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Driving e-loyalty in e-retailing: the role of e-service quality, e-satisfaction, and e-trust in Tokopedia

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Abstract. The rapid development of the digital era has made e-retailing, particularly in Indonesia, a popular choice for online shopping. A critical factor influencing an e-retailing company's value is e-service quality. This study aims to assess the impact of e-service quality, measured through efficiency, privacy, reliability, emotional benefits, and customer service, on attitudinal and behavioral loyalty, with e-trust and e-satisfaction serving as mediators. Using purposive sampling, data were collected from 230 respondents across Indonesia through Google Forms. The analysis, conducted via Structural Equation Modeling (SEM) with SPSS AMOS 23, revealed that efficiency, emotional benefits, and customer service positively affected e-satisfaction and e-trust, which in turn influenced both types of loyalty. However, privacy, reliability, and the emotional benefits dimension did not have significant effects on e-satisfaction or e-trust. These findings offer valuable insights for improving Tokopedia's e-service quality to enhance customer loyalty and performance.

Keywords: e-service quality, e-satisfaction, e-trust, e-loyalty

Introduction

The rapid development of technology and the internet has disrupted the world community, and Indonesia is no exception. The disruption is in the form of online shopping (Melović et al., 2021). The high growth of e-commerce in Indonesia is a supporting factor for the online shopping trend (Rahman et al. 2022). The pressure that arises due to high e-commerce service users in Indonesia makes many business actors aggressively hold an innovation in the form of digitalization, for example, in terms of online marketing. Therefore, according to Venkatesh et al. (2012) in Al-dweeri et al. (2019), many of them must utilize websites or applications as a medium to increase sales. E-commerce companies must have several strategies that are prioritized, one of which is e-service quality, because it indirectly triggers a value that has a big influence. Based on Syahputra's data (2021), Tokopedia won the Best e-commerce 2021 award in the Most Inspiring Technology category. Companies at the CNBC Indonesia Awards 2021. Tokopedia is considered to be one of the largest and most valuable e-commerce platforms in Indonesia. During the pandemic, Tokopedia has been able to grow and scale its business. In the third quarter of 2021, it was recorded that visitors to the Tokopedia website broke through 158 million people per month. The explanation of several things related to Tokopedia is the reason that encourages researchers to make Tokopedia the object of this research. The development of e-commerce in Indonesia tends to increase every year, both in terms of company growth and intense competition. In competition between companies in the same industry, companies must be able to prepare strategies and tactics, one of which is related to e-service quality. Apart from the disruption of online shopping, this is the reason why e-service quality at Tokopedia needs to be studied.

Al-dweeri et al.'s (2019) research is similar to previous research, namely Al-dweeri et al.'s (2017) research, where both of these studies discuss e-service quality. Al-dweeri et al. (2019) discuss the effect of five dimensions of e-service quality (efficiency, privacy, reliability, emotional benefit, customer service) on e-satisfaction, e-trust, attitudinal loyalty, and behavioral loyalty. This research was conducted

in Jordan, targeting Jordanian teenagers who use Amazon.com, aiming to test and review several dimensions of e-service quality (efficiency, privacy, reliability, emotional benefit, customer service) mediated by e-satisfaction and e-trust, and analyze their effects on attitudinal loyalty and behavioral loyalty. The study used five dimensions of e-service quality as independent variables, consisting of efficiency, privacy, reliability, emotional benefit, and customer service. The control variables used are e-satisfaction and e-trust, and the dependent variables are attitudinal loyalty and behavioral loyalty. Five variables from the dimensions of e-service quality, the first is efficiency, do not affect satisfaction. Second, privacy does not affect satisfaction. Third, reliability does not affect satisfaction. Fourth, emotional benefits have a positive effect on satisfaction. Fifth, customer service has a positive effect on satisfaction. Then there is where satisfaction has a positive effect on e-trust; emotional benefits have a positive effect on e-trust; reliability has a positive effect on e-trust; satisfaction has a positive effect on behavioral loyalty; satisfaction has a positive effect on attitudinal loyalty; e-trust has a positive effect on behavioral loyalty; e-trust has a positive effect on attitudinal loyalty; behavioral loyalty has a positive effect on attitudinal loyalty.

Meanwhile, Al-dweeri et al.'s research (2017) discusses and analyzes e-service quality with e-satisfaction and e-trust as mediation to measure the dimensions of e-service quality (efficiency, privacy, and customer service) in Jordanian University students who use Amazon.com. The study used three dimensions of e-service quality as independent variables, consisting of efficiency, privacy, and customer service. The control variables used are e-satisfaction and e-trust, and the dependent variables are attitudinal loyalty and behavioral loyalty. The results of the study are three variables from the e-service quality dimension, the first of which is that efficiency does not affect e-satisfaction. Second, privacy does not affect satisfaction. Third, customer service has a positive effect on satisfaction. Then there is where efficiency does not affect e-trust; privacy does not affect e-trust; customer service has a positive effect on e-trust; e-satisfaction does not affect attitudinal loyalty; e-trust has a positive effect on behavioral loyalty; e-trust has a positive effect on attitudinal loyalty; behavioral loyalty has a positive effect on attitudinal loyalty.

