

The Influence of E-Service Quality on Continuance Intention with Customer Satisfaction as an Intervening Variable on LinkAja Application Users in Bandung City

Jimmy Julio Ratu Edo¹, Ratih Hendayani²

^{1,2} Telkom University, Bandung, Indonesia

¹jimmyjulio@student.telkomuniversity.ac.id, ²ratihhendayani@telkomuniversity.ac.id

Article Information:

Received: February 04, 2023, Accepted: May 27, 2023, Published: May 31, 2023

Abstract

The development of electronic money in Indonesia has made many people start to switch to digital payment modes as an easy solution for conducting various non-cash transactions. The city of Bandung, one of the most densely populated cities in Indonesia, is the city with the most digital payment users. One of the digital payment applications used is LinkAja. This research was conducted to determine the factors that influence the intention to continue the use of the LinkAja application in the city of Bandung. These factors include e-service quality, customer satisfaction, perceived trust, perceived risk, convenience, social value, attitude, and effort expectancy. This study used a quantitative method through data collection by distributing questionnaires online to people who live in the city of Bandung as many as 260 respondents. Data analysis techniques using Structural Equation Modeling (SEM), that is Partial Least Square (PLS) with SmartPLS v.3.2.9 software. Based on the analysis that has been done, the findings in this study indicate that perceived trust, convenience, and social value have a significant positive effect on customer satisfaction. Then, customer satisfaction has a significant positive effect on attitude. Besides that, e-service quality significant positive effect on perceived trust, customer satisfaction, continuance intention, attitude, and effort expectancy LinkAja application users in the city of Bandung. Meanwhile, Attitude also has a significant positive effect on continuance intention, the perceived risk has no significant negative effect on continuance intention. However, effort expectancy has no significant positive effect on continuance intention directly to LinkAja application users in the city of Bandung. This study recommends that LinkAja application service providers must maintain its service quality and create competitive advantages in service quality, so that the number of customer satisfaction and continuance intention to continue the use of the LinkAja application in the city of Bandung increase.

Keywords: E-Service Quality, Service Sector, Technology, Innovation, Developing Country

How to Cite:

Edo, J. J. R. & Hendayani, R. (2023). The Influence of E-Service Quality on Continuance Intention with Customer Satisfaction as an Intervening Variable on LinkAja Application Users in Bandung City.

1. Introduction

The development of electronic money in Indonesia has made many people start to switch to digital payment modes as an easy solution for conducting various non-cash transactions. With the various conveniences and solutions offered by digital payments that are starting to be liked and not a few people prefer to use digital or non-cash financial services compared to using paper money. The benefits obtained when using mobile payment compared to such conventional payments, easy and practical, there are programs that benefit users mobile payment, and minimize the risk of theft (Gianov, 2021).

The revenue of the digital payment industry in Indonesia reached US\$ 63.6 billion and is expected to continue to increase by US\$ 52.3 billion or an increase of 72.55% in the next few years. In addition, according to estimates in 2027, revenue will increase for ten consecutive years to US\$ 124.42 billion (Statista, 2022). Therefore, it is certain that digital payment transactions in Indonesia will be increasingly favored by the public. The increase in digital payments has stimulated companies in Indonesia to make mobile app server-based internet like e-wallet to support the needs, wants and trends of consumers who are accustomed to speed, efficiency and effectiveness when transacting through e-wallet.

According to data obtained from Statista (2020) regarding the payment methods that are often used in Indonesia, the use of digital payment methods or mobile payment system the most widely used in the city of Bandung, with a percentage of 36%, followed by the city of Surabaya with a large 33% (Statista, 2020). In addition, according to the Bandung City Communication and Information Service (Diskominfo), it revealed that as many as 2.1 million Bandung residents actively use the internet, this number out of a total of 2.5 million Bandung city residents (Vaujie, 2022). However, based on data obtained from Databoks (2021), LinkAja occupies the last position as a digital payment application that is often used in Indonesia. LinkAja obtained a brand awareness level of 75%, with 22% active users and only 4% of survey respondents who made LinkAja the most frequently used brand. The percentage makes LinkAja is in the lowest position among other digital payment platforms (Databoks, 2021).

This indicates LinkAja still has many tasks to be in the top position as the best digital payment platform in Indonesia. According to Zhou quoted from Raman and Aashish (2021), the lack of service quality can affect user satisfaction. The same research from Brusch *et al.* (2019), also shows that providing superior service quality can increase customer satisfaction. Because satisfied users tend to form a positive attitude and will make repeated use (Raman and Aashish, 2021).

2. Literature Review

2.1 Operations Management

Operations management consists of two words, namely management and operations. Operation is a transforming activity input become output. Thus, operations management is an activity to organize or manage resources in the transformation process *input* become output which will be used to meet consumer needs (Chanif, 2016).

2.2 Ten Strategic Operations Management Decisions

According to Heizer, Render, and Munson (2020) there are ten strategic decisions in operational management, which are as follows:

1. Design of goods and services
Defining much of what operations require is in every other operations management decision. For example, product design usually dictates a floor on cost and a ceiling on quality, with major implications for sustainability and the human resources needed.
2. Managing quality and statistical control
Define customer quality expectations and establish policies and procedures to identify and achieve that quality.
3. Process and capacity strategies
Determining how goods or services are produced (the production process) and carrying out the management of specific technologies, quality, human resources, and capital investments determine much of a company's basic cost structure.
4. Location strategies
Determine where the company will operate based on an assessment of its customers and suppliers, while considering costs, infrastructure, and government regulations.
5. Layout strategies
Requires integration of capacity requirements, personnel levels, technology, and inventory requirements to determine the efficient flow of materials, people, and information.
6. Human resources, job design, and work measurement
Determine how to recruit, motivate, and retain personnel with the required talents and skills. Humans are an integral and costly part of the total system design.
7. Supply chain management
Determining how to integrate the supply chain into the company's strategy, including decisions regarding what to buy, from whom, and under what conditions.
8. Inventory management
Considers ordering and inventory holding decisions and how to optimize them as customer satisfaction, supplier capabilities, and production schedules are considered.
9. Scheduling
Define and implement medium and short term schedules that effectively and efficiently utilize personnel and facilities while meeting customer demands.
10. Maintenance
Make decisions considering facility capacity, production demands, and personnel required to maintain a reliable and stable process.

