International Journal of
Economics Development Research, Volume 6(5), 2025
pp. 2940-2955

The Impact of Free Strategy and Delivery Speed on Consumer Satisfaction with the Level of Ease of Product Return as a Moderation Variable on Shopee Marketplace Users in DKI Jakarta

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Abstract:

This study aims to analyze the influence of free shipping strategy and delivery speed on consumer satisfaction with the level of ease of product returns as a moderation variable for Shopee marketplace users in DKI Jakarta. The approach used is through a quantitative approach and the Partial Least Square (PLS) method, data was collected from 153 respondents. The results of the study show that free shipping, delivery speed, and ease of product returns have a positive and significant effect on consumer satisfaction. However, the variable of ease of return of products actually weakens the relationship between free shipping and satisfaction, and does not moderate the relationship between delivery speed and consumer satisfaction significantly. These findings emphasize the importance of aligning promotional strategies and after-sales service in improving consumer satisfaction in the e-commerce sector. This research makes a practical contribution for marketplace managers in designing services that are more responsive to customer needs.

Keywords: *Free Shipping, Delivery Speed, Ease Of Product Returns, Consumer Satisfaction, Shopee, E-Commerce*

Submitted: July 20, 2025, Accepted: September 21, 2025, Published: September 30, 2025

1. Introduction

In today's internet era, the growth of e-commerce is accelerating, especially in big cities including DKI Jakarta. As one of the most popular marketplaces in Indonesia, Shopee has an increasing number of active users. According to the 2021 iPrice report, Shopee recorded an average of 158 million monthly visits in Indonesia, with DKI Jakarta as one of the largest contributors (Rahmadanti et al., 2021). However, multiple customers does not always mean ideal customer satisfaction. The 2023 Jakpat survey found that only 68% of customers are satisfied with their shopping experience on Shopee; Most customers complain about issues such as complicated return processes, shipping delays, and product mismatches (Salwanisa, 2024). In the same year, a local study in DKI Jakarta conducted by Kompas R&D found that delivery speed was the main factor affecting customer satisfaction; 75% of respondents expressed

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disappointment when deliveries took longer than expected. On the other hand, Shopee's free shipping feature attracts customers, but it's not necessarily comparable to the general satisfaction level (Effendy & Sunarsi, 2020). In addition, the ease of returning products is still a big problem. A YLKI report in 2023 showed that 42% of customers had difficulty in the product return process, which led to a bad perception of Shopee's services. This shows that customer satisfaction with Shopee is still very difficult, especially related to the shipping and return policies of products.

A lot of research has been done on consumer satisfaction in e-commerce, with a major emphasis on components such as price, product quality, and customer service. Previous studies have emphasized that free shipping and delivery speed are major factors in improving customer satisfaction. For example, research by (Yanto et al., 2024) shows that free shipping services significantly improve purchasing decisions and customer satisfaction with the Shopee platform, and research by (Amanda et al., 2024) found that the speed of delivery of m.e.affects customer loyalty on the Shopee platform directly. However, ease of return is an important aspect that determines the quality of service from marketplace. This factor was indeed mentioned in the study by (Alim et al., 2025), but it only covers small markets and especially outside of DKI Jakarta. In addition, most previous studies have not thoroughly integrated the three variables in a single analysis model. Therefore, there is a fairly clear research gap, namely research that looks at how customer satisfaction is affected by free shipping, delivery speed, and ease of product returns as moderation. This is especially true for the Shopee market, which has a large customer base in DKI Jakarta. By using a more comprehensive and contextual approach that is relevant to local dynamics, this study aims to fill these gaps.

This study combines three important variables free shipping, shipping speed, and ease of product returns in one analysis model to measure consumer satisfaction. Unlike previous studies that examined variables separately, this study used a moderation variable to see the effect of ease of return in strengthening or weakening the relationship between free shipping and shipping speed on consumer satisfaction. Focusing on Shopee users in the DKI Jakarta area is an added value, considering the characteristics of the competitive market and high consumer expectations. Thus, this research not only answers the gap in the previous literature, but also makes a practical contribution for e-commerce players to design service strategies that are more responsive to consumer needs.

From the background described, there is a formulation of the problem of this research is how the effect of free shipping and delivery speed on Shopee customer satisfaction in DKI Jakarta, as well as the extent to which the ease of product returns moderates the relationship. Complaints related to delivery delays and complicated return processes indicate the need for further study. Therefore, the purpose of this study is to analyze the influence of two independent variables on consumer satisfaction, as well as the role of moderation of ease of return. The results are expected to provide empirical input for Shopee and other e-commerce players to improve service quality and maintain customer loyalty.

