

Improving Customer Satisfaction in E-commerce: A Survey among Generation Z in Malaysia

Wong Min Wei¹, Leow Lee Yi², Mohd Remie Mohd Johan^{3*}, Noor Zira Azlin Md Zaki⁴, Shao Zhucheng⁵

^{1,2,3,4}Department of Management Studies, Faculty of Business and Management, UCSI University, Jalan Menara Gading, 56000 Cheras, Wilayah Persekutuan Kuala Lumpur, Malaysia

⁵School of Social Sciences, Edinburgh Business School, Heriot-Watt University, 1, Jalan Venna P5/2, Precinct 5, 62200 Putrajaya, Wilayah Persekutuan Putrajaya, Malaysia

Authors' Email Address: ¹wmw.980720@gmail.com, ²joeytheshotlist@gmail.com, ³remie@ucsiuniversity.edu.my, ⁴zira@ucsiuniversity.edu.my, ⁵zs2037@hw.ac.uk

Received Date: 14 November 2022

Accepted Date: 3 January 2023

Revised Date: 11 January 2023

Published Date: 31 January 2023

*Corresponding Author

ABSTRACT

This study focuses on the issue of improving customer satisfaction in e-commerce platforms in Malaysia through the relationship between price, security, product quality, and delivery service. The issue is due to high consumer dissatisfaction with the e-commerce business platform, resulting in low customer satisfaction. Customers' satisfaction behaviour toward an e-commerce platform can be impacted by their usage of e-commerce websites, resulting in goals being accepted and satisfied. This study targeted to improve satisfaction among generation Z customers in Malaysia through convenience sampling. As a result, in this study, 384 Malaysian generation Z customers were chosen. This study used a self-administered questionnaire for the data collection. Data were analyzed using the normality test, reliability test, and Pearson's correlation coefficient analysis. The result found that price, security, quality, and delivery service in e-commerce platforms positively contribute to generation Z satisfaction. The result contributes valuable insight into business performance in the growing e-commerce platform.

Keywords: customer satisfaction, delivery service, price, product quality, security

INTRODUCTION

The main purpose of this study is to explore improving customer satisfaction in e-commerce among generation Z in Malaysia. Generation Z millennials are more inclined to investigate things before purchasing because they grew up during the Great Recession. In addition, these groups of people are technology savvy and are more prone to using the Internet (Mohd Johan, Md Syed & Mohd Adnan, 2022). Thus, e-commerce is critical for bringing people together and fostering relationships. It allows firms to acquire information rapidly, interact with others, and elicit customer suggestions and feedback. It's also a crucial platform for organizations to cultivate favorable client relationships. This study looks at the issues influencing generation Z satisfaction from four perspectives: price, security, product quality, and delivery service. Thus, generation Z consumers' expectation of service quality is higher than that of traditional channel consumers. Therefore, consumers can easily switch to the customer-to-

customer (C2C) e-business mode of other online stores. Moreover, an organization needs to use all limited resources to improve customer satisfaction and maintain customer loyalty (Ansary, 2021).

Problem Statement

Many businesses are now expanding their operations through digital media and online commerce platforms (Mohd Johan et al., 2022). However, the main issue of this study is the high number of complaints among e-commerce generation Z customers. The research problem is thus low consumer satisfaction in e-commerce. Consumer interest in online purchasing is increasing as a result of the fast development of e-commerce platform. The chart below shows that the number of consumer complaints and dollar losses in 2020 is the most significant since the centre began tracking cybercrime statistics in 2000. In 2020, the centre will handle 791790 complaints, an increase of 69% compared with 467361 in 2019. The misfortunes of individuals and businesses total \$4.2 billion, up 20% from 2019. The commercial email leak is the biggest, with about \$1.8 billion (Barry & Carris, 2020).