E-service quality can be interpreted as a type of service provided and offered via the internet. This statement is supported by research according to Rust (2001) and Zeithaml et al. (2002) in Al-dweeri et al. (2017) that e-service quality is a service that is offered via the internet, delivered through internet media. Santos (2003) in Al-dweeri et al. (2019) states the definition of e-service quality from an online marketing point of view, stating that e-service quality in e-retailing has an extensive assessment because it is based on the added value of e-service quality offered and provided in the online market. Improving the quality of services or services is one of the ways and goals of the company to realize loyalty and satisfaction (Rahayu & Widjaja, 2019). Efficiency is the ability of customers to access a website, where customers will search for the product they want as well as the product information (Kumar et al., 2011). E-service quality is an important thing that must be considered in a business. This research was conducted because, considering the importance of e-service quality assessment by customers, companies must pay attention and consider their service quality (Wijaya et al., 2020). Privacy is the protection of customers' personal information and financial information between companies and customers, and keeping the website safe (Ladhari, 2010). Emotional benefits focus on visual appeal, innovation, emotional appeal, and image (Loiacono et al., 2007). According to Lupiyoadi & Hamdani (2006: 182), reliability is generally associated with the ability of business actors to provide accurate services and appropriate results as promised. E-satisfaction is an emotional response that arises when comparing expectations of the product and after the product is obtained (Kotler & Keller, 2016). According to Gefen et al. (2003), there are several definitions of e-trust in the online environment, namely as a set of

different beliefs, consisting of integrity, benevolence, and ability. According to Garland & Gendall (2004), behavioral loyalty leads to an action and behaviors that makes repurchases by customers and shows interest and preference for certain brands or services. According to Chiou & Droge (2006), attitudinal loyalty is the level of purchasing tendency that comes from customer commitment to a brand. According to Chiou & Droge (2006), attitudinal loyalty is the level of buying tendency that comes from customer commitment to a brand.

Seeing the importance of e-service quality in a company and the phenomena that occur today, this research was conducted to determine the effect and at the same time measure e-service quality using several dimensions, namely efficiency, privacy, reliability, emotional benefits, and customer service (independent variables) on attitudinal loyalty and behavioral loyalty (dependent variable) through esatisfaction and e-trust (mediating variables). This research can be used as additional knowledge for readers and further researchers, as a basic reference and recommendation for Tokopedia e-retailing to eliminate obstacles and develop e-service quality. Aiming for the performance of Tokopedia e-retailing to improve and develop. Researchers indicate that there is an influence between efficiency, privacy, reliability, emotional benefits, and customer service on e-satisfaction, e-trust, attitudinal loyalty, behavioral loyalty in customers, as well as the performance of e-retailing companies. Using Tokopedia objects, which include e-retailing in Indonesia. Researchers chose respondents, namely Tokopedia users in Indonesia. Indonesia was chosen to be the scope of research because it has a wide and general range. The scope of discussion in the study is the effect of e-service quality on the importance of investigating the causal relationship between the dimensions of e-service quality, with 5 measuring dimensions, namely efficiency, privacy, reliability, emotional benefits, and customer service, on e-satisfaction, e-trust, behavioral loyalty, and attitudinal loyalty.

Research methodology

This research is categorized as basic research with quantitative data, which is useful in testing, modifying, developing theories, and building from previous studies. There are 5 independent variables, 2 control variables (mediating), and 2 dependent variables that will be used. The independent variable consists of 5 dimensions of e-service quality, namely efficiency, privacy, reliability, emotional benefits, and customer service. The control variable (mediating) consists of e-satisfaction and e-trust. The dependent variable consists of behavioral loyalty and attitudinal loyalty. Collecting online questionnaires is made and assembled using Google Forms (an electronic collection website). This study uses the interval level, which is a measurement level that has the same distance and a clear difference on the scale. The measurement scale in this study uses a Likert scale, which is a research scale that serves to measure attitudes and opinions. Respondents are required to indicate the level of agreement with a series of statements. Population is a generalization area in which there are quality objects that have certain characteristics (Sugiyono, 2018). The target population of this study is Tokopedia users, respondents domiciled within Indonesia, who engage in online shopping activities independently. This study used 230 respondents who met the criteria.

The initial stage of testing the validity and reliability with the first 53 respondents filling out the questionnaire aims to measure how valid and reliable a statement is; the test is assisted by SPSS Statistics 25 software. Furthermore, data processing is carried out using the SEM (Structural Equation Modeling) analysis method implemented through SPSS AMOS 23 software. SEM analysis has a measurement model that aims to be able to connect variable indicators with latent variables and structural models that aim to connect latent variables.

Findings

Results

Table 1. Reliability Test Results

Code	Variables	Cronbach's Alpha	Description	
EFF	Efficiency	,673	Reliable	
PR	Privacy	,636	Reliable	
RE	Relibiliaty	,702	Reliable	
EB	Emotional benefits	,871	Reliable	
CS	Customer service	,758	Reliable	
ES	E-satisfaction	,737	Reliable	
ET	E-trust	,618	Reliable	
AT	Attitudinal Loyalty	,742	Reliable	
BL	Behavioral loyalty	,709	Reliable	

Table 1 shows that the results of the reliability test of all research variables are reliable because they have a Cronbach's alpha above 0.6. The efficiency variable has a consistency value result of 0.673, the privacy variable has a consistency value result of 0.636, the reliability variable has a consistency value result of 0.702, the emotional benefit variable has a consistency value result of 0.871, and the customer service variable has a consistency value result of 0.758. The e-satisfaction variable is declared reliable because it has a consistency value of 0.737. The e-trust variable is declared reliable because it has a consistency value of 0.618. The attitudinal loyalty variable is declared reliable because it has a consistency value of 0.742. The behavioral loyalty variable is declared reliable because it has a consistency value of 0.709.

Table 2. Measurement Model Test Results

No.	Index	Criteria	Results	Description
1	CMIN/DF	CMIN/DF≤3	1,589	Good Fit
2	RMSEA	0.003≥ RMSEA≤ 0.08	,051	Good Fit
3	GFI	GFI ≥ 0.9	,819	Marginal Fit
4	CFI	CFI≥ 0.9	,911	Good Fit
5	TLI	TLI≥ 0.9	,900	Good Fit

Table 2 presents the results of the research model that has been tested by looking at several indices, namely CMIN / DF has a value of 1.589, indicating that good fit because it meets the criteria CMIN / DF \leq 3. RMSEA has a value of 0.51, indicating that good fit because it meets the criteria $0.003 \geq$ RMSEA \leq 0.08. GFI has a value of 0.819, indicating a marginal fit because it still meets the criteria of $0.8 \geq$ GFI \leq 0.9. CFI has a value of 0.911, indicating that good fit because it meets the CFI \geq 0.9 criteria. TLI has a value of 0.900, indicating that good fit because it meets the TLI \geq 0.9 criteria. All indices in the test results have values that meet the criteria, so further analysis can be carried out.

