

THE IMPACT OF LOGISTICS CUSTOMER SERVICE IN E-COMMERCE ON ONLINE AUCTION PORTAL PURCHASES

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Purpose: The aim of the study is to assess the impact of customer service in logistics on auction portal users and to determine the role it plays in the overall e-commerce activity. The subject of the study is the area related to the competitiveness of enterprises.

Methodology: Survey research is the most popular method of social research, therefore, to obtain the data necessary to achieve the aim of the work, a research tool in the form of a survey questionnaire was used.

Findings: Detailed analysis confirmed that logistic customer service in e-commerce plays a key role for the proper functioning of an enterprise operating in the online space and is a factor determining consumer choices.

Originality/value: The publication covers the subject of impact of logistics customer service on e-commerce. Combining interdisciplinary research in the areas of management and quality science with economics and finance.

Keywords: e-commerce, logistic customer service.

Category of the paper: Research paper.

1. Introduction

The global expansion of enterprises has significantly increased logistics demands, particularly in the context of e-commerce. Limited knowledge of new markets, insufficient infrastructure, and unfamiliarity with local regulations have led many businesses to rely on third-party logistics providers. In light of market volatility and fluctuating consumer demand, companies are increasingly avoiding large capital investments. Instead, they prefer flexible and scalable solutions that convert fixed logistics costs into variable ones by paying for services based on actual use (Sevim et al., 2008; Tokarski et al., 2024a).

Amazon's broad operational scope and strong brand recognition have enabled the company to generate substantial revenues that support continued investment. Despite Amazon's many strengths, analyzing its competitive position requires consideration of other companies offering similar services and their operational characteristics. The growing importance of online commerce further reinforces the need to implement modern technological and logistical solutions to maintain competitiveness and growth. Failure to adapt may lead to declining financial performance and reduced profitability (Campisi et al., 2023; Tokarski, Fajczak-Kowalska, 2024).

Among Amazon's global competitors, two platforms stand out: eBay and AliExpress. eBay, launched in 1995, has grown into a major player in the e-commerce market. Its core business model, which facilitates transactions between buyers and sellers without offering its own products, contrasts with Amazon's integrated sales structure (Kağrıçioğlu, 2019; Żak, 2019). Although eBay offers a broad range of goods and transactional formats, such as auctions and fixed prices, and remains popular in certain regions, it does not surpass Amazon in overall market share or service diversification (Öztürk, 2019; Łepkowska, 2023).

AliExpress, launched in 2010, initially targeted the Chinese market but quickly expanded globally. Like eBay, it acts as an intermediary platform without selling its own goods, allowing international consumers to purchase products from various external sellers, especially from Asia (Wawryszuk, 2021). The platform has expanded its language options and geographic reach, contributing to its global recognition. AliExpress is particularly known for competitive pricing and accessibility, aligning it closely with Amazon's operational approach (Stefanowicz, 2025).

In the Polish market, Empik and Allegro serve as local equivalents of Amazon. Both are recognized as leading e-commerce platforms in terms of market share and consumer popularity (Kokoszkiwicz, 2021). Originally a brick-and-mortar retail chain, Empik has transformed into a marketplace model, offering products from external sellers through its digital platform. This strategic shift aligns Empik more closely with Amazon's business model.

Allegro, another key Polish player, operates as a marketplace as well, but does not sell products under its own brand. Its business model is centered on providing digital infrastructure to third-party sellers and generating revenue through commissions and marketing services. Allegro's strong brand presence and ongoing investment in operational efficiency have reinforced its market position. It is often viewed as Amazon's local counterpart, albeit with a narrower scope of services (Głogowski, 2023; Lucas et al., 2023).

In analyzing the competitive landscape in e-commerce, it is essential to consider both global corporations and regional entities. Understanding their market positions, operational models, and growth potential is key to shaping effective strategies and sustainable business plans (Tokarski et al., 2024b).

The originality of this study lies in a comparative analysis of global and local e-commerce leaders with particular focus on their logistical frameworks and consumer service models, emphasizing the role of logistics in maintaining competitiveness. The aim is to identify key logistics-driven factors that influence market positioning and customer satisfaction in both global and regional contexts.

