Measuring Customers Loyalty Through Satisfaction In E-Commerce: An Empirical Study On Tokopedia

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Abstract: This study aims to empirically examine the impact of e-service quality, e-commerce innovation, utilitarian value, and hedonic value on customer loyalty, with customer satisfaction as a mediating variable at Tokopedia. The research population consists of Tokopedia users in Jakarta. The sample for this study includes 252 participants selected through screening questions and collected online via Google Forms using judgmental sampling. The data is processed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate a positive and significant influence of e-service quality, e-commerce innovation, utilitarian value, and hedonic value on customer loyalty, both directly and indirectly, through the mediation of customer satisfaction.

Keywords: E-Service Quality; E-Commerce Innovation; Utilitarian Value; Hedonic Value; Customer Loyalty.

Abstrak: Penelitian ini bertujuan untuk meneliti secara empiris pengaruh *e-service quality, e-commerce innovation, utilitarian value,* dan *hedonic value* terhadap *customers loyalty* dengan *customers satisfaction* sebagai variabel mediasi pada Tokopedia. Populasi penelitian ini merupakan pengguna Tokopedia di Jakarta. Sampel pada penelitian ini sberjumlah 252 sampel setelah melalui *screening question* dan dikumpulkan secara *online* melalui *Google Form* dengan metode *judgemental sampling*. Data tersebut diolah menggunakan *PLS-SEM*. Hasil penelitian menunjukkan adanya pengaruh positif dan signifikan variabel *e-service quality, e-commerce innovation, utilitarian value,* dan *hedonic value* terhadap *customers loyalty* baik secara langsung maupun tidak langsung dengan *customers satisfaction* dalam memediasi pengaruh tersebut.

Kata Kunci: Kualitas Layanan Elektronik; Inovasi E-niaga; Nilai Utilitarian; Nilai Hedonis; Loyalitas Pelanggan.

INTRODUCTION

One of the observable advantages of technological advancement is its contribution to the global COVID-19 epidemic. As the outbreak expanded, digital technologies became essential in daily life. In Indonesia, the widespread implementation of social restrictions known as lockdowns, a term used to describe large-scale social restrictions, played a crucial role in facilitating the population's shift to online learning, online shopping, and remote working (Yusuf, 2021).

Indonesia's internet user base grew by 0.089 per cent between 2019 and the second quarter of 2020, accounting for 0.737 per cent of the nation's 266.900 million people in 2019 (Meodia, 2020). With a 0.564 per cent internet penetration rate, Java Island led the way, followed by DKI Jakarta, the capital province, at 0.850 per cent (APJII, 2020). There was a significant shift, especially in the digital sector, which offers online buying services. A 0.400 per cent increase in internet shopping was seen in the second month of the COVID-19

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epidemic (Irso, 2020). Users ranked Shopee, Tokopedia, Lazada, and Bukalapak as their top four preferred online marketplaces (APJII, 2020).

The number of e-commerce consumers in Indonesia increased by 0.880 per cent between 2020 and 2021, from 17 million to 32 million. This increase shows that the limited social gatherings changed customer buying habits toward internet retailers (Makki, 2021). During the same period, Bank Indonesia recorded a significant increase in transaction values. The overall value of e-commerce transactions in Indonesia increased to Rp 401 trillion in 2021 from Rp 266 trillion in 2020 (Rizaty, 2023). Tokopedia, a domestic e-commerce, saw a 0.109 per cent growth in net sales in 2021 compared to 2020, rising from Rp 11.180 trillion to Rp 12.400 trillion (Timmoria, 2022). A rise in the number of people visiting the Tokopedia website is also noted, which corresponds with the company's profit margin. With 149.6 million visits on average per month from quarters I through IV of 2021, Tokopedia outperformed, while Shopee came in second with 131.890 million visits on average (Dhini, 2022).

However, in 2023, Indonesian users accessing e-commerce platforms 2023 are expected to send Rp 489 trillion. However, the actual amount is only Rp 476,300 trillion, which has increased but is still less than Bank Indonesia predicted. People are returning to offline shopping, and the competition from social media platforms like TikTok for online shopping contributes to this trend (Rizaty, 2023). This also has an impact on Tokopedia. Throughout the first semester of 2023, Tokopedia was impacted by the drop in transaction values. Rp 121.480 trillion was recorded as a decrease of 0.082 per cent from Rp 132.470 trillion in the first semester of 2022. According to PT GoTo Tbk, e-commerce (Tokopedia) comes in second and fintech (Go-Pay), which makes up the most significant business segment, is in first place (Annur, 2023).

The drop in website visits to Tokopedia from the fourth quarter of 2022 coincided with the decline in profit. The data below shows that, compared to the same quarters in 2023, there were more visitors in the first and second quarters of 2022. Shopee established itself, and Tokopedia's website traffic kept going down.

Table 1. Total Visits of Tokopedia and Shopee from 2022 to Second Quarter 2023

E-commerce	Shopee	Tokopedia
Quarter I 2022	132,800,000	157,200,000
Quarter II 2022	131,300,000	158,300,000
Quarter IV 2022	181,400,000	135,167,000
Quarter I 2023	158,000,000	117,000,000
Quarter II 2023	166,900,000	107,200,000

Source: Modified from Databoks (2022 & 2023)

Tokopedia needs customers' loyalty to make a firm commitment by customers to choose and repurchase services or products from them. Moreover, loyal customers choose their brand despite marketing campaigns and other outside influences that could tempt them to switch. Also, loyal customers spend less money courting new customers than approaching existing ones (Al Adwan et al., 2020). To foster consumer loyalty and encourage them to choose a company's products and services, companies must receive positive customer evaluations and are more likely to make repeat purchases. The cost of retaining customers is lower than the cost of acquiring new customers (Wilson et al., 2021).

(Vijay et al., 2019) stated that internal and external factors influence and impact online

consumers' behaviour; the external factors are explained by website atmosphere, which includes informativeness, effectiveness, and entertainment, while the internal factors are explained by shopping values, which include utilitarian and hedonistic values. Online customers and traditional customers exhibit different behaviours. Online customers compare various service providers, and if they are dissatisfied with the e-service quality provided, they may switch to alternatives. The E-service quality of a website is evaluated based on efficiency, reliability, fulfilment, privacy, responsiveness, compensation, and contact. Good service quality can lead to customer satisfaction and foster loyalty, whether through direct or indirect relationships (Rahman et al., 2022). These days, a product or service's life cycle is shorter, indicating that customer needs are changing quickly. A business that keeps innovating can enhance its offerings to satisfy the needs better. Customers' satisfaction may rise when they perceive their needs are being met (Rahman et al., 2022). Innovation is essential for the sustainability and growth of companies in creating intangible resources that support sustainable long-term competitive advantages (Hajar et al., 2022).

From an internal aspect, measuring if it can influence consumer experiences and decisions in choosing and purchasing a product or service is essential. Shopping value is divided into two natures: utilitarian and hedonic value. Buyers with a utilitarian value orientation exhibit more logical, rational, and planned purchasing behaviour as it involves daily routine purchases (Doghan & Albarq, 2022). Meanwhile, the hedonic tendency, characterized by increased stimulation, fantasy, and emotional aspects of the purchasing experience, reflects the emotional value of shopping (Vijay et al., 2019).