Table 3 presents the results of the research model that has been tested by looking at several indices, namely CMIN / DF has a value of 1.797, indicating that good fit because it meets the criteria CMIN /

DF \leq 3. RMSEA has a value of 0.59, indicating that good fit because it meets the criteria $0.003 \geq$ RMSEA \leq 0.08. GFI has a value of 0.795, indicating a marginal fit because it still meets the criteria of $0.8 \geq$ GFI \leq 0.9. CFI has a value of 0.876, indicating that the marginal fit because it meets the criteria of CFI \geq 0.9. TLI has a value of 0.865, indicating a marginal fit because it meets the criteria of 0.8 \geq CFI \leq 0.9.

Table 3. Structural Model Test Results

No.	Index	Criteria	Results	Description	
1	CMIN/DF	CMIN/DF≤ 3	1,797	Good Fit	
2	RMSEA	0.003≥ RMSEA≤ 0.08	,059	Good Fit	
3	GFI	GFI ≥ 0.9	,801	Marginal Fit	
4	CFI	CFI≥ 0.9	,901	Good Fit	
5	TLI	TLI≥ 0.9	,891	Marginal Fit	

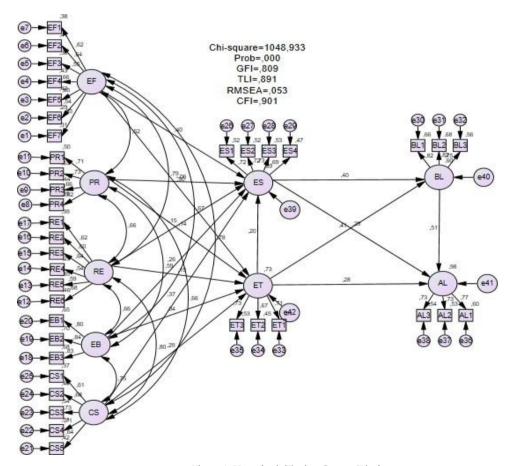


Figure 1. Hypothesis Testing Output Display

As for the value of testing the hypothesis of this study can be shown in Table 4 below:

Table 4. Hypothesis Testing Table

	Influence	Estimate	S.E.	C.R.	P-Value	Description
H1a	Efficiency Dimension → E-Satisfaction	,509	,168	3,025	,002	Accepted
H1b	Efficiency Dimension → E-Trust	,427	,198	2,157	,031	Accepted
H2a	Dimensions of Privacy → E-Satisfaction	-,061	,089	-,686	,493	Rejected
H2b	Dimensions of Privacy → E-Trust	,173	,115	1,502	,133	Rejected
НЗа	Reliability dimension \rightarrow E-Satisfaction	-,149	,127	-1,173	,241	Rejected
НЗЬ	Reliability dimension \rightarrow E-Trust	,201	,161	1,250	,211	Rejected
H4a	Emotional benefit dimension \rightarrow E-Satisfaction	,198	,067	2,957	,003	Accepted
H4b	Emotional Benefit Dimension \rightarrow E-Trust	,030	,087	,347	,728	Rejected
Н5а	Customer service dimension \rightarrow E-Satisfaction	,364	,143	2,543	,011	Accepted
H5b	Customer service dimension \rightarrow E-Trust	,322	,175	1,843	,065	Accepted
Н6	E-trust → E-Satisfaction	,179	,118	1,519	,129	Rejected
Н7а	E-satisfaction → Behavioral loyalty	,614	,228	2,691	,007	Accepted
H7b	E-Satisfaction → Attitudinal loyalty	,473	,182	2,607	,009	Accepted
H8a	E-Trust → Behavioral loyalty	,577	,213	2,715	,007	Accepted
H8b	E-Trust → Attitudinal loyalty	,404	,176	2,299	,022	Accepted
H9	Behavioral → Attitudinal loyalty	,531	,092	5,781	***	Accepted

Table 4 shows that H1a, H1b, H4a, H5a, H5b, H7a, H7b, H8a, H8b, and H9 are accepted hypotheses because the critical ratio (CR) value ≥ 1.96. The largest estimated value of 0.614 is in the relationship between e-satisfaction and behavioral loyalty. This indicates that the e-satisfaction variable has a positive and strong relationship with behavioral loyalty.

The influence between variables can be seen by looking at the estimated value. If the estimated value is greater, it can indicate that the resulting influence is also greater between one variable and another. The largest estimated value of 0.614 is in H8, namely the relationship between e-satisfaction and behavioral loyalty, which can indicate how strong the influence between these variables is. While the estimated value in H2a of -0.061 and H3a of -0.149 indicates that the resulting relationship is in the opposite direction or insignificant because it is negative.

Discussion

The first hypothesis states that there is a positive relationship between the dimensions of efficiency on e-satisfaction. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H1a is accepted by having an estimated value of 0.509 while the p-value is 0.002. H1a is accepted, indicating that the efficiency dimension has a positive relationship with e-satisfaction. This statement is supported by the results of research by Swaid & Wigand (2009), which states that efficiency (information) has a positive effect or influence on e-satisfaction in e-retailing. However, it is inversely proportional to the results of research by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), which state that the efficiency dimension does not have a positive or negative influence on e-satisfaction. Therefore, it can be concluded that the efficiency dimension give a positive influence because it can

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create high customer satisfaction when doing online shopping on Tokopedia in the form of features that make it easy to find needs and use them, complete payment transactions quickly, organize information well, the appearance of applications and websites quickly and well organized.