2.3 Quality

According to ASQ (*American Society for Quality*) in Heizer, Render, and Munson (2020), quality is the totality of features and characteristics of a product or service that depend on its ability to satisfy stated or implied needs.

2.4 E-Service Quality

Parasuraman *et al.* (2005) in Liu *et al.* (2019) defines *e-service quality* as a tool or instrument to obtain a measure of the level of customer satisfaction from an internet-based service consisting of shopping, and delivery of products or services.

2.5 Services

According to (Kotler and Keller, 2016) service is an action that can be offered by one party to another, which basically has no form and there is no transfer of any ownership. The production of services can be related to physical products or not.

2.6 Customer Satisfaction

Customer satisfaction refers to the satisfaction of needs, evaluation of the final and actual results, desires and experience ratings in purchasing (Gronroos, 2010). It focuses on measurements that determine how happy customers are with the company's products and competencies (Zeithaml & Bitner, 2013). Customer satisfaction is very important for businesses because it can be used to identify potential market opportunities (Jawaad *et al.*, 2019).

2.7 Continuance Intention

Continuance intention defined as the user's intention to continue using the technology (Bhattacharjee, 2001). In addition, according to Chen (2015) continuance intention is the intention to continue which refers to the intention of everyone to continue participating in an activity after previously adopting it.

2.8 Conceptual Framework

The frame of mind is a conceptual model of how theory relates to various factors that have been identified as important problems (Uma Sekaran in Sugiyono, 2021). Based on the theories previously described, they will be analyzed critically and systematically, resulting in a synthesis of the relationships between the variables studied. Therefore, the framework is also a synthesis of the relationships between variables compiled from various theories that have been described (Sugiyono, 2021).

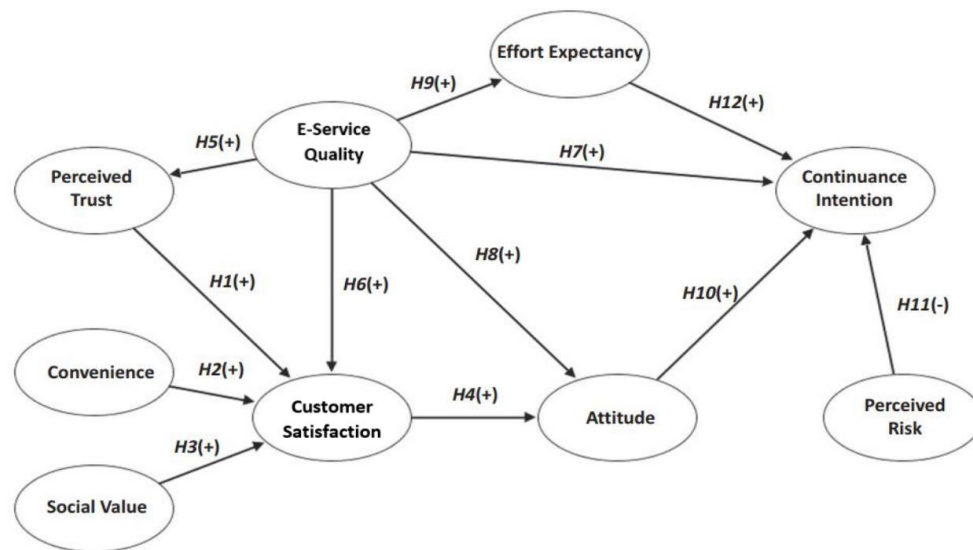


Figure 1. Research Conceptual Framework

Source: Raman and Aashish (2021)

Based on research by Raman and Aashish (2021), currently many companies are focusing on building long-lasting partnerships with consumers based on trust, especially in the early adoption phase because it can encourage continuance intention or sustainable use. Shareeft et al. (2018) in Raman and Aashish (2021). Trust has been considered a vital element by different business entities. This acts as the foundation for a long-term and sustainable relationship. Several previous studies have also confirmed a strong relationship between trust and satisfaction (Liebana-Cabanillas et al., 2019). In addition, there is a convenience factor which is basically a combination of place utilities, such as providing easy access to goods or services to enable consumers to obtain or use them. Then there are time utilities, such as providing goods and services to consumers when they are really in demand. These two factors can influence users to adopt or reject certain technologies (Pal et al., 2015). Users anticipate that the company providing the service will understand their requirements and be able to respond promptly.

Several researchers have identified a positive effect of convenience on user satisfaction levels (Liebana-Cabanillas et al., 2019). Then research Mahapatra taken from Raman and Aashish (2021), reveals that convenience is the main reason for doing online transactions. This is contrary to one of the issues in the LinkAja application where the customer service provided is very slow, thus making the transaction process uncomfortable (Handoyo, 2022). Basically, convenience is a combination of place utility and time utility, namely providing easy access to goods or services and providing goods or services to consumers when they really need them. Furthermore, according to research Abdennebi and Debabi taken from Raman and Aashish (2021), social value is the benefit obtained due to persuasion from the community, relatives, or family members to use MPS. If a user uses an MPS service that offers a superior image and creates acceptance among other users and can strengthen his social affiliation among friends, relatives, and family, it is likely to motivate that user to continue using the service. Therefore, social value can create a huge effect on the level of user satisfaction (Chang taken from Raman and Aashish, 2021).

According to Chen's research (2018), the experiences that users encounter during the early stages of using a product will ultimately determine their response to future continuance intentions and loyalty to a product or service. This is also in accordance with the research of Deng et al taken from Raman and Aashish (2021), where satisfied users will repeat purchasing behavior and start using the service continuously. Patil et al revealed in the research of Raman and Aashish (2021), that service quality helps service providers to instill trust among users by assessing their ability to comply with the terms and conditions promised. Conversely, if a system has a bad user interface, requires a lot of time to respond, and does not provide guarantees to act according to the promised requirements, then the user's trust in the system will decrease (Raman and Aashish, 2021). This is in line with the issues that are owned by the application LinkAja, where the LinkAja application's customer service was less responsive in solving 31 problems experienced by users and the solutions provided were inappropriate and burdensome for application users (Raharjo, 2022).