In addition, Malaysia Domestic Trade and Consumer Affairs Ministry (KPDNHEP) has recorded an increase of 112.5% in complaints last year, compared to 5,416 complaints in 2019, vastly due to the shift from traditional brick-and-mortar purchases to online platforms (Nathan, 2021). Thus, action in the form of investigations will be taken against any business entity suspected in infringing the law without any hesitation, a warning to all enterprises especially those functioning on the online platforms or e-commerce platforms that have been found guilty of certain practices (Victor, 2022). This indicated that the change of trend towards online transactions has made consumers more aware about their rights, including channeling their complaints to the ministry whenever there's wrongdoing by the sellers (Lai, 2022).

Price is the primary consideration behind satisfaction because customers will carefully check whether they entirely use the product to obtain benefits. Price appropriateness will likely help consumers remain satisfied after reaching the expected level of interest. Along this route, customers' trust will continue to improve and repeat the purchase. Good cognition will make customers satisfied. Unexpectedly, if customers have opposing opinions, they will feel dissatisfied, which makes them reluctant to continue to buy back products. Similarly, consumer satisfaction can also constitute a sacrifice, depending on the value obtained, which means that the price of a product depends on the advantage obtained (Wantara & Tambrin, 2019).

Many consumers choose online shopping instead of traditional shopping for convenience. Unfortunately, the continued growth of the Internet commerce business means more e-commerce security breaches. If e-commerce security is inadequate, it will be unable to withstand these flaws. In addition, some buyers will emphasize the protection and security of online transactions, resulting in consumers refusing to use e-commerce (Razzak, 2020). Additionally, many swindlers claim to be legitimate online vendors on e-commerce platforms. When customers acquire items, they discover that they are counterfeit (Tram, 2020).

Product quality is one of the common problems in e-commerce. Moreover, it will affect the satisfaction of consumers. When consumers shop in e-commerce, product quality cannot be guaranteed even if there is a product review. In addition, some defective products sold online are caused by fraudulent sellers who focus on sales (Vasić et al., 2019). In B2C transactions, longer delivery time is another critical problem. Although in business to business, it can offset the number of projects with cost or amount. However, some e-commerce services provide day transport services, but a large part of them cannot be delivered to consumers in time. In online shopping, buyers are not willing to wait long to sign for the package to be delivered (Tram, 2020). Additionally, improving the service quality of e-commerce is considered one of the critical factors in determining the success or failure of e-commerce. E-commerce is most concerned about logistics, including delivery time, being too long, and received products and online specifications that need to match (Rita, Oliveira & Farisa, 2019).

Research Objectives

1. To assess the impact of price on consumer satisfaction.
2. To assess the influence of security on consumer satisfaction.
3. To assess the influence of product quality on consumer satisfaction.
4. To assess the impact of delivery service on consumer satisfaction.

Research Questions

1. Does price affect the consumer satisfaction in e-commerce?
2. Does security affect the consumer satisfaction in e-commerce?
3. Does product quality affect the consumer satisfaction in e-commerce?
4. Does delivery service affect the consumer satisfaction in e-commerce?

LITERATURE REVIEW

The goal of all marketing initiatives is to satisfy customers. Therefore, service marketing is to satisfy customer needs and wants (Machleit & Mantel, 2001). Satisfaction includes sentiments about a product or service and the environment that exists before, during, and after obtaining the product or service (Biesok & Wyrod-Wrobel, 2011). Despite the differences in the approach to defining customer satisfaction that we can find in the literature, the most popular of them is based on the customer expectations (Gajewska, Zimon, Kaczor & Madzik, 2019). Thus, in the e-commerce industry, the capacity to satisfy customers is critical because satisfied customers will reward businesses with favorable behaviour. Furthermore, it links customer satisfaction to the consumer's fulfilment response in which the level of consumption-related fulfilment is pleasant or unpleasant. Consumers will be happy when a product's success meets their expectations.

