



## Journal

# **The Influence of User Interface Quality and Information quality on Customer Loyalty mediated by Customer engagement on Tokopedia Application Users**

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## **ABSTRACT**

*This study aims to: 1) To find out and analyze the effect of user interface quality on customer engagement on Tokopedia application users 2) To find out and analyze the effect of information quality on customer engagement on Tokopedia application users. 3) To find out and analyze the effect of customer engagement on customer loyalty on Tokopedia application users. 4) To find out and analyze the effect of user interface quality on customer loyalty on Tokopedia application users. 5) To find out and analyze the effect of information quality on customer loyalty on Tokopedia application users. 6) To find out and analyze the effect of user interface quality on customer loyalty mediated by customer engagement on Tokopedia application users. 7) To find out and analyze the effect of information quality on customer loyalty mediated by customer engagement on Tokopedia application users. Data collection method using Google Form. The samples taken were 232 respondents. The subjects of this study were users of the Tokopedia application. Methods of data analysis using descriptive analysis, validity, reliability, suitability, hypothesis, and mediation tests.*

**Keywords:** *User Interface, Customer Engagement, Information Quality, Customer Loyalty*

## **BACKGROUND**

Today many companies are more oriented towards information and communication technology as a form of adaptation to technological developments. One of the characteristics of technological developments in the 4.0 era is that consumers are increasingly dependent on mobile telephones. The popularity of e-commerce in Indonesia is quite high compared to countries in the Southeast Asian region. According to the iPrice survey in the first quarter (2022), after Singapore and Vietnam, in third place, Indonesia has won a local e-commerce market share of 54%, beating Malaysia (25%), Thailand (15%) and the Philippines (1%). BPS data on the DataIndonesia.id portal (2022) shows that as of September 15, 34.10% of business actors carry out their activities through e-commerce.



This amount has increased compared to the percentage of e-commerce usage as of December 31, 2021, which was 32.23%. This proportion was obtained from 2.87 million online businesses spread across all provinces in Indonesia. In general, e-commerce used by businesses and end consumers in Indonesia is Tokopedia, Shopee, Lazada, Blibli, Bukalapak, and others. Based on the iPrice report, Tokopedia became the e-commerce site with the largest visitors in the first quarter of 2022. Monthly visitors to the Tokopedia page reached 158.4, growing rapidly compared to visits in 2019 of 66 million with a growth of 140%. The second position is occupied by Shopee with an average monthly visitor reaching 131.3 million and growth compared to 2019 reaching 135%. Then followed by other e-commerce namely Orami, Ralali.com and Zalora. However, the intense competition caused Tokopedia to experience a decline in market share. The Databoks survey (2022) reports the 5 e-commerce sites with the most visitors in the fourth quarter of 2022. Even though Tokopedia once held the highest traffic share on an online shopping platform, problems regarding the online shopping process at Tokopedia often steal public attention, various problems and complaints from Communities have sprung up, ranging from difficulties in canceling transactions, complaints about goods that did not arrive, fraud about the number of goods sent, goods that arrived were not in accordance with the agreement with Tokopedia and complaints from other consumers (Johan, 2020).

According to Aziza & Hidayat (2019) Tokopedia has implemented a user interface design on its online platform. This is done to see whether Tokopedia's interactions with users are going well or not. The second factor is information quality, the problem regarding the quality of product information conducted by Tokopedia is that there are still many online shops at Tokopedia that have not explained the product in detail, so that consumers experience confusion in making product choices. Increasing customer loyalty indirectly can be done by increasing it through customer engagement. Consumer involvement in Tokopedia is certainly needed for Tokopedia's success in a sustainable manner. Based on the description above, it can be concluded that the use of the Tokopedia user interface still has shortcomings and even lags behind its competitors (Mundriyah et al., 2022). The quality of the information presented by Tokopedia has also drawn various complaints from users (Pulakiang et al., 2019). This problem will have a negative impact on user engagement and in turn will hinder the formation of customer loyalty. As found by Sanjaya's research (2022) that the user interface and quality information can form customer engagement, which will then have a positive impact on customer loyalty.

Based on the phenomenon, presentation of relevant data and studies in the research above, the researcher is interested in conducting research on "The Influence of User Interface Quality and Information Quality on Customer Loyalty mediated by Customer Engagement on Tokopedia Application Users".

