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ПОБУДОВА БРЕНДУ МОДНОГО ОДЯГУ НА ПРИНЦИПАХ СТАЛОГО РОЗВИТКУ

У статті досліджено теоретичні та практичні засади формування бренду модного одягу на принципах сталого розвитку. Проаналізовано сучасні підходи до сталого брендингу, зокрема концепції slow fashion, економіки замкненого циклу та міжнародні стандарти екологічної сертифікації. Узагальнено поведінкові чинники, що впливають на лояльність споживачів до сталих брендів, а також визначено ключові бар'єри впровадження сталих практик у fashion-індустрії. Особливу увагу приділено характеристиці текстильних матеріалів із позиції їх екологічного впливу та можливості переробки. Наведено порівняльний аналіз переробки основних волокон і систематизовано конструктивні принципи створення сталого одягу, такі як модульність, ремонтпридатність, zero-waste дизайн, моно-матеріальність та довговічність. На основі узагальнених вимог розроблено колекцію чоловічого одягу, що відображає можливості практичного застосування еко дизайн-підходів. Результати продемонстрували, що інтеграція екологічних матеріалів, відповідальних технологій та продуманої конструкції дозволяє підвищити функціональність, зменшити ресурсомісткість та продовжити життєвий цикл виробів. Дослідження підкреслює необхідність комплексного підходу до сталого брендингу, який охоплює не лише продукти і матеріали, а й комунікацію, виробничі процеси, поведінкові аспекти та бізнес-моделі.

Ключові слова: сталий брендинг; циркулярна економіка; еко дизайн; модульність одягу; екологічний слід.

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BUILDING A FASHION BRAND BASED ON SUSTAINABLE DEVELOPMENT PRINCIPLES

The article examines the theoretical and practical foundations of building a fashion brand on the principles of sustainable development. It analyzes contemporary approaches to sustainable branding, including the concepts of slow fashion, the circular economy, and international environmental certification standards. The study summarizes behavioral factors that influence consumer loyalty to sustainable brands and identifies the key barriers to implementing sustainable practices in the fashion industry. Particular attention is paid to the characteristics of textile materials in terms of their environmental impact and recyclability. A comparative analysis of the recyclability of major fiber groups is presented, and design principles for sustainable garments are systematized, including modularity, repairability, zero-waste design, mono-materiality, and durability. Based on these principles, a men's clothing collection was developed, demonstrating the practical application of eco-design solutions. The results show that integrating eco-friendly materials, responsible technologies, and carefully considered construction can improve functionality, reduce resource intensity, and extend the product life cycle. The study highlights the necessity of a holistic approach to sustainable branding that encompasses not only the product and materials, but also communication, production processes, consumer behavior, and business models.

Keywords: sustainable branding; circular economy; ecodesign; clothing modularity; ecological footprint.

Problem Statement. The contemporary fashion industry is one of the most dynamic yet at the same time one of the most environmentally intensive sectors of the global economy. According to international organizations, clothing production entails significant consumption of water and energy and is a major source of environmental pollution due to the generation of textile waste and greenhouse gas emissions. These challenges shape a new global demand – the creation of brands that reflect the principles of sustainable development and minimize their negative impact on the environment.

Under these conditions, sustainable branding is becoming a strategic tool for ensuring the competitiveness of companies. Consumers increasingly prefer products with a transparent origin that comply with ethical standards and demonstrate a responsible attitude toward resources. However, building a sustainable brand is a complex process that requires aligning the environmental, social, and economic dimensions of a company's activities.

Analysis of Recent Research and Publications. The main branding strategies in sustainable fashion business include positioning through slow fashion, emphasizing material provenance, ethical working conditions, and service components (repair/upcycling). This is confirmed by studies that consider slow fashion as a communication strategy and a tool for brand positioning [1].

From the perspective of marketing and consumer behavior, research indicates that the perception of sustainability strengthens purchase intention in certain segments, but the effect depends on trust in labels/certifications and on consumers' willingness to pay a price premium. At the same time, there is a pronounced gap between environmental awareness and actual behavior (the attitude-behavior gap) [2]. A number of publications emphasize the importance of communication and trust [3]. Third-party certificates and indicators can enhance credibility, yet some tools (such as the Higg MSI) are criticized for their methodology, which generates risks of greenwashing and distrust. Therefore, brand communication must be transparent and evidence-based.

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In terms of business models and profitability, the shift to a sustainable model requires rethinking the value chain. Some studies demonstrate potential pathways to profitability (revenue diversification, service-based models, local production). However, the issue of long-term financial sustainability for small and medium-sized brands remains unresolved [4]. Research on design and circularity highlights design as a driver of change (durability, repairability, modularity) and stresses the importance of integrating circular practices into product strategy as a prerequisite for the practical implementation of a sustainable brand [5].

