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Theoretical and Methodological Foundations of E-Commerce Development for the Fashion Industry

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Abstract: ***This article examines the theoretical and methodological framework for the development of e-commerce in the fashion industry using the example of the Ozon marketplace and comparable platforms. The research aims to conduct a comparative analysis of service models (FBO and FBS), assess the economic and logistical parameters of unit economics, identify factors influencing the commercial success of sellers in the fashion category, and determine the role of visual content and ranking algorithms in reducing return rates and increasing conversion. The relevance is driven by the rapid growth of fashion sales in online trade, the high level of returns (30 – 45%), changes in consumer habits, and the necessity of improving platform mechanisms for recommendations, logistics, and financial models. The novelty of the research lies in the integrated application of methodological approaches: a comparative analysis of FBO and FBS schemes, taking into account commissions, delivery, and return tariffs; and a statistical examination of refusal reasons based on data from E-pepper, Guru Seller, and Kommersant. The main conclusions show that a two-sided marketplace platform provides cross-sided network effects and audience scale. The balance between storage costs and delivery speed determines the choice between FBO and FBS. High-quality visual content and transparent descriptions contribute to reducing return rates and strengthening reputation, while ranking algorithms and participation in promotional campaigns shape organic and controlled traffic. The synergy of internal platform tools and external influencer marketing creates a continuous flow of targeted buyers and provides ongoing monitoring of market mechanism changes. This article will be helpful for researchers and practitioners of electronic commerce, marketplace managers, and fashion brands seeking to optimize online sales strategies.***

Keywords: e-commerce, fashion industry, marketplace, platform economy, Ozon

1. Introduction

Over the past five years, marketplaces have established themselves as the primary growth driver of Russian online trade, with the share of the fashion category in their turnover growing at an accelerated pace: according to [1], by the end of 2024 more than half of clothing and footwear sales—53%—were attributable to the online channel, whereas a year earlier the figure stood at 42%. This shift reflects changes in consumer habits, supported by delivery convenience, assortment expansion, and the development of rapid try-on and return services.

The locomotive of this process is Ozon, where the Fashion category in 2024 showed a turnover increase of 86% compared to 2023; the number of active sellers reached 274, 000, and the number of buyers exceeded 35.7 million [2]. The rapid market scale compels the platform to refine recommendation algorithms and logistics chains, which in turn enhances the platform's attractiveness for both brands and independent sellers.

However, the specifics of fashion assortment online create unique challenges. Return rates for clothing and footwear on marketplaces range from 30% to 45%, more than double the average for e-commerce, with key reasons including size errors, discrepancies in expected color and style, and subjective quality assessment. High returns increase processing and logistics costs, making accurate size charts, quality photographs and videos, and transparent descriptions critical, and requiring platforms to adopt a flexible financial model that compensates sellers for additional expenses [3]. In the context of these trends, this research aims to analyse the operational models of fashion-category sellers on marketplaces and identify the factors determining their commercial success using the example of Ozon.

2. Literature Survey

The investigation of theoretical and methodological foundations for the development of e-commerce in the fashion industry is based on the analysis of 21 sources, including industry reports by Accent [1] and New Retail [2] on dynamics of fashion-category sales, return statistics from E-pepper [3] and Guru Seller [7], Data Insight data on order distribution between Wildberries and Ozon [5], an IMARC Group forecast on the scale of Russian e-commerce [21], as well as internal Ozon documents: the FBO scheme [9], commission structures [10], [11], differences in FBO and FBS calculations [12], ranking algorithm for product cards [13], promotional campaign conditions [14], reverse logistics tariffs [16, 19] and Kommersant materials on the impact of returns on seller reputation [17]. The theoretical foundation comprised platform economy and two-sided market concepts [4], research on fashion-segment seasonality [6], and studies on visual content, such as the Betrendy Wear case [8] and virtual try-on technologies analysis [20].

3. Methods

Methodologically, the study combined the following approaches: comparative analysis of FBO and FBS fulfilment models with unit-economics calculations, taking into account commissions, delivery and return tariffs [9, 10, 11, 12, 16, 19]; statistical analysis of return rates and refusal reasons on marketplaces based on E-pepper, Guru Seller and Kommersant data [3, 7, 17]; systematic review of Ozon's ranking algorithms and promotional campaigns based on official platform documentation [13, 14, 18]; content analysis of product cards and user reviews, including evaluation of the visual component and its influence on conversion and return rates [8, 15, 20].

