



DETERMINANTS OF KAI ACCESS APPLICATION USER LOYALTY FROM A STUDENT'S PERSPECTIVE USING THE INFORMATION SYSTEM SUCCESS MODEL

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ABSTRACT

Phenomenon/Issues: As one of the most widely used modes of transportation, train services provided by PT Kereta Api Indonesia (KAI) have adapted to digitalization through the KAI Access application. Although the application offers various convenient services, several issues remain, particularly related to information quality and service quality, which may influence user loyalty among students as a dominant user segment.

Purpose: This study aims to analyze the determinants of KAI Access application user loyalty from a student's perspective using the DeLone and McLean (2003) Information System Success Model.

Novelty: This research extends the Information System Success Model by integrating perceived value and intention to reuse as mediating variables in explaining user loyalty within the context of a railway digital service application, specifically focusing on student users.

Research Method: This study employed a quantitative approach using a survey of 130 university students. Data were analyzed using Structural Equation Modeling (SEM) with the Generalized Structured Component Analysis (GSCA) technique to examine the relationships among constructs.

Result: The findings indicate that information quality and service quality significantly influence perceived value and user satisfaction. Furthermore, perceived value and user satisfaction have a significant effect on intention to reuse, which ultimately reflects user loyalty toward the KAI Access application.

Research Contributions: This study contributes theoretically by enriching the application of the Information System Success Model in the context of digital transportation services. Practically, the results provide strategic insights for improving application quality to enhance customer retention and long-term user loyalty.

INTRODUCTION

In today's era of rapid development of digital technology, various applications have emerged that have been developed to provide convenience for tourists to access information and make transactions anytime and anywhere using the internet related to travel products or services (Chan et al., 2022). Trains are the most popular transportation used by people in Indonesia with the number of passengers reaching

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34.1 million (Central Statistics Agency). One of the companies that offers train transportation services is PT Kereta Api Indonesia (Persero).

This company has a dedication to providing excellent service in advancing the Indonesian transportation industry by presenting innovative services that are convenient and responsive, namely launching the KAI Access application that can be accessed at any time via the internet. In addition, the company is committed to building clear and strong values to retain loyal customers. Based on data for 2024, online ticket sales through the app account for 90% of total transactions, 89% of total sales, and 93% of total revenue. Meanwhile, offline ticket sales through counters only account for 10% of transactions, 11% of sales amounts, and 7% of revenue. This data shows that people prefer to buy train tickets through the KAI Access application, but based on the results of the KAI Access application rating review and unstructured interviews conducted with several students, it shows that there are obstacles in the quality of information and service quality.

Based on existing problems, research related to the identification of the success factors of the KAI Access application information system that can increase the intention of reuse needs to be carried out to find out and ensure whether the application or service remains relevant, feasible to use, competitive, has long-term value and continues to evolve in meeting the needs of its users. This means that it is important to identify what factors can increase user loyalty because the KAI Access application is developed for long-term use (Anand et al., 2023). In addition, identification is also used as an evaluation material for the service system provided. The researcher will use the Delone and McLean IS Success model which was updated in 2003 because this model allows a comprehensive evaluation of the success of the application use in the long term by considering several variable dimensions (Le et al., 2022). The information system in the KAI Access application needs to be improved to meet expectations and provide satisfaction to users. The upgrade not only includes complete and innovative features, but also includes the quality of information and services provided. Information quality is one of the important characteristics expected from information system results (Ramirez-Aristizabal & de Oliveira Moraes, 2024). The quality of information is the main determinant of the success of the system (M. Al-Okaily et al., 2025). E-commerce is an online service so that consumers rely on the information available on the platform to assess the quality of products because users cannot see or inspect products directly. If the information provided corresponds to the available product and is accepted by the user under adequate circumstances then the user will feel the benefits of the platform and feel satisfied (Vasić et al., 2021). Service quality is the overall consumer evaluation of the electronic services provided in the online market and plays an important role in increasing business sales in online mode (Liébana-Cabanillas et al., 2019). Therefore, online businesses must pay due attention to the quality of service so that customers get a safe and secure experience (Bhattacharya & Mulay, 2024).