## **THEORETICAL FRAMEWORK**

### ***User Interface Quality***

The User Interface (UI) is the way programs and users interact. The User Interface (UI) is part of an information system that requires user interaction to create input and output (Satzinger et al., 2016). A good user interface must unite user interaction with the presentation of information (Harjoko, et al. 2018). The User Interface itself has been growing with a larger portion or part of the software in a computer system because people are using computers more



rapidly (Ralston et al., 2000). According to Umar and Ganggi, (2019) stated that the User Interface (UI) quality indicators are as follows Connectivity, Simplicity, Directional, Informative, User Friendliness, Personalization, Continuity.

### ***Information quality***

McLean (2017) states that the quality of information measures the output quality of the information system, namely the quality produced by the information system, especially in the form of reports (reports). In line with this opinion, Maria et al., (2021) explained information quality as the level of user satisfaction with the completeness of the content presented as the most up-to-date, accurate, useful information provider compared to other products. Information quality is a characteristic of the output presented in an information system, which includes management of reports and web pages (Peter et al., 2018). Information quality is the output of the use of information systems by users (users). This variable describes the quality of information perceived by users as measured by information accuracy (accuracy), relevance (relevance), completeness of information (completeness), timeliness (timeliness), and presentation of information (format).

### ***Customer Loyalty***

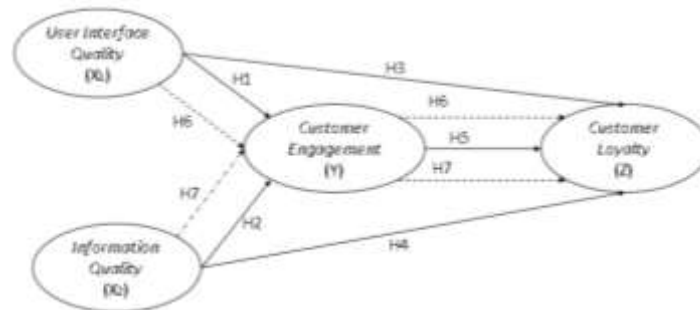
Gramer & Brown (2016) provides a definition of loyalty (service loyalty), which is the degree to which a consumer shows repeated purchasing behavior from a service provider, has a disposition or tendency towards a service provider, and only considers using this service provider on when the need arises to use this service. Based on some of the definitions of consumer loyalty above, it can be explained as consumer loyalty which is presented in consistent purchases of products or services over time and there is a good attitude to recommend other people to buy the product. The study conducted by Sulistyono (2020) adopted the measurement of customer loyalty from Lee et al.'s research, (2011) with the following indicators: a. Re-purchase willing, namely the willingness of consumers to re-purchase products or services in the future b. Recommendation willing, namely the willingness of consumers to recommend products or services that have been used to other potential customers. c. Tolerance to price adjustment, namely a form of consumer loyalty to continue using the product even though the price has increased. d. Consumption frequency, is a condition where consumers are willing to use a product more than once or even many times.

### ***Customer engagement***

Willems (2011) states that customer engagement is a process for involving customers by interacting with them in a dialogue and experience to optimally support customers who influence their decisions in making purchases. Customer engagement is also defined as a long-term relationship that can enhance a brand's ability to interact interactively with potential customers (Sari & Primasari, 2023). Customer engagement is a behavior that allows consumers to make voluntary contributions to a company's brand, where the contribution is not only limited to the transaction (purchasing) process (Alexander & Jaakkola, 2015). The study of So et al., (2014) in Santoso (2020) and Utami & Saputri (2020) divides customer engagement into five dimensions as follows: a. Identification, this process occurs when consumers see their self-image in accordance with the company's image. b. Enthusiasm describes the feeling of enthusiasm when customers engage with a brand. c. Attention, refers to the customer's attention



to a brand either consciously or not. d. Absorption, characterized by a high level of concentration until customers forget the time when interacting with a brand. e. Interaction, interaction is customer participation with brands or other customers outside of purchasing activities.