2. Theoretical Background

Grounded Theory: Expectancy Disconfirmation Theory (EDT) by Richard L. Oliver (1980) explains that consumer satisfaction arises from a comparison between expectations before buying and perceptions after receiving products or services. If the results exceed expectations (positive disconfirmation), the consumer is satisfied; if appropriate (confirmation), neutral satisfaction; and if it is below expectations (negative disconfirmation), consumers feel dissatisfied. In the context of e-commerce such as Shopee, consumers have expectations for services such as free shipping and fast delivery. For example, if a consumer expects an item to arrive in two days and it turns out to arrive in one day, this will result in positive disconfirmation and increase satisfaction. (Ali et al., 2021). Conversely, if the delivery is delayed by a few days from the forecast, then there will be a negative disconfirmation that lowers the satisfaction. In the same way, hope free shipping will affect the customer's perception of the value of the transaction received. If these expectations are met, or if they are supplemented with other promotions, customers will be more satisfied. In contrast, the level of product returnability, which is a moderation variable that plays a role in this study, is well explained by this theory. The ease of the return process can help reduce consumer dissatisfaction in cases where their expectations are not met, such as because the product is damaged or does not live up to its promise (Rinday, 2023). Consumers tend to still feel appreciated and satisfied again even though they previously experienced negative disconfirmation if product returns are done quickly, easily, and without problems. Therefore, this study uses EDT as a grand theory to thoroughly learn how customer satisfaction is affected by free shipping and shipping speeds, as well as how the ease of product returns serves as an arrangement that strengthens or weakens the relationship between Shopee customers in DKI Jakarta (Gusfi et al., 2024). To understand how customers behave towards market services, this theory provides a solid logical framework. It also helps explain the variables that affect customer satisfaction levels.

Consumer Satisfaction: Consumer satisfaction is an emotional condition that arises from the assessment of the shopping experience that consumers feel, whether it meets, exceeds, or does not meet their expectations. In context e-commerce, satisfaction itself is not solely determined by product quality, but is greatly influenced by various supporting services such as delivery, ease of transaction, and after-sales service (Lukiyana & Ramafita, 2024). Marketplaces like Shopee realize the importance of maintaining consumer satisfaction levels to create loyalty and reduce churn rates. By Expectancy Disconfirmation Theory (EDT), consumer satisfaction is formed from the comparison between initial expectations of the services offered and the actual experience received. If the actual experience is better than desired, consumers will usually seem satisfied (Putri & Suryono, 2025). On the other hand, when expectations are not met, satisfaction will decrease. This study places consumer satisfaction as a dependent variable to assess the extent to which the free shipping service and the delivery speed provided by Shopee are able to meet or exceed consumer expectations, especially in the DKI Jakarta area (Latifah et al., 2020). The level of consumer

satisfaction will reflect the effectiveness of the service strategy implemented by the marketplace platform in the face of increasingly fierce digital competition.

Free shipping: Free shipping service or free shipping It is one of the marketing strategies commonly used by marketplaces to attract consumer interest and increase transaction volume. This service provides direct benefits for consumers because they are not burdened with additional costs for shipping costs which are often an inhibiting factor in the online purchase proces (Shehu et al., 2020). In the context of marketplaces such as Shopee, the free shipping feature is often associated with certain promotional programs, such as shipping subsidies based on minimum purchases or the use of special vouchers. For consumers, free shipping not only provides economic value, but also creates a perception of added value from the transactions made. From perspective Expectancy Disconfirmation Theory (EDT), consumer expectations for the availability of free shipping services are one of the initial indicators that affect the final perception of satisfaction (Fanni, 2023). When these expectations are met or even exceed expectations, there will be an increase in satisfaction. On the contrary, the absence of this service can be a source of disappointment. Therefore, in this study, free shipping is researched as an independent variable that is assumed to have a significant influence on consumer satisfaction of Shopee users in DKI Jakarta.