Rather than immobilizing society, the COVID-19 pandemic prompted a change in digital online activities, such as shopping. In order to meet people's needs, online shopping was one significant factor impacted; Tokopedia was a well-known portal that was the subject of this study. Tokopedia's quality of e-services and e-innovation will be studied internally. Along with the internal and external aspects, such as utilitarian and hedonistic behaviours of Indonesian consumers a nation still relatively unexplored despite having a high rate of online purchasing and having a significant economic impact will all be examined in this study.

Additionally, this study fills in the empirical gaps and inconsistencies in previous findings by offering detailed insights into how many elements of the online shopping experience contribute to sustained customer engagement and competitive advantage in a continually changing digital economy. Several studies have found positive and significant results on external and internal factors influencing consumer behaviour, subsequently affecting their satisfaction and loyalty. However, some studies indicate non-significant results or minimal impact on loyalty. Satisfied consumers do not necessarily exhibit loyalty to a brand (Juwaini, 2022).

Regarding inconsistent study results and empirical gaps that affect consumer loyalty, this article aims to investigate the phenomena of e-service quality, e-commerce innovation, utilitarian value, hedonic value, and customer satisfaction that affect customer loyalty. The rationale behind this research is supported by the selection of Indonesia as the focus, given its high rates of online shopping, and by Tokopedia's status as a top online platform.

THEORETICAL REVIEW

Customers Loyalty. They also stated loyalty as a commitment that is held deeply, which is seen from the customer's tendency to buy or re-support a preferred product or service in the future, even though the influence of the situation and marketing efforts have the potential to cause customers to switch. (Rahman et al., 2022) Also, loyal customers are more likely to repurchase the same product or service from the same business, as their level of satisfaction significantly impacts their willingness to use it again. In line with previous definitions, customer loyalty is a strong belief influenced by customer satisfaction and willingness to repurchase a product or service, even if marketing efforts may cause customers to switch.

Customers Satisfaction. According to (Wilson et al., 2021), customer satisfaction is the customers' assessments regarding the products or services they use, in which the customers tend to assess whether a product's or service's performance exceeded their expectations. (Adwan et al., 2020) referred to satisfaction as the process of comparing expectations with actual performance. Furthermore, (Kotler & Armstrong, 2021) stated that satisfaction is the extent to which a product's perceived performance matches a buyer's expectations. As stated by the previous definition, customer satisfaction can be defined as the evaluation of how well a product or service performs in real-world situations relative to the customer's expectations.

E-service Quality. (Juwaini et al., 2021) stated that e-service quality is a service provided to consumers through the Internet. Service based on the Internet makes customers feel more efficient in performing transactions in terms of time and cost. (Irwansyah & Mappadeceng, 2018) Defined it as the overall assessment and evaluation of the quality of service delivery to consumers in a virtual marketplace. (Wirapraja et al., 2021) It also stated that e-service quality is the efficiency and effectiveness of an application in facilitating product and service transactions. E-service quality is the level of efficiency and effectiveness in providing services to consumers through the Internet. It aims to make it more efficient in terms of time and cost and ensure overall satisfaction.

E-commerce Innovation. A study by (Rahman et al., 2022) defines e-commerce innovation as an activity that introduces new features, methods, a new look, and new services, or the improvement of all these things on a website or e-commerce application based on information technology. (Zuhri & Akhmad, 2022) Stated that e-commerce innovation, such as winning customers' hearts by making them feel satisfied and making repeat purchases, is the most important thing to do in competition. In line with the previous definition of e-commerce, innovation can be referred to as introducing new features, services, and methods on a website or app, known as e-commerce innovation. It is a tactic to satisfy customers and entice them to make additional purchases, providing a competitive edge in the marketplace.

Utilitarian Value. (Vijay et al., 2019) define utilitarian value as utilitarian shopping endeavours to drive the optimal value by acting rationally with a specific goal orientation, and consumers focus on the functional features. Moreover, utilitarian purchasing behaviour is more logical, rational, planned, part of daily routine, and always included in purchases (Doghan & Albarq, 2022). Following previous definitions, utilitarian value arises because of needs. Utilitarian value can be defined as rational, practical, logical, planned, and part of the daily routine of the buying process. In this action, consumers also focus more on functional features, fulfilment of goals, and a lower level of risk.

Hedonic Value. According to (Doghan & Albarq, 2022), hedonic value evokes cheerfulness and excitement, suggesting that the purchased product or service fulfils emotional needs, while the individualistic hedonic value may offer benefits without purchase. Furthermore, hedonic value is more subjective and personal than utilitarian value and is more about fun than the composition task (Evelina et al., 2020). (Lee & Kim, 2017) stated that the hedonic consumption experience involves the uniqueness of a product or service or the emotional connection it evokes in the consumer. As stated by the previous study, hedonic value is an experimental shopping action involving feelings of joy and positive emotional experiences, resulting in consumers feeling happy and excited.

Hypothesis Development. The Relationship Between E-service Quality and Customer Satisfaction. Online consumers view the quality of e-services as a crucial factor in determining their level of satisfaction. This concerns the customers' emotional and cognitive states that their expectations are met (Kusdibyo & Februadi, 2019). In line with that statement, previous studies (Avania & Widodo, 2022; Rahman et al., 2022) also found that e-service quality positively and significantly affects customer satisfaction. Based on the previous findings, the hypothesis can be formulated as:

H1: E-service quality has a positive and significant effect on customer satisfaction.

The Relationship Between E-service Quality and Customer Loyalty. One of the things that affects customer loyalty is service improvement. Revisit a website due to the exceptional level of services offered by the company, which creates a sense of loyalty in them. High-quality electronic services give businesses a competitive edge (Shafiee & Bazargan, 2018). According to previous studies (Irwansyah & Mappadeceng, 2018; Wirapraja et al., 2021), e-service quality positively and significantly impacts loyalty, consistent with that statement. The following is a formulation of the hypothesis based on the earlier findings:

H2: E-service quality has a positive and significant effect on customer satisfaction.

The Relationship Between E-commerce Innovation and Customer Satisfaction. Innovation in developing services based on the company's products is essential for competitive companies to remain sustainable in the market. Customer satisfaction may result from this, and it may impact how loyal they are (Valencia & Layman, 2021). According to relevant studies, e-commerce innovation positively and significantly impacts customer satisfaction (Rahman et al., 2022; Valencia & Layman, 2021), which supports the previous claim. The hypothesis can be stated as follows as a result of the earlier findings:

H3: E-commerce innovation has a positive and significant effect on customer satisfaction.