2. Motivation and purpose

Recent years have brought significant changes to the global e-commerce landscape, impacting consumer expectations, shopping behaviors, and the growing number of companies operating online. These developments have pushed businesses to revise traditional strategies and adapt to new market realities. Standard tools such as product range and marketing are no longer sufficient to secure a competitive advantage. Instead, logistics customer service has emerged as a key factor in shaping the attractiveness of e-commerce offers (Iwańska-Knop, 2015; Canöz, Gündüz, 2022).

In Poland, the digital transformation driven by internet development has enabled the rapid growth of e-commerce. Technological advancements, globalization, and digitization continue to influence how businesses operate and how consumers make purchasing decisions. Logistics plays a central role in ensuring transaction efficiency, and proper integration of the supply chain is essential for success (Kaźmierczak, Szymczyk, 2021). According to Szymański (2016), the appeal of e-commerce stems from low entry costs, widespread information access, and user convenience.

The roots of global e-commerce trace back to the 1960s with electronic data exchange, but mass adoption began at the turn of the 21st century. In Poland, widespread internet access started in 2001, marking a breakthrough for e-commerce development. Early Polish pioneers included platforms such as Allegro and Empik (Kaźmierczak, Szymczyk, 2021).

Statistical data highlights the scale of this growth. In 2013, 75% of Polish households had internet access, increasing to 92% by 2020 (E-commerce..., 2020). The COVID-19 pandemic played a major role in accelerating this shift, forcing many consumers to adopt online tools (Fajczak-Kowalska, 2023; Tokarski, Wolak, 2023).

E-commerce market value in Poland has grown consistently across both B2C and B2B segments. In 2013, the market was worth PLN 221 billion (PLN 197 billion B2B; PLN 24 billion B2C). By 2019, it had reached PLN 413 billion, with further sharp growth during the pandemic. In 2021, total market value hit PLN 771 billion (PLN 637 billion B2B; PLN 134 billion B2C). Forecasts suggest that B2C e-commerce alone may reach PLN 187 billion by 2027 (PwC Polska, 2022).

Logistics is a cornerstone of retail e-commerce. A single error in logistics can undermine customer trust. Effective management of both forward and reverse logistics is essential. Key performance factors include reliability, cost-efficiency, delivery speed, service flexibility, and smooth information flow (Deliçay, 2021).

3. Methods

This survey, conducted as part of the main research objective, which was to determine the importance of logistics customer service in e-commerce, consisted of 6 metric questions, which concerned, among others, age, gender and other data enabling the identification of respondents, and 20 thematic single-choice questions, which allowed for drawing conclusions in the scope of the verified research problem. Some of the survey questions concerned subjective experiences and opinions within the broadly understood e-commerce, and the considerations carried out also included issues related to areas related to logistics. Analysis in the scope of hypotheses, according to which the broadly understood logistics customer service in relation to e-commerce has a significant impact on the proper functioning of organizations, and also determines the level of their competitiveness on the market, was possible thanks to the research questions posed. Their content referred directly to determining the elements that, according to the respondents, are considered to be particularly important in the scope of logistics customer service in the virtual space. The variables analyzed are primarily price, time and quality of individual services, but attention was also paid to the importance of establishing relationships between the parties to the transaction. Research questions concerned, among others, the frequency of purchases on online platforms, the importance of a properly functioning logistics system and providing potential customers with clear and credible offers of a given company as a basis for creating a positive image of the company.

The study was conducted electronically using a survey questionnaire that was made available to a wide audience. The aforementioned form was available to all interested parties who expressed their willingness to present their opinions on the subject under study. The period in which the questionnaire was available for collecting responses covered the third and fourth quarters of 2023. Therefore, the subject of this study were potential customers of online stores aged 18 and over, regardless of gender, property status and place of residence.

In addition to the main research objective, which is to determine the importance of logistics customer service in e-commerce, the collected responses within the analyzed aspects allow for the search for new solutions and improvements that can be the basis for improving the processes currently functioning in companies operating in the Internet space. The idea of restructuring and improvements in the area of transport and logistics should be based primarily on data

indicated by respondents as necessary and key. Therefore, it is reasonable to consider factors requiring improvement taking into account the specificity of a given organization.

4. Results

4.1. Characteristics of respondents and online shopping behavior

The study included 100 respondents. Their characteristics are presented in Table 1.