Delivery Speed: Delivery speed is defined as the amount of time it takes for customers to place an order until the product arrives in their hands. Service speed is essential for a good online shopping experience in the instant digital age. User e-commerce nowadays it usually expects the fast, precise, and on-forecast delivery promised by the platform marketplace (Gusfi et al., 2023). Delayed deliveries are often the main cause of customer dissatisfaction, which can even lead to unsatisfactory transaction cancellations or complaints. As the largest market in Indonesia, Shopee continues to strive to improve logistics through cooperation with various expedition services. One form of expectation that is very clearly felt by consumers is the speed of delivery, according to Expectancy Disconfirmation Theory (EDT). Consumers tend to leave positive reviews and are satisfied if the delivery is faster than expected. Instead (Alim et al., 2025), delays lead to dissatisfaction. To find out how much it affects Shopee's customer satisfaction in the DKI Jakarta area, which is an area with very high delivery intensity and relatively high customer expectations, this study uses delivery speed as an independent variable.

Product Return Ease Level: The ease of returning a product refers to the extent to which consumers can return the goods smoothly, quickly, and without significant obstacles. In online shopping, the risk of products not meeting consumer expectations is quite high, either due to differences in color, size, damage, or shipping errors (Hanum & Wiwoho, 2023). Therefore, the return system is an important component in maintaining consumer trust and comfort. Marketplace Shopee generally provides a product return feature, but the ease of this process can vary depending on the seller's policy, the type of item, and the administrative process applied (Billyarta & Sudarusman, 2021). In context Expectancy Disconfirmation Theory (EDT), the ease of return of products can serve as a corrective mechanism when negative

disconfirmation occurs. This means that if consumer expectations are not met for example because the product is defective but they can return the goods easily, then disappointment can be minimized and satisfaction can be restored. In this study, the ease of product returns was placed as a moderating variable which is believed to strengthen or weaken the influence between independent variables (free shipping and shipping speed) on dependent variables (consumer satisfaction). This study will test whether an easy return process can significantly increase consumer perception of Shopee's services in DKI Jakarta.

Hypothesis Development

The Influence of Free Shipping on Consumer Satisfaction: Service free shipping (free shipping) has become a marketing strategy that is in great demand in platform e-commerce, including Shopee. This strategy provides added value for consumers by eliminating the burden of shipping costs that were previously the main consideration in online transactions. Research conducted by (Ritonga & Risal, 2023) It shows that the existence of a free shipping service can increase purchase intent and encourage satisfaction because consumers feel that they get more benefits from the purchase. Meanwhile, findings from (Sundari & Wahyuningtyas, 2023) also affirms that free shipping is one of the factors that consumers are very concerned about, especially in digital market segments such as Shopee, where price competition is very fierce. Furthermore, consumer behavior models show that perceptions of perceived value, including in the form of cost savings, have a direct impact on satisfaction levels. When consumers feel that additional costs such as postage have been eliminated, the value of the transaction increases psychologically, which ultimately strengthens consumer satisfaction with the service. Therefore, it can be concluded that free shipping Not only does it trigger purchase decisions, but it also provides a positive psychological effect that strengthens consumer loyalty. Based on these arguments and supported by previous findings, the H1 hypothesis in this study is determined as follows, H1: Free shipping has a positive effect on Consumer Satisfaction.

The Effect of Shipping Speed on Consumer Satisfaction: Delivery speed is a crucial aspect of the service e-commerce which greatly affects consumer experience and perception. In context marketplace Shopee, consumers expect the products they buy to be received as estimated or even faster than promised. Research by (Jamaludin et al., 2023) revealed that delivery speed is one of the dominant factors that affect customer satisfaction. Consumers tend to feel more satisfied when the purchased goods are delivered quickly, as this shows professionalism and efficiency of service. According to a study by (Anggraeni et al., 2024), the accuracy and speed of delivery also reflect the quality of logistics and operational management systems of the e-commerce platform. Consumers who receive goods earlier than they expect will experience increased satisfaction due to the perception that their needs are optimally appreciated and served. Conversely, delays in delivery often lead to disappointment that can lower loyalty to the platform. In the context of this study, the speed of delivery is seen as an important element that affects Shopee consumer satisfaction in DKI Jakarta. With the increasing competition between platforms, the speed of delivery is

one of the indicators of service excellence that can strengthen Shopee's position in the digital market. Based on the results of previous studies and theoretical considerations, the H2 hypothesis is determined as follows, H2: Delivery Speed has a positive effect on Consumer Satisfaction.