According to Bhattacharjee in Raman and Aashish (2021), continuance intention is described as a consumer's desire to continue using a service even after the adoption stage. Soebandhi's research in Raman and Aashish (2021) also reveals that e-service quality and continuance intention are positively related. When users realize that a system offers flawless service, the level of satisfaction with the system will increase (Zhou in Raman and Aashish, 2021). Then

according to Lin in Raman and Aashish (2021) revealed that, when a technology offers good service quality, users can easily learn the technology in a fast period of time. Praveena in Raman and Aashish (2021) reveals that attitude is expressed as the positive or negative feelings that users have towards certain technologies or services. When users have a good opinion about a new service or technology, they can apply it in their daily life (Lee in Raman and Aashish, 2021). Then, Cox in Raman and Aashish (2021) states that perceived risk is a function of two important things. First, the level of loss if the action results are unfavorable or not what the user wants. Second, the consequences are associated with unfavorable purchase outcomes. Therefore, the level of risk perception differs with the magnitude of the money involved and the ambiguity associated with the transactions carried out in the MPS (Raman and Aashish, 2021).

According to He et al in Raman and Aashish (2021) regarding expectations, users tend to like technology that is simple and comfortable to learn and can offer optimal benefits. This means that the more complicated the use of technology, the more things will be used (Raman and Aashish, 2021). This statement is also related to research conducted by Senaratne et al (2019) where he revealed that when learning new technology requires less effort, users tend to adopt the technology more easily. This study adopts theories based on research that has been conducted by Raman and Aashish (2021). Where previous research found that service quality, attitude, effort expectancy, and perceived risk significantly affect continuance intention. Meanwhile, perceived trust, convenience, and social value do not have a significant effect on continuance intention. The satisfaction that users get when buying or using products and services is very important, especially during the initial product pre-adoption phase. The experience that the user encounters during the initial stages of using a product will ultimately determine his response towards continued use, continuation intention and future loyalty towards a particular product or service (Chen, 2018).

A positive attitude will be formed towards the companies providing the services when the users are happy with the services offered by them. Users will then repeat their buying behavior and start using the service continuously for a longer period. Research in consumer behavior has established that prior to the adoption of any service, service quality acts as an important determinant in influencing user attitudes (Chen and Tan in Raman and Aashish, 2021). Based on previous observations, superior service quality creates favorable attitudes among users. This positive attitude not only helps in spreading positive word of mouth but also beneficially influences the attitudes of other users regarding the use of MPS (Raman and Aashish, 2021).

3. Research Method

3.1 Research Design

This research uses a causal descriptive research type with quantitative methods. Descriptive research is research that is used to gather information about existing phenomena, namely the conditions as they were at the time the research was conducted without the intention of making general conclusions or generalizations (Hikmawati, 2017). Causal research according to Sugiyono (2021) is a cause and effect relationship in which the independent (exogenous) variable affects the dependent (endogenous) variable. In addition, this study uses PLS-SEM with SmartPLS v.3.2.9 software in analyzing data by assessing model measurement results, evaluating structural models and testing hypotheses using non-parametric bootstrapping techniques to test the effect between constructs or variables (Ghozali, 2021).

3.2 Population and Sample Size

According to Sugiyono (2021), population is a generalized area consisting of research objects and subjects that have certain qualities and characteristics determined by researchers to study and then draw conclusions. The population in this study are users of the LinkAja application, which currently has 83 million registered users (LinkAja, 2022). Because this research uses software SmartPLS, according to Cohen (1992) in Hair *et al.* (2016) there is a requirement to consider and determine sample size based on the number of independent variables belonging to the research model. So, based on this opinion with the number of independent variables in this study, namely as many as four and a significance level of 5% and a minimum R^2 equal to 0.10, then the number of samples required in this study is as many as 113 respondents.

3.3 Data Collection

The questionnaire technique was carried out by giving several written statements or questions to the respondent to answer. This questionnaire is very suitable for collecting data from many respondents spread across many regions. This technique is efficient if the researcher already knows the variables to be measured and what is expected of the respondents. The questionnaire in this study using Google Form and distributed to 113 people who use the LinkAja application and are domiciled in the city of Bandung.

3.4 Validity and Reliability Test

The reliability and validity of the measures was ensured before the start of the actual data collection process. A pretest was conducted to test the clarity of the questionnaire and items. A pilot study was then conducted to test the validity of the measure. In total, three domain experts in the field of mobile marketing were identified and asked to validate the content and evaluate the applicability, understanding, and ambiguity of scale. The suggestions received were included in the questionnaire. The updated questionnaire was then used for pretesting and the questionnaire was distributed to 30 respondents. After feedback was received from participants, the questionnaire was again modified to ensure that all questions were legible and easy to understand.

The suitability of the adapted scale is verified by conducting reliability and validity tests. The researchers conducted trials (N 5 100), and data were examined using PLS-SEM. The internal consistency of the constructs is measured through Cronbach's alpha. All constructs exceed the suggested value of 0.5. Factor loading and average extracted variance (AVE) were calculated for set convergent validity. All factor loadings are greater than 0.5 and all AVE values are greater than 0.7. Hence, convergent validity was established (Fornell and Larcker, 1981). The square root of the AVE for all constructs over the correlation between constructs establishes discriminant validity (Fornell and Larcker, 1981). The actual data collection process was carried out only after acceptable results were achieved in the trials.

3.5 Data Analysis Technique

According to Tobias (2020) Partial Least Square (PLS) is defined as a method for predicting constructs in models with many factors and relationships collinear. PLS is designed to solve multiple regression problems that have problems with data such as small sample sizes, data not normally distributed multivariate, missing values, and multicollinearity problems between exogenous variables. The purpose of PLS is to predict the effect of X on Y and to explain the theoretical relationship between the two variables.

3.5.1 Measurement Model Evaluation

Santosa (2018) explains that outer model is a measurement model that explains the relationship between lateral changes and their indicators. Assessment of the measurement model for reflective latent variables is based on loading indicators into the corresponding latent variables. Outer model This is used to assess the validity and reliability. Outer model or model measurement is the relationship between indicators and their latent variables. The measurement model or outer model involves (1) estimating the accuracy of the instrument in providing numbers without random errors and (2) assessing convergent and discriminant validity. Convergent validity was examined by three methods: Cronbach's alpha coefficient, composite reliability, and AVE. For convergent validity to be true, Cronbach's alpha coefficient and composite reliability must be greater than 0.7, and the AVE value is greater than 0.5. Discriminant validity was checked in three ways: (1) cross-loading, which requires factor loading on the assigned construct over cross-loading with other constructs, (2) Fornell–Larcker criterion, which checks whether the square root of the AVE is more than the correlation between dimensions or no and (3) heterotrait-monotrait correlation ratio (HTMT) (Henseler et al., 2015), which examines whether the correlation ratio HTMT between the two constructs is less than one or not.