Table 1.
Characteristics of the study population

Criterion		Surveyed population	Percentage of respondents
Gender of the respondent	man	39	39%
	woman	61	61%
Age of the respondent	18-24 years old	52	52%
	25-34 years old	27	27%
	35-55 years old	13	13%
	over 55 years old	8	8%
Professional status	white-collar worker	41	41%
	blue-collar worker	19	19%
	student	25	25%
	entrepreneur/business owner	6	6%
Education	unemployed	9	9%
	higher	62	62%
	medium	20	20%
	basic vocational	15	15%
Gross monthly income level on 1 person in the farm home	basic	3	3%
	above 4000 PLN	30	30%
	3001-4000 PLN	42	42%
	2001-3000 PLN	18	18%
	1000-2000 PLN	7	7%
Domicile	below 1000 PLN	3	3%
	city with more than 100 thousand inhabitants	57	57%
	city with 50 to 100 thousand inhabitants	17	17%
	city with up to 50 thousand inhabitants	11	11%
	village	15	15%

Source: own study based on empirical research.

The majority of respondents (84%) shop on online auction platforms several times a month. A smaller group shops several times a week (6%) or several times a year (7%). Only 3% do so less than once a year. Regarding the frequency of product returns, 54% of respondents sometimes return online purchases, 29% do so often, and 14% rarely. Only 3% never return products. A total of 83% have canceled an online purchase due to high shipping costs. Most respondents (76%) consider information on product availability important when making purchasing decisions.

When choosing online offers, the most important factors were product price (28%) and quality (19%), followed by customer reviews (11%), delivery speed (11%), and transaction security (8%). Respondents declared the following delivery method preferences: courier delivery (46%), parcel lockers (37%), direct store delivery (8%), postal services (4%), and personal collection (5%). When asked to compare fast delivery and low cost, 67% prioritized low cost, while 28% valued speed. The remaining 5% indicated no clear preference.

4.2. Logistic service factors in e-commerce

Customer service in logistics was rated as having a significant impact on shopping satisfaction by 66% of respondents. For 27%, it had some impact, while 7% assessed it as having little or no influence. Delayed deliveries were reported to impact future purchase decisions significantly by 38% of respondents, slightly by 28%, and not at all by 34%.

Key logistics factors influencing purchasing decisions included: free delivery (27%), fast delivery (24%), guaranteed delivery time (12%), flexible delivery options (11%), shipment tracking (9%), easy returns (7%), effective customer service (6%), secure packaging (3%), and regular order status updates (1%). Regarding the importance of timely delivery, 66% of respondents considered it essential, 22% moderately important, and 11% rarely important. Only one person did not consider it important at all.

For 67%, delivery options are of some importance, though not decisive. For 30%, flexible delivery is a priority, and for 3%, it is irrelevant. When comparing online and traditional shopping, 49% of respondents said logistics customer service is more important online, 28% saw no difference, and 16% did not consider it more important online.

Proper delivery logistics was seen as positively influencing a store's image by 50% of respondents. However, 28% did not consider it influential, 6% thought it had no impact, and 16% had no opinion. Most respondents (69%) stated that effective customer service encourages repeated purchases. For 19%, it had no effect, and 12% had no opinion.

Damaged goods during delivery were never experienced by 64% of respondents, while 24% encountered this at least once. Incomplete or incorrect orders were never experienced by 63%; 17% experienced either issue, and 3% experienced both. The most commonly reported negative logistics experiences were poor customer service and communication (27%), delays (25%), refund difficulties (13%), and return/exchange issues (10%). Lastly, 79% of respondents believe that innovative logistics solutions (e.g., drones, automation, smart tracking) have high development potential. Only 13% disagreed, while 8% had no opinion.

The conducted research holds significant value for the broader field of management sciences, particularly in the areas of strategic management, logistics, and digital business transformation. By offering a comparative analysis of global and local e-commerce platforms through the lens of logistics operations and customer service models, the study contributes to a deeper understanding of how logistical efficiency and innovation affect competitive advantage and consumer satisfaction. The insights derived from this research can inform

managerial decision-making processes, especially in designing flexible, customer-oriented supply chains and platform-based business models. Moreover, the findings can be utilized in policy development, benchmarking practices, and academic curriculum design, fostering a more holistic and adaptive approach to managing e-commerce enterprises in a rapidly evolving digital economy. This study also opens avenues for future research focused on regional consumer behavior, technological adaptation, and the sustainability of logistics systems within different market environments.