4. Results and Discussion

A marketplace constitutes a digital two-sided platform that connects independent sellers and buyers on a unified technological infrastructure. In contrast, the platform itself, unlike a classical online store, does not own inventory but acts as an intermediary, monetizing traffic and transaction processing services. The economic theory of two-sided markets emphasizes that the value of such a platform is derived from cross-sided network effects, when growth on one side enhances utility for the other [4].

In modern online commerce, marketplaces have become a system-forming channel: according to Data Insight, in the second half of 2024, Wildberries and Ozon accounted for 56% and 21% of all placed orders, respectively, i. e., collectively 77% of Russian e-commerce traffic, and their share in turnover reached 53% [5]. Such concentration is explained by the fact that the platform model offers sellers audience scale and a ready-made logistics network, and buyers a wide choice, rapid delivery, and unified service standards, which creates a barrier for traditional mono-brand online storefronts. At the same time, the Russian e-commerce market was estimated at USD 63.80 billion in 2024 and is forecast to grow to USD 142.62 billion by 2033 at a CAGR of 8.88% for the period 2025 – 2033, as shown in Fig. 1 [21].

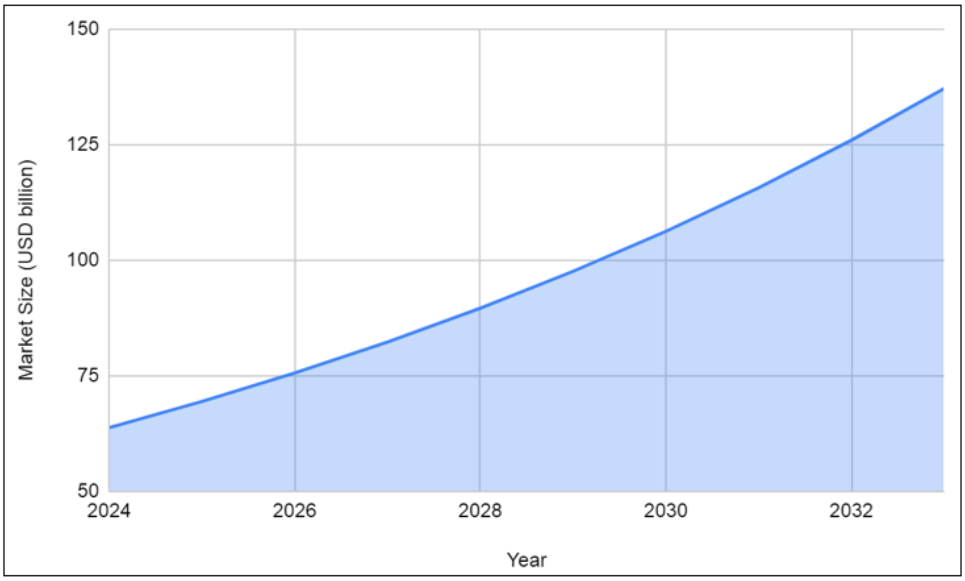

Figure 1: The Russian e-commerce market size [21]

The fashion category on marketplaces has several specific characteristics. First, pronounced seasonality: demand for clothing and footwear peaks in October – December and predictably declines in January, February, and June, requiring sellers to plan stock precisely and manage pricing flexibly [6]. Second, return rates are substantially higher than the market average: analytics for Ozon and Wildberries show that the share of unfulfilled orders in the fashion segment fluctuates between 56% and 70%, with each third return related to size selection errors and each sixth to discrepancies in actual color or style, as shown in Fig. 2 [7]. Finally, the category is critically sensitive to visual content quality: the case of the online store Betrendy Wear demonstrated that including user-generated Instagram images in product cards increased conversion to purchase by 19% [8]. These features form methodological guidelines for further analysis of fashion sellers' operational models on Ozon and for identifying the factors determining their commercial success.