The Relationship Between E-commerce Innovation and Customer Loyalty. In today's more competitive world, innovation is essential. Customers are more flexible in quickly comparing offers from many e-commerce platforms due to their accessibility and broader reach. Moreover, if a service provider can consistently satisfy the needs of its customers through innovation, then that customer's loyalty to the service will either have grown or been established (Rahman et al., 2022). Relevant research (Zuhri & Akhmad, 2022; Valencia & Layman, 2021) indicates that e-commerce innovation positively and

significantly impacts customer loyalty. According to the previous studies, the hypothesis can be expressed as follows:

H4: E-commerce innovation has a positive and significant effect on customer loyalty.

The Relationship Between Utilitarian Value and Customer Satisfaction. Retailers need to shift their focus to providing all possible benefits to customers via their websites and services. Therefore, Online retailers are advised to maintain an accurate, up-to-date, comprehensive, and relevant website to ensure customer loyalty (Doghan & Albarq, 2022). According to current studies (Vijay et al., 2019), utilitarian value positively and significantly affects customer satisfaction. Based on earlier research, the following hypotheses are:

H5: Utilitarian value has a positive and significant effect on customer satisfaction.

The Relationship Between Hedonic Value and Customer Satisfaction. Websites' features make shopping easier for customers and give them a fundamental hedonic value of happiness via easy purchasing (Vijay et al., 2019). In line with (Doghan & Albarq, 2022), the findings indicate that hedonic value positively and significantly impacts customer satisfaction. Based on the previous findings, the hypothesis can be formulated as:

H6: Hedonic value has a positive and significant effect on customer satisfaction.

The Relationship Between Customer Satisfaction and Customer Loyalty. These results imply that consumers are more inclined to stick with an e-commerce website where they get and feel more satisfaction. Increased customer loyalty and the possibility of making additional purchases and visiting an e-commerce website can be attributed to higher customer satisfaction (Adwan et al., 2020). Relevant research (Marcellinus & Ruslim, 2019; Wilson et al., 2017) indicates that customer satisfaction positively and significantly impacts customer loyalty. According to the previous studies, the hypothesis can be expressed as follows:

H7: Customer satisfaction has a positive and significant effect on customer loyalty.

The Relationship Between E-service Quality to Customer Loyalty through Customer Satisfaction. The previous research finds that e-service quality positively and significantly affects customer loyalty through customer satisfaction (Kusdibyo & Februadi, 2019; Rahmawaty et al., 2021; Atmojo & Widodo, 2022). E-service quality can be the ability of consumers to use a specific website regularly, their frequency of visits, and their sustained interest over time (Atmojo & Widodo, 2022). The hypothesis can be stated as follows as a result of the earlier findings:

H8: E-service quality positively and significantly affects customer loyalty through customer satisfaction.

The Relationship Between E-commerce Innovation to Customer Loyalty through Customer Satisfaction. According to earlier studies (Rahman et al., 2022; Valencia & Layman, 2021), e-commerce innovation positively and significantly affects customer

loyalty through customer satisfaction. (Valencia & Layman, 2021) also stated a company that constantly focuses on service innovation in creating innovative services to achieve Customer loyalty so that businesses can win in the competition in the market and be sustainable. The following is a formulation of the hypothesis based on the earlier findings:

H9: E-commerce innovation positively and significantly affects customer loyalty through customer satisfaction.

The Relationship Between Utilitarian Value to Customer Loyalty through Customer Satisfaction. Previous research (Doghan & Albarq, 2022; Vijay et al., 2019) finds that utilitarian value positively and significantly affects customers. Customer loyalty will grow by satisfying consumer demands. Increasing utilitarian value has a potentially direct impact on customer loyalty. Based on earlier research, the following hypotheses are:

H10: Utilitarian value positively and significantly affects customer loyalty through customer satisfaction.

The Relationship Between Hedonic Value to Customer Loyalty through Customer Satisfaction. As earlier studies show, hedonic value positively and significantly affects customer loyalty through customer satisfaction (Lee & Kim, 2017; Nursyirwan & Valentika, 2021). Platforms that let users share their experiences and apply hedonic value-related content are recommendations for attracting more engaged customers, such as photos and videos that satisfy the customer's emotional needs (Lee & Kim, 2017). Based on the previous findings, the hypothesis can be formulated as:

H11: Hedonic value positively and significantly affects customer loyalty through customer satisfaction.

Research Model and Hypotheses. Based on the explanation above, the variables used in this study to measure customer loyalty are e-service quality, e-commerce innovation, utilitarian value, hedonic value, customer satisfaction, and mediation towards loyalty. The research model is presented in **Figure 1.**
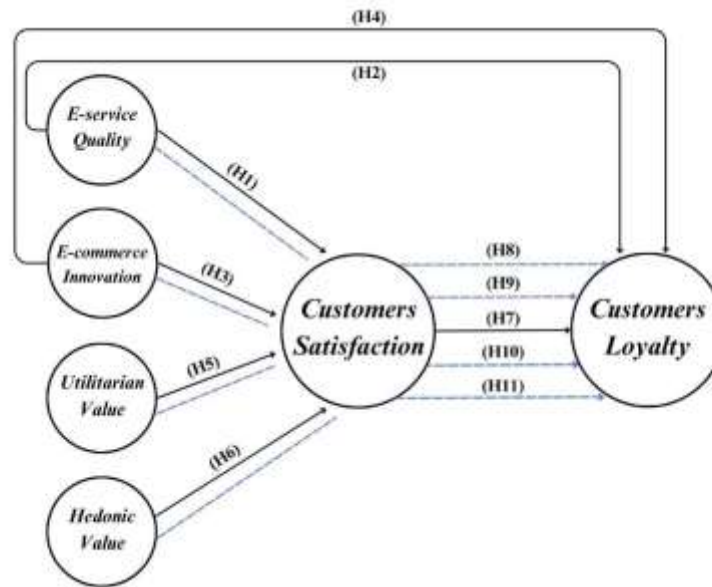
Figure 1. Research Model
Source: Author's Personal Conception (2023)

METHODS

Population and Sample. (Sugiyono, 2017) stated population, not only individuals but also the attributes that come together from the characteristic group of the population. This statement indicates that the study's population consists of users who access the Tokopedia website within the Jakarta region. (Malhorta, 2020) suggests nonprobability sampling to determine the sample used in this study, which means not everyone can be taken as a sample. This study will use judgmental sampling, choosing samples based on the researcher's assessment of their representativeness and capacity to give relevant information using screening questions. The sample must have visited the Tokopedia website at least once a month and made at least one purchase as the defined respondents for this study. Furthermore, only individuals who live in Jakarta and are between the ages of 18 and 55 may participate in the survey.

According to (Sugiyono 2017), a suitable sample size is between 30 and 500, or it can be calculated by multiplying the number of variables studied by ten. (Hair et al., 2022) stated that a minimum sample size of 154,505, or 155 respondents, should be used for SEM-PLS with a significance level of 0.050 per cent and a path coefficient of 0.200. In previous studies, (Rahman et al., 2022) collected 400 respondents via an online questionnaire on Indonesian e-commerce users, and (Vijay et al., 2019) selected 200 Indian internet shoppers to evaluate customer loyalty. In this study, 260 respondents were gathered from the distributed questionnaires. Eight responders cleared through the screening questions despite needing to meet the requirements. As a result, this study will employ 252 respondents, surpassing the predetermined minimum sample size of 200 respondents. **Table 2** displays the respondents' characteristics according to gender, age, occupation, monthly income, number of visits to Tokopedia, and domicile.