The Effect of Product Return Ease on Consumer Satisfaction: The level of ease of product returns is one of the important elements in after-sales service that can have a direct impact on consumer satisfaction. About the context of shopping Online, consumers cannot see or touch the goods directly before purchase, so the risk of mismatches between the products received and expectations is quite high. Therefore, practical, clear, and fast return services are a guarantee of quality and a form of protection for consumers. Research by (Meileny & Wijaksana, 2020) stating that the easier the return process is, the higher consumer satisfaction with the e-commerce platform used. Ease of access to return features, clarity of procedures, speed of the replacement or refund process, and minimal additional costs, are factors that significantly contribute to consumer comfort and security. In the context of the Shopee marketplace, when consumers feel that they can return items without hassle, the sense of trust in the platform increases and leads to overall satisfaction with the service. Study by (Billyarta & Sudarusman, 2021) It also supports this, finding that marketplace users who get an easy product return experience tend to be more loyal and leave positive reviews, feeling that their rights as consumers are respected. Based on the empirical evidence and theoretical arguments, the additional hypotheses in this study can be formulated as follows, H3: The level of ease of product returns has a positive effect on Consumer Satisfaction.

The Level of Ease of Product Returns Moderates the Influence of Free Shipping on Consumer Satisfaction: In the world e-commerce which is increasingly competitive, not only the aspects of price and promotion are paid attention to by consumers, but also after-sales services, such as the ease of returning products. One of the important aspects that affects consumer satisfaction indirectly is the role of ease of return as a moderation variable for policies free shipping. Study by (Effendi & Sunarsi 2020) shows that consumers are more confident and comfortable shopping on platforms that provide easy returns, especially when combined with free shipping services. Free shipping It is often a strategy to attract the attention of consumers, but when accompanied by a complex or detrimental return system, the positive effects of such strategies can be diminished. In this case, the level of ease of return of the product determines whether the benefits of the free shipping is truly felt in its entirety by consumers. Studies from (Hanum & Wiwoho, 2023) revealed that consumers who get free shipping and can still return goods easily tend to have a much higher level of satisfaction. Thus, in the context of this study, it is assumed that the easier it is for the product return process to be carried out by consumers, the more the influence of free shipping consumer satisfaction will be stronger. Based on this thinking and the support of previous findings, the H4 hypothesis is determined as follows, H4: The Ease of Product Return Level strengthens the influence Free shipping to Consumer Satisfaction.

The Ease of Product Return Rate Moderates the Effect of Shipping Speed on Consumer Satisfaction: The speed of product delivery is a key aspect in improving customer satisfaction, but it cannot be separated from other aspects such as return services. In many cases, even if the delivery is done quickly, if there is a product mismatch and the return process is too complicated, then consumers still experience dissatisfaction. Studies from (Putri & Suryono, 2025) states that the effectiveness of delivery speed on consumer satisfaction is greatly influenced by convenience in return services. In other words, the speed of delivery will have the maximum impact on satisfaction only if the consumer also has the assurance that if something goes wrong, they can return the product easily. According to research by (Haneemsipatma & Jufrizen, 2024), the existence of a simple, no-surcharge, and responsive return service reinforces the positive effects of fast delivery as consumers feel safe and secure in every transaction. Therefore, in the context of the Shopee marketplace in DKI Jakarta, the ease of returning goods can be considered as a moderator that strengthens the influence of delivery speed on consumer satisfaction. So the H5 hypothesis is formulated as follows, H5: The Ease of Product Return Rate reinforces the influence of Shipping Speed on Consumer Satisfaction.

3. Methodology

The research method used is a quantitative method with structural equation modelling (SEM). Type SEM is relevant because the variable being studied has variable measurement indicators and has moderating effect (Hair & Alamer, 2022). The research model consists of four variables. First, Consumer Satisfaction is measured by four indicators, namely the suitability of expectations and reality, satisfaction with the speed and reliability of services, ease of use of applications, and intention to repurchase or recommend (Latifah et al., 2020). Second Free Shipping which is measured by four indicators, namely voucher availability, minimum spending limit, frequency of promotions, and perception of economic value (Tarigan et al., 2022). Third, Delivery Speed is measured by four indicators, namely delivery timeliness, order preparation process speed, availability of fast delivery options, and delivery estimation accuracy (Jozuna & Dewi, 2020). Fourth, Product Return Ease which is measured by four indicators, namely the clarity of the return procedure, the speed of the return process, the return cost, and the ease of access to the return feature in the application (Ritonga & Risal, 2023).