There is a gap between the theoretical concepts that have been discovered and the empirical evidence available in a field of research (Miles, 2017). Based on research in the field of information technology in business conducted by Al-Okaily et al., (2021) and Ouiddad et al., (2021) stated that service quality has no effect on user satisfaction. This is not in line with the research of Katili et al., (2024) in the field of ride hailing, Tseng et al., (2022) e-commerce, Yuan et al., (2020) in the field of e-payment which states that service quality has an influence on user satisfaction. In addition, the results of the research of Viontita & Mahendrawathi, (2024) stated that information quality does not have a significant effect on user satisfaction. This is not in accordance with the research of Anand et al., (2023) in the field of tourism technology, Y. Kim et al., (2021) in the field of e-commerce, Mirkovski et al., (2024) in the field of e-government, Yuan et al., (2020) in the field of e-payment which states that information quality has an influence on user satisfaction. The research by Mirkovski et al., (2024) in the field of e-government states that service quality does not contribute positively to perceived value. This is not in line with research conducted by Y. Kim et al., (2021) in the field of e-commerce, Zhong & Chen, (2023) in the field of e-payment, and Tseng et al., (2022) in the field of e-commerce which states that service quality contributes positively to perceived value. In addition, based on research in the field of digital marketing conducted by Tseng et al., (2022) the sample used is limited to Taiwan and the data analysis

technique uses SEM PLS, so the researcher suggests that further research expand to other countries. This study will use samples in Indonesia and use GSCA SEM data analysis techniques to fill the gap. The research of Chan et al., (2022) in the field of digital tourism focuses on the quality of mobile websites (MWQ) as an alternative to mobile applications, so the findings may not be fully applicable to the context of mobile travel applications and are limited to using SEM PLS data analysis techniques and using respondents in China who are native Chinese speakers tend to share experiences or recommendations more often positive about a service to others, so in this study we used the KAI Access application with respondents in Indonesia who had different behaviors in sharing experiences. Meanwhile, the research of Yuan et al., (2020) in the field of limited m-payment information systems uses a random sampling technique, which is different from the purposive sampling approach used in this study. The differences in this research method make an important contribution to filling the methodological gap and providing a new perspective in understanding the use of the KAI Access application, especially in the student segment with certain usage criteria.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Information System Success Model

The information system success model (ISSM) theory is a comprehensive framework for evaluating information system success and can be used to identify areas for improvement and to guide the development and implementation of new information systems (Mirkovski et al., 2024). Bonilla-Priego et al., (2024) explain that the ISSM was first introduced in 1992 by William H. DeLone and Ephraim R. McLean with the aim of identifying the most suitable construct or dimension for the success of SI. The 1992 ISSM included six variables of system quality, information quality, utilization, user satisfaction, individual impact, and organization impact (DeLone & McLean, 1992; Surya et al., 2024). This model was updated in 2003 by incorporating quality of service and replacing system usage behavior with intention to use (Tseng et al., 2022). Wang et al., (2019) in their research in the field of information systems and digital marketing developed the theory of the IS Success model by focusing on intention to reuse rather than use in response to the importance of customer retention in the e-commerce era. In addition to user satisfaction in the study conducted by Tseng et al., (2022) also uses perceived value to reflect customer considerations between benefits and costs.

Information Quality

Information quality is one of the important attributes desired from the output of information systems (Lutfi, 2023). Tseng et al., (2022) define information quality as the output performance of a mobile shopping application, i.e. how well the information is displayed by the application. The quality of information includes information provided that is complete, personalized, easy to understand, relevant and up-to-date so that the information presented is able to meet the knowledge needs of users appropriately (Chan et al., 2022). This allows users to make informed decisions and reduces the information gap between service providers and users (Katili et al., 2024). Mirkovski et al., (2024) assert that information quality refers to the ability of the system to provide the information users need in an easy-to-understand format. Overall, the quality of information plays an important role in conveying the content in the application to ensure that users can make transactions and continue to use the application (Chiu et al., 2021).

