

The Relationship between Shipment-Tracking and Timeliness of Delivery with Customer Satisfaction of Shopee Standard Express

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Abstract

Green in the competitive e-commerce landscape, logistics performance is a critical determinant of customer satisfaction. This study examines the relationship between shipment tracking, timeliness of delivery, and customer satisfaction with Shopee Standard Express services in Johor, Malaysia. A quantitative approach was utilized, with 384 surveys distributed and 311 valid responses collected, achieving a response rate of 80.99%. The collected data were analyzed using statistical package for social sciences (SPSS) for the purpose of reliability and correlation, and descriptive analysis. The study showed that shipment tracking and timeliness of delivery are positively correlated with customer satisfaction. The survey identified shipment tracking has stronger relationship with factor in customer satisfaction, as respondents particularly valued features such as real-time data updates and clear visibility of their shipment status. Punctuality of delivery was also considered influential whereas delay in delivering assignments during the rush hour was cited as a concern. The mean scores for shipment tracking, timeliness of delivery, and customer satisfaction indicated that users had a positive perception of Shopee Standard Express services, particularly regarding transparency, reliability, and overall service quality. This study emphasizes the need for Shopee Standard Express to enhance tracking technologies, improve delivery networks, and address seasonal delays. By doing so, the company can strengthen customer loyalty, bolster its competitive position, and contribute to the sustainability of e-commerce logistics in Malaysia.

1. Introduction

In the rapidly evolving world of e-commerce, consumer satisfaction heavily relies on efficient shipment tracking and timely delivery. As online shopping platforms grow, customers demand not only high-quality products but also a seamless experience from purchase to delivery. Recognizing this, businesses are optimizing shipment-tracking systems and streamlining delivery processes to meet these expectations (Prakash *et al.*, 2022). Among the logistics organizations striving to meet these demands is Shopee Standard Express. Timely deliveries have become a crucial factor in customer satisfaction within the competitive e-commerce landscape (Mondal, 2024). Effective tracking systems not only inform customers of their shipment status but also enhance safety, process control, cost savings, and customer retention (Ali *et al.*, 2019; Shamsuzzoha & Helo, 2011). Despite these benefits,

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Shopee Standard Express faces ongoing challenges that impact its service delivery, such as logistical errors and delays which threaten its reputation (Thao Dang, 2021). The research of Thao Dang (2021) highlights that delays and tracking issues significantly harm the brand image of Shopee Standard Express, especially in regions with persistent delivery problems. Addressing these challenges is essential for improving customer satisfaction and maintaining competitiveness. This study aims to evaluate the quality of shipment-tracking and delivery timeliness, assess customer satisfaction, and explore the relationship between these factors. By doing so, it seeks to offer insights into improving operational efficiency and service quality at Shopee Standard Express.

Malaysian e-shopping habits have surged significantly, particularly since the Covid-19 pandemic, which boosted the convenience of ordering items online without visiting physical stores (Aryani *et al.*, 2021). E-commerce, defined as buying and selling products and services over the internet (Chong, 2023), saw substantial growth during this period. For instance, Malaysia's e-commerce revenue increased by 5.4% year-over-year in the third quarter of 2023, reaching RM289.5 billion (Kaur, 2024). Shopee, a major e-commerce platform in Malaysia, experienced a twofold increase in visitors since the pandemic began, with nearly 50 million monthly visitors in the second quarter of 2022 (Statista, 2023). Shopee Malaysia has become a leading online retailer, dominating the e-commerce sector by becoming the most visited platform in the second quarter of 2021 (Degenhard, 2021). To manage the growing demand, Shopee launched the Shopee Xpress Shipping Programme, aimed at providing reliable pickup and delivery services. However, Shopee Xpress faced operational challenges in meeting this demand while ensuring customer satisfaction (Mock, 2022). Customer satisfaction is crucial for business success, as timely deliveries and efficient logistics significantly enhance trust and repeat business (Kabu Khadka & Soniya Maharjan, 2016; Dünder & Öztürk, 2020). Customer satisfaction in e-commerce hinges on shipment tracking and delivery timeliness (Abdul Adam Arroffi *et al.*, 2021). Effective tracking systems offer real-time updates and transparency, which are critical for customer assurance (Thao Dang, 2021)s. Despite these benefits, Shopee Standard Express has faced numerous complaints about delayed or missing deliveries and inadequate tracking updates, especially during peak periods (Malaysian Communications And Multimedia Commission, 2020). These issues highlight the importance of improving logistics operations to meet customer expectations and maintain competitiveness in the market (Ringo *et al.*, 2023; Margaretha Pink & Nicoline Djohan, 2021). To achieve the research objectives, the level of quality of shipment-tracking and delivery timeliness of Shopee Standard Express service is identified. Furthermore, the level of customer satisfaction with the services provided by Shopee Standard Express is evaluated. Consequently, the relationship between shipment-tracking, delivery timeliness, and customer satisfaction of Shopee Standard Express is determined.