The second hypothesis states that there is a positive relationship between the efficiency dimension and e-trust. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H1b is accepted by having an estimated value of 0.427 while the p-value is 0.031. H1b is accepted, indicating that the efficiency dimension has a positive relationship with e-trust. This statement is supported by the results of Kao & Lin's research (2016), which states that efficiency has a positive influence on e-trust in e-retailing. However, it is inversely proportional to the results of research by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), which state that the efficiency dimension does not have a positive influence on e-trust. Therefore, it can be concluded that the efficiency dimension has a positive influence because it can create and increase customer trust when doing online shopping on Tokopedia in the form of features that make it easy to find needs and use them, complete payment transactions quickly, organize good information, the appearance of applications and websites quickly and well organized.

The third hypothesis states that there is a positive relationship between the privacy dimension and e-satisfaction. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H2a is rejected, by having an estimated value of - 0.061, while the p-value is 0.493. H2a is rejected, indicating that the privacy dimension does not have a positive relationship with e-satisfaction. This statement is supported by the results of research results by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), which state that the privacy dimension has no positive influence on e-satisfaction. However, it is inversely proportional to the results of research by Khan et al. (2019), which states that privacy has a positive influence on e-satisfaction in e-retailing. Therefore, it can be concluded that the protection of customer personal information regarding shopping behavior, protection of customer personal information regarding credit cards, and not sharing customer personal information with other sites and displaying symbols or messages that provide notification that Tokopedia is safe and secure, will not or does not affect increasing customer satisfaction when doing online shopping at Tokopedia.

The results of the hypothesis test indicate that H2b is rejected, with an estimated value of 0.173 and a p-value of 0.133. This suggests that the privacy dimension does not have a positive relationship with e-trust. These findings align with the research by Al-dweeri et al. (2017), which concluded that privacy does not significantly influence e-satisfaction. Therefore, it can be concluded that measures such as protecting customer personal information, securing credit card details, refraining from sharing data with third-party sites, and displaying trust signals on Tokopedia are not triggering the sense of trust for online shoppers.

The fifth hypothesis states that there is a positive relationship between the reliability dimension and e-satisfaction. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H3a is rejected, by having an estimated value of -0.149 while the p-value is 0.241. H3a is rejected, indicating that the reliability dimension does not have a positive relationship with e-satisfaction. This statement is supported by the results of research results by Al-dweeri et al. (2019), which states that the reliability dimension has no positive influence on e-satisfaction. However, it is inversely proportional to the results of research by Yen & Lu (2008), which states that reliability is positively related to e-satisfaction in e-retailing. Therefore, it can be concluded that giving orders according to promises, providing goods and shipping within the appropriate time frame, fast delivery, shipping goods to order, being transparent about offers and promotions, providing accurate promises regarding product delivery, will not or does not affect increasing customer satisfaction when doing online shopping at Tokopedia.

The sixth hypothesis states that there is a positive relationship between the reliability dimension and e-trust. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H3b is rejected, by having an estimated value of 0.201 while the p-value is 0.211. H3 b is rejected, indicating that the reliability dimension does not have a positive relationship with e-trust. This statement shows that the research results are inversely proportional to the results of research by Aldweri et al. (2019), which states that the reliability dimension has a positive influence on e-trust in e-retailing. The biggest obstacle that is a problem in all Indonesian e-commerce is delivery. The highest level of problems is in the form of customer complaints about delivery problems, which greatly impact on customer satisfaction but not customer trust. Even though this is an obstacle to customer satisfaction, customer trust is considered to remain stable in these conditions because the most important thing is that payment transactions are carried out transparently (Artha Uly, 2019). Therefore, it can be concluded that giving orders according to promises, providing goods and shipping within the appropriate time frame, fast delivery, shipping goods to order, being transparent about offers and promotions, giving accurate promises regarding product delivery, will not or not affect increasing customer trust when doing online shopping on Tokopedia.

The seventh hypothesis states that there is a positive relationship between the emotional benefit dimension and e-satisfaction. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H4a is accepted by having an estimated value of 0.198 while the p-value is 0.003. H4a is accepted, indicating that the emotional benefit dimension has a positive relationship with e-satisfaction. This statement is supported by the results of research by Al-dweeri et al. (2019), which states that emotional benefits have a positive effect on e-satisfaction in e-retailing. Therefore, it can be concluded that the emotional benefit dimension has a positive influence on e-satisfaction, because it can create high customer satisfaction when doing online shopping on Tokopedia by making customers feel cheerful, excited, and happy when using Tokopedia.

The eighth hypothesis states that there is a positive relationship between the emotional benefit dimension and e-trust. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H4 b is rejected, by having an estimated value of 0.030 while the p-vaflue is 0.728. H4 b is rejected, indicating that the emotional benefit dimension does not have a positive relationship with e-trust. This statement shows that the research results are inversely proportional to the results of research by Al-dweeri et al. (2019), which states that the emotional benefit dimension has a positive influence on e-trust. Nowadays, psychological conditions or mental health are often associated with online shopping behavior, seen from research conducted by psychotherapists at Hannover Medical School found that negative emotions such as stress, anger, depression, and so on are more capable of influencing customers to shop online, and positive emotions have no major effect on online shopping decisions Tashandara (2019). Therefore, it can be concluded that making customers feel cheerful, excited, and happy when using Tokopedia will not or does not affect the increase in customer trust when doing online shopping on Tokopedia.

The ninth hypothesis states that there is a positive relationship between the dimensions of customer service and e-satisfaction. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H5a is accepted by having an estimated value of 0.364 while the p-value is 0.011. H5a is accepted, indicating that the customer service dimension has a positive relationship with e-satisfaction. This statement is supported by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), who state that customer service has a positive effect on e-satisfaction in e-retailing. Therefore, it can be concluded that the customer service dimension has a positive influence because it can create high customer satisfaction when doing online shopping on Tokopedia in the form of always being ready to

respond and help customer needs, answering customers quickly, showing seriousness to solve the problems that customers are experiencing, good Tokopedia after-sales service.