The analysis carried out consists of several stages. First, the presentation of a description of the demographic data of the respondents, so that the description of the research respondents is known. Second, it provides an explanation of the descriptive statistics of respondents' answers to the research questionnaire. Descriptive statistics present research data that is derived from mean, minimum, maximum and standard deviation. Descriptive statistics are useful for describing the level of implications in the field of each variable studied (Hair Jr et al., 2021). Third, the validity test to test whether the research questionnaire used, is valid or does not represent the variables being studied. Validity is measured by the score of the loading factor. If the score > 0.5, then the questionnaire is valid and if the score > 0.7, then the model is considered

fit (Tambun & Sitorus, 2024). Fourth, a reliability test to test the reliability of the research data, as well as test the consistency of respondents' answers. The data is said to be reliable and reliable if the scores from rho, cronbach alpha, and composite reliability are > 0.7 respectively (Sitorus & Tambun, 2023). Fifth, test the hypothesis and provide a conclusion whether the hypothesis is accepted or the hypothesis is rejected. The hypothesis of this study uses one tailed, so the hypothesis will be accepted if the statistical t-value > 1.65 and the p-value < 0.05 (Tambun et al., 2022). Sixth, presenting the resulting regression equations and their interpretation. Interpretation will be elaborated regarding the value of the influence coefficient and the implications of the strategy. Seventh, explain the value of the determination coefficient resulting from the research model.

4. Empirical Findings/Result

In this study, a sample of 153 respondents from various circles has been used, achieving 100 female respondents (65.4%) and 53 male respondents (34.6%). Then in this study, age was divided into 5 parts, namely < 20 years old as many as 35 people (22.9%), 20 – 25 years old as many as 96 people (62.7%), age 26 – 30 years old as many as 11 people (7.2%), age > 30 years as many as 11 people (7.2%). In the last education taken by the respondents, 9 people (5.9 people were equivalent to junior high school), 57 people (37.3 years old), 13 D3 students / D3 graduates (8.5 percent), 69 S1 students (45.1 percent), 5 others (3.3 percent). This study utilizes Partial Least Square (PLS) to test the quality of the data, PLS is an analysis method that can be used to form prediction models and understand and analyze the bonds between existing variables. The software used in this study is Smart PLS.

Smart PLS Descriptive Statistical Test

Descriptive statistics is one of the most common statistical analysis models for presenting data. It is usually used as an initial strategy to manage the data to be well organized before it is incorporated into further analysis (Martias, 2021). In this study, the system used is the minimum, maximum, mean, and standard deviation values for each variable: free shipping costs, delivery speed, customer satisfaction, and ease of product returns.

Table 1. Descriptive Statistical Test

Variable	N	Minimum	Maximum	Mean	Standard Deviation	Percentage
Free shipping	153	1	5	3.932	0.829	78%
Delivery Speed	153	1	5	3.951	0.738	79%
Consumer Satisfaction	153	1	5	3.701	1.113	74%
Ease of Product Return	153	1	5	3.771	0.809	75%

The results of descriptive statistics show that:

1. Free Shipping has an average of 3,932 (78%), indicating that the majority of respondents like this service, although it could still be improved.
2. Delivery Speed obtained the highest average of 3.951 (79%) with a standard deviation of 0.738, indicating that customers are quite satisfied but there is still room for improvement.
3. Consumer Satisfaction has the highest standard deviation of 1,113 and a percentage of 74%, the lowest compared to other variables, indicating the need to improve service quality.
4. The ease of return of the product recorded an average of 3.771 (75%) with a standard deviation of 0.809, indicating that the return process is considered quite easy, but still needs to be simplified and clarified.

Validity and Reliability

Table 2. Validity and Reliability Tests

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Free shipping	0,865	0,900	0,902	0,648
Delivery Speed	0,822	0,845	0,872	0,579
Ease of Product Return	0,861	0,871	0,899	0,642
Consumer Satisfaction	0,917	0,918	0,938	0,752
KPP*FS	1,000	1,000	1,000	1,000
KPP*KP	1,000	1,000	1,000	1,000

Source: Smart PLS Data Processing Results, 2025

The results of the validity test showed that all indicators had met the conditions of convergent validity, with the AVE value above 0.5 and the square root of AVE exceeding the correlation between the constructs. This indicates that the instrument used is valid. The reliability test also showed good results, with rho-A values and composite reliability above 0.7, so that the entire construct was declared reliable. Furthermore, the internal model test which includes R-Square, F-Square, and path coefficient estimation shows that the structural model used has a fairly good relevance and predictive power between variables.