In the competitive e-commerce landscape, the effectiveness of Shopee Standard Express in ensuring customer satisfaction through efficient shipment tracking and timely delivery is critical. Research by Thao Dang (2021) highlights that efficient logistics enhance customer trust and satisfaction, emphasizing that lapses in logistics can significantly harm a company's reputation and customer loyalty. Effective logistics ensure timely deliveries and a seamless shopping experience, fostering trust and repeat business, making the performance of Shopee Standard Express a strategic imperative for maintaining a competitive edge. Despite its efforts, Shopee Standard Express faces ongoing challenges. Iffah Masita *et al.* (2022) reported 186 complaints regarding Shopee Standard Express operations in early 2021, with issues such as missing deliveries, defective products, and mispacked items undermining customer satisfaction. Complaints on platforms like Reddit about delays and lack of status updates further highlight these operational deficiencies (hopper Maniac, 2022). These persistent problems erode consumer confidence and suggest an urgent need for Shopee Standard Express to address and rectify these issues. Improving shipment tracking and delivery timeliness is essential for enhancing service quality, retaining customer loyalty, and maintaining competitiveness in the e-commerce market (Hutagalung *et al.*, 2023).

2. Literature Review

2.1 Shopee Standard Express

E-commerce facilitates the buying, selling, and promotion of goods and services online, driven by factors like convenience and cost-effectiveness (Abar & Alkan, 2020). Shopee, launched in Singapore in 2015, initially operated as a customer-to-customer (C2C) marketplace before transitioning into a hybrid model incorporating Business-to-Customer (B2C) components with Shopee Mall (Handayani *et al.*, 2021). Since its introduction in Malaysia in 2015, Shopee has expanded its services, offering secure payment methods, customer support, and access to a wide range of sellers and products (Anuar, 2022; Sajannavar *et al.*, 2022). Additionally, since 2020, Shopee has provided Last Mile Delivery services through Shopee Xpress, offering various benefits to meet consumer demands (Aida Sabilla *et al.*, 2022).

2.2 Customer Satisfaction

Customer satisfaction, a cornerstone of marketing, represents the extent to which a company meets or exceeds customer expectations, fostering loyalty and advocacy (Ramees, 2013). It significantly impacts business success and product perception, with satisfied customers purchasing more and receiving better service (Top & Ali, 2021). Moreover, customer satisfaction is an emotional response reflecting the perceived performance of a product relative to expectations, emphasizing its subjective nature in the consumer experience (Yusuf, 2022). This dynamic relationship between expectations and actual product performance influences repurchase intentions, with superior service quality enhancing customer satisfaction and fostering repeat purchases (Paulo Rita *et al.*, 2019).

Service quality is a measure of performance that leads to customer satisfaction, defined as a comparison between expectations and performance (Uvet, 2020). Effective logistics management, a positive store image, beneficial sales promotions, and high-quality service delivery positively influence customer satisfaction (Bogdan Nogalski *et al.*, 2021). High-quality logistics services can enhance profit competitiveness by influencing customer loyalty (X. Lin *et al.*, 2023).

2.3 Shipment-Tracking

A shipment-tracking system is an online tool implemented by logistics firms to enable customers to monitor their orders' progress during delivery (Abdul Adam Arroffi *et al.*, 2021). These systems utilize various technologies, such as the global positioning system (GPS), to determine the shipment's current position and provide timely updates to recipients (Tian *et al.*, 2018; Restuputri *et al.*, 2020). By offering real-time notifications and location information, tracking systems enhance service quality, reduce costs, and ensure the safety of shipments throughout the logistics chain (Chang *et al.*, 2019; Hasan *et al.*, 2019; Restuputri *et al.*, 2020). Additionally, tracking facilitates the collection of data necessary for monitoring the movement of transport vehicles and shipments, contributing to overall logistics efficiency (Fancello *et al.*, 2020).