5. Conclusions

Using the data obtained in this empirical study, it should be emphasized above all that online shopping is very popular nowadays. The consequence of this is the need to ensure the proper and satisfactory level of all stages of the transaction from placing an order to its delivery. Nevertheless, special attention should be paid to the broadly understood logistics service of the customer, including the elements that are key to satisfaction and the final reception of a given company. The direct effect will be an expansion of the group of regular buyers who, thanks to positive experiences, will be willing to make online purchases again.

The presented research shows that currently the key factors influencing the attractiveness of a given offer are the price and quality of products, as well as the timeliness of delivery. Hence, companies should focus their activities on guaranteeing these factors in order to encourage potential customers to use the offered services. Referring to the issue of delivery, it is worth emphasizing that the attractive price of this service is still a key determinant of the buyer's choice, thus putting the speed of delivery of the ordered goods in the next place in terms of consumer priorities. Another aspect directly related to the discussed element of logistics customer service is the importance of guaranteeing the possibility of choosing from different delivery methods due to the diverse preferences of customers in this area. Equally important, in the eyes of consumers, basic information constituting the final purchase decision is the approximate date of order completion and its delivery, as well as the availability of the considered product. Hence, it should be concluded that these elements should always be included in e-shop offers. Customers also appreciate the possibility of contacting the company in order to clarify any doubts, and any difficulties in establishing contact or a complete lack of response negatively affect the company's credibility.

Referring to the negative aspects resulting from online sales, it seems reasonable to draw attention to the fact that e-commerce processes require improvement in order to increase the efficiency of operations, because according to respondents, there are irregularities, especially related to delivery, and to a lesser extent also at the level of order fulfillment. Hence, processes carried out in the area of transport and logistics should be improved in order to increase the efficiency of the supply chain, thus reducing the risk of possible irregularities or delays.

Logistic customer service in e-commerce therefore plays a key role in the proper functioning of every company operating in the online space and is a determinant of consumer choices. In addition, it is a factor that determines the competitiveness of companies in the context of their industry and the entire e-commerce market. Moreover, comparing the essence in the area of e-commerce and traditional sales, one can notice the diametric advantage of the importance of thematic customer service in the case of e-commerce, thus forcing companies to pay special attention to ensuring its highest quality as the basis for taking all competitive actions.

