase long-term costs.

Life-cycle costing is therefore one of the main elements of green procurement. It considers purchase, delivery, installation, operation, energy use, maintenance, and disposal costs. This encourages enterprises to move from the principle of the lowest price to the principle of the best total value.

International experience shows that green procurement is most effective when environmental requirements are integrated into the overall corporate strategy. Procurement policy, marketing strategy, risk management, and investment planning should be coordinated. In large industrial enterprises, procurement

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decisions influence the entire value chain because they affect raw materials, equipment, production costs, and the environmental quality of final products.

The proposed model gives the greatest weight to economic criteria, showing that green procurement is not opposed to economic interests. It supports cost optimization, profitability, and long-term risk reduction. At the same time, environmental criteria remain important because stricter climate regulations and carbon-related requirements are increasing the responsibility of enterprises for their supply chains.

Green procurement marketing may also improve investment attractiveness. Investors and financial institutions increasingly evaluate ESG performance together with financial results. The inclusion of environmental and social criteria in procurement policy can therefore strengthen corporate credibility and demonstrate effective risk management.

However, several challenges may arise. Environmentally preferable products may have higher initial prices, some suppliers may lack ESG reports or environmental certificates, and procurement staff may not have sufficient knowledge of life-cycle costing and environmental evaluation. For this reason, green procurement should be introduced gradually, beginning with procurement categories that have high energy consumption or significant environmental impact.

Long-term cooperation with suppliers is also important. Enterprises should not only impose environmental requirements but also support suppliers through training, technical assistance, and joint innovation projects. This can create stronger and more reliable strategic partnerships.

For industrial enterprises in Uzbekistan, green procurement marketing is particularly important for integration into international markets. This is especially relevant for mining, metallurgy, energy, and mechanical engineering, where environmental requirements for exported products are becoming stricter.

The study has some limitations. The proposed criteria and weights are general and should be adapted to the size, sector, and strategic priorities of each enterprise. Future studies should test the model using empirical data, expert surveys, and economic calculations from specific industrial enterprises.

Overall, green procurement marketing can provide economic efficiency, environmental responsibility, and competitive advantage at the same time. Its success depends on integration with corporate strategy, clear evaluation criteria, and continuous performance monitoring.

CONCLUSION.

The study showed that green procurement marketing is an important direction of modern industrial marketing in large international enterprises. Unlike

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traditional procurement, it considers not only the initial purchase price but also the economic, environmental, and social effects of a product or service throughout its life cycle.

The research explained the theoretical foundations of green procurement marketing, analyzed international industrial experience, and proposed a multi-criteria supplier evaluation approach. This approach combines economic, environmental, social, and marketing indicators and improves the quality of procurement decisions.

The findings indicate that green procurement can reduce energy and operating costs, lower environmental and operational risks, strengthen supply-chain stability, and improve corporate reputation. It can also increase the confidence of investors and international partners and support the investment attractiveness of enterprises.

Based on the research results, the following recommendations are proposed:

1. Procurement policies should be based on total life-cycle value rather than only the lowest purchase price.
2. Procurement documents should include criteria related to energy efficiency, carbon footprint, environmental certification, recyclability, and supplier social responsibility.
3. Enterprises should introduce a multi-criteria supplier evaluation system covering economic, environmental, social, and marketing indicators.
4. Sustainable procurement policies should be developed in accordance with ISO 20400:2017.
5. Procurement employees should receive training in green procurement, ESG criteria, and life-cycle costing.
6. Green procurement should first be tested in product categories with high energy consumption and significant environmental impact, and successful practices should later be extended to other areas.
7. Long-term strategic cooperation with suppliers should be strengthened through training, technical support, and joint environmental programs.
8. Green procurement performance should be regularly assessed using indicators such as cost savings, energy consumption, waste volume, supplier reliability, and corporate reputation.
9. Procurement and supply-chain indicators should be included in corporate sustainability and ESG reports.
10. Sector-specific guidelines should be developed for green procurement marketing in Uzbekistan’s mining, metallurgy, energy, and mechanical engineering industries.

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In conclusion, green procurement marketing transforms procurement from a routine supply function into a strategic tool for value creation. Its effective implementation can support long-term economic stability, environmental responsibility, and international competitiveness.

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