2.3.1 Real-time Tracking

Real-time tracking is the method of continuously tracking and updating the position, status, and other pertinent data of products, services, or assets with the least amount of delay (Iluore *et al.*, 2020). It entails the instantaneous or almost instantaneous collection and transmission of data, enabling stakeholders to obtain current information in real time (Helo & Shamsuzzoha, 2020). Dimensions of real-time tracking include location tracking, status tracking, time sensitivity, data accuracy and integration (Anandhi *et al.*, 2018).

2.3.2 Security

Security in shipment tracking involves protecting data integrity, confidentiality, and availability throughout the journey (Bhutta & Ahmad, 2021). This includes ensuring the safety and integrity of goods, preventing theft and tampering, and maintaining confidentiality. Building trust with customers and complying with regulations are also crucial aspects of secure shipment tracking (Ugochukwu *et al.*, 2022). Effective logistics management requires a comprehensive approach to security to ensure the safe and reliable transportation of goods.

2.4 Timeliness of Delivery

Delivery encompasses various methods of transferring goods from one party to another, whether through physical handover, symbolic transfer via documents, or acknowledgment by a third party holding the items (Badiei & Akbar, 2024). Delivery time refers to the duration associated with shipping after a consumer's purchase has been received (Farooq *et al.*, 2019). Timeliness in delivery is crucial in logistics management, ensuring products reach customers within the specified timeframe, thereby boosting satisfaction and loyalty. Yet, managing delivery times is challenging for e-retailers, as it directly impacts customer satisfaction in the competitive e-commerce market (Anjum & Chai, 2020; Grant & Tang, 2020; Vakulenko *et al.*, 2019).

2.4.1 Delivery Speed

Delivery speed is the duration between when a consumer places an order and when they receive the product or service (Nguyen *et al.*, 2019). The last-mile delivery process in e-commerce is a crucial component, as customers have high expectations for prompt and effective delivery of their products. Enhancing the rate at which products are delivered can result in heightened consumer contentment, recurring transactions, and improved operational effectiveness for e-commerce businesses (Mangiaracina *et al.*, 2019).

2.4.2 Delivery Time Accuracy

Delivery time accuracy refers to the degree to which the actual delivery time of a shipment matches the previously projected or promised delivery time (Zhang *et al.*, 2019). The statement highlights the dependability and accuracy of the logistics and transportation procedures required to deliver items from the starting point to the ultimate destination within the designated period. Attaining precision in the timeframe of delivery is essential for meeting customer demands, enhancing the effectiveness of the supply chain, and reducing interruptions in the conveyance of goods (Luzhanska *et al.*, 2019).

2.5 Conceptual Framework

Based on Fig. 1, the conceptual framework shows the independent variables is shipment-tracking and timeliness of delivery while the dependent variable is customer satisfaction. This study wants to determine is the relationship between shipment-tracking and timeliness of delivery with customer satisfaction on Shopee Standard Express. Based on the previous discussion and literature review, the researcher analysed and proposed theories on the independent and dependent variables in this study. After a comprehensive study, the following hypothesis were formulated:

H1: Shipment-tracking system has a significant relationship on customer satisfaction.

H2: Timeliness of delivery has a positive relationship on customer satisfaction.

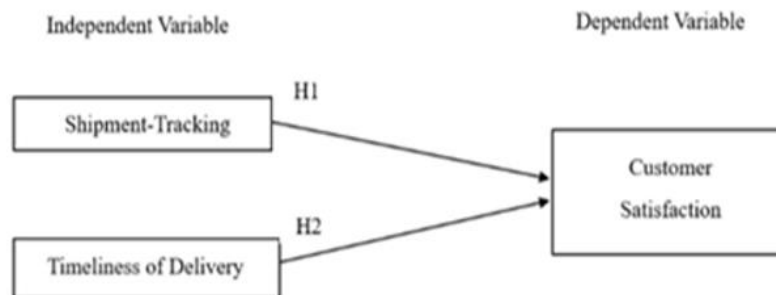


Fig. 1 Conceptual framework of research

3. Research Methodology

3.1 Research Design

The study design played a crucial role in conducting comprehensive research, outlining the title, objectives, and methodologies employed. It aimed to clarify concerns and streamline the data accumulation process (Peffer *et al.*, 2007; Hulland, 2020). A quantitative approach was chosen to explore the relationship between shipment-tracking, delivery timeliness, and customer satisfaction within Shopee Standard Express. A survey questionnaire was used as the primary data collection tool, targeting Shopee Standard Express users in Johor to gather quantitative data swiftly and effectively. This method allowed for the rapid collection and analysis of data from the target population, facilitating the identification of significant variables and the development of hypotheses and research questions. The objective was to gather diverse perspectives from Shopee Standard Express customers in Johor to achieve the study's goals.