The price of a product or service is the amount charged by the seller or the sum of the value exchanged by the customer for the product or service. *Price* is a metric used to measure the quality of products or services. Because customers evaluate price when judging the value of goods or services, pricing is the primary element that directly determines customer happiness in e-Commerce (Claessens, 2020). Price perception compares the advantages acquired by customers and the benefits provided to the firm (Danish, Mohammad & Hazrat, 2021). Thus, the price of a product or service is the total of the consumer's value traded for the product or service and the amount charged by the seller. If customers receive more benefits than the company receives, they will feel that its price is low. In contrast, if the customer's benefits are lower than the company's benefits, the customer would believe the company's pricing is excessively high.

Security is viewed as a "threat" since it may cause financial problems with network resources or data through data manipulation, destruction, fraud, disclosure, denial of service, and misuse. Every internet consumer should be concerned about security. This is due to the fact that one of the primary reasons why most potential clients hesitate to purchase online is a sense of uneasiness. As a result, online merchants and sellers must pay special attention to guaranteeing online security. Internet security elements include the security certificate, privacy policy, and trust in the online store. In addition, the successful functioning of e-commerce security depends on a complex interrelationship between several components, including the applications development platforms, database management systems, systems software and network infrastructure (Kesh, Ramanujan & Nerur, 2002). Online purchases carry the danger of sending sensitive information, such as credit card information. Customers want to know how an online merchant safeguards their personal data and transaction data before disclosing personal information. Every internet buyer should be worried about security (Tran & Nguyen, 2020). Customers want to know how an online firm protects their personal information and transaction data before sharing personal information. To date, e-commerce security has recently been an emerging topic due to the escalation in credit card fraud and stolen user accounts (Cebeci, Nari & Ozdemir, 2022).

Product quality refers to a set of characteristics of a saleable commodity that is practical and can be controlled by a manufacturer or seller to meet specific basic requirements. Low-quality products will erode consumers' trust in online purchases and the company's reputation and sales. More importantly, it may impact the company's growth and survival. Thus, product quality must be prioritized by businesses and customers. (Madiistriyatno & Nurzaman, 2020). In addition, product quality influences the buying process, provides a competitive advantage, maintains consumer expectations, fosters customer loyalty and retention, and, most significantly, safeguards a brand's reputation. Therefore, selecting higher-quality items is essential for any business. High-quality items are the first pick of buyers. Assume that customers are dissatisfied with the quality of the company's products. In that situation, the consumer will purchase the desired items from competitors. Therefore, if domestic companies do not improve their products' quality, it will not be easy to survive in the market (Quain, 2019).

Consumers want speedy, safe, and dependable delivery in an online buying environment. Customers may be disappointed and dissatisfied if their orders are not delivered on time (Reyhle, 2019). To keep customers pleased, e-commerce sellers need to employ a cheap yet dependable courier service (Kenny, 2019). Delivery is a supply chain link or method that can directly influence customers and cause them to be satisfied. It is also essential to any purchase relationship, particularly over the internet. The first requirement for customer satisfaction is good product delivery service. However, as technology has advanced, the variety of delivery methods and alternatives has increased. When obtaining the things, they purchase online, customers today have several options. This has resulted in a complete shift in how delivery should be done (Reyhle, 2019).

Conceptual Framework

This study investigates ways to enhance consumer satisfaction in e-commerce. Price, security, product quality, and delivery service are examples of independent factors that promote consumer satisfaction in the suggested conceptual framework. The dependent variable in this study is consumer satisfaction, which is also the primary focus of this investigation. With a survey of Generation Z in Malaysia, this study proposes that pricing, security, product quality, and delivery service may considerably increase consumer satisfaction in e-commerce.