3.5.2 Structural Model Evaluation

Assessment inner model or structural model is a test of the influence of one latent variable on another latent variable. This test is carried out by looking at the T value of the path value to see the significant level, as well as the R² value for the dependent variable in the model to get the influence of the independent variable. With a view to achieving statistical inference, a bootstrap with 5000 samples was used. The structural model is evaluated in three steps. First, the R² values of all constructs were assessed. Falk and Miller (1992) state that any value up to 0.1 is considered appropriate. Second, standard path coefficients are analyzed, and as suggested by Chin (1998) values above 0.2 are considered preferable. Third, the effect size f^2 is measured to study the effect of independent latent variables on dependent latent variables. Effect sizes greater than 0.35, 0.15 and 0.02 were considered “strong”, “moderate” and “weak” respectively. Fourth, Standardized Root Mean Square Residual (SRMR) values were calculated, and according to Henseler et al. (2015) a value below 0.08 is considered sufficient.

3.5.3 Hypothesis testing

- H1: Perceived trust has a significant positive effect on customer satisfaction
- H2: Convenience has a significant positive effect on customer satisfaction
- H3: Social value has a significant positive effect on customer satisfaction
- H4: Customer satisfaction has a significant positive effect on attitude
- H5: E-service quality has a significant positive effect on perceived trust
- H6: E-service quality has a significant positive effect on customer satisfaction
- H7: E-service quality has a significant positive effect on continuance intention
- H8: E-service quality has a significant positive effect on attitude
- H9: E-service quality has a significant positive effect on effort expectancy
- H10: Attitude has a significant positive effect on continuance intention

H11: Perceived risk has a significant negative effect on continuance intention

H12: Effort expectancy has a significant positive effect on continuance intention

4. Findings and Discussions

Respondents in this study are people who use the LinkAja application as a means of payment in transactions with a total of 260 respondents. By collecting the characteristics of respondents based on gender, age, last education, occupation, and income per month. The following are the results of the research model that has been inputted into the software SmartPLS which can be seen in figure 2.

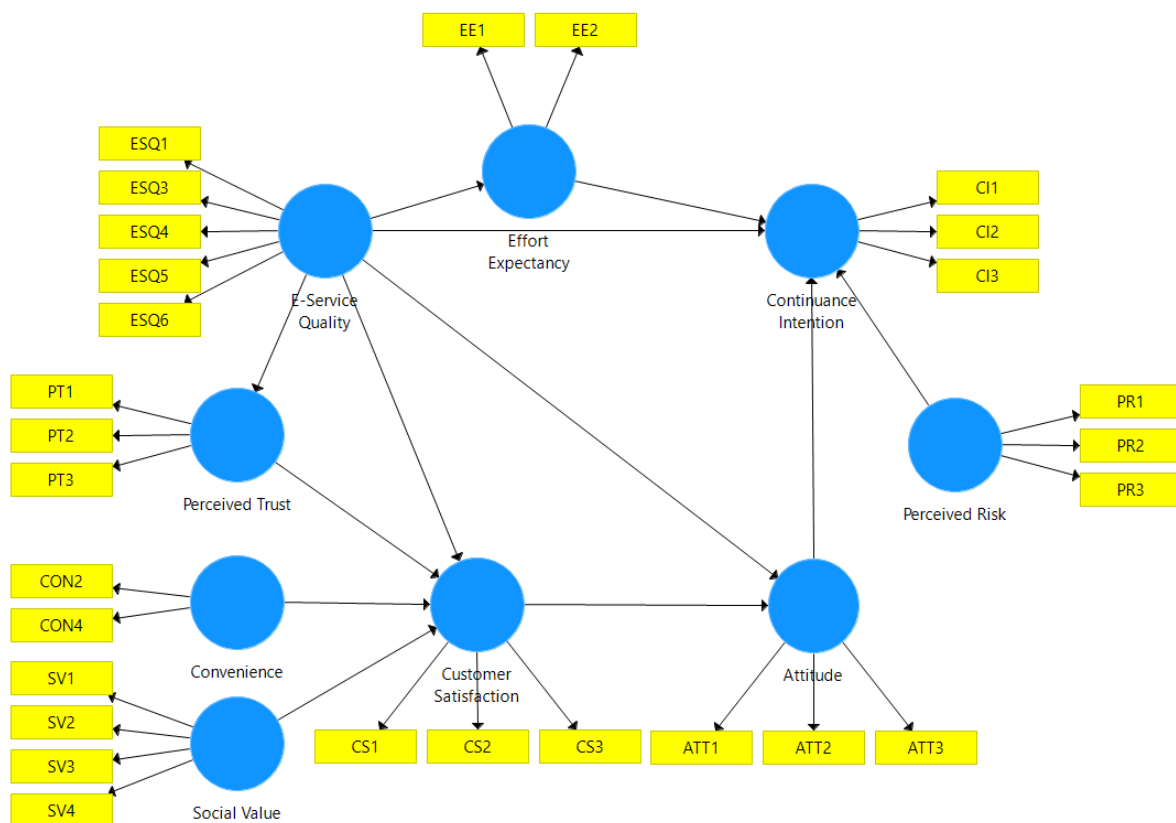


Figure 2. Research Conceptual Framework

Based on figure 4.1 results of outer loadings there are three indicators that do not meet the convergent validity criteria because of the value loading factor which is less than 0.5. These indicators are EE1 of 0.499; PR2 of 0.360; and ESQ5 of 0.439. The indicators that have a value of less than 0.5 are processed dropping i.e., removing the indicator from the variable. According to Hair et al (2017) stated that indicators have a value loading factor 0.4 – 0.7 can be removed if the indicator can increase AVE and composite reliability. The following is figure 3 of the research model after it has been carried out.