3.2 Research Population and Sample

In research, the population refers to a large group of individuals or objects under study, often too vast for direct examination, leading to the selection of samples for study (Singh, 2014; Nagin, 1999). For this study, the population of interest consists of users of Shopee Standard Express within Johor state, a significant segment within the e-commerce landscape. Reports indicate a substantial presence of approximately 984,000 households engaged in e-commerce activities in Johor (Nadiyah Zamlus, 2020). To effectively capture the essence of this population, a sample size of 384 respondents was determined as appropriate, aligning with established statistical guidelines such as those outlined by Krejcie and Morgan (1970). This ensured that the selected sample adequately represented the diversity and characteristics of the broader population, enhancing the study's validity and generalizability.

3.3 Sampling Method

Sampling as a critical aspect of research methodology, requires careful consideration to ensure that the selected sample accurately reflects the characteristics of the population under study (Coyne, 1997; Asiamah *et al.*, 2017). In this study, the chosen approach is non-probability convenience sampling, where participants are selected based on their ease of access and availability. This pragmatic method allows for efficient data collection, particularly suited for online surveys or questionnaires distributed among Shopee Standard Express users in Johor. By employing convenience sampling, the study can efficiently gather relevant insights from a diverse pool of respondents, facilitating a comprehensive analysis of the relationship between shipment tracking, delivery timeliness, and customer satisfaction within this specific demographic (Bradley, 1999).

3.4 Research Instrument

This study employed a quantitative approach, utilizing a questionnaire survey as the primary data collection tool, a technique known as instrument study. The questionnaire consisted of four sections: Section A covered respondent demographics, Section B assessed the quality of shipment-tracking and delivery timeliness of Shopee Standard Express, and Section C measured the level of customer satisfaction with the services provided by Shopee Standard Express. The questionnaire was distributed to Shopee Standard Express users in Johor via Google Forms, featuring items measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Likert scale is commonly used in survey research for scaling responses, offering a structured method for gauging opinions.

3.5 Data Collection

Data collection for this study utilized both primary and secondary sources. Primary data, gathered firsthand by the researcher through questionnaires, focuses on specific details relevant to the research objectives (Dormady *et al.*, 2019; Marshall, 2005). Survey questionnaires were employed as the primary method to investigate the relationship between shipment-tracking, delivery timeliness, and customer satisfaction of Shopee Standard Express. Secondary data, sourced from online journals, theses, and articles, complemented the primary data by providing additional context and supporting the study's findings (Watkins, 2022; Elo & Kyngäs, 2008).

3.6 Pilot Test

A pilot test, or pilot study, assesses the validity and reliability of a questionnaire before full-scale implementation in research (Doody & Doody, 2015). It serves as a trial run to uncover overlooked aspects and refine methodologies, improving the accuracy of subsequent findings (Prescott & Soeken, 1989). With 30 participants, the pilot test aimed to evaluate question suitability, following guidelines recommending a minimum sample size for parameter estimation (Browne, 1995).

3.7 Data Analysis

The collected data was meticulously organized for systematic analysis. Respondents actively contributed to data analysis, which involved both descriptive and correlation analyses using the Statistical Package for Social Science (SPSS) software (Gliner *et al.*, 2000). Initially, reliability analysis was conducted, followed by descriptive analysis to understand respondents' responses. Additionally, correlation analysis was employed to explore the relationship between shipment-tracking, delivery timeliness, and customer satisfaction with Shopee Standard Express.

3.7.1 Descriptive Analysis

Descriptive analysis condenses data into a concise format, providing essential statistics like mean, standard deviation, and range (Wolcott, 1994; Cooksey, 2020). This approach simplifies raw data for direct examination, facilitating researchers in understanding key information (Loeb *et al.*, 2017). Without descriptive analysis, data interpretation becomes challenging. Mean values in this study quantified respondents' agreement regarding the relationship between shipment-tracking, delivery timeliness, and customer satisfaction with Shopee Standard Express, considering various respondent backgrounds.