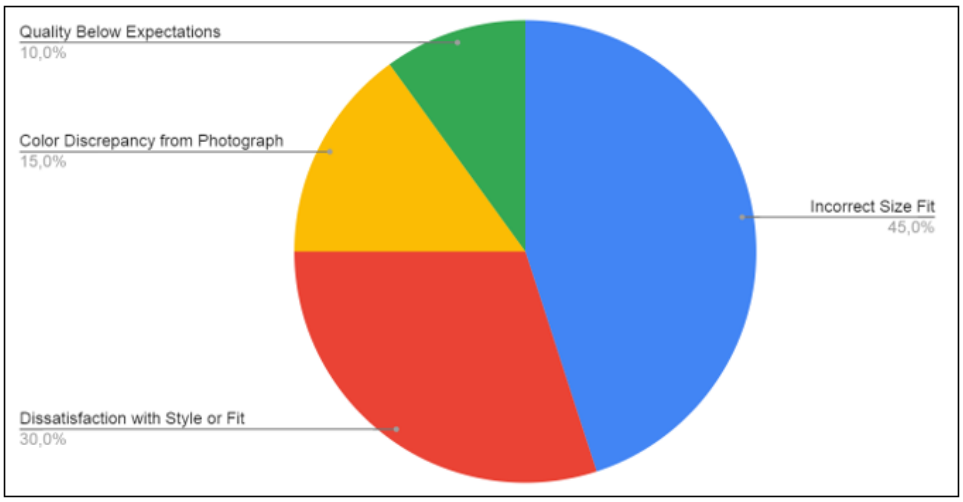

Figure 2: Distribution of Return Reasons [7]

Continuing the previous analysis, we will examine which interaction schemes with the marketplace are available to sellers in the fashion category and how they affect commercial outcomes. On Ozon, two basic models prevail: FBO (Fulfillment by Operator), in which the merchandise is stored in the platform's warehouses and all delivery operations are conducted by the operator, and FBS (Fulfillment by Seller), in which the merchandise remains in the seller's warehouse and the seller must independently assemble and transfer orders to the sorting center. More stringent regulations characterize FBO, yet it provides a "premium" buyer experience, including rapid delivery and trackable logistics, as shown in Figure 3 [9].

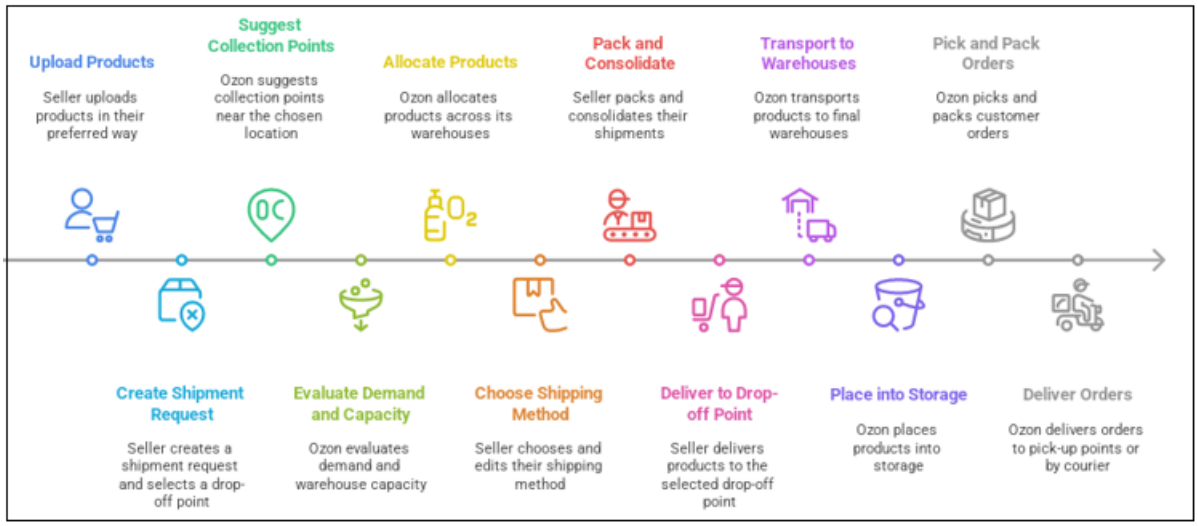

Figure 3: FBO Flow Diagram (compiled by author based on [9])

