

The Influence Of E-Service Quality On Customer Loyalty Mediated By Customer Experience And Customer Engagement On An E-Commerce Platform

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Abstract: The aim of this research is to examine the influence of e-service quality on customer loyalty, which is mediated by customer experience and customer engagement on e-commerce platforms. This research uses a quantitative approach method, which is processed using SPSS and SEM AMOS 24. The data source uses primary data obtained through questionnaires from 204 respondents using e-commerce platforms in Jabodetabek. Secondary data was obtained from literature reviews of journals and related sources on the internet. The results of this research show that there is a positive and significant influence, namely e-service quality on customer experience, e-service quality on customer engagement, customer experience on customer loyalty, customer engagement on customer loyalty, e-service quality on customer loyalty, customer experience mediates electronic service quality on customer loyalty, and customer engagement mediates electronic service quality on customer loyalty. All hypotheses are accepted except for the relationship between customer experience and customer engagement.

Keywords: *E-Service Quality, Customer Experience, Customer Engagement, Customer Loyalty, E-Commerce*

1. Introduction

The development of e-commerce in Indonesia is currently very rapid. Starting from the Lippo Group online shop to unicorns such as Bukalapak and Tokopedia (Novika, 2021). One of the driving forces behind every online business is the customer's intention to purchase e-commerce products (Sugiharto et al., 2019). According to data from Wearsocial and Hootsuite, around 90% of Indonesian internet users have made purchases online (Sirclo, 2020).

E-commerce offers quick and simple diversification of corporate operations, an adaptable system of product delivery to designated addresses, and ongoing online communication between customers and sellers (Taranenko, I., Chychun, V., Korolenko, O., & Goncharenko, 2021). E-commerce promotes open communication and an effective interactive environment where information and products can be exchanged between suppliers and customers (Md Sabri et al., 2022). According to Abduh (2021), in online buying and selling transactions, aka e-commerce, there are several interrelated factors, the first of which is the existence of a legal subject. The legal subjects here are economic entities and consumers. After that, the two legal subjects transacted via computer with internet services, giving rise to a sale and purchase contract based on electronic evidence and giving rise to the parties' responsibilities. The existence of electronic evidence in the form of electronic documents is important to prevent misuse of e-commerce or crimes in e-commerce. This research itself is a development of research by Jacinda et al. (2021) which discusses B2C e-commerce.

According to Firmansyah (2018), research results show that the obstacles to the establishment of e-commerce in Indonesia mainly consist of two factors, namely technical obstacles and non-technological obstacles. Technical limitations such as the absence of e-commerce quality management standards, security and reliability of the system being built. Barriers from a non-technological perspective include the absence of government regulations governing business transactions via e-commerce.

Table 1

Number of Visits to the 5 Largest E-Commerce Sites in Indonesia (January-June 2023) (Ahdiat, 2023).

| Month | Shopee | Tokopedia | Lazada | Bibli | Bukalapak |
|---------|-------------|-------------|------------|------------|------------|
| 01-2023 | 171.300.000 | 128.100.000 | 91.200.000 | 28.600.000 | 20.000.000 |
| 02-2023 | 143.600.000 | 108.100.000 | 74.200.000 | 23.200.000 | 17.100.000 |
| 03-2023 | 159.000.000 | 114.900.000 | 84.300.000 | 24.500.000 | 17.100.000 |

| Month | Shopee | Tokopedia | Lazada | Blibli | Bukalapak |
|---------|-------------|-------------|------------|------------|------------|
| 04-2023 | 165.800.000 | 109.200.000 | 82.500.000 | 33.000.000 | 15.400.000 |
| 05-2023 | 161.200.000 | 106.400.000 | 70.700.000 | 24.400.000 | 17.300.000 |
| 06-2023 | 173.900.000 | 106.000.000 | 70.400.000 | 23.900.000 | 14.000.000 |