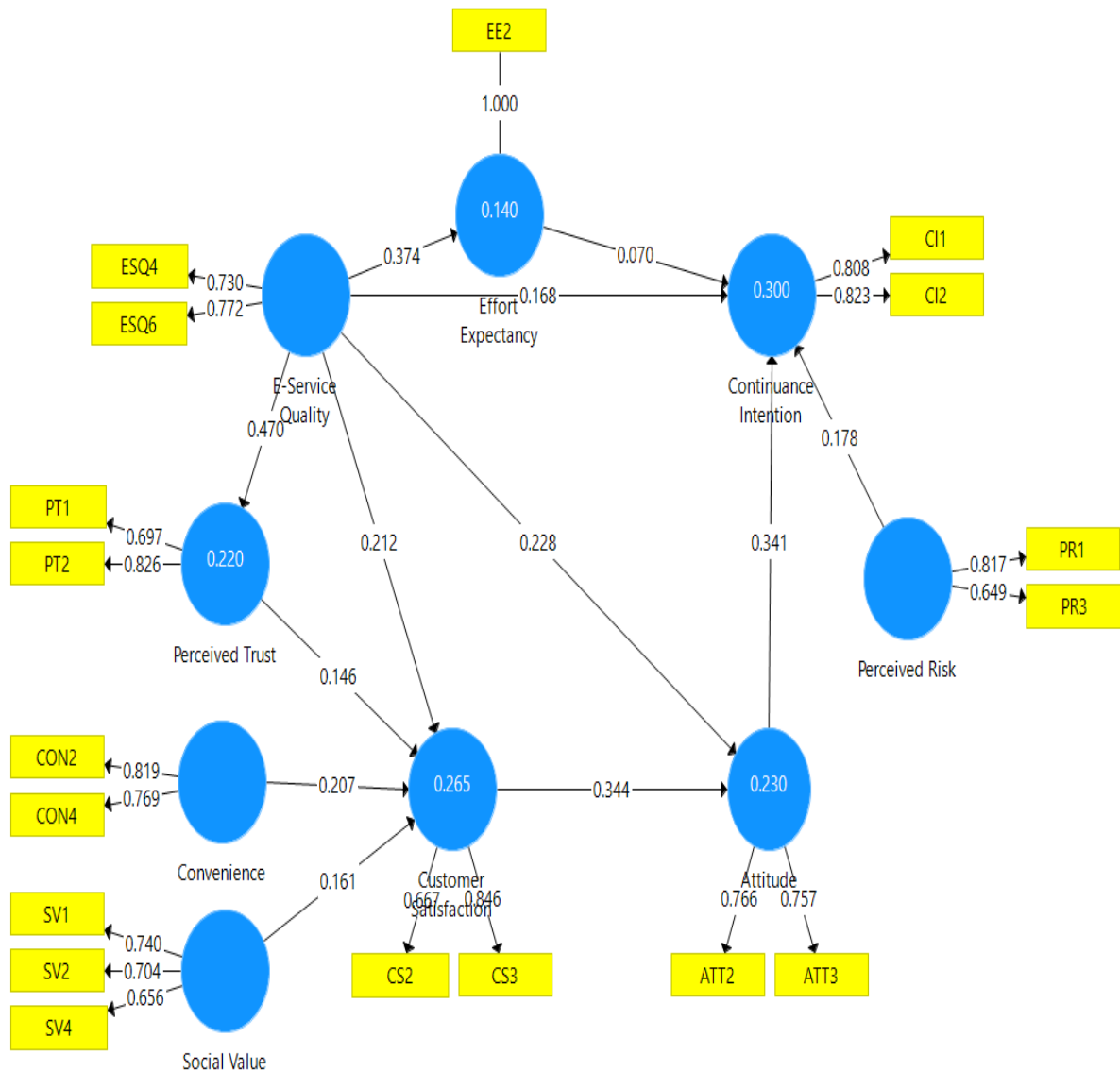


Figure 3. Research Conceptual Framework

The researchers followed the procedure set out by Hair et al. (2016) to evaluate measurement models. Table 4 shows the statistics of the measurement model. All items used in the study had adequate external loading scores, well above the prescribed standard (0.500). For construct reliability and validity, researchers have assessed the following: Cronbach's alpha, Composite Reliability, and AVE. All test scores have been reported in Table 1 and are also well above the prescribed threshold of 0.700. For discriminant analysis, we used all major tests: Fornell–Larcker criterion, cross-loading, and ratios HTMT. One of the newest approaches to testing discriminant analysis is through ratio scores HTMT. The score is well below one (Hair et al., 2016), and analysis of the data indicates that discriminant validity has been established. Based on the results above, the researcher moves to the next evaluation stage, the evaluation of the structural model.

Table 1. Measurement model evaluation

Latent Variable	Item Code	Outer Loading >0.5	AVE >0.5	Cronbach's Alpha	Composite Reliability	HTMT Confidence Interval Does Not Include 1
Attitude	ATT2	0.766	0.580	0.775	0.734	Yes
	ATT3	0.757				
Continuance Intention	CI1	0.808	0.665	0.797	0.799	Yes
	CI2	0.823				
Convenience	CON2	0.819	0.631	0.816	0.773	Yes
	CON4	0.769				
Customer Satisfaction	CS2	0.667	0.580	0.786	0.731	Yes
	CS3	0.846				
Effort Expectancy	EE1	1.000	1.000	1.000	1.000	Yes
E-Service Quality	ESQ4	0.730	0.564	0.728	0.721	Yes
	ESQ6	0.772				
Perceived Risk	PR1	0.817	0.544	0.767	0.702	Yes
	PR3	0.619				
Perceived Trust	PT1	0.697	0.584	0.894	0.736	Yes
	PT2	0.826				
Social Value	SV1	0.740	0.591	0.785	0.743	Yes
	SV2	0.704				
	SV4	0.656				

Hypothesis testing is done by comparing the values of the original sample, t-statistics, and p-values (Haryono, 2017). Mark original sample aims to see the direction of hypothesis testing, if the value of the original sample is positive then the direction is positive and vice versa, if the value of the original sample negative, the direction is negative. Then rate t-statistics aims to determine the effect of significance between the variables in the study, while the value p-values to show statistical significance so as to provide results that can determine whether the research hypothesis statement can be accepted or not. The criteria for accepting the hypothesis are accepted if t-statistics > t-table and for value p-values < 0.05. Testing Direct effect (one-tailed) was performed with a significance level of 5% using t-statistics of 1.65. The following is table 4.5 which is a presentation of the results of hypothesis testing.