R Square

Table 3. R Square

Variable	R Square	Adjusted R square
Consumer Satisfaction	0.443	0.424

Source: Smart PLS Data Processing Results, 2025

Based on the R Square Table, the R Square value of 0.443 shows that the free variables, namely ease of return, delivery speed, and free shipping, are able to explain

44.3% of the variation in consumer satisfaction. Meanwhile, the Adjusted R Square value of 0.424 indicates the model's predictive ability after adjusting for the number of variables and sample size. This indicates that the model has sufficient clarity, but there is still room to improve by adding other relevant variables to explain consumer satisfaction more thoroughly.

F Square

Table 4. F Square

Variable	Consumer Satisfaction
Free shipping	**0.086**
Delivery Speed	**0.032**
Ease of Product Return	**0.173**
Consumer Satisfaction	
Moderation of Product Returns under the influence of *Free shipping*	**0.029**
Moderation of Product Returns due to the influence of Shipping Speed	**0.000**

Source: Smart PLS Data Processing Results, 2025

The results of the analysis of Table F Square show that each variable is free to contribute differently to Consumer Satisfaction. Free Shipping has an f^2 value of 0.086 (small–medium influence), indicating a positive but not dominant contribution. Shipping Speed has an f^2 of 0.032 (small influence), while Ease of Product Return records the highest value of 0.173 (medium–large influence), indicating that ease of return is very important to consumers. As a moderation variable, Ease of Product Returns had a small effect ($f^2 = 0.029$) on the relationship between Free Shipping and Consumer Satisfaction, but did not exert a significant effect ($f^2 = 0.000$) on the relationship between Delivery Speed and Consumer Satisfaction. This finding confirms that the ease of product returns is the most influential factor in increasing Shopee customer satisfaction in the DKI Jakarta area.

Table 4. Hypothesis Test

Hypothesis		Coefficient Value	T Statistic	P Values	Results
H1	*Free shipping* > Consumer Satisfaction	0.280	3.783	0.000	Accepted
H2	Delivery Speed > Consumer Satisfaction	0.174	2.178	0.030	Accepted
H3	Easy Product Returns > Consumer Satisfaction	0.385	4.733	0.000	Accepted
H4	Easy Product Returns * *Free shipping* > Consumer Satisfaction	-0.167	2.342	0.020	Accepted

H5	Easy Product Returns * Delivery Speed > Consumer Satisfaction	0,019	0.237	0.813	Rejected

Source: Smart PLS Data Processing Results, 2025

5. Discussion

The Effect of Free Shipping on Consumer Satisfaction (H1)

The findings reveal that free shipping has a significant and positive impact on consumer satisfaction among Shopee users in DKI Jakarta, as indicated by a path coefficient of 0.280 and a T-statistic of 3.783. This result aligns with prior studies emphasizing the role of free shipping as a strong driver of online purchasing decisions and customer loyalty. According to Xu et al. (2021), eliminating shipping fees reduces the perceived risk and cost of online shopping, making consumers more inclined to complete their purchases. Similarly, Wang et al. (2022) highlight that free shipping strategies enhance perceived value and convenience, thereby strengthening satisfaction and long-term engagement with the platform. In the context of Shopee, free shipping has become a competitive differentiator, especially in densely populated urban areas such as Jakarta, where consumers are highly price-sensitive and have multiple e-commerce alternatives. This finding supports Chen and Zhang (2020), who argue that promotional strategies such as free shipping are essential for attracting repeat purchases in highly competitive markets. Therefore, free shipping should not be viewed solely as a marketing expense but rather as an investment in consumer trust and retention.

The Effect of Delivery Speed on Consumer Satisfaction (H2)

The study also demonstrates that delivery speed significantly and positively affects consumer satisfaction, with a path coefficient of 0.174 and a T-statistic of 2.178. This finding is consistent with previous research indicating that fast and reliable delivery is a key determinant of customer experience in e-commerce. According to Lim et al. (2018), timely delivery directly shapes consumers' perceptions of service quality, fostering trust and encouraging repeat transactions. In Indonesia's rapidly growing e-commerce landscape, logistics efficiency plays a vital role in maintaining consumer confidence. Kim et al. (2021) found that shorter delivery times not only improve satisfaction but also reduce customer anxiety related to online purchases. For Shopee, this implies that strategic investments in logistics infrastructure, partnerships with third-party couriers, and real-time tracking systems are crucial to enhancing overall consumer satisfaction and sustaining competitive advantage.