Table 2. Table Information

Respondent Profile	Number of Respondent	Percentage
Gender	122	0.484 percent
Male	130	0.516 per cent
Female		
Age		
18 to 25	131	0.520 per cent
25 to 35	87	0.345 per cent
36 to 45	31	0.123 percent
46 to 55	3	0.012 per cent
Occupation		
Entrepreneur	34	0.135 percent
Government Employee	16	0.063 percent
Private Employee	76	0.302 percent
Student	103	0.409 per cent
Others	23	0.091 percent
Monthly Income (in Rupiah)		
Less than 3,180,000	84	0.333 per cent
3,180,000 to 6,350,000	82	0.325 per cent
6,350,000 to 9,520,000	40	0.159 percent
9,520,000 to 12,700,000	16	0.063 percent
Above 12,700,000	30	0.119 percent
Number of Visits to Tokopedia		
1 to 5 times	130	0.516 per cent
6 to 10 times	76	0.302 percent
Above than ten times	46	0.183 percent
Domicile		
North Jakarta	49	0.194 percent
West Jakarta	126	0.500 per cent
East Jakarta	23	0.091 percent
South Jakarta	31	0.123 percent
Central Jakarta	23	0.091 percent

Source: Data Collected by Researchers (2023)

Measures. The data in this study were collected through an online questionnaire using Google Forms. There were 29 questions to measure the variables in this research. A Likert scale was used for measurement in the research through a questionnaire. The scale scored from 1 (strongly disagree) to 5 (strongly agree). According to (Bougie & Sekaran, 2020), Likert scales make it possible to compute mean values and standard deviations, facilitating hypothesis testing. The indicators of the corresponding questions are shown in **Table 3** below.

Table 3. Variables and Indicators

	Variable	Items	Indicators
1	E-service Quality	6	I can easily and quickly find what I need through the "T" website (search features, filters, categories, and related product recommendations provide products/services that match what I am looking for).
			I receive orders that match what I ordered through the "T" website (for example, products/services match the description, products in good condition, and timely delivery).
			"T" provides services that align with the information on the website (for example, shipping information, transactions, and customer service).
			I receive excellent and prompt responses from the seller when I communicate or contact them (such as quick responses and providing necessary information).
			"T" guarantees transactions with issues (for example, return policies, warranties, and investigating potentially fraudulent stores).
			On the "T" website, customer service is always available when I contact them (for example, 24/7 customer service).
2	E-commerce Innovation	4	The "T" website has better search, ordering, and payment methods.
			The "T" website is superior in every maintenance or update system (such as system updates).
			The "T" website is more creative than before (for example, the page layout is more attractive).
			The "T" website always introduces new things that were not there before (such as the latest innovations that other online shops do not have).
3	Utilitarian Value	3	The products/services I buy on the "T" website are always reasonably priced and of good quality.
			I am successful in shopping on the "T" website (successful in buying until receiving the ordered products/services).
			I can buy items that are truly needed on the "T" website ("T" always provides various products/services that are needed and complete).
4	Hedonic Value	4	Shopping online on the "T" website is always enjoyable for me.
			I feel more satisfied when shopping on the "T" website than when I buy the products I receive (online shopping is more exciting than receiving the products).
			Compared to other things, the time I spend shopping on the "T" website is more enjoyable (online shopping is more fun than other activities).
			I continue to shop on the "T" website not out of necessity but because I want to.
5	Customers Satisfaction	5	The "T" website meets my expectations.
			I am happy with my shopping experience using the "T" website (finding needed items is not challenging and enjoyable).
			I am pleased with the purchase experience using the "T" website (buying items from "T" is enjoyable and easy).
			Overall, I am delighted with the "T" website.
			I have no complaints about using the "T" website.
6	Customers Loyalty	7	I will make a purchase again on the "T" website.
			If "T" provides other services, I will purchase them if needed (e.g., flight tickets, payment services, etc.).
			I will recommend the "T" website to others.
			Promotions from other online shops do not influence me.
			I rarely consider switching to other online shops.
			The "T" website is my first choice when shopping.
			The "T" website is the best website I have ever used.

RESULTS

The data analysis method used in this study will be the Partial Least Squares Structural Equation Model (PLS-SEM) with SmartPLS 4 software. PLS-SEM will analyze the validity and reliability analysis up until the point of hypothesis testing.

Outer Model Analysis. Validity and reliability are employed to measure measurement error in testing this evaluation. Measurement error refers to the potential differences between the information sought and obtained by the researcher. There are two types of measurement errors: systematic error, which is a constant error affecting measurement results consistently, and random error, which is caused by respondent conditions and involves unexpected variations in measurement results.

Validity. Assesses the extent to which a scale can measure the actual object without interference from systematic or random errors (Malhotra, 2020). Validity is divided into two types: internal validity, which measures cause-and-effect relationships, and external validity, which measures the influence of the external environment. Construct validity is employed to measure these relationships and influences. Construct validity assesses how well the results obtained from a measure align with the theory underlying the test design, encompassing convergent and discriminant validity (Bougie & Sekaran, 2020).

Convergent validity measures how well a construct consistently correlates even when measured using various indicators. Measure the correlation results can be observed through the Average Variance Extracted (AVE), which indicates that all variables under study have values greater than 0.500. Outer loadings measure how well each indicator reflects the measured concept. The outer loadings are considered good if their values exceed 0.700 (Hair, 2022). Discriminant validity reflects how much a construct is different and more significant than others, ensuring uniqueness and non-overlapping with other constructs. This measurement can be observed through the heterotrait-monotrait ratio (HTMT). The HTMT value significantly less than 0.900 indicates that the constructs can distinguish concepts effectively (Hair et al., 2022).

Reliability measures a variable's stability and consistency. This stability indicates a low vulnerability to situation changes (Bougie & Sekaran, 2020). Reliability analysis involves the use of composite reliability and Cronbach's alpha approaches. Cronbach's alpha tests the lower limit, while composite reliability tests the upper limit of reliability. Reliability values are considered valid if more than 0.700 (Hair et al., 2022).

Table 4. Convergent Validity and Reliability Analysis Result

Variable	Denotations	AVE	Outer Loading	Cronbach's Alpha	Composite Reliability (rho_c)
E-service Quality	ESQ1		0.904		
	ESQ2		0.854		
	ESQ3	0.742	0.831	0.931	0.945
	ESQ4		0.847		

	ESQ5		0.845		
	ESQ6		0.883		
E-commerce	ECI1		0.914		
Innovation	ECI2	0.814	0.891	0.924	0.946
	ECI3		0.908		
	ECI4		0.895		
Utilitarian	UV1		0.953		
Value	UV2	0.857	0.922	0.916	0.947
	UV3		0.901		
Hedonic Value	HV1		0.801		
	HV2	0.655	0.790	0.827	0.884
	HV3		0.773		
	HV4		0.870		
Customers	CS1		0.776		
Satisfaction	CS2		0.857		
	CS3	0.734	0.903	0.908	0.932
	CS4		0.893		
	CS5		0.847		
Customers	CL1		0.932		
Loyalty	CL2		0.916		
	CL3	0.782	0.854	0.953	0.962
	CL4		0.874		
	CL5		0.886		
	CL6		0.895		
	CL7		0.832		

Source: Data Collected by Researchers (2023)

The variables in this study passed the convergent validity and reliability tests, as shown in **Table 4**. Each variable has an outer loading value above 0.700 and an AVE above 0.500. Furthermore, rho_c shows values greater than 0.700, indicating that the results are stable and dependable.