Service Quality

Service quality refers to how well an information system can be a facilitator for its users in the process of purchasing and distributing products and services in an efficient and effective way (Chan et al., 2022). This is related to the ability of information systems to provide a smooth and adequate experience for users in making transactions and getting the expected commodities or services (Jami Pour et al., 2022). Service quality refers to the quality of information systems designed to support users by offering perceived ease of use, increasing the desire to use the system, providing benefits, information, communication, satisfaction, as well as responsible information creation from providers (Rulinawaty et al., 2024). The perceived gap between performance expectations and performance realization from mobile shopping applications is the definition of service quality (Tseng et al., 2022). Mirkovski et al.,

(2024) define service quality, which refers to the level at which the system is able to provide the services and support needed by users while meeting user expectations for quality and responsiveness. It refers to the user's perception of reliability and responsiveness. Service quality can be the most crucial variable that measures the success of an information system (DeLone & McLean, 2003).

Perceived Value

Perceived value is the consumer's overall assessment of the benefits of a product, which is determined by the perception of what is received and what is given (Chang et al., 2019). This value refers to the perception of the net benefit that consumers obtain in return for the costs incurred in the process of obtaining the expected benefits (Zhong & Chen, 2023). Perceived value according to (Chan et al., 2022) refers to the user's perception of the comparison between the benefits received and the sacrifices made, including physical benefits, services, and technical support, as well as monetary and non-monetary sacrifices such as time, energy, and stress. Alyoussef, (2023) defines perceived value as the level at which the use of certain technologies is considered enjoyable. Perceived value is the overall utility of consumers towards mobile shopping applications based on the exchange between the services provided and the experience gained (Tseng et al., 2022). Perceived benefits or quality refer to combinations that benefit the user such as the features or quality of the application, the services provided, accurate information and technical assistance all related to specific consumption conditions. Meanwhile, perceived sacrifices include monetary and non-monetary sacrifices, such as time, energy consumed, and stress experienced by consumers (Mussol et al., 2019).

User Satisfaction

User satisfaction refers to the extent to which users feel positive or negative emotions during or after several interactions or use information systems (AbdelKader & Sayed, 2022). AlMulhem, (2020) explained that user satisfaction is one of the important keys to ensuring the success of any system. Satisfaction is a multidimensional concept that reflects the user's emotional response to the entire experience of using the system, including the quality of service and information provided. Yuan et al., (2020) define satisfaction as reflecting the total user response to the user experience and the overall evaluation of products and services. Satisfaction is achieved when the performance provided by the application exceeds the user's expectations so that the user feels satisfied (Tseng et al., 2022).

Intention to Reuse

Intention to reuse is defined as a user's desire to continue using the app or make a repurchase. This intention arises due to user loyalty to the app (Chan et al., 2022). Loyalty is a form of strong commitment from consumers to continue to buy products or services, as well as showing a willingness to provide good reviews and recommend them to others (Kusumawati & Sri Rahayu, 2020).

HYPOTHESIS DEVELOPMENT

Information quality refers to the expected attributes or characteristics of a system's output or outcomes (Kim et al., 2021). When the quality of information is able to explain the product or service in detail and accurately, users will have a positive perception of value. Tseng et al., (2022) in their research on mobile shopping apps stated that the quality of personalized information can improve consumer perception of value. Information quality refers to how well the information provided by an application is in meeting the needs of its users. The higher the quality of the information, the more users will feel that the application provides great benefits (Chan et al., 2022). This is also supported by research on the reuse of e-government websites by Mirkovski et al., (2024), research on the loyalty of mobile payment platform users by Zhong & Chen, (2023), research in the field of educational information systems by Rulinawaty et al., (2024) which states that information quality has a significant effect on perceived value. Therefore, the researcher formulated the following hypothesis for this study:

H1: Information quality significantly influences perceived value

High-quality information helps customers find information relevant to a particular topic efficiently and helps customers avoid spending unnecessary effort on processing useless information (Kim et al., 2021).