The Effect of Product Return Ease on Consumer Satisfaction (H3)

The results further indicate that product return convenience has the strongest direct effect on consumer satisfaction, with a path coefficient of 0.385 and a T-statistic of 4.733. This highlights the increasing importance of hassle-free return policies in shaping positive consumer experiences. According to Kawa and Waśniewski (2021), a clear and accessible return process reduces the perceived risk of online shopping and enhances trust in the e-commerce platform. These findings are supported by Chen et

al. (2022), who emphasize that consumers are more likely to engage in repeat purchases when they are confident that unwanted or defective products can be easily returned or exchanged. In the case of Shopee, the availability of return features directly impacts consumer satisfaction by providing a safety net, thereby encouraging consumers to make purchase decisions without hesitation. Hence, platforms should prioritize improving return policies as part of their overall customer service strategy.

The Moderating Role of Product Return Ease Between Free Shipping and Consumer Satisfaction (H4)

The moderation analysis reveals that product return ease negatively moderates the relationship between free shipping and consumer satisfaction, with a path coefficient of -0.167 and a T-statistic of 2.342. This suggests that while free shipping enhances satisfaction, its positive effect diminishes when consumers have high expectations regarding return processes that are not adequately met. According to Aljukhadar and Senecal (2022), when return processes fail to meet customer expectations, dissatisfaction may arise even in the presence of attractive promotional offers. This finding underscores the need for balance between promotional strategies and post-purchase service quality. In other words, offering free shipping alone is insufficient; it must be complemented by reliable return policies to ensure sustained consumer satisfaction. For Shopee, this means integrating logistics, promotional campaigns, and customer service functions to create a seamless experience across the entire purchase journey.

The Moderating Role of Product Return Ease Between Delivery Speed and Consumer Satisfaction (H5)

The study finds that product return ease does not significantly moderate the relationship between delivery speed and consumer satisfaction, as evidenced by a path coefficient of 0.019 and a T-statistic of 0.237. This indicates that consumers perceive delivery speed and return processes as separate elements of their online shopping experience. These findings align with research by Lim et al. (2018), who state that while fast delivery creates immediate satisfaction, return policies primarily affect post-purchase behavior. Similarly, Park and Kim (2020) argue that consumers compartmentalize their expectations of logistics and after-sales service, meaning that improvement in one area does not necessarily enhance perceptions of the other. For Shopee, this implies that strategies for shipping speed and return management should be developed independently to optimize overall satisfaction.

6. Conclusions

This study concludes that free shipping, delivery speed, and ease of product returns have a significant and positive impact on consumer satisfaction among Shopee users in DKI Jakarta. Free shipping plays a crucial role in attracting consumer interest by reducing purchasing costs, while delivery speed enhances the perception of service quality and reliability. Moreover, the ease of product returns provides a sense of security and trust, encouraging consumers to make purchases without fear of dissatisfaction. However, the moderation analysis reveals that the ease of product

returns weakens the effect of free shipping on consumer satisfaction. This suggests that when consumers perceive a smooth return process, the attractiveness of free shipping becomes less influential. Furthermore, the ease of product returns was not significant in moderating the relationship between delivery speed and consumer satisfaction. These findings highlight the complex interplay between logistics strategies and consumer perceptions in the e-commerce environment.

Based on these findings, future studies are encouraged to expand the research scope by including a broader range of geographic areas or different e-commerce platforms, such as Tokopedia, Lazada, or Bukalapak, to enhance the generalizability of results. Additionally, incorporating other variables such as product pricing, customer service quality, brand trust, or consumer reviews could provide a more comprehensive understanding of factors influencing consumer satisfaction. It is also recommended to adopt qualitative or mixed-methods approaches to capture deeper insights into consumer behavior and perceptions that cannot be fully explained through quantitative analysis alone. Moreover, longitudinal studies could be conducted to examine changes in consumer satisfaction over time as e-commerce strategies and market dynamics evolve. By addressing these aspects, future research can make a stronger theoretical and practical contribution to the development of service strategies and economic policies within the e-commerce sector, ultimately supporting sustainable business growth and improved customer experiences.

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