The tenth hypothesis states that there is a positive relationship between the dimensions of customer service and e-trust. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H5b is accepted by having an estimated value of 0.322 while the p-value is 0.065. H5b is accepted, indicating that customer service has a positive relationship with e-trust. This statement is supported by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), which state that the customer service dimension has a positive influence on e-trust in e-retailing. Therefore, it can be concluded that if Tokopedia is always ready to respond to and help customer needs, answer customers quickly, and show seriousness to solve the problems that customers are experiencing, Tokopedia's good after-sales service affects increasing customer trust when doing online shopping on Tokopedia.

The eleventh hypothesis states that there is a positive relationship between the dimensions of e-trust and e-satisfaction. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H6 is rejected, by having an estimated value of 0.179 while the p-value is 0.129. H6 is rejected, indicating that e-trust does not have a positive relationship with e-satisfaction. This statement shows that the research results are inversely proportional to the results of research by Aldweeri et al. (2019) and Al-dweeri et al. (2017), which state that e-trust has a positive influence on e-satisfaction. Seeing the number of Tokopedia users who complain about product mismatches.

The customer still expressed satisfaction because of the other side of the brand that came with the product information that was provided on Tokopedia. This causes customer trust in product purchases, but customers ultimately feel dissatisfied with the products that come. Based on customer ratings that come from review comments, there are many bad ratings, which can show that customer satisfaction is not proportional to the trust of customers who have decided to buy a product on Tokopedia. Trust will arise and increase if customer satisfaction is first felt by the customer, but not the other way around (Hanna-kaisa et al., 2008). This explanation is also supported by Sugara & Dewantara's research (2017), which states that maximum customer satisfaction must be built first to gain customer trust so that the company can retain its customers. Therefore, it can be concluded that making customers believe in providing product information, Tokopedia is reliable, and customers believe in Tokopedia's claims and promises regarding a product, has little or no effect on increasing customer satisfaction when doing online shopping at Tokopedia.

The twelfth hypothesis states that there is a positive relationship between e-satisfaction dimension and behavioral loyalty. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H7a is accepted by having an estimated value of 0.614 while the p-value is 0.007. H7a is accepted, indicating that the e-satisfaction dimension has a positive relationship with behavioral loyalty. This statement is supported by Al-dweeri et al. (2019), which states that e-satisfaction has a positive effect on behavioral loyalty in e-retailing. Therefore, it can be concluded that e-satisfaction has a positive influence because it can create and increase customer behavioral loyalty so that it triggers an increase in the frequency of shopping or repeat purchases when doing online shopping on Tokopedia, in the form of making customers overall happy to do online shopping on Tokopedia, customers feel satisfied with their decision to do online shopping on Tokopedia, customers feel the decision to use Tokopedia is very appropriate, customers feel satisfied with the online shopping experience on Tokopedia.

The thirteenth hypothesis states that there is a positive relationship between the e-satisfaction dimension and attitudinal loyalty. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H7b is accepted, by having an estimated value of 0.473, while the p-value is 0.009. H7b is accepted, indicating that the e-satisfaction dimension has a positive

relationship with attitudinal loyalty. This statement is supported by Al-dweeri et al. (2019), which states that e-satisfaction has a positive effect on attitudinal loyalty in e-retailing. However, it is inversely proportional to the results of research by Al-dweeri et al. (2017), which states that e-satisfaction has no positive effect on attitudinal loyalty in e-retailing. Therefore, it can be concluded that e-satisfaction has a positive influence because it can create and improve customer loyalty attitudes so that it triggers commitment to purchasing tendencies when doing online shopping on Tokopedia, in the form of making customers overall happy to do online shopping on Tokopedia, customers feel satisfied with their decision to do online shopping on Tokopedia, customers feel the decision to use Tokopedia is very appropriate, customers feel satisfied with the online shopping experience on Tokopedia.

The fourteenth hypothesis states that there is a positive relationship between the e-trust dimension and behavioral loyalty. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H8a is accepted by having an estimated value of 0.577 while the p-value is 0.007. H8a is accepted, indicating that the e-trust dimension has a positive relationship with behavioral loyalty. This is supported by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), which state that e-trust has a positive effect on behavioral loyalty in e-retailing. Therefore, it can be concluded that e-trust has a positive influence because it can create and increase customer behavioral loyalty so that it triggers an increase in the frequency of shopping or repeated purchases when doing online shopping on Tokopedia, by making customers believe in providing product information, Tokopedia is reliable, customers believe in Tokopedia's claims and promises about a product.

The fifteenth hypothesis states that there is a positive relationship between the e-trust dimension and attitudinal loyalty. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H8b is accepted by having an estimated value of 0.404 while the p-value is 0.022. H7b is accepted, indicating that e-trust has a positive relationship with attitudinal loyalty. This statement is supported by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), which state that e-trust has a positive effect on attitudinal loyalty in e-retailing. Therefore, it can be concluded that e-trust has a positive influence because it can create and improve customer loyalty attitudes so that it triggers a commitment to purchasing tendencies when doing online shopping on Tokopedia, by making customers believe in providing product information, Tokopedia is reliable, customers believe in Tokopedia's claims and promises about a product.