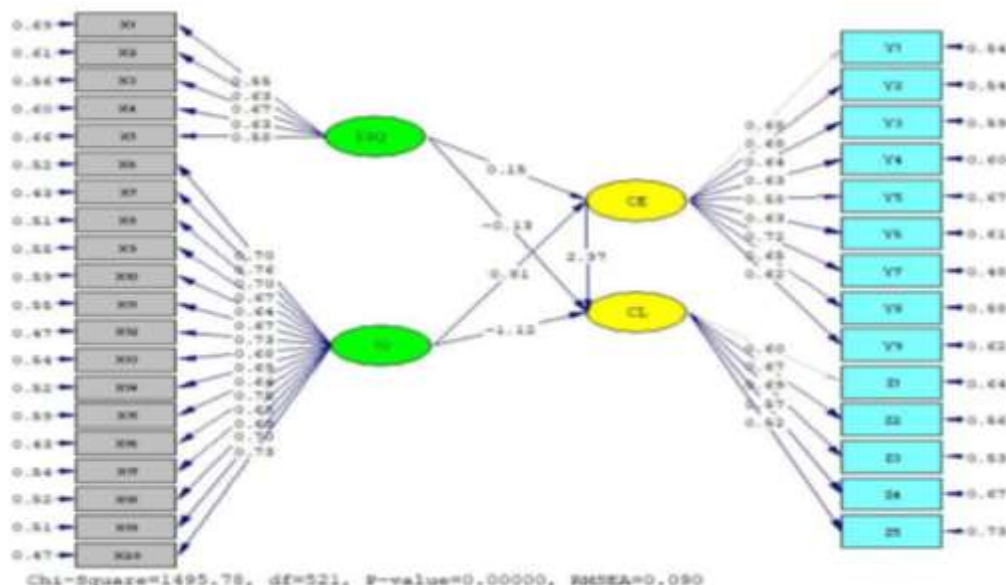


**Figure. Theoretical Framework**

## METHOD

The research method used in this study is the causal method. This method aims to identify causal relationships between variables and independent variables and dependent variables (Sekaran and Bougie, 2016). Then the type of research used is quantitative. This research was carried out by analyzing the data by describing the data numerically or through numbers. This research will be carried out in May 2023 - June 2023 with the data collection method through a questionnaire with the Google Form online media. This research will be carried out in Greater Jakarta with the target of community respondents who have made purchases on the Tokopedia application. The sampling technique with non-probability sampling technique is a sampling technique that does not provide equal opportunities or opportunities for each element or member of the population to be selected as a sample. While the method used in sampling is purposive sampling. Purposive sampling is a sampling technique with certain considerations.

## RESULT





<i>Goodness of Fit Indices</i>	<i>Cut-off Value</i>	<i>Value</i>	<i>Keterangan</i>
Chi Square	Semakin kecil lebih baik	<b>1953.68</b>	<i>Good Fit</i>
RMSR	≤ 0,05	<b>0.48</b>	<i>Good Fit</i>
GFI	≥ 0,09	<b>0.72</b>	<i>Good Fit</i>
RMSEA	0,05 ≤ RMSEA ≤ 0,08	<b>0.074</b>	<i>Good Fit</i>
AGFI	≥ 0,09	<b>0.68</b>	<i>Good Fit</i>
CFI	≥ 0,09	<b>0.95</b>	<i>Good Fit</i>

### Hypothesis Test

<b>Hipotesis</b>	<b>Variabel</b>	<b>Standardized Total Effect</b>	<b>T-Value</b>	<b>Keterangan</b>
H1	<i>User Interface Quality</i> terhadap <i>Customer Engagement</i>	0,15	2.54	Diterima
H2	<i>Information Quality</i> terhadap <i>Customer Engaegement</i>	0,81	8.62	Diterima
H3	<i>Customer Engagement</i> terhadap <i>Customer Loyalty</i>	3,37	2.86	Diterima
H4	<i>User Interface Quality</i> terhadap <i>Customer Loyalty</i>	-0,13	0,79	Ditolak
H5	<i>Information quality</i> terhadap <i>Customer Loyalty</i>	-0,12	-1,71	Ditolak
H6	<i>User Interface Quality</i> terhadap <i>Customer Loyalty</i> dimediasi oleh <i>Customer Engagement</i>	0,36	1,99	Diterima
H7	<i>Information Quality</i> terhadap <i>Customer Loyalty</i> dimediasi oleh <i>Customer Engagement</i>	1,91	2,84	Diterima