Table 5. Discriminant Validity Analysis Result (HTMT)

Variable	ESQ	ECI	UV	HV	CS	CL
ESQ						
ECI	0.598					
UV	0.437	0.870				
HV	0.416	0.849	0.823			
CS	0.507	0.866	0.811	0.885		
CL	0.565	0.877	0.828	0.819	0.831	

Source: Data Collected by Researchers (2023)

Table 5 presents differentiation and non-overlapping among other constructs. A number below 0.900 in the HTMT calculation indicates how much a particular construct differs from and is more significant than others. This study's discriminant validity calculation successfully distinguishes concepts.

Inner Model Analysis. A technique that can model and estimate complex relationships between several dependent and independent variables at the same time is the structural equation model (SEM). An inner model analysis is a measurement that shows the relationships (paths) between variables in a hypothesis (Hair et al., 2022). The result of the

Variance Inflation Factor (VIF) values is used to evaluate the correlation or relationships between indicators in assessing an independent variable and the interdependence between independent variables. When assessing VIF, the ideal value is less than 5. **Table 6** shows that the VIF values between variables are below 5, indicating the absence of multicollinearity or interdependence among variables (Hair et al., 2022).

Table 6. Variance Inflation Factor (VIF) Analysis Result

Variable	Customers Satisfaction	Customers Loyalty	Description
E-service Quality	1.480	1.474	No multicollinearity
E-commerce Innovation	4.096	3.069	No multicollinearity
Utilitarian Value	2.987		No multicollinearity
Hedonic Value	2.423		No multicollinearity
Customers Satisfaction		2.722	No multicollinearity
Customers Loyalty			No multicollinearity

Source: Data Collected by Researchers (2023)

Coefficient Determination. Explaining the impact of independent variables on the dependent variable is the goal of the coefficient of determination or R^2. Determine how much influence the independent variables used in the study measure and explain the dependent variable. Independent variables used in this study are e-service quality, e-commerce innovation, utilitarian value, and hedonic value. The dependent variable is customer loyalty, measuring customer loyalty. This study also employs a mediating variable, customer satisfaction, to assess its role as a mediator in the relationship between independent and dependent variables, specifically in measuring loyalty. (Hair et al., 2022) divided the R2 values into three levels, and in this study, the independent variables can measure the dependent variable at a moderate level, precisely more than 0.500 but still less than 0.750 (Hair et al., 2022).

Table 7. Coefficient Determination Analysis Result

Variable	R^2	Description
Customers Satisfaction	0.730	Moderate
Customers Loyalty	0.726	Moderate

Source: Data Collected by Researchers (2023)

(Hair et al., 2022) divided the R2 values into three levels. In this study, the independent variables can measure the dependent variable at a moderate level, precisely more than 0.500 but less than 0.750 (Hair et al., 2022). **Table 7** shows that the independent variables can explain approximately 0.730 per cent of the variance when measuring the mediating variable, customer satisfaction. The remaining 0.270 per cent is attributed to other variables beyond the scope of this study. Regarding the dependent variable, customer loyalty, the influence of independent and mediating variables can account for around 0.726 per cent, leaving 0.274 per cent to be explained by other variables not considered in this research.

Effect Size. Effect size is a measurement that indicates how much the R^2 value changes when a variable is removed from the model. This impact signifies the significance of a variable. The values are categorized into three levels, where 0.020 represents a small

effect size, 0.150 indicates a moderate effect size, and 0.350 suggests a large effect size (Hair et al., 2022).

Table 8. Effect Size Analysis Result

Variable	f^2	Result
E-service Quality → Customer satisfaction	0.017	No effect
E-commerce Innovation → Customers Satisfaction	0.083	Small effect
Utilitarian Value → Customer satisfaction	0.045	Small effect
Hedonic Value → Customer satisfaction	0.236	Moderate effect
Customer Satisfaction → Customer loyalty	0.138	Small effect
E-service Quality → Customers Loyalty	0.028	Small effect
E-commerce Innovation → Customers Loyalty	0.306	Moderate effect

Source: Data Collected by Researchers (2023)

Table 8 shows that customer loyalty is measured by the variable e-commerce innovation with an effect of 0.306. It shows moderate and minor effects on customer satisfaction, with 0.138, and e-service quality, with a value of 0.028. After the dependent variable, in measuring the mediating variable, customer satisfaction, the variable with a moderate effect is the hedonic value with a value of 0.236. The following two variables, utilitarian value and e-commerce innovation, each with 0.045 and 0.083, respectively, have minor effects on customer satisfaction. Lastly, the variable e-service quality has a negligible effect on customer satisfaction, with a value of 0.017, less than 0.020.

Hypothesis. Hypothesis testing, shown in **Table 9**, aims to determine whether the hypotheses in this study are supported. A hypothesis is supported if the path coefficient values fall between -1 and +1 and the p-value is below 0.050. Path coefficients describe the strength of the relationship between one variable and another in a model. The values of variables in this analysis range from -1 to +1 (path coefficients). A value of -1 indicates a negative relationship between variables, and +1 indicates a positive relationship. The significance of the p-value is used to assess the significance level or the assumption to reject the probability of a hypothesis. In this study, a hypothesis is considered significant if the p-value is less than 0.050 (Hair et al., 2022).

Table 9. Hypothesis Analysis Result

Variable	Path Coefficient	p-value	Result
E-service Quality → Customer satisfaction	0.082	0.007	Significant
E-commerce Innovation → Customers Satisfaction	0.107	0.026	Significant
E-service Quality → Customers Loyalty	0.303	0.000	Significant
E-commerce Innovation → Customers Loyalty	0.508	0.000	Significant
Utilitarian Value → Customer satisfaction	0.190	0.001	Significant
Hedonic Value → Customer satisfaction	0.394	0.000	Significant
Customer Satisfaction → Customer loyalty	0.321	0.000	Significant
E-service Quality → Customer satisfaction → Customer loyalty	0.026	0.027	Significant
E-commerce Innovation → Customer satisfaction → Customer loyalty	0.097	0.002	Significant
Utilitarian Value → Customer Satisfaction → Customer Loyalty	0.061	0.015	Significant
Hedonic Value → Customer Satisfaction → Customer Loyalty	0.126	0.001	Significant

Source: Data Collected by Researchers (2023)

Based on the results of the first hypothesis (H1) test, e-service quality has a positive and significant influence with an effect that is not significant on customer satisfaction. This is indicated by the p-value of 0.007, so it can be concluded that the first hypothesis is supported. The results of the second hypothesis testing (H2) show that e-service quality has a positive and significant influence with a negligible effect on customer loyalty. This is indicated by the p-value of 0.026, so it can be concluded that the second hypothesis is supported.