From an economic perspective, the choice of scheme directly influences the cost structure. Under the current remuneration framework, the fee rate for seasonal clothing under FBO starts at 12%, whereas under FBS it reaches 20.5% [10]. Additionally, for low-priced fashion goods, the operator reduces the FBO commission to 8%, making the scheme particularly advantageous for mass-market items priced up to 500 rubles [11]. However, the seller bears the costs of storage and returns, which are traditionally high for clothing; under FBS, these expenses are lower, but the commission is higher, and delivery speed depends on the seller's operational discipline. Analysts' observations indicate that the top positions in Ozon's search results are predominantly occupied by items listed under FBO, since the algorithm accounts for the proximity of the merchandise to the buyer and the predictability of delivery speed [12].

The ranking algorithm for product listings combines several factors. At the initial stage, it selects relevant items by keywords, then sorts them by product rating, number of reviews, price competitiveness, and purchase rate [13]. A high average rating and detailed reviews with photographs elevate a listing, which is especially critical for the fashion assortment, where visual confirmation of quality substitutes for physical try-on.

Pricing on the marketplace is dynamic: base commissions are combined with a promotional system in which the platform recommends a depth of discount in exchange for additional traffic. For the "Clothing" category in the July campaign "The Big Clothing Sale," the minimum discount was 21%, and sellers who agreed to deeper price reductions received a rocket badge, increasing the visibility of their products in search and recommendations [14]. In effect, Ozon integrates price into the ranking formula, making flexible management of discounts and bonuses a necessary element of a competitive strategy.

The Ozon search algorithm, as discussed in the previous section, evaluates a listing by two groups of signals: quantitative, related to sales and conversion, and qualitative, reflected in rating and the substantive content of reviews. Empirical data confirm that reviews remain the primary social marker of trust: more than ninety percent of buyers read them before purchasing, and seven out of ten abandon an order upon discovering negative experiences reported by other users [15]. Within the platform itself, a positive rating and a sufficient volume of feedback increase the likelihood of a product appearing on the first pages of search results, since the algorithm directly incorporates the aggregate of ratings, number of comments, and share of repeat purchases [16]. Thus, reviews serve not only as a tool of social proof but also as a computable coefficient affecting organic traffic and customer acquisition cost.

Returns represent the flip side of the same reputational coin. A study by the Shift agency, published in Kommersant, indicates that on significant, general-purpose marketplaces, including Ozon, thirty to forty-five percent of orders in the "clothing and footwear" category are returned to the buyer [17]. Each non-purchase or return is recorded in the seller's dashboard. However, the "High Returns" badge does not declaratively affect a listing's position; the metric becomes an indicator for internal recommendation systems, and a sharp deterioration in it automatically lowers the overall store rating [18]. The correlation with reviews is bidirectional: a negative comment often points to a gap in the description that led to the return, and repeated returns provoke new negative ratings, closing the reputational loop.

The financial burden of returns is most palpable under FBO. In addition to the commission percentage, the seller pays for reverse logistics and handling: Ozon's current tariff for clothing includes 19 rubles per kilogram for return transport

and 20 rubles per item for acceptance of returned goods, which on a 1, 500-ruble order reduces revenue by nearly 200 rubles even before storage costs are considered [16]. For items with a volume exceeding 0.1 liters, the FBO logistics fee is 43 rubles, and in the case of multiple returns, this fee is multiplied by the number of returns [19]. Under the FBS model, reverse logistics expenses fall partially on the seller; however, the higher commission and less predictable delivery times diminish the price-based competitive advantage, so the choice of scheme comes down to optimizing unit economics about anticipated return rates.

Sellers who have added a detailed size chart and graphic fit recommendations report reductions in returns, and the combination of a size table with a brief demonstration video has decreased the rate of refusals while simultaneously improving service satisfaction. Studies on international platforms supplement this picture: more than eighty percent of clients prefer listings with authentic photographs and videos, and the use of virtual try-on technologies reduces size-mismatch errors by ten to twelve percentage points [20]. The key principle here remains honest description: if the actual parameters of the product and its visual representation are conveyed without distortion, negative reviews become exceptions, and return rates remain within economically safe limits.