Based on table 4.12 it can be seen that H1 is acceptable because it has a path efficiency result of 0.15 with a t-value of 2.54. Whereas in these results H1 has a path coefficient above 0 and a t-value above 1.97 which makes the user interface quality have a significant and positive influence on customer engagement. Then H2 is acceptable because it has a path coefficient of 0.81 and a t-value of 8.62. Whereas in these results H2 has a path coefficient above 0 and a t-value above 1.97 which makes information quality have a significant and positive influence on customer engagement. Next H3 is acceptable because it has a path coefficient result of 3.37 with a t-value 2.86. Whereas in these results H3 has a path coefficient value above 0 and a t-value above 1.97 which makes customer engagement have a significant and positive influence on customer loyalty. Next, H4 is unacceptable because it has a path coefficient of -0.13 with a t-value of 0.79. Whereas in these results H4 has a path coefficient value below 0 and a t-value below 1.97 which makes the user interface quality have no effect on customer loyalty. Next, H5 is unacceptable because it has a path coefficient of -0.12 with a t-value of -1.71. That the results of H5 have a path coefficient value below 0 and a t-value below 1.97 which makes information quality have no effect on customer loyalty. Next, H6 is acceptable because it has a path coefficient of 0.36 with a t-value of 1.99. Whereas in these results H6 has a path coefficient value above 0 and a t-value above 1.97. So it can be concluded that user interface quality has a positive and significant influence on customer loyalty indirectly through customer engagement. And customer engagement plays a full mediated role in user interface quality and customer loyalty. Next, H7 is acceptable because it has a path coefficient of 1.91 and a T-value of 2.84. Whereas in these results H7 has a path coefficient value above 0 and a t-value above 1.97. So it can be concluded that information quality has a positive and significant influence on customer loyalty indirectly through customer engagement. And customer engagement plays a full mediated role in information quality and customer loyalty.



## **DISCUSSION**

### **User Interface Quality on Customer Engagement**

Based on the results obtained from this study, it shows that user interface quality has a significant and positive influence on customer engagement. This is indicated by the results of a path coefficient of 0.15 which is a positive number and has a t-value of 2.54 or more than 1.96, so that the proposed hypothesis can be accepted. The accepted hypothesis is in accordance with research conducted by Nuralifa et al. (2014) which shows that user interface quality has a significant and positive effect on customer engagement. With this it can be concluded that Tokopedia has a quality user interface that makes it easy to make decisions which then makes this convenience an attachment for someone to buy a product or transact using the Tokopedia application.

### **Information Quality on Customer engagement**

Based on the data that has been processed in this study, it shows that information quality has a significant and positive influence on customer engagement. This is indicated by the results of a path coefficient of 0.81 which is a positive number and has a t-value of 8.62 or more than 1.96 so that the proposed hypothesis can be accepted. The accepted hypothesis is in accordance with research conducted by Wijayanti (2018) which shows that information quality has a significant and positive effect on customer engagement. With this it can be concluded that customer engagement with the Tokopedia application can increase with the influence of good and clear information quality on the Tokopedia application. With this, Tokopedia must maintain or improve good and clear information quality in the application so that more users are enthusiastic in searching, evaluating alternatives, and making decisions to choose and buy products or transact on the Tokopedia application.

### **Customer Engagement on Customer Loyalty**

Based on the data obtained from this study, it shows that customer engagement has a significant and positive influence on customer loyalty. This is indicated by the results of the path coefficient of 3.37 which is a positive number and has a t-value of 2.86 or more than 1.96 so that the hypothesis can be accepted. The accepted hypothesis is in accordance with research conducted by Xi & Hamari (2020) and research conducted by Strauss & Frost (2014) which shows

that customer engagement has a significant and positive effect on customer loyalty. With this, it can be concluded that if the level of search, alternative evaluation, and decision-making increases to choose and buy products or transact on Tokopedia, it will create a close relationship between users and Tokopedia so that this closeness will create a sense of loyalty in the hearts of users. With this, Tokopedia must maintain or increase customer engagement by maintaining and improving service quality on the Tokopedia application so that users remain loyal to using the Tokopedia application when they want to buy products or make other transactions through e-commerce applications.

### **User Interface Quality on Customer Loyalty**

Based on the data obtained from this study, it shows that user interface quality has no effect on customer loyalty. This is indicated by the results of the path coefficient of -0.13 which is a negative number and has a t-value of 0.79 or less than 1.96 so that the hypothesis proposed cannot be accepted. The accepted hypothesis is not in accordance with research conducted by Rendiansyah (2017) which shows that user interface quality has a significant and positive effect



on customer loyalty. Rejection of this hypothesis is supported by research results from Uluvianti et al. (2022) which shows that the factors that directly influence e-commerce consumer loyalty are e-service quality, trust, and satisfaction.