There is a lot of e-commerce in Indonesia, but there are five large e-commerce sites that are frequently visited as in table one above. According to Ahdiat (2023), e-commerce had the most visitors in January-June 2023. Based on SimilarWeb data, Shopee is the e-commerce site in the marketplace category with the most visitors in Indonesia in the first semester of 2023. Throughout the first half of this year, the Shopee site received between 143 million and 173 million visits per month. This figure far exceeds visits to a number of its main competitor e-commerce sites, namely Tokopedia, Lazada, Blibli, and Bukalapak. In June 2023, the number of visits to the Shopee site was also recorded to have increased compared to the position at the beginning of the year. Meanwhile, in the same period, visits to the Tokopedia, Lazada, Blibli, and Bukalapak sites fell compared to the position at the beginning of the year.

According to Komara (2013), e-service quality is a combination of quality Internet services, including efficiency, performance, system availability, and security. Customer purchasing decisions are influenced by the e-service quality (Indriyati et al., 2022). When customers decide to continue using online services, they must have a positive experience that influences customer satisfaction (Vatolkina et al., 2020). Ning Hu (2021) The quality of service recovery can not only influence customer loyalty directly but also indirectly influence customer loyalty through customer engagement, while the quality of the service process and the quality of service results influence customer loyalty through customer engagement. E-service quality issues in e-commerce continue to be studied as customer behavior and needs continue to evolve. Service failures can usually affect customer response and customer loyalty (Dian Octaviani et al., 2023). In our opinion, a common problem with customer loyalty in e-commerce is intense competition. A competitive e-commerce environment with a variety of

choices and offers available makes it easy for customers to switch to competitors if they find better prices or more attractive offers.

Meanwhile, several research results (Adquisiciones et al., 2019; Akbar & Djatmiko, 2016; Irwansyah & Mappadeceng, 2018) show that in the context of e-commerce, e-service quality has a positive effect on customer loyalty. This is contrary to research results (Jacinda Sukendi, Nanang Harianto, Susi Wansaga, 2021; Tri Atmojo & Widodo, 2022), which show the opposite results. In research by Jacinda et al. (2021), it also shows that customer engagement has no effect on customer loyalty. Thus, there is disagreement between these findings and the relationships between variables.

Based on several things above, the author's background is to conduct research on “The Influence of E-Service Quality on Customer Loyalty Mediated by Customer Experience and Customer Engagement on an E-Commerce Platform”. It seeks to define the correlation of e-service quality, customer experience, and customer engagement, along with customer loyalty, to e-commerce.

2. Literature review

E-Commerce

E-commerce is a product provided and developed based on electronic information technology, communication technology, and artificial intelligence theory as a new sales method (Wang, 2022). E-commerce is an important component of the digital economy because the current business market landscape is based on digital competition (Hendricks & Mwapwele, 2023). All commercial components are applied to e-commerce, such as customer service, product service, payment methods, and promotional methods (Hermiati et al., 2021). On the other hand, sustainable e-commerce can increase customer satisfaction, loyalty, and trust through customer support, leading to long-term online purchases (Amornkitvikai et al.,

2022). With the continued development of technology and changes in consumer behavior, e-commerce is expected to continue to be an important factor in the global business landscape.

E-Service Quality

E-service quality is a service provided to consumers using the internet. Internet-based services make customers save costs and time in carrying out transactions (Juwaini et al., 2022). The most important aspects of e-service quality that impact customer satisfaction, customer trust, and customer behavior are based on existing literature on e-service quality in online shopping (Rita et al., 2019). The assessment of service quality is carried out by consumers based on the results of the service they receive as well as subjective assessments of various intangible factors, such as responsiveness and supplier empathy (Rather & Camilleri, 2019). E-service quality is very different from traditional e-service quality. This happens because it is necessary to pay attention to the technological aspects used in service quality in e-commerce, so it can be said that e-service quality is an extension of the service quality capabilities of a website to provide shopping, purchasing, and distribution facilities efficiently and effectively online (Firdha et al., 2021).

Thus, e-service quality has a significant impact on customer perceptions about the value of services provided online. Improving the quality of digital services plays an important role in building positive customer relationships and retaining the customer base in a competitive digital environment.