Thus, reviews and returns constitute a linked pair of key performance parameters for fashion sales on marketplaces. Management of these parameters requires both reputational work with user feedback and systematic prevention of logistical costs through high-quality content and transparent expectations.

The effectiveness of fashion sales on a marketplace is primarily determined by the way products appear on the buyer's screen. Visual content functions as a virtual fitting room, compensating for the lack of tactile interaction with the fabric and the inability to evaluate a garment's fit instantly. High-resolution photographs, shot under neutral lighting and from multiple angles, convey material texture, color rendition, and silhouette proportions; video complements this effect by depicting movement dynamics and showcasing finishing details. A thoughtfully arranged sequence of images guides the viewer's perception, facilitating the mental projection of the item onto the buyer's body and lowering the cognitive barrier to clicking "Add to Cart."

The informational layer of a product listing integrates visuals with text, namely the description, size chart, and feature list. A concise checklist of attributes placed directly beneath the gallery reinforces transparency. At the same time, the use of engaging language in the description enables the brand to communicate the collection's values and emotions. Proper selection of keywords within the text enhances relevance to search queries, thereby boosting organic visibility under the platform's algorithm. Consequently, a well-crafted listing increases the click-through rate relative to impressions and, by extension, amplifies the demand signals that the ranking system uses to elevate the product's position.

Paid promotional tools on the platform add controlled traffic to organic demand. The auction-based advertising model allows sellers to flexibly allocate budget across various formats—search placements, homepage banners, and category-specific banners. The algorithm automatically raises bids for ads with high conversion rates, so investing in superior visuals and content simultaneously lowers the cost per click and increases the return on advertising spend. Themed sales events and special platform projects confer visibility bonuses, but to maximize their impact, it is necessary to synchronize the creative elements of listings with the overall promotional campaign identity.

Outside the marketplace environment, a brand's social capital plays a critical role. Influencers in the fashion vertical can act as trust mediators by highlighting a product's advantages to their audience via stories, shorts, or live streams. Embedding an Ozon product link in the video description or attaching it as a sticker reduces the customer's path to purchase to one or two interactions. Simultaneously, user-generated content published on social networks can be reposted by the seller on the marketplace pages, enhancing authenticity. Thus, the synergy of internal advertising and external image-building promotion generates a continuous traffic stream that converts into sales through high-quality listings with minimal losses.

Dependence of commercial outcomes on platform algorithms remains the primary strategic risk for sellers: changes in ranking logic or adjustments to minimum bid requirements can abruptly redirect traffic flows and invalidate accumulated advertising metrics, and the opacity of the algorithm prevents advance assessment of the consequences. Further uncertainty arises from the fact that the marketplace competes for audience attention by developing its brands in the same categories; in this configuration, the platform simultaneously sets the rules of the game and competes on the storefront, intensifying price pressure and complicating independent brands' positioning.

The logistics chain partially delegated by the seller to the operator is not without bottlenecks: during peak sale periods, warehouse and sorting center capacities become strained, leading to longer delivery times and a higher risk of lost orders, while compensation does not always cover indirect costs. Reputational threats are exacerbated by feedback manipulation: competitors may place orders solely to leave negative reviews, provoking a drop in rating and subsequent conversion decline, and a sudden spike in such activities can result in the temporary blocking of listings until the platform's security team completes its review.

Despite these barriers, market dynamics open significant opportunities. Local brands expand their assortment share by leveraging short production cycles and proximity to end consumers, enabling quicker responses to micro-trends and greater customer retention through the value of origin. At the same time, the bar for listing quality and analytical depth is rising: the platform rewards sellers who invest in professional visuals, incorporate interactive elements, and systematically analyze buyer behavior data, since these practices both reduce returns and enhance customer satisfaction. In the long term, the ability to combine creative content with data-processing technologies will determine the resilience of fashion businesses on marketplaces.

5. Conclusion

The foregoing analysis demonstrates that the development of e-commerce in the fashion industry, exemplified by the Ozon marketplace, is based on the combination of a platform model, adaptive logistics schemes, and high-quality content. The platform's two-sided structure delivers audience scale and cross-network effects, providing sellers with ready-made infrastructure for scaling sales. At the same time, buyers benefit from a wide selection, fast delivery, and uniform service standards. The choice between FBO and FBS models determines sales economics: the former offers a premium experience and competitive ranking through predictable delivery times, whereas the latter reduces storage and return costs but requires sellers to manage logistics independently and accepts a higher commission.