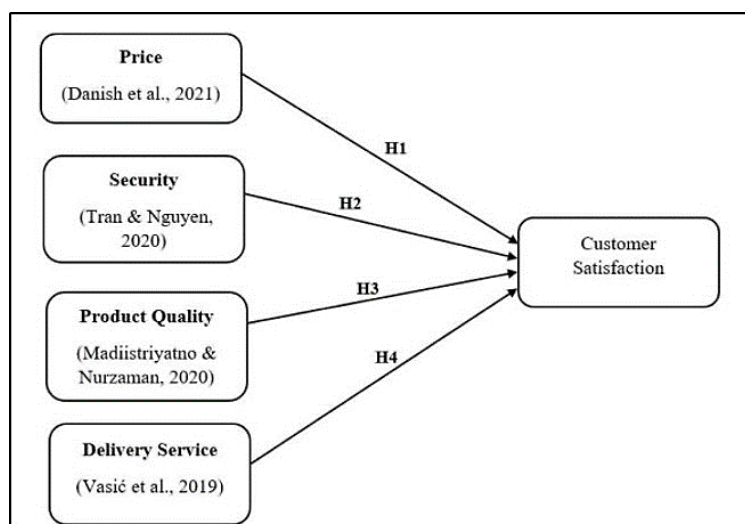


Figure 1: Conceptual Framework

METHODOLOGY

This study used quantitative research methodologies to explore the link between the independent and dependent variables. The data from the independent and dependent variables will reveal if the previously indicated independent factors affect the dependent variable. This study explores generation Z's satisfaction towards the e-commerce platform in terms of price, security, product quality and delivery services. Generation Z target population from 18-25 years old were selected in this study. This study adopted a convenience sampling method and used Google Forms to obtain the required data in the Klang Valley area. In this study, 384 respondents from generation Z in Malaysia were polled. The survey was completed using a self-administered questionnaire. Data analysis was carried out using tests such as the normality test, reliability test, and Pearson's correlation coefficient analysis.

The distributed questionnaire has two parts. Part I contains demographic questions such as age, gender, and occupation. Part II includes questions about the independent and dependent variables. Furthermore, two types of measurement were applied, i.e., nominal scale and Likert scale, for the questionnaire. Part I uses a minor scale, which helps the researcher to know about the respondents' personal information. Part II applies the Likert scale of questions with a five-point scale: "1= Strongly disagrees, 2= Disagree, 3= Undecided, 4= Agree, 5= Strongly agree". The questions chosen for this study are based on which covered all the variables. This study uses the PLS-SEM analysis method to analyze the data obtained. This study was conducted with the principles of research and data collection ethics. Informed consent was obtained from all participants, and the data was collected to ensure the confidentiality and privacy of participants. The data collected was solely used for this study, and all results were reportedly accurate and objective.

RESULTS AND DISCUSSIONS

PLS-SEM statistical technique was used to analyzed the relationship between unobserved variables and observed variables. PLS-SEM is more flexible than other structural equation modelling techniques and can accommodate a wide range of model structures and data types. PLS-SEM is also suited for analyzing data with a small sample size, high level of collinearity, or a large number of predictor variables. Cronbach's Alpha, Composite Reliability, and Dijkstra-rho A Henseler's values are presented in Table 1. All construct measures are reliable because they all exceed the minimum value of 0.70 for rho A. The constructs all record values between 0.759 and 0.907, indicating that they are all reliable because they are greater than 0.70. Thus, Cronbach's Alpha and Composite Reliability for Customer Satisfaction will be 0.863 and 0.907, respectively, for Delivery Service will be 0.832 and 0.881, for Price will be 0.759 and 0.845, for Product Quality will be 0.811 and 0.877, and for Security will be 0.825 and 0.884. Additionally, we can interpret reliability because all constructs in this research have a high degree of reliability, except for Price, which has a high degree of reliability, and Cronbach's Alpha has a high degree of internal consistency.

Table 1: Cronbach's Alpha (CA), Composite Reliability (CR), and Dijkstra-Henseler's rho_A (pA).
 Source: Data created for the research

Variables	Constructs	Number of items	Cronbach's Alpha (CA)	Composite Reliability (CR)	Dijkstra-Henseler's rho_A (pA)	Internal Consistency
Dependent Variable	Customer Satisfaction	4	0.863	0.907	0.863	Very Good
Independent Variable 1	Delivery Service	5	0.832	0.881	0.838	Very Good
Independent Variable 2	Price	4	0.759	0.845	0.771	Good
Independent Variable 3	Product Quality	4	0.811	0.877	0.817	Very Good
Independent Variable 4	Security	4	0.825	0.884	0.830	Very Good

The inner structural model was analysed using a significance level of 0.05 or less. As illustrated in Table 2, the results of PE ->CS, PQ ->CS, SY ->CS, and DS ->CS were all supported. Finally, they are critical for all delivery service, price, product quality, security, and customer satisfaction constructs. As a result, we can be confident that all of the research's constructs are sound and that the findings will be supported.