Customer Experience

Customer experience is the result of physical and psychological interactions between consumers and the online products they purchase, businesses, or other parts of the organization, which trigger responses in the form of emotions, perceptions, knowledge, and the desire to act (Hasniati et al., 2021). Experience is becoming an increasingly important

factor in determining the success of online businesses, becoming a source of competitive advantage for every e-commerce company (Urdea & Constantin, 2021). Customer experience comes from consumer feelings on various levels, including rational, emotional, psychological, and mental (Sebald & Jacob, 2020). Customer experience is rooted in consumer emotions at different levels, including rational, emotional, psychological, and spiritual (Gahler et al., 2019). Customer experience is a complex and diverse phenomenon that includes values related to processes, use cases, and outcomes and defines the temporality that influences and connects all these aspects (Komulainen & Saraniemi, 2019). Therefore, customer experience is key to building sustainable customer loyalty.

Customer Engagement

Customer engagement significantly enriches customer loyalty and mediates the relationship between aspects of trust and customer loyalty (Agyei et al., 2020). Customer engagement has become an important part of social media marketing strategy, attracting great interest from marketers and academics (Vinerean & Opreana, 2021). Customer engagement can be seen as a series of actions that consumers take on social networks in response to brand-related content, such as reacting to content, commenting on content, sharing content with others, and posting user-generated content (Zheng et al., 2022). From the definition of customer engagement above, it can be concluded that customer engagement is a psychological state that arises in customers as a result of interactions and unique experiences that occur between customers and businesses. From there, the business creates long-term customer trust and engagement, a long-term intimate relationship between the company and the customer (Dharmayanti & Theofilus, 2020). With this, customer engagement encourages customers to feel emotionally connected to the brand, creating deeper relationships and lasting loyalty.

Customer Loyalty

According to Syafiudin et al. (2023), Customer loyalty can be synthesized if customers remain loyal to the company's products or services because they have trust in the company's products or services. This happens without being influenced by circumstances or various marketing strategies. Customer loyalty is a type of ongoing customer loyalty to goods or services because of perceived satisfaction and usually leads to an attitude of being willing to give the product to others (Seasafira et al., 2023). Customer loyalty is seen as an important factor that leads to gaining a competitive advantage over other businesses in a highly competitive and dynamic environment (Leninkumar, 2017). Customer loyalty is one of the most important things in business. Indeed, customer loyalty can bring additional income to a business (Perkasa & Emanuel, 2020). Customer loyalty is very important for companies. Customers who buy frequently and repeatedly are said to be loyal. This definition places loyalty as commitment (Udayana & Ridho, 2022). The characteristics of customer loyalty to a product are a commitment to using the product, not using other products, recommending the product to others, using the product many times, and always tracking product information (Hasniati et al., 2021). Thus, customer loyalty is a valuable asset that helps increase customer retention, build a positive brand image, and support long-term growth.

Hypothesis & Framework

Customer experience and engagement have a good and significant impact on customer satisfaction and loyalty, according to research results from Zaid and Patwayati (2021). Additionally, this study discovered that customer engagement indirectly influences customer satisfaction and loyalty, while customer experience indirectly influences both customer engagement and customer satisfaction. According to research Jacinda et al. (2021), the most crucial element in determining customer loyalty is identifying loyal customers, who are then

followed by those who are dedicated to repurchasing goods or services and recommending them to others.

H1: There is a positive and significant influence of e-service quality on customer experience.

The findings of a study (Hermawan, 2021) show that there is a direct relationship between electronic service quality and customer experience variables, with the influence of customer experience increasing along with electronic service quality. Businesses can use e-service quality as a tool to make a positive first impression on clients. One factor that can be used to understand client loyalty is the customer experience (Su Wen Chen, 2008). Apart from that, customer experience also has a positive impact on customer loyalty (WG Kim, B Jin-Sun, 2008). As a result, this will improve the e-commerce customer experience.

H2: There is a positive and significant influence of e-service quality on customer engagement.