The sixteenth hypothesis states that there is a positive relationship between the behavioral loyalty dimension and attitudinal loyalty. Based on the results of the research hypothesis test that has been carried out previously, it can be stated that H9 is accepted by having an estimated value of 0.531 while the p-value is 0.000. H9 is accepted, indicating that behavioral loyalty has a positive relationship with attitudinal loyalty. This statement is supported by Al-dweeri et al. (2019) and Al-dweeri et al. (2017), who state that behavioral loyalty has a positive effect on attitudinal loyalty in e-retailing. Therefore, it can be concluded that behavioral loyalty has a positive influence because it can create and improve customer loyalty attitudes, so that it triggers commitment to purchasing tendencies when doing online shopping on Tokopedia, by making customers feel loyal to Tokopedia, customers say positive things and recommend Tokopedia to others.

Conclusions

Based on hypothesis testing on the structural model, this study found the effect of efficiency on e-satisfaction, efficiency on e-trust, emotional benefits on e-satisfaction, customer service on e-satisfaction, e-satisfaction on behavioral loyalty, e-satisfaction on attitudinal loyalty, e-trust on behavioral loyalty, e-trust on attitudinal loyalty, and behavioral loyalty on attitudinal loyalty. This can be seen from the p-value below 0.05. While no effect was found on privacy on e-satisfaction, privacy dimensions on e-trust,

reliability on e-satisfaction, reliability on e-trust, emotional benefits on e-trust, customer service dimensions on e-trust, e-trust on e-satisfaction. The largest estimated value of 0.614 is in the relationship between e-satisfaction and behavioral loyalty. This indicates that the e-satisfaction variable has a positive and strong relationship with behavioral loyalty. The influence between variables can be known by looking at the estimated value. If the estimated value is greater, it can indicate that the resulting influence is also greater between one variable and another.

Based on research which already been conducted here the several recommendations are made for Tokopedia and similar companies. Tokopedia must organize content related to the delivery of information well and clearly so that the information obtained by customers is well organized. Tokopedia must implement stricter protection and security of information regarding payments, especially in the credit card payment feature. Tokopedia must design a more coordinated delivery planning system or estimation of goods in real time, coupled with guarantees and notifications of product delivery. The aim is that Tokopedia can predict well the time needed to send products so that Tokopedia can provide accurate promises to its user customers. Tokopedia must improve service quality by creating new features, such as more varied prize games features, to make customers feel more cheerful when using Tokopedia. Tokopedia must improve service quality in terms of speed and accuracy in answering customer complaints or questions. Tokopedia must improve the quality of all features and pay attention to complaints and expectations from customers so that customers feel satisfied knowing that Tokopedia is the right choice. Tokopedia must develop SOPs and create decryption information features, photos or videos about products, in real time to increase customer trust. Tokopedia must always pay attention to customer habits and assessments of service quality based on customer data and review these assessments so that Tokopedia can decide on the right solution and make customers loyal to shopping at Tokopedia. Tokopedia must always maintain and improve good service quality so that customers are satisfied and trust, so that customers will always make extra efforts to do online shopping at Tokopedia.

References

- Agustiyanti. (2021). Tokopedia Boss Reveals the Benefits of BTS & Blackpink as Brand Ambassadors. 18 September. https://katadata.co.id/agustiyanti/digital/6145c93973df1/bos-tokopedia-ungkap-advantages-bts-blackpink-becomes-brand-ambassador
- Al-Bakri, A. A., & Katsioloudes, M. I. (2015). The factors affecting e-commerce adoption by Jordanian SMEs. Management Research Review.
- Al-dweeri, R. M., Obeidat, Z. M., Al-dwiry, M. A., Alshurideh, M. T., & Alhorani, A. M. (2017). The Impact of E-Service Quality and E-Loyalty on Online Shopping: Moderating Effect of E-Satisfaction and E-Trust. International Journal of Marketing Studies, 9(2). https://doi.org/10.5539/ijms.v9n2p92
- Al-dweeri, R. M., Ruiz Moreno, A., Montes, F. J. L., Obeidat, Z. M., & Al-dwairi, K. M. (2019). The effect of e-service quality on Jordanian student's e-loyalty: an empirical study in online retailing. Industrial Management and Data Systems, 119(4), 902-923. https://doi.org/10.1108/IMDS-12-2017-0598
- Aladwani, A. M. (2002). The development of two tools for measuring the easiness and usefulness of transactional Web sites. European Journal of Information Systems, 11(3). https://doi.org/10.1057/palgrave.ejis.3000432
- Anderson, R. E., & Srinivasan, S. S. (2003). E-Satisfaction and E-Loyalty: A Contingency Framework. Psychology and Marketing, 20(2). https://doi.org/10.1002/mar.10063
- Artha Uly, Y. (2019). 5 E-Commerce Facts, Revealed 90% of Customer Complaints Are Not about the Product. Thursday 04 July. https://economy.okezone.com/read/2019/07/03/320/2074342/5-fakta-e-commerce-revealed-90-customer-complaints-actually-not-about-products
- Bauer, H. H., Falk, T., & Hammerschmidt, M. (2006). eTransQual: A transaction process-based approach for capturing service quality in online shopping. Journal of Business Research, 59(7), 866-875.
- Business.com. (, September). Survey: Tokopedia e-Commerce Most Used by Millennials and Gen Z. 2022. https://teknologi.bisnis.com/read/20220901/266/1572899/survei-tokopedia-e-commerce-most-used-by-millennials-and-gen-z