3.7.2 Correlation Analysis

Correlation analysis, a statistical technique, quantifies the relationship between two variables (Kemp, 2003). This study aimed to assess the correlation between shipment-tracking, delivery timeliness, and customer satisfaction with Shopee Standard Express. It provides a straightforward method to gauge the association between these variables, with significant or high correlation indicating a strong relationship, while low correlation suggests a weak one (Akoglu, 2018). A correlation coefficient of 0.00 indicates no correlation between the variables (Koo & Li, 2016).

4. Results and Discussion

The survey participants consisted of millennial customers of Shopee Standard Express residing in Johor. A total of 384 questionnaires were distributed; however, only 311 responses were received, resulting in a response rate of 80.99%. Only 311 out of 384 returned questionnaires were valid for this study, with no missing data for analysis.

4.1 Demographic Information

Table 1 shows the demographic data of the respondents. The majority of respondents are female (58.2%) and primarily fall within the 23–32 age range (47.9%). Most respondents are Chinese (71.4%) and have an undergraduate education (61.7%), with students making up the largest employment status category (54%). In terms of living area, a significant portion resides in cities (57.6%). Regarding online shopping behavior on Shopee, the majority shop more than 10 times a year (59.8%), indicating a high level of engagement with the platform.

Table 1 Demographic information of respondents

Demographic	Category	Frequency	Percentage (%)
Gender	Male	130	41.8
	Female	181	58.2
Age	13 - 22	84	27
	23 - 32	149	47.9
	33 - 42	52	16.7
	43 -52	21	6.8
	53 and above	5	1.6
Race	Chinese	222	71.4
	Indian	35	11.3
	Malay	48	15.4
	Others	6	1.9
Education Level	Postgraduate	32	10.3
	Pre-University	47	15.1
	Secondary School	40	12.9
	Undergraduate	192	61.7
Employment status	Employed	95	30.5
	Self-Employed	35	11.3
	Student	168	54
	Unemployed	13	4.2
Living Area	City	179	57.6
	Rural	42	13.5
	Town	90	28.9
Frequency of Online Shopping at Shopee (per year)	1 - 3 times	18	5.8
	10 times and above	186	59.8
	4 - 6 times	52	16.7
	7 - 9 times	55	17.7

4.2 Reliability Test

4.2.1 Pilot Test

Table 2 shows the pilot test, involving 30 respondents, yielded Cronbach's alpha values of 0.817 for shipment-tracking, 0.792 for delivery timeliness, and 0.848 for customer satisfaction, all exceeding the acceptable threshold of 0.70. This confirms the questionnaire's reliability, with the main study's reliability test conducted during data collection.

Table 2 Pilot test for actual study

No	Variables	Cronbach's Alpha	Number of items	Interpretation
1	Shipment-tracking	0.817	5	Good
2	Delivery timeliness	0.792	5	Acceptable
3	Customer satisfaction	0.848	5	Good

4.2.2 Actual Test

The reliability test for the actual study indicated high internal consistency, with Cronbach's alpha measures values above 0.70 indicating reliability. The main study showed alpha values of 0.842 for shipment tracking, 0.839 for delivery timeliness, and 0.844 for customer satisfaction, confirming strong reliability as shown in Table 3.

Table 3 Actual test for actual study

No	Variables	Cronbach's Alpha	Number of items	Interpretation
1	Shipment-tracking	0.842	5	Good
2	Timeliness of delivery	0.839	5	Good
3	Customer satisfaction	0.844	5	Good

4.3 Normality Test

Researchers choose between the Kolmogorov-Smirnov and Shapiro-Wilk tests based on sample size. With 311 valid respondents, the Kolmogorov-Smirnov test was used. Table 4 shows that p-values for shipment tracking, delivery timeliness, and customer satisfaction were all 0.00, indicating the data are not normally distributed.

Table 4 Normality test

Item	Kolmogorov-Smirnov ^a			Shapiro-Wilk			Interpretation
	Statistic	df	Sig.	Statistic	df	Sig.	
Shipment-tracking	0.316	311	0	0.642	311	0	Not normal
Timeliness od delivery	0.308	311	0	0.696	311	0	Not normal
Customer satisfaction	0.322	311	0	0.67	311	0	Not normal

4.4 Descriptive Analysis

Based on Table 5, the results indicate that all variables demonstrated a high level of central tendency. The independent variable, shipment tracking, recorded an average mean score of 4.308 with a standard deviation of 0.8032. Similarly, timeliness of delivery, another independent variable, achieved an average mean score of 4.224 with a standard deviation of 0.8254. The dependent variable, customer satisfaction, had the highest average mean score of 4.314 with a standard deviation of 0.7994. These findings reflect strong agreement among respondents on the significance of these factors.