Next, the third hypothesis test (H3) results indicate that e-commerce innovation positively and significantly influences customer satisfaction, with a negligible effect on customer loyalty. This is indicated by the p-value of 0.000, so it can be concluded that the third hypothesis is supported. The fourth hypothesis test's (H4) findings show that e-commerce innovation positively and significantly influences customer loyalty, with a negligible effect on customer loyalty. This is indicated by the p-value of 0.000, so it can be concluded that the fourth hypothesis is supported.

Moreover, the hypothesis (H5) test finds that utilitarian value positively and significantly influences customer satisfaction, with a negligible effect. This is indicated by the p-value of 0.001, so it can be concluded that the fifth hypothesis is supported. Based on the sixth hypothesis test (H6) results, hedonic value positively and significantly influences customer satisfaction, with a medium effect. This is indicated by the p-value of 0.000, so it can be concluded that the sixth hypothesis is supported.

The seventh hypothesis (H7) results show that customer satisfaction positively and significantly influences customer loyalty, with a negligible effect on customer satisfaction. This is indicated by the p-value of 0.000, so it can be concluded that the seventh hypothesis is supported. The eighth hypothesis test (H8) shows that e-service quality positively and significantly influences customer loyalty, with customer satisfaction as a mediator. This is indicated by the p-value of 0.027, so it can be concluded that the eighth hypothesis is supported.

Furthermore, in the ninth hypothesis test (H9), e-commerce innovation positively and significantly influences customer loyalty with customer satisfaction as a mediation. This is indicated by the p-value of 0.002, so it can be concluded that the ninth hypothesis is supported. Similarly, based on the tenth hypothesis test (H10) results, utilitarian value positively and significantly influences customer loyalty with customer satisfaction as a mediation. This is indicated by the p-value of 0.015, so it can be concluded that the tenth hypothesis is supported.

Lastly, based on the eleventh hypothesis test (H11) results, hedonic value positively and significantly influences customer loyalty, with customer satisfaction as a mediator. This is indicated by the p-value of 0.001, so it can be concluded that the eleventh hypothesis is supported. **Table 10** presents a summary of the findings from the research hypothesis testing that was previously discussed.

Table 10. Recapitulation of Hypothesis Test Results

Variable	Result
E-service Quality → Customer satisfaction	Supported
E-commerce Innovation → Customers Satisfaction	Supported
E-service Quality → Customers Loyalty	Supported
E-commerce Innovation → Customers Loyalty	Supported
Utilitarian Value → Customer satisfaction	Supported
Hedonic Value → Customer satisfaction	Supported

Customer Satisfaction → Customer loyalty	Supported
E-service Quality → Customer satisfaction → Customer loyalty	Supported
E-commerce Innovation → Customer satisfaction → Customer loyalty	Supported
Utilitarian Value → Customer Satisfaction → Customer Loyalty	Supported
Hedonic Value → Customer Satisfaction → Customer Loyalty	Supported

Source: Data Collected by Researchers (2023)

DISCUSSION

This research examines factors that positively and significantly impact customer satisfaction and loyalty among Tokopedia users in Jakarta. The eleven hypotheses tested in this study include the influence of e-service quality, e-commerce innovation, utilitarian value, and hedonic value on customer satisfaction and loyalty. The results are compared to earlier studies, pointing out where the results align and contrast with the current state of study.

Evaluating customer satisfaction has become crucial in the rapidly evolving digital business landscape. The study begins by affirming the positive and significant impact of e-service quality on customer satisfaction, which is in line with previous literature (Rahman et al., 2022; Kusdibyo & Februadi, 2019). Critical factors for consumers to evaluate e-service quality for their fulfilment are the speed and convenience in which they can use platform features to find what they need and the availability of customer care when needed. In addition to impacting the satisfaction of customers, these variables also affect customer loyalty since their impressions influence their decision to keep using the application in future (Kusdibyo & Februadi, 2019; Rahmawaty et al., 2021; Atmojo & Widodo, 2022). These features emphasize how important e-service quality is in creating consumer satisfaction and loyalty, highlighting their importance in studying consumer behaviour on digital platforms.

E-commerce innovation is a crucial variable that goes beyond the quality of e-services. It plays a significant role in adapting to customers' evolving needs and has a significant and positive effect on their level of satisfaction (Rahman et al., 2022; Valencia & Layman, 2021). Improving the site's features, from ordering to payment, and adding creative touches to make the interface more engaging not only increases user pleasure but also helps to build consumer loyalty (Rahman et al., 2022; Valencia & Layman, 2021). This is why the platform consistently releases new upgrades and remains competitive. Therefore, to survive in the fiercely competitive digital industry, e-commerce must constantly innovate.

In order to shape customer satisfaction, utilitarian and hedonistic values are essential. Under the mediation of client fulfilment, utilitarian value, which measures both practical and functional benefits, has a positive and significant impact on customer loyalty, in line with previous research (Doghan & Albarq, 2022; Vijay et al., 2019). A satisfactory shopping experience is provided by offering goods and services at fair costs and of high quality. Trust is earned with every purchase because the products are dependable, as described, and up to expectations. Satisfaction increases, and customer loyalty grows through an efficient buy-to-delivery procedure that builds trust. The satisfaction of customer wants is shown in utilitarian value, which is another essential component of purchasing value. Any problems in this area could harm the future loyalty of the customers.

According to (Vijay et al., 2019), hedonic value, which focuses on providing pleasant experiences and developing relationships, also has a positive and significant impact on customer satisfaction, which is consistent with research aligned by (Lee & Kim, 2017

Nursyirwan & Valentika 2021). Hedonic value demonstrates a positive and significant influence on customer loyalty by mediating customer satisfaction, consistent with previous studies in various sectors. There are feelings attached to shopping; the desire to participate in the activity drives it in addition to necessity. As a result, hedonistic behaviour, in which people purchase for the intrinsic enjoyment of the activity rather than out of necessity, is frequently associated with hedonic value. Hedonic value quantifies how well a shopping trip makes you feel happy. Every time customers visit a website, they feel at ease and satisfied due to the user-friendly design, wide range of products offered, and simplicity of transactions. These elements turn shopping from a necessary activity to a fun and anticipated one. Positive feelings resulting from customers evaluating their expectations can strengthen a business's competitive advantage. In the digital age, they bring new dimensions to development and sustainability by providing unique value and selling items.

There is a strong and positive correlation between loyalty and customer satisfaction. Customer loyalty is influenced by positive experiences, which is consistent with other research findings (Adwan et al., 2020; Marcellinus & Ruslim, 2019; Wilson et al., 2017). This study defies (Juwaini, 2022) conclusion that happy customers only sometimes show loyalty. Customer satisfaction is influenced by several factors, including a straightforward and pleasurable shopping experience, an easy buying process, a competitive product range, an intuitive and responsive interface, and low-risk delivery offered by a platform. Customer loyalty is the next step, which is influenced by this level of satisfaction. Customer loyalty can be significantly increased by achieving expectations in internal and external evaluations of a digital ecosystem.