### **Information Quality terhadap Customer Loyalty**

Based on the data obtained from this study, it shows that information quality has a significant and positive effect on customer loyalty. This is indicated by the results of the path coefficient of -0.12 which is a negative number and has a t-value of 1.71 or less than 1.96 so that the proposed hypothesis can be accepted. This hypothesis is inconsistent with research conducted by Khristianto (2011) and DeLone & McLean (2017) which shows that information quality has a significant and positive effect on customer loyalty. However, the rejection of this hypothesis is in accordance with research from Sanjaya (2022) that information quality has no effect on customer loyalty. The rejection of this hypothesis is also supported by research by Uluvianti et al. (2022) which shows that the factors that directly influence e-commerce consumer loyalty are e-service quality, trust, and satisfaction.

### **User Interface Quality on Customer Loyalty through Customer engagement**

Based on the data obtained from this study, it shows that User Interface Quality has a significant and positive influence on customer loyalty mediated by customer engagement. This is indicated by the path coefficient of 0.36 which is a positive number and has a T-Value of 1.99 or more than 1.96. So that the hypothesis proposed can be accepted. Because H4 user interface quality affects customer loyalty. With this the H6 variable, namely user interface quality to customer loyalty, is fully mediated by customer engagement. Because with the customer engagement variable, user interface quality can have an influence on customer loyalty. This has never been found by researchers in previous studies. This study shows that user interface quality has a significant and positive effect on customer loyalty mediated by customer engagement.

### **Information Quality on Customer Loyalty through Customer Engagement**

Based on the data obtained from this study, it shows that information quality has a significant and positive influence on customer loyalty. This is indicated by the results of a path coefficient of 1.91 which is a positive number and has a t-value of 2.84 or more than 1.96 so that the hypothesis proposed can be accepted. Because H5 information quality does not affect Customer Loyalty. With this the H7 information quality variable is fully mediated by customer engagement. Because with the customer engagement variable, information quality can have an impact on customer loyalty. The accepted hypothesis has never been found in previous studies. This study shows that user interface quality has a significant and positive effect on customer loyalty mediated by customer engagement.

## **CONCLUSION**

Based on the results of the tests that have been carried out in this study, researchers can draw conclusions about the seven hypotheses that have been studied. The first hypothesis, namely "user interface has a positive effect on Tokopedia's customer engagement" is accepted. The results of this study indicate that user interface quality can influence Tokopedia's customer engagement. That the better the quality or the higher the usability level of the Tokopedia user interface, the higher the level of user involvement or Tokopedia customer engagement, both for searching, evaluating alternatives, and shopping or transacting through the Tokopedia application. The second hypothesis, namely "information quality has a positive effect on



Tokopedia's customer engagement" is accepted. The results of this study indicate that information quality can affect Tokopedia's customer engagement. That the better the quality of the information presented in the Tokopedia application, the higher the level of user involvement or Tokopedia customer engagement, starting from searching, evaluating alternatives, and shopping or transacting through the Tokopedia application. The third hypothesis, namely "customer engagement has a positive and significant effect on Tokopedia customer loyalty" is accepted. From the results of this hypothesis research, it shows that customer engagement can influence Tokopedia's customer loyalty. That if the level of user engagement or Tokopedia customer engagement is high, a sense of loyalty will arise in the hearts of Tokopedia application users. The fourth hypothesis, namely "user interface quality has a positive and significant effect on Tokopedia customer loyalty" is rejected. From the results of this hypothesis research, it shows that user interface quality cannot influence Tokopedia's customer loyalty. That the better the quality or the higher the usability level of the Tokopedia user interface, does not create a feeling of loyalty in the hearts of Tokopedia application users, but there are other factors that influence the loyalty of Tokopedia application users. The fifth hypothesis, "information quality affects Tokopedia customer loyalty" is rejected. The results of this hypothesis research show that information quality influences Tokopedia's customer loyalty. That the better the quality of the information presented in the Tokopedia application, the more comfortable users will be when using the Tokopedia application so that a sense of loyalty arises in the hearts of Tokopedia users and they will return to using Tokopedia for their shopping needs. The sixth hypothesis, namely "user interface quality has a positive and significant indirect effect on customer loyalty through Tokopedia customer engagement" is accepted. From the results of this study, it shows that user interface quality can influence customer loyalty which is mediated by customer engagement.

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