Particular attention should be paid to the issue of high return rates in the fashion category: levels up to 45% on Ozon significantly exceed the e-commerce average and stem from size-selection errors, expectations regarding color and style, as well as subjective quality assessments. Successful reduction of returns and related costs is achieved through the implementation of detailed size charts, demonstration videos, virtual try-on tools, and honest product descriptions. Quality visual content serves as a virtual fitting room, offsetting the lack of tactile contact, increasing conversion, and strengthening seller reputation via positive reviews.

The role of ranking algorithms and paid promotion on the marketplace is a key factor in commercial success: relevance, product rating, price competitiveness, purchase rate, and review depth shape organic results, while participation in promotions and the advertising auction enables flexible traffic management and lowers customer acquisition costs. However, reliance on opaque platform mechanisms and potential competition with the marketplace's brands represent strategic risks that require continuous monitoring of ranking logic changes and agile adaptation of commercial strategies.

Finally, the synergy between internal marketplace tools and external promotion channels, including influencer collaborations and user-generated content on social networks, creates a continuous stream of targeted traffic and amplifies the impact of well-designed listings. In the long run, the sustainability of fashion businesses on marketplaces will be defined by brands' capacity to integrate creative content with buyer-behavior analytics and logistics-optimization technologies, thereby minimizing return-related risks and enhancing audience satisfaction.

6. Future Scope

Future research may integrate machine-learning methods to forecast return dynamics and optimize recommendations, expand coverage to user-session data, and conduct multi-platform analyses to account for cross-channel effects; apply computer-vision and 3D-visualization technologies for more accurate fit assessment and reduction of subjective sizing errors; develop a dynamic pricing model based on real-time user-behavior analysis and factors, to balance discount depth and commission. This study is limited to one platform and relatively short time frame statistics: previous historical e-commerce research used annual reports, did not go into details about unit economics, or the important mechanisms of algorithmic ranking; meanwhile, prior studies of visual content and seasonality have discovered only correlational relationships without fully integrated comprehensive financial, logistical, and user-centric factors. However, this approach does supersede historical research in its integration of return-rate statistical analysis with systematic ranking algorithm reviews and product listing content analyses to form a holistic understanding of what drives commercial success. Future work should also address the environmental aspects of logistics and sustainable practices, study the impact of virtual and augmented reality on the shopping experience, and develop personalization tools for recommendations that incorporate socio-demographic and behavioral user data, thereby further reducing return rates and enhancing audience satisfaction.

References

[1] Accent. Zhizn' zamechatel'nykh setey: tempy rosta onlayna zamedlyayutsya, a pokupateli nachali vozvrashchatsya v offlayn [Internet]. Accent.2024 [cited 2025 Jun 29]. Available from: https: //accent. ru/press/tempy_rosta
[2] New Retail. Oborot kategorii fashion na Ozon za god vyros na 86% [Internet]. New Retail.2025 [cited 2025 Jun 30]. Available from: https: //new-retail. ru/novosti/retail/oborot_kategorii_fashion_na_ozon_za_god_vyros_na_86/
[3] E-pepper. Do 45% vozvratov: kak onlayn-torgovlya teryaet na problemakh s razmerami [Internet]. E-pepper.2025 [cited 2025 Jul 1]. Available from: https: //e-pepper. ru/news/do-45-vozvratov-kak-onlayn-torgovlya-teryaet-na-problemakh-s-razmerami. html
[4] Bar-Gill S. Game of Platforms: Strategic Expansion in Two-Sided Markets. SSRN Electronic Journal.2013;
[5] Zagvozdkina K. Rost rynka e-commerce v Rossii zamedlilsya v 2024 godu [Internet]. Forbes.2025 [cited 2025 Jul 3]. Available from: https: //www.forbes. ru/tekhnologii/537469-rost-rynka-e-commerce-v-rossii-zamedlilsa-v-2024-godu
[6] Data Insights. Geografiya prodazh odezhdy i obuvi 2021 [Internet]. Data Insights.2021 [cited 2025 Jul 3]. Available from: https: //datainsight. ru/DI_PP_Delivery_Fashion_2020-2021
[7] Guru Seller. Kak povysit' protsent vykupa na Ozon, Wildberries i Ya. Market: statistika vozvratov po kategoriam, Guru Seller / Sayt marketpleyserov [Internet]. Guru Seller.2025 [cited 2025 Jul 4]. Available from: https: //guruseller. ru/statistika-vozvratov-po-kategoriyam-kak-povysit-procent-vykupa-na-marketpleysah-v-2025-godu/
[8] Frisbuy. Kak ispol'zovat' vizual'nyy kontent i otzyvy klientov po-maksimumu, ili sekrety keysov-2019 [Internet]. Retail ru.2019 [cited 2025 Jul 5]. Available from: https: //www.retail. ru/rbc/pressreleases/frisbuy-ru-kak-ispolzovat-vizualnyy-kontent-i-otzyvy-klientov-po-maksimumu-ili-sekrety-keysov-2019/
[9] FBO: osobennosti prodazh [Internet]. Ozon. [cited 2025 Jul 7]. Available from: https: //seller-edu. ozon. ru/fbo/scheme-of-work/about