The measurement model in this study is reflective models. Average Variance Extracted (AVE) values for Customer Satisfaction are 0.709, Delivery Service is 0.598, Price is 0.578, Product Quality is 0.642, and Security is 0.656. All constructed AVEs exceed 0.50, whereas each constructed outer loading exceeds 0.70. As a result, all of the constructs used in this study are excellent. All factor loadings were greater than the recommended cut-off value of 0.70, indicating convergent validity. Convergent validity is achieved because the outer/factor loadings are greater than 0.70, except for the PQ2 value of 0.683.

Table 2: Path Coefficients (Corrected confidence interval).
Source: Data created for the research

	Original Sample (O)=Path Coefficients	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O /STDEV)	P Values	2.50%	97.50%	Result
DS -> CS**	0.156	0.157	0.059	2.66	0.008	0.042	0.269	Supported
PE -> CS***	0.266	0.267	0.048	5.537	0	0.167	0.358	Supported
PQ -> CS***	0.248	0.249	0.057	4.371	0	0.132	0.356	Supported
SY -> CS***	0.205	0.206	0.047	4.35	0	0.112	0.298	Supported

Note: CS= Customer Satisfaction, DS= Delivery Services, PE= Price, PQ= Product Quality, and SY= Security.
 *Significant at p < 0.05 level, **Significant at p < 0.01 level, ***Significant at p < 0.001 level, and "NS" Not supported at p > 0.05 level.

Customer satisfaction is influenced significantly by price. According to Table 2, there was a substantial association between price and consumer satisfaction, with a Pearson's correlation coefficient of 0.266. The findings corroborated prior findings, namely that the most important aspect of product value determining online consumer happiness is the product's price. Additionally, a statement about price offering insight into the surface of quality was established during the investigation. When the seller charges the consumer a fair price, the consumer develops positive feelings toward the seller, which has an effect on consumer satisfaction and loyalty.

There is a positive correlation between product quality and consumer satisfaction. According to table 2, which illustrates the Pearson correlations between product quality and consumer happiness, the value of 0.248 indicated a favourable association between product quality and consumer contentment. Previous research has demonstrated a similar consequence. Product quality is one of the three most explored factors affecting online buyer satisfaction, according to a consumer preferences survey.

Consumer satisfaction is positively correlated with security. According to table 2, the Pearson correlation coefficient of 0.205 indicates that security and consumer satisfaction are positively related. Due to the online payment method and the associated personal privacy concerns, this result was comparable to the conclusion that online shopping is not trustworthy or dependable for young customers.

A significant relationship exists between delivery service and consumer satisfaction. According to table 2, Pearson's correlation coefficient of 0.156 indicates a positive relationship between delivery service and customer satisfaction.

Table 3: R Square - Coefficient of Determinant.
 Source: Data created for the research

	R Square	R Square Adjusted	Result
CS	0.437	0.431	Moderate

Note: CS= Customer Satisfaction.

The percentage of variance explained by exogenous variables in the endogenous variable is indicated. There are possible values between 0 and 1, with values closer to 0 indicating a poor fit and values closer to 1 indicating a better fit. According to Table 3, the R square value for consumer satisfaction is 0.437, while the adjusted R square value is 0.431, which is considered moderate.