The study conducted by Safitri et al. (2023) investigated the topic of bank service quality and found that it had a favorable impact on customer engagement. He claims that another purpose of customer engagement is to evaluate the connection between key company performance indicators like customer retention, sales, profits, relationship development, and soft attitude measures. The key idea is that using electronic services and making purchases by customers will boost and encourage customer participation (Baldus et al., 2015; Roy, 2018).

H3: There is a positive and significant influence of customer experience on customer loyalty.

Based on the results of hypothesis testing, which demonstrate that the customer experience can positively predict the customer loyalty variable, the hypothesis is approved (Keni & Sandra, 2021; ZAID & PATWAYATI, 2021). A person's loyalty to a company's goods or services can also be influenced by their interaction with it, both during and after a

transaction (Nisa, 2020). Results from Imbug et al. (2018) demonstrate that in the telecom sector, consumer loyalty is positively impacted by the customer experience.

H4: There is a positive and significant influence of customer engagement on customer loyalty.

Additionally, a study by Zaid and Patwayati (2021) discovered that customer interaction positively and significantly influences customer loyalty. Additionally, through customer engagement, this research discovered that customer happiness and customer loyalty are indirectly impacted by customer engagement. These results suggest that consumer loyalty is impacted by experience.

H5: There is a positive and significant influence of customer experience on customer engagement.

The results of Zaid and Patwayati (2021) also demonstrate that customer engagement is positively and significantly impacted by the customer experience. The relationship between customer engagement and experience is mutual. Customer engagement has a beneficial impact on the customer brand experience online, according to research (Ardiansyah, 2019).

H6: There is a positive and significant influence of e-service quality on customer loyalty.

According to research on Zalora e-commerce by Utami et al. (2018), e-service quality significantly and favorably affects consumer loyalty. Similar to research conducted by Nisa (2020), which found that Shopee customer loyalty in Kudus City is positively and significantly impacted by the e-service quality variable, According to the test results, Shopee customers cannot be loyally influenced by e-service quality indicators such as website usability, information quality, reliability, and responsiveness. Consequently, customer happiness serves as a mediating indicator, and the customer experience can boost customer loyalty (Putri Azizi, Della Asmaria Putri Mardhatilla Fitri Sopali, 2022).

H7: Customer experience mediates the influence of e-service quality on customer loyalty.

Hermawan's (2021) research shows that customer experience is able to mediate the influence of e-service quality on customer loyalty. In other words, customer experience is thought to be able to act as a mediator in the influence of e-service quality on customer loyalty.

H8: Customer engagement mediates the influence of e-service quality on customer loyalty.

Based on the hypothesis to be tested, this research uses the following research model:

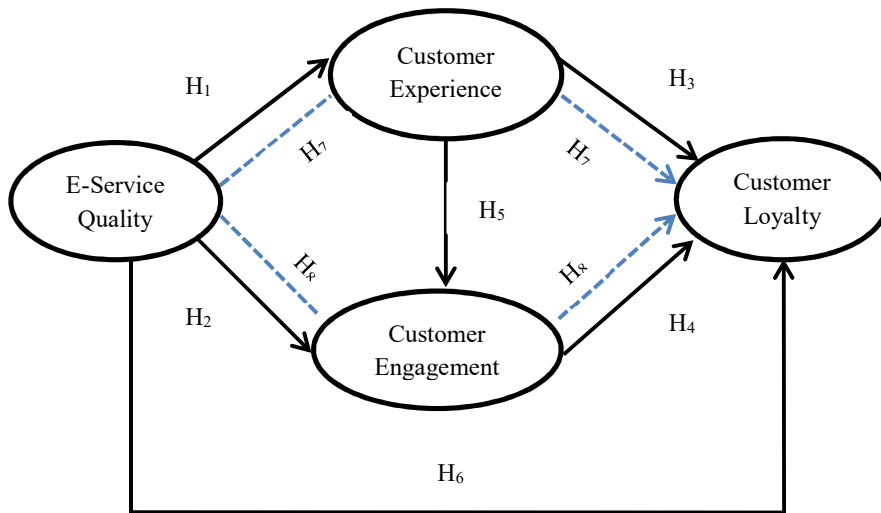


Figure 1. Research model

3. Research method

This research uses quantitative methods, and the population is the top 5 e-commerce users in Jabodetabek. The sampling method used is non-probability sampling, namely determining the selected sample based on certain criteria. The data collection technique used in this