[10] Sales fees by product category [Internet]. Ozon. [cited 2025 Jul 8]. Available from: https: //docs. ozon. ru/global/en/commissions/ozon-fees/commissions/
[11] Polnyy spisok komissiy i tarifov [Internet]. Ozon. [cited 2025 Jul 8]. Available from: https: //seller-edu. ozon. ru/commissions-tariffs/legal-information/full-actual-commissions
[12] Ivahnenko M. FBS ili FBO: kakuyu skhemu raboty s marketpleysom vybrat' novichku [Internet]. T Bank.2025 [cited 2025 Jul 9]. Available from: https: //secrets. tbank. ru/biznes-s-nulya/fbo-i-fbs-kakuyu-skhemu-raboty-vybrat/
[13] What Affects Your Search Ranking [Internet]. Ozon. [cited 2025 Jul 10]. Available from: https: //docs. ozon. ru/global/en/analytics/analytics-and-metrics/products-in-search-results/searching-result-impact/
[14] Big Ozon Sales [Internet]. Ozon. [cited 2025 Jul 10]. Available from: https: //docs. ozon. ru/global/en/promotion/big-promotions/rasprodazha/
[15] Perepelkin A. Onlayn-reputatsiya kak strategicheskiy aktiv kompanii [Internet]. RBC.2025 [cited 2025 Jul 11]. Available from: https: //companies. rbc. ru/news/PeYlMYYkYi/onlajn-reputatsiya-kak-strategicheskij-aktiv-kompanii/
[16] Fedotov N. Luchshie sposoby prodvizheniya na Ozon v 2023 [Internet]. Moneyplace.2023 [cited 2025 Jul 11]. Available from: https: //moneyplace. io/news/luchshie-sposoby-prodvizheniya-na-ozon-v-2023/
[17] Kommersant. Pokupateli pogryazli v vozvrate [Internet]. Kommersant.2025 [cited 2025 Jul 12]. Available from: https: //www.kommersant. ru/doc/7908805
[18] Display of Products on Ozon [Internet]. Ozon. [cited 2025 Jul 13]. Available from: https: //docs. ozon. ru/global/en/products/selling-pdp/display-of-products/
[19] Arkhiv komissiy i tarifov Ozon [Internet]. Ozon. [cited 2025 Jul 14]. Available from: https: //seller-edu. ozon. ru/commissions-tariffs/legal-information/archive-komisii
[20] Adamek E. Fashion's New Fit, How Sizing Tech is Reducing Returns [Internet]. Futuremind.2024 [cited 2025 Jul 14]. Available from: https: //www.futuremind. com/insights/fashions-new-fit-how-sizing-tech-is-reducing-returns/
[21] IMARC Group. Russia E-commerce Market Size, Share, Growth and Industry Report [Internet]. IMARC Group.2025 [cited 2025 Jul 22]. Available from: https: //www.imarcgroup. com/russia-ecommerce-market