CONCLUSION

This research finds that e-service quality, e-commerce innovation, and utilitarian and hedonic value positively and significantly affect customer satisfaction. Customer loyalty, customer satisfaction, e-service quality, and e-commerce innovation have positive and significant effects. Four dependent variables in this study, such as e-service quality, e-commerce innovation, utilitarian and hedonic value, show a positive and significant impact on customer loyalty with the mediation of customer satisfaction. This study emphasizes that e-service quality has a negligible impact on customer loyalty through customer satisfaction. A pleasant shopping experience indicates that the time spent by users can play a crucial role in shaping relationships and loyalty. Improving aspects such as efficiency, user-friendliness, and transactional processes represents a strategic effort for the company to enhance satisfaction and loyalty in online shopping on Tokopedia.

Moreover, by consistently introducing unique features or services, Tokopedia can maintain relationships and create new satisfying user experiences, influencing customer loyalty. Consumers' ability to efficiently find and decide on purchases for their needs is crucial in influencing customer loyalty. Value by providing an efficient and effective platform to facilitate consumer search and easy transactions for everyday needs can create intense satisfaction and foster brand loyalty to Tokopedia. One crucial aspect to consider is the accuracy of the information conveyed on the Tokopedia. Consistency between advertising, product descriptions, images, delivery, and what the company provides and delivers to customers can create a positive experience, enhance trust, and ultimately influence an increase in customer loyalty.

For future research, they expanded the scope beyond Jakarta and included regions outside Jakarta, as seen in the (Rahman et al., 2022) study, which investigated e-commerce users across Indonesia. This broader geographical coverage can provide a more comprehensive understanding of the factors influencing customer loyalty in different contexts. Subsequent studies could enhance the measurement by including respondents with diverse occupations, avoiding dominance by student respondents. (Al Adwan et al., 2020) They categorized job types into professions such as marketing, e-business, finance, accounting, business administration, and pharmacy. This approach allows for a more nuanced analysis of the impact of variables across various professional backgrounds.

Due to time constraints in the current study, it is suggested that future research should aim for a larger sample size, surpassing the 252 respondents in this study. Research by (Rahman et al., 2022) and (Valencia & Layman, 2021) on e-commerce and e-money users in Indonesia employed sample sizes of 400 and 303 respondents, respectively. Increasing the sample size can enhance the generalizability of the findings. Last, the study's results reveal that 0.274 per cent of variables beyond the scope of this research influence user loyalty. Future studies may consider incorporating additional variables, such as trust, as observed in (Hasna & Rachawati, 2021) research on customer loyalty. (Mohammad, 2022) examined loyalty using developed conceptual variables from digital marketing, which were not included in the present study. Incorporating these variables could offer a more comprehensive understanding of the factors shaping customer loyalty.

REFERENCES

Ahdiat, A. (2022, November 21). Tokopedia Masih Ungguli Shopee Sampai Kuartal II 2022. *Databoks.* https://bit.ly/3PtSRHa.

Ahdiat, A. (2023, Januari 31). 5 E-Commerce Dengan Pengunjung Terbanyak Kuartal IV 2022. *Databoks.* https://bitly.ws/VC8K.

Ahdiat, A. (2023, Mei 03). 5 E-Commerce Dengan Pengunjung Terbanyak Kuartal I 2023. *Databoks*. https://bitly.ws/VC9G.

Ahdiat, A. (2023, Juli 07). Pengunjung Shopee Dan Blibli Naik Pada Kuartal II 2023, E-Commerce Lain Turun. *Databoks.* https://bit.ly/461eINd.

Al-Adwan, A. S., Kokash, H., Al Adwan, A., Alhorani, A., & Yaseen, H. (2020). Building Customer Loyalty In Online Shopping: The Role Of Online Trust, Online Satisfaction And Electronic Word Of Mouth. *International Journal of Electronic Marketing and Retailing*, *11*(3), 278–306. https://doi.org/10.1504/IJEMR.2020.108132.

Al Doghan, M., & Albarq, A. N. (2022). The Effects Of Hedonic And Utilitarian Values On E-Loyalty: Understanding The Mediating Role Of E-Satisfaction. *International Journal of Data and Network Science*, *6*(2), 325–334. https://doi.org/10.5267/j.ijdns.2022.1.005.

Annur, C. M. (2023, Agustus 25). Transaksi Tokopedia Turun Karena Pangkas Diskon, Bagaimana Bisnis Goto Lainnya? *Databoks.* https://bitly.ws/VCaT.

Annur, C. M. (2023, Juni 22). Proporsi Jumlah Transaksi E-Commerce Berdasarkan Kelompok Usia (Januari-Desember 2022). *Databoks.* https://bitly.ws/33BcR.

APJII. (2020). Laporan survei internet APJII 2019 – 2020 (Q2). *Asosiasi Penyelenggara Jasa Internet Indonesia*. https://www.infotek.id/licenses/survey_apjii_2020/Survei_APJII_2019-2020_Q2.pdf.

Atmojo, J. J. T., & Widodo, T. (2022). Pengaruh E-Service Quality Terhadap E-Customer Loyalty Melalui E-Customer Satisfaction Sebagai Variabel Intervening Pada Aplikasi Tiket.Com. *E-Proceeding Of Management, 5*(8), 4519. https://doi.org/10.32832/jm-uika.v13i1.5092.

Avania, I, K. & Widodo, A. (2022). Effect Of E-Service Quality On E-Customer Loyalty Through Customer Satisfaction On E-Commerce Shopee Application. *Budapest International Research and Critics Institute (BIRCI-Journal) Humanities and Social Sciences 5(humanities).* 535-546. https://doi.org/10.33258/birci.v5i1.3641.

Bougie, R., & Sekaran, U. (2020). *Research Methods For Business A Skill Building Approach 8th Edition.* John Wiley & Sons.

Dihni, V.A. (2022, April 12). Situs E-Commerce Dengan Jumlah Pengunjung Terbanyak Di Indonesia Pada 2021. *Databoks.* https://bit.ly/4537k2w.

Dihni, V. A. (2022, Juli 19). 10 E-Commerce Dengan Pengunjung Terbanyak Kuartal-I 2022. *Databoks.* https://bitly.ws/VC9b.

Evelina, T. Y., Kusumawati, A., Nimran, U., & Sunarti. (2020). The Influence Of Utilitarian Value, Hedonic Value, Social Value, And Perceived Risk On Customer Satisfaction: Survey Of E-Commerce Customers In Indonesia. *Business: Theory and Practice*, *21*(2), 613–622. https://doi.org/10.3846/btp.2020.12143 .

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer On Partial Least Squares Structural Equation Modeling (Pls-Sem), Third Edition*. Sage Publishing.