The review of the state of the art reveals a number of gaps and unresolved issues in relation to sustainable fashion brands.

First, the problem of standardized impact metrics for fashion brands remains unresolved. There is no widely accepted, industry-specific system for assessing “brand sustainability,” which complicates cross-brand comparison and communication with investors and consumers [6]. The review also identifies the local (Ukrainian) context as a research vacuum. Most empirical studies focus on Western Europe, Asia, and the United States; there is a lack of research on Ukrainian consumers, local supply chains, policy and economic barriers, and cultural factors in brand building under post-conflict/war conditions. The relevance of such directions is confirmed in international benchmarks [7] and in a small number of Ukrainian studies [8].

Second, the long-term profitability of small sustainable brands has not been convincingly demonstrated. It remains unclear which business models actually generate profit in different market segments, as there are not enough randomized empirical studies [9]. Open questions persist as to why conscious intentions do not translate into purchases (price, availability, status codes of fashion) and which brand practices can change this situation [10].

There is existing research on communication in social networks, but there is a lack of systematic experiments comparing specific tactics (storytelling, evidence-based documentation, AR links to life cycle assessment (LCA) results) in terms of their impact on consumer behavior [11]. Environmental metrics are relatively widespread, while social aspects are often communicated in a merely declarative manner; there is a shortage of transparent data and documented case confirmations [12]. Cross-national comparisons are also lacking regarding how public policies (taxation, incentives, standards) influence the opportunities for building a sustainable brand [13].

A number of publications outline potential directions for further research in this field. In particular, authors propose comprehensive case studies of Ukrainian brands [14]. There is a need for comparative analysis of incentives and barriers for brands in Eastern European countries (including Ukraine) and their impact on the pace of transition to sustainable models [15].

Task formulation. The aim of this study is to investigate the theoretical and practical foundations of building a fashion brand based on the principles of sustainable development and to identify the key sustainable branding tools in the contemporary fashion industry.

The research objectives are as follows:

- to analyze the essence of sustainable branding in the context of the fashion industry;
- to systematize the approaches and standards applied in sustainable fashion;
- to examine practical tools for building sustainable brands;
- to identify behavioral factors influencing consumer loyalty to sustainable brands;
- to determine the barriers and prospects for the development of sustainable branding.

Presentation of the Main Material.

Theoretical Foundations of Building a Brand on the Principles of Sustainable Development.

Sustainable development in the fashion sector implies producing goods with minimal negative impact on the environment, as well as treating all people involved in the value chain responsibly. This includes the use of eco-friendly materials, optimization of energy consumption, innovative recycling technologies, fair working conditions, and process transparency.

Sustainable branding is the process of building a brand that integrates marketing activities with the values of responsible consumption and ethical business conduct. Its foundations include: environmental performance (eco-friendly materials, low-impact production); social responsibility (fair working conditions, fair remuneration); ethics (supply chain transparency, absence of exploitation); and economic efficiency (product durability, minimized costs of recycling and disposal).

International standards and practices show that the key global concepts include: Sustainable Fashion – an approach to design and production that reduces the environmental footprint; Circular Economy – a closed-loop model in which products are created with their subsequent recycling in mind; and certifications such as GOTS, Fair Trade, and OEKO-TEX, which ensure transparency and quality control at all stages of production.

The value model of a sustainable brand presupposes a harmonious combination of four components: environmental, social, ethical, and economic. A brand built on these foundations fosters lasting consumer trust and a positive reputation.

The practical aspects of forming a sustainable fashion brand consist of a series of stages and steps. The sustainable product development stage [16] is based on the use of organic or recycled materials; low-impact dyeing technologies; eco-design that extends the life cycle of garments; and modular or transformable designs that reduce the amount of waste generated.

The communication strategy of a sustainable brand should be based on openness regarding materials and suppliers; an evidence-based approach (infographics, eco-labels, reports); and positioning the brand as a bearer of a social mission.

Transparency and traceability make it possible to follow the product's journey from raw material to finished garment. This strengthens consumer trust and is a key factor in combating greenwashing. Elements of social responsibility in the fashion industry include ensuring fair wages; rejecting exploitation and child labor; supporting local manufacturers; and establishing ethical standards for interaction.

A sustainable brand uses storytelling to demonstrate its values, mission, and concrete actions. Eco-labeling confirms compliance with international standards.

The interaction of a sustainable brand with consumers is determined by a number of factors, among which one of the most important is consumer behavioral trends. Contemporary generations tend to prefer brands with a clear social and environmental stance. They evaluate not only the product itself but also the story behind its creation.