Table 2. Structural relationships and hypothesis testing

Hypothesis	Path	Path Coefficient	f ² Effect Size	T-Statistics	Original Sample
H1	Perceived Trust → Customer Satisfaction	0.038	0.020	2,081	0.341
H2	Convenience → Customer Satisfaction	0.003	0.050	2,830	0.207
H3	Social Value →	0.020	0.026	2,326	0.344

Hypothesis	Path	Path Coefficient	f ² Effect Size	T-Statistics	Original Sample
H4	Customer Satisfaction → Attitude	0.000	0.131	5,230	0.228
H5	E-Service Quality → Perceived Trust	0.000	0.283	9,928	0.168
H6	E-Service Quality → Customer Satisfaction	0.002	0.046	3,128	0.212
H7	E-Service Quality → Continuance Intention	0.011	0.031	2,737	0.374
H8	E-Service Quality → Attitude	0.000	0.058	3,746	0.470
H9	E-Service Quality → Effort Expectancy	0.000	0.162	7,250	0.070
H10	Attitude → Continuance Intention	0.000	0.135	5,193	0.178
H11	Perceived Risk → Continuance Intention	0.002	0.040	3,000	0.146
H12	Effort Expectancy → Continuance Intention	0.216	0.060	1,157	0.161

Hypothesis 1 states that perceived trust has a significant positive effect on customer satisfaction. Based on the results of hypothesis testing in table 4.5, p-values get a value of 0.038 which is smaller than 0.05 which means perceived trust has influence over customer satisfaction. Then look at the value of the original sample obtained by 0.341, which means a positive effect. If you see value t-statistics obtained by 2.081 are greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 1 is accepted**, that is perceived trust has a significant positive effect on customer satisfaction. Hypothesis 2 states that convenience has a significant positive effect on customer satisfaction. Based on the results of hypothesis testing in table 4.5, p-values get a value of 0.003 which is smaller than 0.05 means convenience has influence over customer satisfaction. Then looking at the value of the original sample obtained by 0.207 means a positive effect. If you see value t-statistics obtained at 2.830 is greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 2 is accepted**, that convenience has a significant positive effect on customer satisfaction.

Hypothesis 3 states that social value has a significant positive effect on customer satisfaction. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.020 which is less than 0.05, that is social value have influence over customer satisfaction. Then look at the value of the original sample obtained by 0.344 means a positive effect. If you see value t-statistics obtained at 2.326 is greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 3 is accepted**, that is social value has a significant positive effect on customer satisfaction. Hypothesis 4 states that customer satisfaction has a significant positive effect on attitude. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.000 which is less than 0.05, that is customer satisfaction has an influence over attitude. Then look at the value of the original sample obtained by 0.228 means a positive effect. If you see value t-statistics obtained at 5.230 is greater than 1.65, it is said to be significant.

Based on these results it can be concluded that **hypothesis 4 is accepted**, that is customer satisfaction has a significant positive effect on attitude.

Hypothesis 5 states that e-service quality has a significant positive effect on perceived trust. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.000 which is less than 0.05, that is e-service quality has influence over perceived trust. Then look at the value of the original sample obtained by 0.168 means a positive effect. If you see value t-statistics obtained at 9.928 are greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 5 is accepted**, that e-service quality has a significant positive effect on perceived trust. Hypothesis 6 states that e-service quality has a significant positive effect on customer satisfaction. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.002 which is less than 0.05, that is e-service quality has influence over customer satisfaction. Then look at the value of the original sample obtained by 0.212 means a positive effect. If you see value t-statistics obtained at 3.128 are greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 6 is accepted**, that e-service quality has a significant positive effect on customer satisfaction.

Hypothesis 7 states that e-service quality has a significant positive effect on continuance intention. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.011 which is less than 0.05, that is e-service quality has influence over continuance intention. Then look at the value of the original sample obtained by 0.374 means a positive effect. If you see value t-statistics obtained at 2.737 are greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 7 is accepted**, that e-service quality has a significant positive effect on continuance intention. Hypothesis 8 states that e-service quality has a significant positive effect on attitude. Based on the results of hypothesis testing in table 4.22p-values get a value of 0.000 which is less than 0.05, that is e-service quality has influence over attitude. Then look at the value of the original sample obtained by 0.470 means a positive effect. If you see value t-statistics obtained at 3.746 are greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 8 is accepted**, that is e-service quality has a significant positive effect on attitude.

Hypothesis 9 states that e-service quality has a significant positive effect on effort expectancy. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.000 which is less than 0.05, that is e-service quality has influence over effort expectancy. Then look at the value of the original sample obtained by 0.070 means a positive effect. If you see value t-statistics obtained at 7.250 is greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 9 is accepted**, that is e-service quality has a significant positive effect on effort expectancy. Hypothesis 10 states that attitude has a significant positive effect on continuance intention. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.000 which is less than 0.05, that is attitude have influence over continuance intention. Then look at the value of the original sample obtained by 0.178 means a positive effect. If you see value t-statistics obtained by 5.193 is greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 10 is accepted**, that is attitude has a significant positive effect on continuance intention.

Hypothesis 11 states that perceived risk has a significant negative effect on continuance intention. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.002 which is less than 0.05, that is perceived risk have influence over continuance intention. Then look at the value of the original sample obtained by 0.146 means a positive effect. If you see

valuet-statistics obtained by 3,000 is greater than 1.65, it is said to be significant. Based on these results it can be concluded that **hypothesis 11 is rejected**, that is perceived risk does not have a significant negative effect on continuance intention. Hypothesis 12 states that effort expectancy has a significant positive effect on continuance intention. Based on the results of hypothesis testing in table 4.5p-values get a value of 0.216 which is greater than 0.05, that is effort expectancy has no effect on continuance intention. Then look at the value of the original sample obtained by 0.161 means a positive effect. If you see valuet-statistics obtained by 1.157 is smaller than 1.65, it is said to be insignificant. Based on these results it can be concluded that **hypothesis 12 is rejected**, that is effort expectancy does not have a significant positive effect on continuance intention.

5. Conclusion

This research was conducted with the aim of identifying the influencing factors continuance intention LinkAja application users in the city of Bandung significantly. As for these factors such ase-service quality, customer satisfaction, attitude, perceived trust, convenience, social value, effort expectancy, and perceived risk. This research obtained 260 respondents who are users of the LinkAja application in the city of Bandung. In analyzing the relationship between variables, this study uses data analysis techniques Partial Least Square (PLS) with software SmartPLS v. 3.2.9. Based on the analysis that has been done previously, several conclusions were obtained. Consumer perception of e-service quality in the LinkAja application can be concluded based on the descriptive analysis of the variables e-service quality, where the average score reaches 4.15 and is included in the good criteria. So, it can be said that according to consumer perceptions, the application LinkAja provide timely and personalized services according to the needs of the users. Based on the results of the analysis of hypothesis 1 it can be concluded that perceived trust has a significant positive effect on customer satisfaction LinkAja application users in the city of Bandung. Based on the results of the analysis of hypothesis 2, it can be concluded that convenience has a significant positive effect on customer satisfaction LinkAja application users in the city of Bandung. Based on the results of the analysis of hypothesis 3, it can be concluded that social value has a significant positive effect on customer satisfaction LinkAja application users in the city of Bandung.