- Chen, C. H. V., & Chen, Y. C. (2021). Influence of intellectual capital and integration on operational performance: big data analytical capability perspectives. Chinese Management Studies. https://doi.org/10.1108/CMS-02-2021-0037
- Chiou, J.-S., & Droge, C. (2006). Service quality, trust, specific asset investment, and expertise: Direct and indirect effects in a satisfaction-loyalty framework. Journal of the Academy of Marketing Science, 34(4), 613-627.
- Chou, R., Turner, J. A., Devine, E. B., Hansen, R. N., Sullivan, S. D., Blazina, I., Dana, T., Bougatsos, C., & Deyo, R. A. (2015). The effectiveness and risks of long-term opioid therapy for chronic pain: a systematic review for a National Institutes of Health Pathways to Prevention Workshop. Annals of Internal Medicine, 162(4), 276-286.
- Cox, J., & Dale, B. G. (2001). Service quality and e-commerce: An exploratory analysis. Managing Service Quality: An International Journal, 11(2). https://doi.org/10.1108/09604520110387257
- Fassnacht, M., & Koese, I. (2006). Quality of electronic services: Conceptualizing and testing a hierarchical model. Journal of Service Research, 9(1). https://doi.org/10.1177/1094670506289531
- Garland, R., & Gendall, P. (2004). Testing Dick and Basu's customer loyalty model. Australasian Marketing Journal (AMJ), 12(3), 81-87.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and tam in online shopping: AN integrated model. MIS Quarterly: Management Information Systems, 27(1). https://doi.org/10.2307/30036519
- Ghozali, I. (2009). Application of Multivariate Analysis with the IBM SPSS Program, Fourth Edition. Semarang: Diponegoro University.
- Giovanis, A. N., & Athanasopoulou, P. (2014). Gaining customer loyalty in the e-tailing marketplace: The role of e-service quality, e-satisfaction and e-trust. International Journal of Technology Marketing, 9(3). https://doi.org/10.1504/IJTMKT.2014.063857
- Gommans, M., Krishman, K. S., & Scheffold, K. B. (2001). From brand loyalty to e-loyalty: A conceptual framework. Journal of Economic & Social Research, 3(1).
- Gounaris, S., & Dimitriadis, S. (2003). Assessing service quality on the Web: Evidence from business-to-consumer portals. Journal of Services Marketing, 17(5). https://doi.org/10.1108/08876040310486302
- Gounaris, S., Dimitriadis, S., & Stathakopoulos, V. (2010). An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping. Journal of Services Marketing.
- Hair, E., Halle, T., Terry-Humen, E., Lavelle, B., & Calkins, J. (2006). Children's school readiness on the ECLS-K: Predictions for academic, health, and social outcomes in first grade. Early Childhood Research Quarterly, 21(4), 431-454.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis: International version. New Jersey, NJ, US: Pearson.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares. structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review.
- Hanna-kaisa, E., Horppu, M., Blomqvist, K., & Kuivalainen, O. (2008). The importance of brand trust online. In Trust and New Technologies: Marketing and Management on the Internet and Mobile Media. https://doi.org/10.4337/9781848445086.00010
- Ho, C. I., & Lee, P. C. (2015). Are blogs still effective to maintain customer relationships? An empirical study on the travel industry. Journal of Hospitality and Tourism Technology, 6(1). https://doi.org/10.1108/JHTT-01-2015-0005
- Hsu, J., & Hsu, C. (2008). The relationships between service quality and customer satisfaction in a leading Chinese Web 2.0 company. The Business Review, 11(1), 84-90.
- Jayani, D. H. (2021a). Number of Tokopedia Visitors Beat Shopee in the First Quarter of 2021. Databoks.Katadata.Co.Id. https://databoks.katadata.co.id/datapublish/2021/06/11/jumlah-pengunjung-tokopedia- beat-shopee-by-quarter-i-2021
- Jayani, D. H. (2021b). Number of Tokopedia Visitors Beats Shopee in the First Quarter of 2021. June 11. https://databoks.katadata.co.id/datapublish/2021/06/11/jumlah-pengunjungquarter-i-2021
- Kao, T. W., & Lin, W. T. (2016). The relationship between perceived e-service quality and brand equity: A simultaneous equations system approach. Computers in Human Behavior, 57. https://doi.org/10.1016/j.chb.2015.12.006
- Keiningham, T., Zahorik, A. J., & Rust, R. T. (1994). Getting return on quality. Journal of Retail Banking, 16(4), 7-13.
- Khan, R., Kumar, P., Jayakody, D. N. K., & Liyanage, M. (2019). A survey on security and privacy of 5G technologies: Potential solutions, recent advancements, and future directions. IEEE Communications Surveys & Tutorials,