research was a questionnaire. The criteria used in this research are e-commerce users aged under 18 years to over 45 years. With a total sample of 204 respondents. Structural Equation Modeling (SEM) is a data analysis technique that is used and processed using the SPSS and SEM AMOS 24 applications. In this research, we used a Likert scale with five response options. With answers ranging from “strongly agree” to “strongly disagree”. And the questionnaire used consisted of 42 statements as well as indicators for each variable.

Table 2

Respondent Characteristics

| | Frequency | % |
|----------------------|-----------|-------|
| Gender | | |
| Male | 82 | 40,2% |
| Female | 122 | 59,8% |
| Age | | |
| < 18 | 11 | 5,4% |
| 18 – 24 | 113 | 55,4% |
| 25 – 34 | 42 | 20,6% |
| 35 – 45 | 26 | 12,7% |
| > 45 | 12 | 5,9% |
| Occupation | | |
| Student | 81 | 39,7% |
| Entrepreneur | 22 | 10,8% |
| Private Employees | 67 | 32,8% |
| Government Employees | 7 | 3,4% |
| Housewife | 14 | 6,9% |
| Doctor | 2 | 1% |
| State Apparatus | 3 | 1,5% |

| | | |
|--|-----|-------|
| Others | 8 | 3,9% |
| Monthly income | | |
| < Rp. 5.000.000 | 129 | 63,2% |
| Rp. 5.000.000 – Rp. 10.000.000 | 56 | 27,5% |
| Rp. 10.000.000 – Rp. 15.000.000 | 13 | 6,4% |
| > Rp. 15.000.000 | 6 | 2,9% |
| Monthly spending in e-commerce | | |
| < Rp. 1.000.000 | 132 | 64,7% |
| Rp. 1.000.000 – Rp. 3.000.000 | 55 | 27% |
| Rp. 3.000.000 – Rp.5.000.000 | 11 | 5,4% |
| > Rp. 5.000.000 | 6 | 2,9% |
| Online shopping experience | | |
| Yes | 201 | 98,5% |
| No | 3 | 1,5% |
| Frequently used e-commerce | | |
| Blibli | 19 | 9,3% |
| Tokopedia | 84 | 41% |
| Lazada | 72 | 35,1% |
| Shopee | 179 | 87,3% |
| Bukalapak | 13 | 6,3% |
| How often do you use e-commerce in a month? | | |
| 1 – 2 | 61 | 30% |
| 3 – 4 | 68 | 33,3% |
| 5 – 6 | 36 | 17,6% |
| Very often | 39 | 19,1% |

| Products commonly purchased on e-commerce | | |
|---|-----|-------|
| Fashion | 159 | 77,6% |
| Cosmetics | 105 | 51,2% |
| Electronic | 57 | 27,8% |
| Food / drink | 75 | 36,6% |
| Furniture | 24 | 11,7% |
| Accessories | 97 | 47,3% |
| Health | 35 | 17,1% |
| Others | 46 | 22,4% |

Table 3

Measurement of variables

| Variable/Dimension | Indicator | Source |
|---------------------|--|------------------------|
| E-Service Quality | <ul style="list-style-type: none"> • Efficiency • Reliability • Fulfillment • Privacy • Responsiveness • Compensation • Contact | Putra et al., (2022) |
| Customer Experience | <ul style="list-style-type: none"> • Ease Of use • Interaction • Security • Fulfillment Reliability • Customer Service • Store Offering | Diyanti et al., (2021) |

| | | |
|---------------------|--|-----------------------|
| Customer Engagement | <ul style="list-style-type: none">• Attention• Enthusiasm• Interaction• Identification• Absortion | Ridanasti, (2021) |
| Customer Loyalty | <ul style="list-style-type: none">• Repurchase• Purchases Outside The Product Line• Recommendation To Others• Customer Resistance | Rahman et al., (2022) |

4. Results and discussion

Validity and Reliability Testing

Composite reliability and Cronbach's alpha values exceed 0.7 for each latent variable. Apart from that, the Average Variance Extracted (AVE) value is 0.5, which means it is greater than the average. This shows that the research instrument passed the validity and reliability tests.