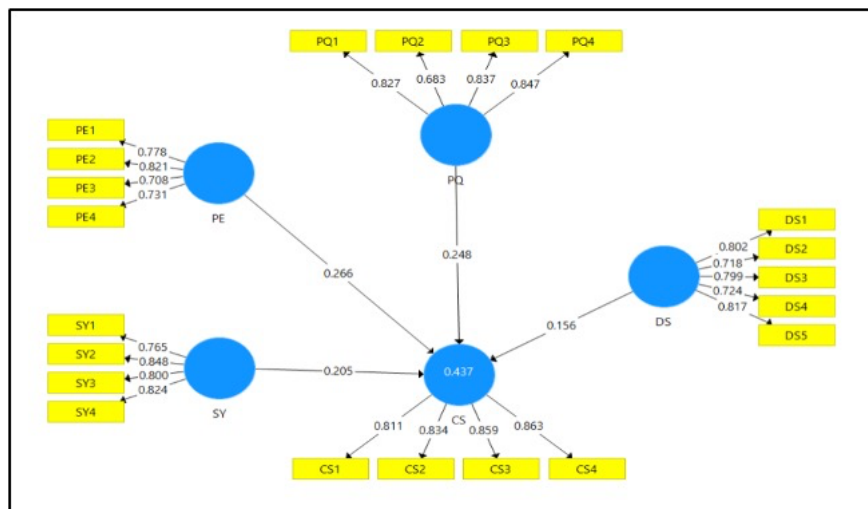


Figure 2: Smart-PLS 3.0 Model for this data research

According to the structural model in Figure 2, there is a strong correlation between the independent and dependent variables that may influence generation Z's satisfaction with their shopping experience. According to Rita et al. (2019), price alone cannot define a consumer's level of happiness because the price can easily be compared due to the abundance of information available on the internet. As a result, the previous researchers conducted this study to understand better the aspects of online shopping that contribute to users having an unparalleled online shopping experience that cannot be easily replicated. (Zeith, 2021) also stated that the price is the cost paid or opportunity lost by the consumer to obtain a product or service. Consumers' reactions to prices affect their decision-making process. When a customer decides on a product or service, pricing plays a significant role. Price is an important issue, as customers will compare the prices of similar products purchased with those of other consumers.

According to the study Yec (2020), security refers to an online shopping website's ability to protect its customers' personal information from any threat of unauthorized use during the transaction process. Security and privacy concerns were the most critical criteria for preserving trust in online transactions and the website itself. The most serious security threat that internet users faced was a threat to their privacy. According to a previous study, people are more concerned than the average person about online shopping security, with 75% of customers concerned about the risk of using their personal information and credit cards, which must be entered before they can make an online purchase. Jain (2016) asserts that high-quality products may increase client happiness and loyalty. Simultaneously, it can help reduce the risk and cost of having to replace worker-made defective goods. Meeting client expectations,

preserving a positive reputation, adhering to industry standards, and controlling costs are all critical considerations. According to research (Reyhle, 2019), delivery is also the consumer's final impression of your business, which is why a statement is necessary. In addition, customers now have various options for receiving online items. This has resulted in a complete paradigm shift in how delivery should be conducted. Next-day delivery is no longer an option; it is expected. As a result, if seller does not offer a variety of delivery options, they may miss out on many potential customers.

CONCLUSION

This study aims to figure out what elements affect consumer satisfaction among Generation Z. Generation Z millennials are more likely to research products before making a purchase. In addition, E-commerce is critical for bringing people together and fostering relationships. It allows firms to acquire information rapidly, interact with others, and elicit customer suggestions and feedback. It's also a crucial tool for organizations to use to cultivate favorable client relationships. Furthermore, many firms are using it to design strategies that benefit them. This study looks at the issues that influence generation Z from four perspectives: price, product quality, delivery service, and security.

When deciding where to purchase something, price is always a significant factor. Consumers will weigh the quality of a product against its price. E-commerce websites must understand their position, the value of their product and their customer's willingness to pay for it. Numerous businesses expressed concern about additional fees, levies, and taxes. 51% of customers believe that prices are lower on e-commerce websites than in physical stores. This is because retailers sometimes offer different promotions in-store than they do online. This is because the costs associated with maintaining a physical store may be significantly higher than those related to maintaining an online store. Rent, electricity, wages, fixtures, and shrinkage loss contribute to the gross margin and overhead costs associated with a store. Additionally, they discovered that an online store, rather than a brick-and-mortar location, may meet their consumers' desire for a lower price (Baker, 2021).