Based on the results of the analysis of hypothesis 4, it can be concluded that customer satisfaction has a significant positive effect on attitude LinkAja application users in the city of Bandung. Furthermore, the results of the analysis of H5, H6, H7, H8, and H9 state that e-service quality has a significant positive effect on perceived trust, customer satisfaction, continuance intention, attitude, and effort expectancy LinkAja application users in the city of Bandung. Then the results of the analysis of hypothesis 10 stated that attitude has a significant positive effect on continuance intention LinkAja application users in the city of Bandung. Based on the results of the analysis of hypothesis 11, it can be concluded that perceived risk does not have a significant negative effect on continuance intention LinkAja application users in the city of Bandung. While based on the results of the analysis of hypothesis 12, it can be concluded that effort expectancy does not have a significant positive effect on continuance intention directly to LinkAja application users in the city of Bandung.

Based on the results of data analysis and hypothesis testing it was found that customer satisfaction acts as an important determinant that indirectly affects continuance intention. When users are satisfied with the LinkAja application, then they can form a positive attitude and in turn will continue to use the application. On the other hand, when customer satisfaction

decreases, it can cause the user to stop using the LinkAja application. Therefore, the LinkAja application service provider must always carry out certain initiatives such as implementing a simpler payment system with a user interface or easy-to-use app interface. This will not only enrich the user experience but also increase the satisfaction level of LinkAja application users in the city of Bandung. Though perceived risk does not have a significant negative effect on continuance intention for LinkAja application users in the city of Bandung, it is a good idea for LinkAja application service providers to always ensure the security of data or transactions made by users. There are several strategies that companies can implement. First, display a video illustrating the use of the LinkAja application for payments which is shown to users for the first time so they can understand various features related to security in using the application. Second, the LinkAja application may consider including security features such as biometric identification or a multi-level authentication process for logging in, so that LinkAja application users feel safe. Third, the company must have a proper complaint handling mechanism in place to resolve issues quickly. The LinkAja application can add an easily accessible "Help" button feature, so that it will reduce the user's anxiety level when there is a problem. The most important factor in this study is the quality of service or e-service quality. It is very important for LinkAja application service providers to offer quality services, so that users have confidence in the capabilities and responsiveness of service providers. However, if service providers provide slow service, the satisfaction level of LinkAja application users tends to decrease and even stop using the application.

References

- Abbasi, G. A. (2022). Go Cashless! Determinants of Continuance Intention to Use E-Wallet Apps: A Hybrid Approach Using PLS-SEM and fsOCA. *Technology in Society*, 68, 2-16. DOI: 10.1016/j.techsoc.2022.101937
- Azwar, S. (2015). *Penyusunan Skala Psikologi Edisi 2*. Yogyakarta: Pustaka Belajar.
- Budiman, A. (2020). PENGARUH E-SERVICE QUALITY TERHADAP E-SATISFACTION DAN E-LOYALTY NASABAH PENGGUNA MANDIRI ONLINE. *Jurnal Profit*, 14(1), 1-11.
- Chen. (2018). What drives consumers' mobile shopping? 4Ps or shopping preferences? *Asia Pacific Journal of Marketing and Logistics*, 30(4), 797-815.
- Collier, D. A., & Evans, J. R. (2013). *Operations Management*. Dallas: South-Western Cengage Learning.
- Daft, R. L. (2006). *Manajemen*. Jakarta: Salemba Empat.
- Ghozali, I. (2021). *Partial Least Square (Konsep, Teknik, dan Aplikasi Menggunakan Program SmartPLS 3.2.9 Untuk Penelitian Empiris) Edisi 3*. Semarang: Badan Penerbit Undip.
- Gronroos, C. (2000). *Service Management And Marketing: A Customer Relationship Management Approach (2nd edition)*. Chichester: John Wiley and Sons, Ltd.
- Halbusi, H. A. (2021). The Effects of Service Quality, Perceived Value, and Trust in Home Delivery Service Personnel on Customer Satisfaction. *Journal of Retailing and Consumer*, 63, 2-15. DOI: <https://doi.org/10.1016/j.jretconser.2021.102721>
- Hamdalah, A. (2020). Pengaruh E-Service Quality Terhadap E-customer Satisfaction dan