Table 4

Results of Convergent Validity and Reliability Tests

| Variable | Composite Reliability | Average Variance Extracted (AVE) | Cronbach's Alpha |
|---------------------|------------------------------|---|-------------------------|
| Customer Engagement | 0.921 | 0.538 | 0.904 |
| Customer Experience | 0.950 | 0.655 | 0.941 |

| | | | |
|-------------------|-------|-------|-------|
| Customer Loyalty | 0.947 | 0.690 | 0.936 |
| E-service Quality | 0.946 | 0.558 | 0.939 |

Table 5

Discriminant Validity

| Variabel | Customer Engagement | Customer Experience | Customer Loyalty | E-service Quality |
|---------------------|---------------------|---------------------|------------------|-------------------|
| Customer Engagement | 0.734 | | | |
| Customer Experience | 0.349 | 0.809 | | |
| Customer Loyalty | 0.417 | 0.490 | 0.831 | |
| E-service Quality | 0.400 | 0.597 | 0.511 | 0.747 |

Structural Equation Model Analysis

To make it easier when entering data into the AMOS 24 software, variable names have been changed to abbreviations or codes, namely E-Service Quality (ESQ), Customer Experience (CE), Customer Engagement (CEG), and Customer Loyalty (CL).

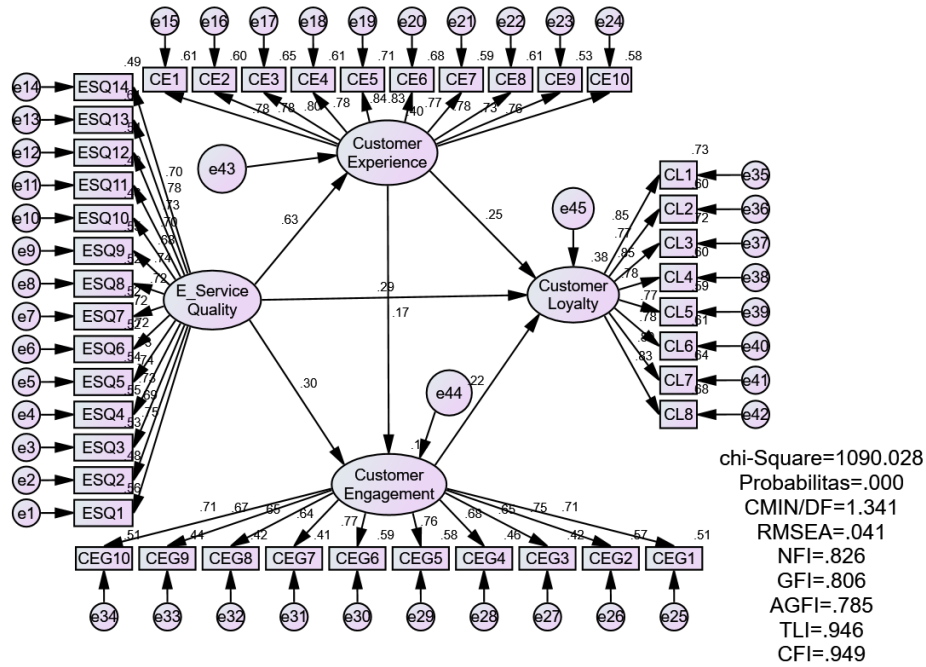


Figure 2. Results of Research Model Using AMOS 24

Goodness of Fit Test

After creating a measurement model, the next step is to carry out goodness-of-fit testing. Goodness Fit is carried out to measure how well the observed data matches the predictions of the proposed model. The following are the model criteria and significance values that fit the data:

Table 6

Goodness of Fit Model Criteria and Results

| Goodness of Fit Index | Cut of Value | Analysis Results | Model Evaluation |
|-----------------------|--------------|------------------|------------------|
| RMSEA | ≤ 0.08 | 0.041 | Fit |
| GFI | ≤ 1.00 | 0.806 | Fit |
| AGFI | ≤ 1.00 | 0.785 | Fit |
| CMIN/DF | ≤ 5.00 | 1.341 | Fit |
| TLI | ≤ 1.00 | 0.946 | Fit |
| CFI | ≤ 1.00 | 0.949 | Fit |
| NFI | ≤ 1.00 | 0.826 | Fit |

Based on the table above, the results of the goodness of fit test with cut of value parameters all show that the research model is suitable for use (goodness of fit) because all indexes are met.

Hypothesis Testing

Hypothesis test results: in total, there were six hypotheses tested. Only one hypothesis was rejected, namely H₅ with a C.R. value. 1.807 and a P value of 0.071. Because the significant C.R. value is more than 1.96 and the significant P value is less than 0.05, Meanwhile, the other five hypotheses can be accepted. The complete results of the six hypotheses are listed in Table 6 below.

Table 7

Hypothesis Test Results

| Hypothesis | Variable path | | | C.R. | P | Results |
|----------------|---------------|---|------------|-------|-------|----------|
| H ₁ | <i>eSQ</i> | → | <i>CE</i> | 7,871 | *** | Accepted |
| H ₂ | <i>eSQ</i> | → | <i>CEG</i> | 3,092 | 0,002 | Accepted |
| H ₃ | <i>CE</i> | → | <i>CL</i> | 3,040 | 0,002 | Accepted |
| H ₄ | <i>CEG</i> | → | <i>CL</i> | 3,091 | 0,002 | Accepted |
| H ₅ | <i>CE</i> | → | <i>CEG</i> | 1.807 | 0,071 | Rejected |
| H ₆ | <i>eSQ</i> | → | <i>CL</i> | 3.293 | *** | Accepted |

Meanwhile, mediating variable hypothesis testing is carried out using the Sobel test. The Sobel test was carried out to test the indirect effect of the independent variable E-Service Quality on the dependent variable Customer Loyalty through the mediating variables Customer Experience and Customer Engagement. Therefore, the size of the standard error for the indirect effect *Sab* is calculated using the Sobel Test Calculator.

| Input: | | Test statistic: | Std. Error: | p-value: |
|----------------------|-------|--------------------------|-------------|------------|
| <i>a</i> | 0.657 | Sobel test: 2.84773176 | 0.06759801 | 0.0044032 |
| <i>b</i> | 0.293 | Aroian test: 2.82815221 | 0.068066 | 0.00468175 |
| <i>s_a</i> | 0.083 | Goodman test: 2.86772369 | 0.06712676 | 0.00413436 |
| <i>s_b</i> | 0.096 | Reset all | Calculate | |

Figure 3. Sobel Test Calculator E-Service Quality output on Customer Loyalty through Customer Experience

The results of calculating the Sobel test show that the t-count value is 2.848 > higher than the t-count value of 1.96. Therefore, it is clear from the calculation results of the Sobel test

calculator that e-service quality affects customer loyalty through customer experience. In other words, the customer experience hypothesis mediates the influence of electronic service quality on customer loyalty, or **H7** can be accepted.

| Input: | | Test statistic: | Std. Error: | p-value: |
|----------------|-------|--------------------------|-------------|------------|
| a | 0.261 | Sobel test: 2.18190999 | 0.03672333 | 0.02911618 |
| b | 0.307 | Aroian test: 2.12678781 | 0.03767513 | 0.03343772 |
| s _a | 0.085 | Goodman test: 2.24155303 | 0.0357462 | 0.02499027 |
| s _b | 0.099 | Reset all | Calculate | |

Figure 4. Sobel Test Calculator E-Service Quality output on Customer Loyalty through Customer Engagement

The Sobel test calculation results show that the t-count value is $2.182 >$ larger than the t-count value of 1.96. Therefore, it is clear from the calculation results of the Sobel test calculator that e-service quality affects customer loyalty through customer engagement. Customer engagement mediates the influence of e-service quality on customer loyalty, or **H8** can be accepted.