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Appendix

SURVEY QUESTIONNAIRE

1. **What is your gender?**
 - a) Male
 - b) Female
2. **What is your age group?**
 - a) 18–24
 - b) 25–34
 - c) 35–54
 - d) 55 and above
3. **What is your employment status?**
 - a) Manual worker
 - b) White-collar worker
 - c) Entrepreneur/business owner
 - d) Unemployed
 - e) Pupil/student
4. **What is your level of education?**
 - a) Primary
 - b) Vocational
 - c) Secondary
 - d) Higher education
5. **What is the estimated monthly net income per person in your household?**
 - a) Below 1000 PLN
 - b) 1000–2000 PLN
 - c) 2001–3000 PLN
 - d) 3001–4000 PLN
 - e) Above 4000 PLN
6. **What is your place of residence?**
 - a) Village
 - b) Town with up to 50,000 inhabitants
 - c) Town with 50,000–100,000 inhabitants
 - d) City with over 100,000 inhabitants
7. **How often do you shop online?**
 - a) Several times a week
 - b) Several times a month
 - c) Several times a year
 - d) Less than once a year
8. **Do you believe that customer logistics service (e.g. delivery timeliness and quality, tracking options, simple return process) affects your satisfaction with online shopping?**
 - a) Yes, logistics service greatly affects my online shopping satisfaction
 - b) Rather yes, logistics service has some impact on my satisfaction
 - c) Rather not, logistics service has little impact on my satisfaction
 - d) No, logistics service does not affect my satisfaction
9. **Do you ever receive deliveries late? If so, does it influence your future online shopping decisions?**
 - a) Yes, I sometimes receive deliveries late and it has a significant impact on my future decisions
 - b) Yes, I sometimes receive deliveries late, but it has little impact on my future decisions
 - c) No, I usually receive deliveries on time and it does not influence my decisions
 - d) No, I never receive deliveries late
10. **Which logistics factors matter most to you when shopping online?**
 - a) Fast delivery
 - b) Accurate shipment tracking
 - c) Delivery options (e.g., home delivery, pick-up)
 - d) Safe and sturdy packaging
 - e) Simple and flexible return process
 - f) Effective customer service
 - g) Regular updates about order status
 - h) Delivery time guarantee
 - i) Free delivery
 - j) Other (please specify)
11. **Which delivery method do you prefer the most?**
 - a) Personal pick-up at a collection point
 - b) Parcel locker delivery
 - c) Postal services
 - d) Courier delivery to the specified address
 - e) Delivery arranged directly by the store
12. **Have you ever abandoned an online purchase due to poor delivery experience?**
 - a) Yes, I have abandoned a purchase due to poor delivery experience
 - b) No, I have never abandoned a purchase due to delivery issues
13. **Does effective customer service encourage you to make further purchases from the same seller?**
 - a) Yes, good customer service makes me more likely to shop again
 - b) No, it doesn't influence my decision
 - c) I have no opinion on this
14. **Do you often return products bought online?**
 - a) Yes, I often return products
 - b) Sometimes I return products
 - c) I rarely return products
 - d) I never return products
15. **What factors influence your decision to shop at a particular online store?**
 - a) Product price
 - b) Product quality
 - c) Product availability
 - d) Customer reviews and ratings
 - e) Customer service quality
 - f) Delivery speed
 - g) Secure payment options
 - h) Promotions and discounts
 - i) Customer-friendly policies
16. **Do you pay attention to delivery time information provided by the store?**
 - a) Yes, I pay close attention
 - b) Sometimes I check it
 - c) I rarely check it
 - d) I do not pay attention to it
17. **Do you prefer online stores that offer various delivery options (e.g., express delivery, personal pick-up)?**
 - a) Yes, I only choose stores that offer flexible delivery options – it is a priority for me.
 - b) Delivery options matter, but they are not the most important factor – I also consider price, reviews, product quality, etc.
 - c) I do not pay attention to delivery options – I focus on other factors like product range, price, promotions, reviews

18. **Do you think customer logistics service is more important in online shopping than in traditional stores?**
 - a) Yes, I believe it's more important online
 - b) No, I don't think it's more important
 - c) I believe it's equally important in both cases
 - d) I have no opinion
19. **Do you think well-organized delivery logistics influences the image of an online store?**
 - a) Yes, it positively influences the store's image
 - b) I have no opinion
 - c) I don't think it affects the store's image
 - d) I don't pay attention to logistics and don't think it influences the store's image
20. **Are product availability updates important to you when making online shopping decisions?**
 - a) Yes, it is important and influences my decisions
 - b) Sometimes I pay attention, but it doesn't have a big impact
 - c) I don't pay attention and make decisions regardless.
 - d) I'm not sure if it matters
21. **Is fast delivery more important to you than lower delivery costs?**
 - a) Yes, speed is more important
 - b) I have no preference
 - c) I prefer lower delivery costs
 - d) I don't care about speed or costs
22. **Have you ever received a damaged package during transport?**
 - a) Yes, I have received a damaged package
 - b) No, I have never received a damaged package
 - c) I don't remember
 - d) I don't use e-commerce, so it doesn't apply to me
23. **Have you ever received an incomplete package or one containing incorrect products?**
 - a) Yes, I have received both incomplete and incorrect packages
 - b) I have never received an incomplete or incorrect package.
 - c) I once received an incomplete package, but never incorrect products
 - d) I once received incorrect products, but never an incomplete package
24. **What logistics-related issues do you find most frustrating when shopping online?**
 - a) Delivery delays
 - b) Damaged or poorly packaged items
 - c) No real-time tracking
 - d) Difficult return/exchange process
 - e) Unclear or outdated order status info
 - f) High or hidden delivery fees
 - g) Delivery not available in my region
 - h) Poor customer service/communication
 - i) Incomplete or incorrect orders
 - j) Difficulty in getting refunds
25. **Have you ever abandoned an online purchase due to high delivery costs?**
 - a) Yes, I have abandoned a purchase due to high delivery costs
 - b) No, I have never done that
26. **Do you think innovative logistics solutions (e.g. drone delivery, warehouse automation, smart tracking systems) will become popular in the future?**
 - a) Yes, I believe they have great potential and could become mainstream
 - b) No, I don't believe they will become popular
 - c) I have no opinion