Table 5 Descriptive Analysis

Variables	Average Mean Score	Average Standard Deviation	Level
Independent Variables			
Shipment-tracking	4.308	0.8032	High
Timeliness of delivery	4.224	0.8254	High
Dependent Variables			

Customer satisfaction	4.314	0.7994	High
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4.5 Correlation Analysis

Based on Table 6, the correlation analysis reveals that shipment-tracking has a stronger positive relationship with customer satisfaction ($r=0.686$), nearing a strong correlation, compared to timeliness of delivery, which shows a moderate positive relationship ($r=0.529$). Both correlations are statistically significant ($p=0.000$), indicating that improving shipment-tracking is likely to have a greater impact on customer satisfaction than focusing solely on timeliness of delivery.

Table 6 Correlation Analysis

		Customer satisfaction
Shipment-tracking	Correlation Coefficient	0.686**
Timeliness of delivery	Correlation Coefficient	0.529**

5. Conclusion

The first objective was to assess the level of quality of shipment-tracking and delivery timeliness for Shopee Standard Express services. The average mean score for shipment-tracking was 4.308, indicating high customer satisfaction. Respondents appreciated features like real-time package tracking, which enhances transparency and ease of use (Ali *et al.*, 2019; Ahmad *et al.*, 2022). The user-friendly app interface and secure data practices further boosted customer confidence (Shamsuzzoha & Helo, 2011; Chang *et al.*, 2019).

Timeliness of delivery received an average mean score of 4.224, reflecting customer satisfaction with reliable and efficient deliveries, even during peak periods and in remote areas (Hafizha *et al.*, 2019; Dündar & Öztürk, 2020). However, delays during special periods were noted as areas for improvement, as punctuality builds trust and confidence in the service (Ruomeng Cui *et al.*, 2023).

The second objective aims to assess the level of customer satisfaction of Shopee Standard Express. The findings revealed high customer satisfaction, with a total mean score of 4.314. Key aspects highlighted were the simplicity and precision of the tracking system and timely delivery (means = 4.27 and 4.29, respectively), demonstrating Shopee Standard Express's efficiency in meeting customer expectations. The tracking system's reliability and transparency were consistently praised, as real-time updates boosted customer confidence (Grant & Tang, 2020; Ahmad Ihsan Edward *et al.*, 2022). Improvements could focus on loyalty programs, targeted advertising, and feedback mechanisms to address pain points such as seasonal delays. These findings emphasize the importance of operational performance and empathetic customer care in enhancing satisfaction and fostering positive customer experiences.

For the third objective, the correlation analysis confirmed that shipment-tracking and delivery timeliness significantly impact customer satisfaction. A strong positive correlation was found between shipment-tracking and customer satisfaction ($r=0.686, p<0.01, r = 0.686, p < 0.01$), while delivery timeliness showed a moderate positive correlation ($r=0.529, p<0.01, r = 0.529, p < 0.01$). Shipment-tracking emerged as the stronger factor, as transparency and updates build trust and confidence (Vakulenko *et al.*, 2019). Though slightly lower in impact, timely delivery is vital for loyalty and satisfaction, particularly during peak periods (Ruomeng Cui *et al.*, 2023). Shopee Standard Express should focus on optimizing tracking technologies while maintaining simplicity and improving delivery networks to ensure consistency, especially during high-demand times.

This study established that there was strong positive correlation between shipment tracking, the timeliness of delivery and customer satisfaction of Shopee Standard Express. Though, shipment tracking was identified as a more effective predictor for customer perception and loyalty both the factors were crucial indicators in influencing the customers. Due to the limitations of this research, the results can serve as good advice for Shopee Standard Express to continue the improvement of logistics and tracking. The limitations outlined in this study suggest ways in which future research could improve the general understanding of the factors affecting customer satisfaction; for example, choosing a wider range of stores and including more variables in the analysis. When improving services and meeting customers' demand at the same time, Shopee Standard Express can further strengthen its status in the e-commerce logistics market competition.

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Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** Ngai Gui Shan and Wan Nurul Karimah Wan Ahmad.; **data collection:** Ngai Gui Shan and Wan Nurul Karimah Wan Ahmad; **analysis and interpretation of results:** Ngai Gui Shan and Wan Nurul Karimah Wan Ahmad; **draft manuscript preparation:** Ngai Gui Shan and Wan Nurul Karimah Wan Ahmad. All authors reviewed the results and approved the final version of the manuscript.

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