The key loyalty factors are determined by the following indicators: transparency of the company's activities; high quality and durability of products; consistency with declared values; and authenticity of communication. In the fashion segment, effective tools for engagement include educational content on the environmental impact of textile production; user-generated content and the creation of communities of responsible consumers; as well as take-back and reuse programs for clothing.

Among the main barriers to the development of a sustainable brand are the high cost of eco-friendly materials, insufficient recycling infrastructure, low consumer awareness in some countries, and the risks of greenwashing, which undermine trust in sustainable brands as a whole.

Practical Directions for Implementing Sustainable Brands

The practical directions for implementing sustainable brands encompass environmental, economic, social, technological, and communication-related actions. A successful sustainable brand is not only an environmentally safe product, but also a comprehensive strategy that transforms the business model, corporate culture, and interaction with consumers.

In sustainable clothing production, the most significant are organic natural fibers, recycled synthetic materials, and novel biomaterials that reduce environmental impact. The choice among them depends on the market segment: everyday wear, sportswear, premium fashion, or the vegan segment.

Indicators of resource efficiency and circularity of textile materials determine their recyclability, in particular the percentage of material that can be reused or recycled. The values of this parameter for different materials are presented in Fig. 1.

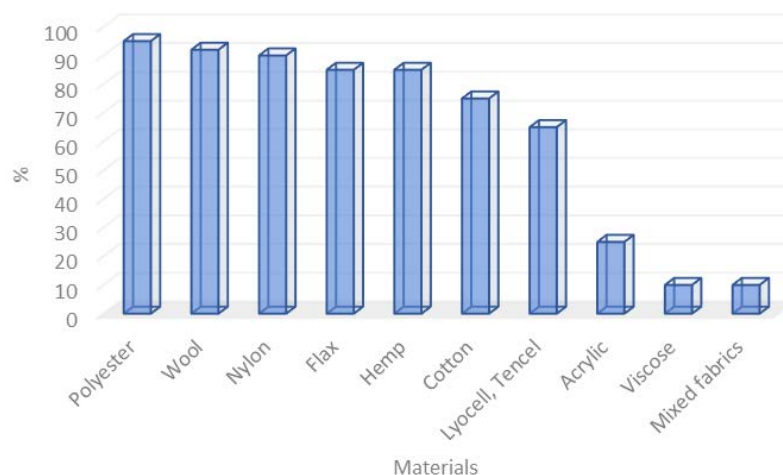


Fig. 1. Comparison of the recyclability of textile materials

When designing garments on the principles of sustainable development, it is advisable to take into account the use of detachable, easily replaceable trimming and hardware elements, as well as segmented components.

In creating such garments, it is recommended to consider the principles of modularity; construction solutions that facilitate recycling; low-waste (zero-waste) design; versatile and durable cuts; designs that are easy to care for; and the possibility of reusing individual components [17].

The requirements for designing clothing based on the principles of sustainable development are presented in Table.

Table

Design features of sustainable clothing

Group of design features	Example of design solution	Explanation
1. Ease of repair	Detachable cuffs and collars	Allow easy replacement of the most wear-prone components.
	Externally sewn zippers	The zipper can be replaced quickly without complex disassembly of the garment.
	Patch pockets sewn on top of seams	Easier to re-stitch or replace without affecting the main construction.
2. Modularity and transformability	Jacket with detachable sleeves	Converts into a vest, increasing functionality.
	Convertible trousers	The lower part of the legs can be removed, turning the trousers into shorts.
	Removable insulating linings	Allow the garment to be used in different seasons.
3. Facilitated recycling	Single-material garment (mono-material)	Simplifies sorting and textile recycling.
	Minimal amount of hardware/trims	Fewer components make the garment easier to disassemble into parts.
	Avoidance of complex composite fabrics	Reduces problems with separating fibers during recycling.
4. Zero-waste construction	Rectangular or simple geometric pattern pieces	Pattern layouts use fabric efficiently, minimizing cutting waste.
	Garments designed using the “envelope cutting” method	Pattern pieces are cut as a single surface with minimal off-cuts.
5. Durability and versatility	Adjustable volume (drawstrings, casings)	A single garment can fit different body types and “grow” with the wearer.
	Double or reinforced seams	Increase the service life of the garment.
	Classic or minimalist cut	Reduces the risk of the item becoming aesthetically outdated.
6. Easy care	Flat seams	Accumulate less dirt and are easier to iron.
	Detachable lining elements	The lining can be washed separately from the outer garment.
7. Reuse of components	Standardized pocket and flap sizes	Can be transferred to other garments or reused.
	Detachable hardware (screw-on buttons, carabiners)	Enables the reuse of metal components.