Discussion

The results of this research indicate that electronic service quality is very important to form customer loyalty through customer experience and engagement in e-commerce. In line with previous research (Nisa, 2020; Putri Azizi, Della Asmaria Putri Mardhatilla Fitri Sopali, 2022; Utami et al., 2018), which shows that electronic service quality significantly increases customer loyalty, according to research by Zaid and Patwayati (2021), customer experience and customer engagement have a positive and significant effect on customer loyalty. In Hermawan (2021) research, customer experience can mediate between electronic service quality and customer loyalty, just as customer engagement can mediate between electronic

service quality and customer loyalty. However, there are also variables that have no effect, namely customer experience, on customer engagement. The results of this research also contradict previous research regarding service quality, which did not have a significant effect on customer loyalty (Keni & Sandra, 2021; Safitri et al., 2023).

5. Conclusion

Based on the results of research data regarding the relationship between electronic service quality, customer experience, customer engagement, and customer loyalty on e-commerce platforms, both directly and indirectly, it can be concluded that there is a positive relationship between electronic service quality and customer loyalty on e-commerce, which supports previous research (Nisa, 2020; Putri Azizi, Della Asmaria Putri Mardhatilla Fitri Sopali, 2022; Utami et al., 2018). Furthermore, customer experience mediates electronic service quality and customer loyalty, in line with research from Hermawan (2021).

And the new finding in this research is that customer engagement is proven to be a significant mediator between e-service quality and customer loyalty, and there is an insignificant direct relationship between customer experience and customer engagement.

6. Implications

This research has an important influence on business management and e-commerce marketing strategies. The results of this research highlight an important focus on improving e-service quality as a key foundation for influencing customer experience, customer engagement, and loyalty. The implications of this research include the needs of e-commerce businesses:

First, improve the quality of their e-services by prioritizing factors such as quick

responses to customer inquiries, insightful site navigation, transaction security, and product quality. or services provided. This will ensure customers have a positive experience when shopping and interacting with e-commerce platforms.

Second, design an attractive customer experience by paying attention to aspects such as product appearance, ease of navigation, and ease of transactions. This will help create a customized experience, which will increase customer loyalty.

Third, encourage customer engagement through loyalty programs, customer reviews, social interactions, and personalized communications. This will help build long-term relationships between e-commerce businesses and their customers.

Fourth, engage customers in a continuous feedback cycle to gain valuable insights and continually improve e-service quality and the customer experience.

Fifth, use the results of this research to develop more effective marketing strategies that emphasize e-service quality as a key element of the marketing message.

Sixth, regularly monitor metrics related to e-service quality, customer experience, customer engagement, and loyalty to detect changes and trends that may arise.

Overall, this impressive research highlights the importance of continuously improving e-service quality, customer experience, and customer engagement as key strategies for building and maintaining customer loyalty in an increasingly competitive e-commerce environment.

7. Research limitations

This research has several limitations that can be used as a reference for further research to produce better research. There are several research limitations that need to be considered:

1. Measurement Method:

This measurement method may have limitations in taking into account all relevant aspects in the e-commerce context. There is an opportunity to use more comprehensive and diverse measurement

methods in follow-up research.

2. *Self-reporting data:*

The data in this research was obtained through a self-reporting survey conducted by respondents. This could introduce potential bias or distortion in their responses. The use of additional methods, such as direct observation or behavior analysis, can overcome these limitations.

3. *Time:*

This research may reflect the situation at the time of data collection, and trends in the e-commerce industry may change over time. Therefore, the results of this research are time-limited.

4. *External factors:*

Research limitations may also be related to external factors that may influence, for example, economic conditions, market competition, or world events that cannot be controlled in the research.

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