- 22(1), 196-248.
- Khoirunnisa, J. (2021). Top! Tokopedia is the Best e-Commerce at CNBC Indonesia Awards 2021. December 7. https://inet.detik.com/cyberlife/d-5845058/top-tokopedia-jadi-e-best-commerce-at-cnbc-indonesia-awards-2021
- Kim, J., Jin, B., & Swinney, J. L. (2009). The role of etail quality, e-satisfaction and e-trust in online loyalty development process. Journal of Retailing and Consumer Services, 16(4), 239-247.
- Kontan.id. (, July). Indonesian e-commerce consumers are most fond of shopping at Tokopedia. 2021. https://industri.kontan.co.id/news/konsumen-e-commerce-indonesia-paling-gemar-shopping-on-tokopedia
- Kotler, P., & Keller, K. L. (2016). A framework for marketing management. Pearson Boston, MA. Kraft, M. K., & Bush, I. R. (1998). Accountable Welfare Reform: What Consumers Think. Public Administration Review, 58(5). https://doi.org/10.2307/977550
- Kumar, V., Jain, S., & Tiwari, S. (2011). Energy efficient clustering algorithms in wireless sensor networks: A survey. International Journal of Computer Science Issues (IJCSI), 8(5), 259.
- Kumar, V., & Shah, D. (2004). Building and sustaining profitable customer loyalty for the 21st century. Journal of Retailing, 80(4), 317-329.
- Ladhari, R. (2010). Developing e-service quality scales: A literature review. Journal of Retailing and Consumer Services, 17(6). https://doi.org/10.1016/j.jretconser.2010.06.003
- Lauer, T. W., & Deng, X. (2007). Building online trust through privacy practices. International Journal of Information Security, 6(5), 323-331.
- Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. In International Journal of Retail and Distribution Management (Vol. 33, Issue 2). https://doi.org/10.1108/09590550510581485
- Li, Y. N., Tan, K. C., & Xie, M. (2002). Measuring web-based service quality. Total Quality Management, 13(5). https://doi.org/10.1080/0954412022000002072
- Lin, H., & Luarn, P. (2003). a Customer Loyalty Model for E-Service Context. Journal of Electronic Commerce Research, 4.
- Loiacono, E. T., Watson, R. T., & Goodhue, D. L. (2007). WebQual: An instrument for consumer evaluation of web sites. International Journal of Electronic Commerce, 11(3). https://doi.org/10.2753/JEC1086-4415110302
- Malhotra, A., & Segars, A. H. (2005). Investigating wireless web adoption patterns in the US. Communications of the ACM, 48(10), 105-110.
- Melović, B., Šehović, D., Karadžić, V., Dabić, M., & Ćirović, D. (2021). Determinants of Millennials' behavior in online shopping–Implications on consumers' satisfaction and e-business development. *Technology in society*, 65, 101561.
- Millar, C., Lockett, M., & Ladd, T. (2018). Disruption: Technology, innovation and society. Technological Forecasting and Social Change, 129, 254-260.
- Milne, G. R., & Culnan, M. J. (2004). Strategies for reducing online privacy risks: Why consumers read (or don't read) online privacy notices. Journal of Interactive Marketing, 18(3), 15-29.
- Mubarok, A., & Kurriwati, N. (2021). The Influence of E-Service Quality and E-Trust on E-Satisfaction in Customers of Mobile Bank Application Users of Bank Tabungan Negara Bangkalan. Journal Study Science Management (JKIM), 1(1). https://doi.org/10.21107/jkim.v1i1.11336
- Naufal, I. (n.d.). TSurvey.id: Tokopedia Ecommerce Most Trusted by MSMEs. 2022. https://www.inilah.com/tsurvey-id-tokopedia-ecommerce-paling-dipercaya-oleh-umkm
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL a multiple-item scale for assessing electronic service quality. Journal of Service Research, 7(3). https://doi.org/10.1177/1094670504271156
- Rahman, S., Fadrul, F., Yusrizal, Y., Marlyna, R., & Momin, M. 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.
- Santos, J. (2003). E-service quality: A model of virtual service quality dimensions. Managing Service Quality: An International Journal, 13(3). https://doi.org/10.1108/09604520310476490
- Smith, A. D., & Rupp, W. T. (2002). Communication and loyalty among knowledge workers: A resource of the firm theory view. Journal of Knowledge Management, 6(3). https://doi.org/10.1108/13673270210434359
- Sugara, A., & Dewantara, R. Y. (2017). Analysis of Trust and Satisfaction with the Use of Online Buy and Sell Transaction Systems (Study on "Z" Consumers). Journal of Business Administration (JAB), 52(1).
- Sugiyono, A. (2018). Textbook of Facility Layout Planning (PTLF). UNISSULA PRESS. Swaid, S. I., & Wigand, R. T.

- (2009). Measuring the Quality of E-Service: Scale Development and Initial Validation. Journal of Electronic Commerce Research, 10(1).
- Syahputra, E. (2021). Tokopedia Named The Best E-Commerce 2021. December 7. https://www.cnbcindonesia.com/tech/20211207155938-37-297399/tokopedia- named-the-best-e-commerce-2021
- Tashandara, N. (2019). Online Shopping Addiction Could Be a Sign of Mental Disorder. November 28. https://lifestyle.kompas.com/read/2019/11/28/134111120/kecanduan-shopping-online-could-be-a-sign-of-mental-disorder?page=all
- Tjakra, Deysi Rosindah; Rahayu, S., & Widjaja, F. N. (2019). THE INFLUENCE OF SERVICE QUALITY ON CUSTOMER SATISFACTION AND CUSTOMER LOYALTY AT ASSA RENTAL IN SURABAYA. Scientific Students of Surabaya University, Vol.7 No.2 (E-Service Quality), 16.
- Wagner, Janet; Rydstrom, G. (2001). Satisfaction, trust and commitment in consumers= relationship with online reatilers. Eurpean Advances in Consumer Research, 5.
- Wijaya, T., Widjaja, F. N., & Megawati, V. (2020). THE INFLUENCE OF E-SERVICE QUALITY AND LOGISTICS SERVICE QUALITY ON CUSTOMER SATISFACTION AND CUSTOMER SATISFACTION.
- LOYALTY IN TOKOPEDIA CONSUMERS. Department of Management, Faculty of Business and Economics, University of Surabaya, 11.
- Wirtz, J., Kum, D., & Sheang Lee, K. (2000). Should a firm with a reputation for outstanding service quality offer a service guarantee? Journal of Services Marketing, 14(6). https://doi.org/10.1108/08876040010347615
- Wolfinbarger, M., & Gilly, M. C. (2003). eTailQ: Dimensionalizing, measuring and predicting etail quality. Journal of Retailing, 79(3). https://doi.org/10.1016/S0022-4359(03)00034-4
- Yang, Z., Peterson, R. T., & Cai, S. (2003). Services quality dimensions of Internet retailing: An exploratory analysis. Journal of Services Marketing, 17(7). https://doi.org/10.1108/08876040310501241
- Yarimoglu, E. K. (2015). A Review of Service and E-Service Quality Measurements: Previous Literature and Extension. Journal of Economic & Social Studies (JECOSS), 5(1).
- Yen, C. H., & Lu, H. P. (2008). Effects of e-service quality on loyalty intention: An empirical study in online auction. Managing Service Quality, 18(2). https://doi.org/10.1108/09604520810859193
- Yoon, S. J. (2002). The antecedents and consequences of trust in online-purchase decisions. Journal of Interactive Marketing, 16(2). https://doi.org/10.1002/dir.10008
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. In Journal of the Academy of Marketing Science (Vol. 30, Issue 4). https://doi.org/10.1177/009207002236911