Product quality has always been a critical factor in determining customer loyalty. If the quality of a product is satisfactory, consumers will continue to purchase and even recommend them. If, on the other hand, a low-quality product is provided, customer satisfaction may suffer, and they may seek an alternative. Online merchants must ensure the product's quality before delivery and that the goods arrive in perfect condition (Daniel, 2021).

Customers' security concerns have been identified as a barrier to the development of e-commerce. Security refers to the protection provided by an e-retailer to an online customer. Protecting personal data or ensuring user authentication are two examples. Online shoppers will be hesitant to purchase on a particular website without security. Customers will feel secure and satisfied if adequate protection is provided. To persuade customers to engage in a transaction, e-retailers must demonstrate their capacity and desire to protect consumers' data and information. Due to a lack of technical competence and understanding, customers find it extremely difficult to objectively evaluate website security measures and instead tend to judge them subjectively. As a result, how customers perceive an e-commerce security statement and technical protection mechanisms influences their overall opinion of the online store's security procedures (Cardona, 2019).

Customer satisfaction is generated by the link in a supply chain that connects directly to consumers, referred to as delivery service (Reyhle, 2019). Customers prefer to shop from the comfort of their homes, expecting their purchases to arrive safely, reliably, and on time. Rapid and dependable delivery is critical in an online environment for meeting and exceeding client expectations. Customers can easily navigate from one online page to another with a single click. Some have even abandoned online merchants in favor of traditional brick-and-mortar merchants due to late, dangerous, or unsatisfactory product delivery. Thus, delivery is a customer's final impression towards online business. As an e-

commerce seller, there are several ways to improve delivery service, including selecting the right logistic company and monitoring customer reviews consistently.

The researcher identified the study's limitations, including the difficulties encountered during the data collection process. Additionally, the researcher discovered that the study's independent variables could be more optimal because too many researchers have discussed similar topics. Further, the researcher found discrepancies in the data collected because most respondents were college students. Additionally, our research objectives appear limited, making it impossible for us to study all fields with greater precision, such as age, income, and race. Additionally, because the research subject is a member of Generation Z, the distribution via social media (such as the most shared links on Facebook) is assumed to receive responses from members of similar social groups. The similarities between respondents in terms of race, social status, income, and interests may limit the research findings.

To summarize, this study demonstrates how price, product quality, security, and delivery service affect customer satisfaction in e-commerce. Additionally, the findings of this study aid the understanding of the relationship between price, product quality, security, and delivery service in the context of e-commerce customer satisfaction.

ACKNOWLEDGEMENTS

Researcher owe a sense of gratitude to our supervisor, Dr. Mohd Remie Mohd Johan, for providing us with valuable instruction, encouragement, and assistance during our studies. His clear guidance and constructive criticism have provided us with the information that has enabled us to complete this study successfully. Researcher also owe a special thanks to the Faculty of Business and Management for their guidance and help during this phase.

FUNDING

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

AUTHORS' CONTRIBUTION

Wong Min Wei and Leow Lee Yi conceived and planned the study, performed the experiments and data preparation. Mohd Remie provided guidelines throughout the article writing process, as well as helping with post-article refinement. Noor Zira and Shao Zhucheng provided final comments and revision guidelines. All authors provided important feedback and helped shape the study, analysis, and manuscript.

CONFLICT OF INTEREST DECLARATION

Researcher certify that the article is the original work of the author and co-authors. The article has not been previously published and is not under consideration for publication elsewhere. This study/manuscript has not been submitted for publication and has not been published elsewhere, in whole or in part. Researcher certify that all authors have made significant contributions to the work submitted to Jurnal Intelek, to the validity and legitimacy of the data, and to its interpretation.

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