Based on the table, a design prompt was formulated for developing a clothing collection on the principles of sustainable development: “Design a men’s clothing collection (a jacket and trousers) based on sustainable development principles. The garments should feature detachable cuffs and collars, externally sewn zippers, patch pockets sewn on top of seams, a jacket with detachable sleeves, convertible trousers, removable insulating linings, pattern pieces of rectangular geometric shape, garments designed using the

envelope-cutting method, adjustable volume (drawstrings, casings), double or reinforced seams, and a classic or minimalist cut.”

The results of creating this collection are presented in Fig. 2.



Fig. 2. Clothing collection designed on sustainable development principles

As a result of analyzing the clothing collection shown in Fig. 2 from the standpoint of sustainable development – with an emphasis on durability, functionality, minimalism, and the potential environmental friendliness of materials and production – the following conclusions can be drawn.

All four looks are built around concise, basic silhouettes: short jackets, straight trousers, and neutral footwear. Such aesthetics are key for a sustainable wardrobe, as they do not go out of style quickly, are easy to combine with other garments, and require less frequent replacement.

The appearance of the jackets and trousers suggests dense nylon or recycled polyamide, i.e. technical fabrics with water-repellent finishes. The more natural tones are characteristic of outdoor brands that employ sustainable approaches (for example, through the use of recycled materials).

Color harmony as an element of a conscious wardrobe is defined by several factors. The palette includes dark blue, olive, brown, and black. These are universal, nature-inspired colors that are independent of short-term trends, conceal signs of wear, and reduce the need for frequent purchases of new items. Such colors are fundamental to the concept of a capsule wardrobe.

The looks are constructed by combining versatile trousers (straight or relaxed), basic layers (T-shirts, sweaters), and jackets with technical details. This creates multifunctional clothing suitable for wearing in the city, in nature, and in everyday situations. The more usage scenarios can be developed for a garment, the more sustainable the wardrobe becomes.

The clothing appears to be oriented toward modularity and layering, which allows adaptation to different weather conditions, reduces seasonality, and diminishes the need to buy highly specialized items for particular environments. The silhouettes and design approach are reminiscent of brands that typically use responsible supply chains, adhere to ethical labor standards, and minimize production waste.

The outfits in the photos align well with sustainable development principles thanks to minimalist design, universal colors, potentially functional and durable materials, multifunctionality and layering potential, and their compatibility with the idea of a capsule wardrobe. Even without brand information, it can be stated that the silhouettes and composition correspond to the contemporary concept of conscious fashion.

Conclusions. In the course of the study, the theoretical foundations for building a fashion brand on the principles of sustainable development were defined, and practical tools that ensure environmental performance, social responsibility, and economic efficiency in the fashion business were analyzed. A review of recent scientific sources showed that sustainable branding is becoming a key strategic direction in the development of the global fashion industry. However, this process is accompanied by a number of

challenges, ranging from the lack of transparent metrics of environmental impact to limited recycling infrastructure and the risks of greenwashing.

It has been demonstrated that an effective sustainable brand is based on a comprehensive value system that includes environmentally friendly materials, transparent supply chains, ethical working conditions, durability-oriented design, and responsible communication with consumers. The synthesis of international practices (Circular Economy, Slow Fashion, GOTS, OEKO-TEX, etc.) has shown that standards have become an integral element in strengthening brand trust and a tool for reducing the environmental footprint of products.

The analysis of textile materials confirmed that raw material selection is critically important for a sustainable brand. Natural organic fibers, recycled synthetic materials, and novel biomaterials demonstrate the best recyclability indicators and the lowest environmental impact. The comparative analysis (Fig. 1) revealed significant differences between material groups and made it possible to identify those most suitable for circular production models.

An important practical component of the study was the development of design solutions that ensure garment longevity and reparability: modularity, detachable elements, simplified recycling of mono-materials, zero-waste cutting technologies, and the possibility of reusing trims and components. The presented collection demonstrates how eco-design principles can be integrated at the levels of silhouette, construction, and functionality. The analysis of the looks confirmed that minimalist design, a universal color palette, technical fabrics, and the ideology of a capsule wardrobe help increase product resilience and extend the life cycle of garments.

Thus, the results of the study allow us to assert that a successful sustainable brand in the fashion industry requires not isolated environmental measures, but a holistic systemic approach that encompasses the product, the production process, the business model, and communication. The proposed recommendations, construction principles, and design outcomes can be used to create new collections, to develop educational programs in eco-design, and as practical guidelines for Ukrainian brands seeking to integrate the principles of sustainable development into their activities.

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