Hajar, M. A., Alkahtani, A. A., Ibrahim, D. N., Al-Sharafi, M. A., Alkawsi, G., Iahad, N. A., Darun, M. R., & Tiong, S. K. (2022). The Effect Of Value Innovation In The Superior Performance And Sustainable Growth Of Telecommunications Sector: Mediation Effect Of Customer Satisfaction And Loyalty. *Sustainability (Switzerland)*, *14*(10). https://doi.org/10.3390/su14106342.

Hasna, W. N., & Rachmawati, I. (2021). Factors Affecting The Customer Loyalty Of Tokopedia E-Commerce. *International Journal of Science and Management Studies (IJSMS)*, 202–210. https://doi.org/10.51386/25815946/ijsms-v4i3p118.

Irso. (2020, November 09). Dirjen PPI: Survei Penetrasi Pengguna Internet Di Indonesia Bagian Penting Dari Transformasi Digital. *Berita Kominfo.* https://bit.ly/3ERG0cF.

Irwansyah, A., & Mappadeceng, R. (2018). Pengaruh E-Service Quality Terhadap Customer Loyalty Melalui Customer Satisfaction Pada Toko On Line Buka Lapak. *Jurnal Manajemen dan Sains, 3*(2). http://doi.org/10.33087/jmas.v3i2.50.

Juwaini, A., Chidir, G., Novitasari, D., Iskandar, J., Hutagalung, D., Pramono, T., Maulana, A., Safitri, K., Fahlevi, M., Sulistyo, A. B., & Purwanto, A. (2022). The Role Of Customer E-Trust, Customer E-Service Quality And Customer E-Satisfaction On Customer E-Loyalty. *International Journal of Data and Network Science*, *6*(2), 477–486. https://doi.org/10.5267/j.ijdns.2021.12.006.

Kotler, P., & Armstrong, G. (2021). *Principles of Marketing, 18th Global Edition*. Pearson Education.

Kusdibyo, L., & Februadi, A. (2019). The Effect Of Electronic Service Quality On Customer Satisfaction And Loyalty In Online Shopping. *IOP Conference Series: Materials Science and Engineering*, *662*(2). https://doi.org/10.1088/1757-899X/662/2/022036.

Lee, S., & Kim, D. Y. (2018). The Effect Of Hedonic And Utilitarian Values On Satisfaction And Loyalty Of Airbnb Users. *International Journal of Contemporary Hospitality Management*, *30*(3), 1332–1351. https://doi.org/10.1108/IJCHM-09-2016-0504.

Makki, S. (2021, Desember 29). Konsumen Belanja Online RI Melonjak 88 Persen Pada 2021. *CNN Indonesia.* https://bit.ly/3ZuMGqF.

Malhotra, N.K., & Dash, S. (2020). *Marketing Research an Applied Orientation, Seventh Edition, Global Edition*. Pearson Education Limited.

Marcellinus., & Ruslim, T. S. (2019). Pengaruh Satisfaction, Serqual, Value, Trust, Switchcost, Corpimage Terhadap Customer Loyalty. *Jurnal Manajerial dan Kewirausahaan, 1*(2). 269-278. https://doi.org/10.24912/jmk.v1i2.5087.

Meodia, A. (2020, November 10). APJII: Pengguna Internet Indonesia Hampir Tembus 200 Juta. *Antaranews.* https://bitly.ws/3ep83.

Mohammad, A, A, S. (2022). The Impact Of Digital Marketing Success On Customer Loyalty. *Marketing I Menedžment Innovacij, 13*(3), 103-113. https://doi.org/10.21272/mmi.2022.3-09.

Nursyirwan, V. I., Valentika, N. (2021). Structural Equation Modeling-Partial Least Squares: Analysis Of The Effect Of Hedonic Value On Customer Satisfaction And Loyalty. *Desimal: Jurnal Matematika*, *4*(1), 37–46. https://doi.org/10.24042/djm.v4i1.5948.

Rahman, S., Fadrul, F., Yusrizal, Y., Marlyna, R., & Momin, M. (2022). Improving The Satisfaction And Loyalty Of Online Shopping Customers Based On E-Commerce Innovation And E-Service Quality. *Gadjah Mada International Journal of Business*, *24*(1), 56–81. https://doi.org/10.22146/gamaijb.58783.

Rahmawaty, S., Kartawinata, B. R., Akbar, A., & Wijaksana, T. I. (2021). The Effect Of E-Service Quality And E-Trust On E-Customer Loyalty Through E-Customer Satisfaction As An Intervening Variable (Study On Gopay Users In Bandung). *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management Singapore.* 5495-5506. https://doi.org/10.46254/AN11.20210933.

Rizaty, M. A. (2023, January 24). Transaksi E-Commerce RI Tak Capai Target Pada 2022. *Dataindonesia. Id*. https://bitly.ws/VCad.

Shafiee, M. M., & Bazargan, N. A. (2018). Behavioural Customer Loyalty In Online Shopping: The Role Of E-Service Quality And E-Recovery. *Journal of Theoretical and Applied Electronic Commerce Research*, *13*(1), 26–38. https://doi.org/10.4067/S0718-18762018000100103.

Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D.* Alfabeta.

Timmoria, I. F. (2022, Mei 4). Tokopedia Sumbang Rp1,960 Triliun, Pendapatan Kresna (KREN) Tembus Rp12,4 Triliun. https://bitly.ws/396as.

Valencia, D., & Layman, C. V. (2021). E-Wallet Service Innovation, Service Delivery, And Customer Satisfaction On Customer Loyalty Within Shopeepay In Indonesia. *Ultima Management: Jurnal Ilmu Manajemen, 13*(1), 23-46. https://doi.org/10.31937/manajemen.v13i1.1929.

Vijay, T. S., Prashar, S., & Sahay, V. (2019). The Influence Of Online Shopping Values And Web Atmospheric Cues On E-Loyalty: The Mediating Role Of E-Satisfaction. *Journal of Theoretical and Applied Electronic Commerce Research. 14*(1), 1-15. https://doi.org/10.4067/S0718-18762019000100102.

Wilson, N., Keni, K., & Tan, P. H. P. (2018). The Role Of Perceived Usefulness And Perceived Ease-Of-Use Toward Satisfaction And Trust Which Influence Computer Consumers' Loyalty In China. *Gadjah Mada Journal of Business, 23*(3). https://doi.org/10.22146/gamaijb.32106.

Wirapraja, A., Aribowo, H., & Setyoadi, E. T. (2021). The Influence Of E-Service Quality And Customer Satisfaction On Go-Send Customer Loyalty In Surabaya. *Indonesian Journal of Information Systems*. *3*(2), 128-137. https://doi.org/10.24002/IJIS.V3I2.4191.

Yusuf. (2021, Februari 08). Pandemi Covid-19 Pacu Adaptasi Gunakan Teknologi Digital. *Kominfo.* https://rb.gy/osbrh

Zuhri. A., & Akhmad, S. (2022). Effect Of E-Commerce Innovation, E-Service Quality, And Product Diversity On Customer Loyalty Through Marketplace Image In Indonesia. *SHS Web of Conferences 149*, *01016.* https://doi.org/10.1051/shsconf/202214901016.