- ECustomer Loyalty Pada Pengguna Aplikasi MyIndihome. *Jurnal Ilmiah MEA (Manajemen, Ekonomi, dan Akuntansi)*, 4(12), 154-166.
- Handoyo, Y. (2022, Oktober 16). *Surat Pembaca*. Retrieved from Media Konsumen: <https://mediakonsumen.com/2022/10/16/surat-pembaca/transaksi-linkaja-pending-cs-terkesan-tidak-mau-membantu>
- Harazneh, I. (2020). The Impact of Quality of Services and Satisfaction on Customer Loyalty: The Moderate Role of Switching Costs. *Management Science*, 10, 2-14.
- Haryono, S. (2017). *Metode SEM Untuk Penelitian Manajemen AMOS LISREL PLS*. Jakarta: Intermedia Personalia Utama.
- Hendayani, R. (2021). The Influence of Perceived Value, Perceived Usefulness, And Knowledge on Halal Logistics on Behavior Towards Halal Logistics by Mediating Intention Towards Halal Logistics on Halal Cosmetics in Indonesia. *Asian Journal of Research in Business and Management*, 3(2), 42-49.
- Herjanto, E. (2007). *Manajemen Operasi*. Jakarta: Grasindo.
- Indrawati. (2015). *Metode Penelitian Manajemen dan Bisnis Konvergensi Teknologi Komunikasi dan Informasi*. Bandung: Aditama.
- Joseph F Hair, J., Hult, G. T., Ringle, C. M., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. London: SAGE Publications.
- Jun. (2018). Factors influencing continued use of mobile easy payment service: an empirical investigation. *Total Quality Management and Business Excellence*, 29(9), 1043-1057.
- Kadence International. (2021). *OVO Jadi Platform Pembayaran Digital Terpopuler di Indonesia*. Databoks.
- Kotler, P., & Keller, K. L. (2016). *Marketing Management 15e*. London: Pearson.
- Li, F. (2021). Customer Satisfaction with Bank Services: The Role of Cloud Services, Security, E-Learning, and Service Quality. *Technology in Society*, 64, 02-11. DOI: <https://doi.org/10.1016/j.techsoc.2020.101487>
- Liebana-Cabanillas, F. (2019). To use or not to use, that is the question: analysis of the determining factors for using NFC mobile payment systems in public transportation. *Technological Forecasting and Social Change*, 139, 266-276. DOI: <https://doi.org/10.1016/j.techfore.2018.11.012>
- Liu. (2019). The impact of mobility, risk, and cost on the users' intention to adopt mobile payments. *Information Systems and E-Business*, 17(2), 319-342.
- Liu, Y., Huang, M., D, H., & Li, Z. (2019). The impact of mobility, risk, and cost on the users' intention to adopt mobile payments. *Information Systems and E-Business Management*, 17(2), 319-342. DOI: <https://doi.org/10.1007/s10257-019-00449-0>
- M, A. V. (2022, Agustus 6). *Penduduk Bandung Pengguna Internet Disebut 2,1 Juta Jiwa*. Retrieved from [tantrum.id: https://tantrum.suara.com/read/2022/08/06/005700/penduduk-bandung-pengguna-internet-disebut-21-juta-jiwa](https://tantrum.suara.com/read/2022/08/06/005700/penduduk-bandung-pengguna-internet-disebut-21-juta-jiwa)
- Nawangasari, S. (2020). Pengaruh E-Service Quality Terhadap Kepuasan Nasabah Pengguna

- BNI Mobile Banking Melalui Citra Bank Sebagai Variabel Intervening. *Jurnal Ilmiah Matrik*, 22(1), 55-63.
- Ofori, K. S. (2017). Examining customers' continuance intentions towards internet banking usage. *Marketing Intelligence and Planning*, 35(6), 756-773.
- Park. (2019). M-payment service: interplay of perceived risk, benefit, and trust in service adoption. *Human Factors and Ergonomics in Manufacturing and Service Industries*, 29(1), 31-43.
- Park, J., Amendah, E., Lee, Y., & Hyun, H. (2019). M-payment service: interplay of perceived risk, benefit, and trust in service adoption. *Human Factors and Ergonomics in Manufacturing and Service Industries*, 29(1), 31-43.
- Payne, A. (2010). *The Essence of Service Marketing*. Yogyakarta: ANDI.
- Raharjo, D. (2022, Juli 18). *Surat Pembaca*. Retrieved from Media Konsumen: <https://mediakonsumen.com/2022/07/18/surat-pembaca/masalah-upgrade-akun-linkaja>
- Raman, P., & Aashish, K. (2021). To continue or not to continue: a structural analysis of antecedents of mobile payment systems in India. *International Journal of Bank Marketing*, 39(2), 242-271. DOI: 10.1108/IJBM-04-2020-0167
- Ray. (2022, Februari 25). *Efek Pandemi, UMKM dan Penjualan Digital Kota Bandung Tumbuh Pesat*. Retrieved from [bandung.go.id: https://www.bandung.go.id/news/read/6142/efek-pandemi-umkm-dan-penjualan-digital-kota-bandung-tumbuh-pesat](https://www.bandung.go.id/news/read/6142/efek-pandemi-umkm-dan-penjualan-digital-kota-bandung-tumbuh-pesat)
- Ripaldi, D. (2022, Maret 6). *Pengguna Internet di Jabar Capai 35,1 Juta, Berkah Bagi Ekonomi Digital*. Retrieved from [liputan6.com: https://www.liputan6.com/regional/read/4903372/pengguna-internet-di-jabar-capai-351-juta-berkah-bagi-ekonomi-digital](https://www.liputan6.com/regional/read/4903372/pengguna-internet-di-jabar-capai-351-juta-berkah-bagi-ekonomi-digital)
- Rita, P. (2019). The Impact of E-Service Quality and Customer Satisfaction on Customer Behavior in Online Shopping. *Heliyon*, 02-14. DOI: <https://doi.org/10.1016/j.heliyon.2019.e02690>
- Riyanto, G. (2022, 08 26). *Tekno*. Retrieved from Kompas.com: <https://tekno.kompas.com/read/2022/08/26/17300107/linkaja-error-hari-ini-pengguna-komplain-tidak-bisa-beli-tiket-krl?page=all>
- Sarwono, J. (2015). *Membuat Skripsi, Tesis, dan Disertasi Partial Least Square SEM (PLS-SEM)*. Yogyakarta: CV Andi OFFSET.
- Shao. (2019). Antecedents of trust and continuance intention in mobile payment platforms: the moderating effect of gender. *Electronic Commerce Research and Applications*, 33(2), 108-123.
- Siregar, K. R. (2021). Pengaruh E-Service Quality Pada Aplikasi Shopee Terhadap E-Customer Satisfaction Dengan Menggunakan Information System Model. *E-Proceeding of Management*, 8(5), 4492-4518.
- Statista. (2022). *Digital Payments In Indonesia*.

- Subagyo, D. P. (2000). *Manajemen Operasi. Edisi pertama*. Yogyakarta: BPFE-Yogyakarta.
- Sugiyono. (2021). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta CV.
- Supriyanto, A. (2021). Effects of Service Quality and Customer Satisfaction on Loyalty of Bank Customers. *Cogent Business and Management*, 8, 1-17. DOI: <https://doi.org/10.1080/23311975.2021.1937847>
- Suwondo, A. (2017). Analisis Pengaruh E-Kepuasan Pelanggan Terhadap E-Loyalitas Pelanggan KAI Access Berdasarkan E-Servqual Pada PT Kereta Api Indonesia (Persero) Daop IV Semarang. *Prosiding Sentrinov*, 3, 338-360.
- Tahtamouni, A. (2022). E-Banking Services and The Satisfaction of Customers in The Jordanian Banks. *Journal of Science and Technology*, 2053-4620.
- Zeithaml, V., & Bitner, M. J. (1996). *Services Marketing Edisi 1*. Boston: McGraw-Hill

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).