Thus, providing high-quality information can increase customer satisfaction. Anand et al., (2023) in their research on augmented reality (AR)-based mobile applications for smart tourism stated that visitor satisfaction can be improved through the provision of high-quality information. This emphasizes the importance for AR app developers and business companies to focus more on personalized content development. This content can help visitors make travel-related decisions as well as improve the overall visitor experience. The higher the quality of the information provided, the higher the level of user satisfaction when using the application until after using the application. And vice versa, if the application has poor information quality, it can give a bad impression so that it reduces the level of user satisfaction. This is in line with research on mobile shopping applications by Tseng et al., (2022) identifying that there are several dimensions that encourage user satisfaction, one of which is information quality. This is also supported by research by Katili et al., (2024) about the Gojek loyalty program, Yuan et al., (2020) about m-payment, Mirkovski et al., (2024) about the e-government web site which states that information quality has a positive and significant effect on user satisfaction. Therefore, the researcher formulated the following hypothesis for this study:

H2: Information quality significantly influences user satisfaction

DeLone & McLean (2003) stated that the role of service quality is increasingly important in the e-commerce era. In line with Zhong & Chen, (2023) who affirmed that service quality plays an important role in the use of mobile payment platforms, when service providers fail to provide timely or reliable personalized services, user perception will be negative. Quality of service refers to the extent to which an application can provide the services and support that users need so that it meets user expectations for quality and speed of response (Yuan et al., 2020). Parasuraman et al., (2005) stated that the quality of service must be measured thoroughly throughout the online shopping process, starting from searching for information, ordering, payment, delivery, to after-sales service because every interaction has the potential to form the perception of value perceived by users. Chan et al., (2022) in their research in the field of mobile travel websites stated that when the MWQ felt by tourists is high, users will experience a strong sensation of benefits resulting from the user experience which leads to an increase in perceived value. If the application provides good service quality throughout the shopping process, users will be happy and feel that the application is reliable and has benefits in improving user performance and productivity without the need for a large effort. This is in line with research by Tseng et al., (2022) in the field of e-commerce which states that service quality has a significant positive effect on perceived value. Therefore, the researcher formulated the following hypothesis for this study:

H3: Service quality significantly influences perceived value

The high level of service provided in solving user problems has an effect on user satisfaction with the system (Kuswanto et al., 2020). Abdirad & Krishnan, (2022) stated that there is a positive impact of service quality on improving customer satisfaction in the electronic supply chain. By ensuring that the application has a good quality of service, the company can increase the likelihood of the application being reused, as well as improve user satisfaction. Viontita & Mahendrawathi, (2024) in research in the field of e-government stated that service quality is one of the most important factors that can have a significant influence on user satisfaction with the system. This is supported by Katili et al., (2024), Tseng et al., (2022), Y. Kim et al., (2021), Alzahrani & Seth, (2021), Raza et al., (2021) and Yuan et al., (2020) who stated that service quality has a significant positive effect on user satisfaction. Therefore, the researcher formulated the following hypothesis for this study:

H4: Service quality significantly influences user satisfaction

Perceived value is the exchange of perceived quality or benefits with the effort or costs incurred (Mirkovski et al., 2024). Perceived value compares success factors that directly and indirectly affect consumers' reuse intent to mobile shopping apps through satisfaction (Yuan et al., 2020). Zhong & Chen, (2023) explain that to prevent customers from switching to competitors, the effort that must be made is to increase perceived value. Perceived value is also an emotional bond formed between

customers and the company after customers use a product or service that can provide added value or satisfaction for customers. Tseng et al., (2022) stated that perceived value is an effective approach to influence intention to reuse in mobile shopping applications. If the use of technology stimulates positive emotions and feelings in users, then users are more likely to reuse technology because they experience pleasure while using it (Zhong & Chen, 2023). This is in line with Kusumawati & Sri Rahayu, (2020) who explain that customer loyalty is the result of positive behavior formed by affective attitudes, namely perceived value. This is also supported by Katili et al., (2024), Viontita & Mahendrawathi, (2024) and Chan et al., (2022) who state that perceived value has a positive and significant effect on intention to reuse. Therefore, the researcher formulated the following hypothesis for this study:

H5: Perceived value significantly influences intention to reuse

User satisfaction refers to the level of user satisfaction during and after using SI and the extent to which the experience of using SI meets the user's needs (Viontita & Mahendrawathi, 2024). Tseng et al., (2022) stated that user satisfaction is an effective approach to influence intention to reuse in mobile shopping applications. Users who feel satisfied overall will tend to behave positively as the intention to recommend (Y. M. Wang et al., 2024). This is in line with Kusumawati & Sri Rahayu, (2020) in their research results which show that customers who feel satisfied will become loyal customers by providing positive reviews. This is in line with Y. Kim et al., (2021) who stated that the higher the level of user satisfaction, the higher the level of user loyalty. This is also supported by Anand et al., (2023), Kuswanto et al., (2020), and Zhong & Chen, (2023) who state that user satisfaction has a significant influence on intention to reuse. Therefore, the researcher formulated the following hypothesis for this study:

H6: User satisfaction significantly influences intention to reuse

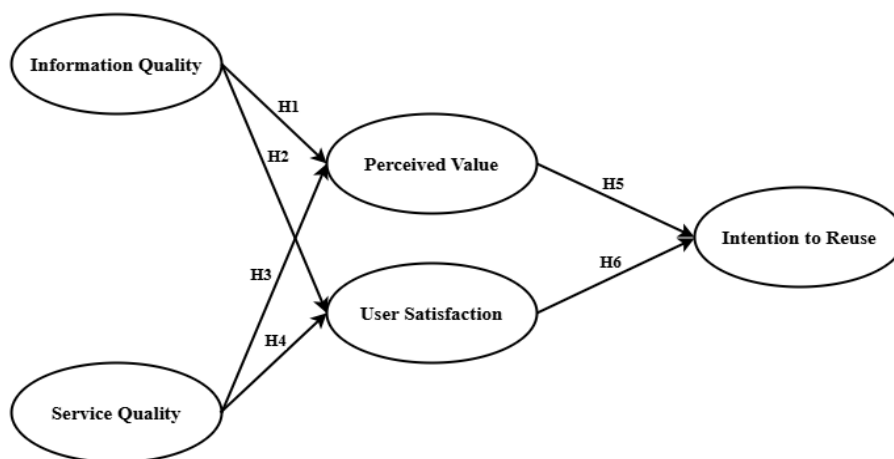


Figure 1.
RESEARCH DESIGN

METHOD

This study uses quantitative data obtained from a student survey of the Faculty of Economics and Business, State University of Surabaya regarding the experience of using the KAI Access application to support smooth student mobility. The questionnaire was compiled with items taken from previous research and used a Likert scale with a value of 1 - 5. The questionnaire was conducted online using Google Forms and collected answers from a total of 130 respondents. The measurement of variables in the Information System Success Model with two quality dimension constructs, namely information quality and service quality and user satisfaction consists of fifteen statement items, while perceived value is measured using five statement items and intention to reuse is measured using five statement items. Respondents were analyzed by applying structural equation modeling using the Generalized Structured Component Analysis (SEM – GSCA) approach (Hwang & Takane, 2004). Before the

questionnaire instrument is deployed, the validity and reliability will be tested for limited validity to 40 respondents to ensure that the questionnaire is feasible to continue to the research stage (Ursachi et al., 2015). Validity tests were performed using the Pearson Correlation method, while reliability was tested using Cronbach's Alpha method via JASP version 0.17.3. The collected data was tested using Structural Equation Modeling – Generalized Structured Component Analysis through the GSCA pro application version 1.2.1.0.

RESULTS AND DISCUSSIONS

This study uses a total of 130 respondents from the S1 Office Administration Education study program Class of 2022. Based on the description of descriptive statistics in table 1. It can be seen that the data obtained from 130 respondents showed significant differences in the gender composition of the respondents. As many as 84% of respondents were women while male respondents were only 16%. Based on statistics, it can be seen that 99% of respondents are 19 – 23 years old while respondents < 18 years old are only 1%. Regarding the use of the KAI Access application, 45% of respondents use the KAI Access application 1-2 times a year, 24% 3-5 times a year, and 31% <5 times a year. Furthermore, regarding travel destinations using the KAI Access application, 57% of respondents were for local train travel destinations, 19% of respondents were for intercity trains, and 24% of respondents were for local trains and intercity trains. The following is a review of the descriptive statistics of the respondents in this study:

Table 1.
RESPONDENT CHARACTERISTICS

Information	Respondent	Total	%
Gender	Male	21	16%
	Female	109	84%
	Total	130	100%
Age	≤ 18 years old	1	1%
	19 - 23 years old	129	99%
	Total	130	100%
KAI Access Usage Experience	1 – 2 times in 1 year	58	45%
	3 – 5 times in 1 year	32	24%
	>5 times in 1 year	40	31%
	Total	130	100%
Travel Destinations using KAI Access	Local Trains	74	57%
	Intercity Trains	24	19%
	Local Trains and Intercity Trains	32	24%
	Total	130	100%

Source: Processed Data, 2025

Based on table 2, the value of Indicators of Loadings on Component is displayed in this study. Hair et al., (2019) if the value of Indicators of Loadings on Component ≥ 0.7 , it can be declared to meet the requirements. However, according to Chin (1998), the value of indicators of loadings on component $\geq 0.5 - 0.6$ can be considered sufficient. The value of Indicators of Loadings on Component in this study, overall has a value of > 0.5 so that this research model can be declared to meet the requirements of Indicators of Loadings on Component. In the Information Quality variable, the highest loading value was at KI4 (0.826) while the lowest loading value was at KI1 (0.718). In the Quality of Service variable,

the highest loading value was found in KL2 (0.846) while the lowest loading value was found in KL5 (0.631). In the Perceived Value variable, the highest loading value was at PV3 (0.795) while the lowest loading value was at PV1 (0.586). In the User Satisfaction variable, the highest loading value is at US1 (0.888) while the lowest loading value is at US4 (0.561). In the Intention to Reuse variable, the highest loading value is IR2 (0.814) and the highest loading value is IR5 (0.597).

Table 2.
INDICATOR OF LOADING ASSESSMENT

<i>Loadings</i>				
Indikator	<i>Estimate</i>	SE	95%CI(L)	95%CI(U)
KI				
KI1	0.718	0.057	0.598	0.797
KI2	0.785	0.040	0.712	0.855
KI3	0.784	0.041	0.697	0.848
KI4	0.826	0.030	0.758	0.880
KI5	0.765	0.038	0.695	0.825
KL				
KL1	0.794	0.037	0.719	0.864
KL2	0.846	0.03	0.787	0.894
KL3	0.716	0.049	0.616	0.808
KL4	0.829	0.033	0.773	0.901
KL5	0.631	0.072	0.506	0.762
PV				
PV1	0.586	0.071	0.444	0.713
PV2	0.780	0.047	0.677	0.852
PV3	0.795	0.037	0.736	0.87
PV4	0.771	0.049	0.671	0.854
PV5	0.706	0.065	0.549	0.817
US				
US1	0.888	0.021	0.84	0.925
US2	0.865	0.023	0.813	0.902
US3	0.849	0.027	0.793	0.895
US4	0.561	0.091	0.348	0.716
US5	0.773	0.049	0.680	0.859
IR				
IR1	0.787	0.035	0.713	0.843
IR2	0.814	0.030	0.746	0.866
IR3	0.682	0.078	0.515	0.804
IR4	0.764	0.049	0.656	0.858
IR5	0.597	0.087	0.390	0.727

Source: Processed Data, 2025

In table 3. The results of construct quality measures are shown in this study. According to Hair et al., (2019) the results of the Construct Quality Measures measurement to obtain research with convergent validity, internal consistency, and composite reliability in PVE measurement, a good value is if it is at > 0.50. Ali et al., (2021) stated that Cornbach's Alpha value > 0.70 is considered consistent. In line with

Sarstedt et al., (2020) stated that if the Composite Reliability (rho) value > 0.70 , then the variable is considered reliable. In addition, Meneau & Moorthy, (2022) stated that the dimensionality value is 1.0. Based on the table that has been presented above, it shows that the PVE value in the variables KI, KL, PV, US, and IR is above 0.50. The Alpha and Rho values for the KI, KL, PV, US, and IR variables are above 0.70 and the dimensionality value is 1.0, so it can be concluded that all variables in this research model have acceptable levels of convergent validity, internal consistency, and composite reliability.

Table 3.
CONSTRUCT QUALITY MEASURES

<i>Construct Quality Measures</i>					
	KI	KL	PV	US	IR
PVE	0.603	0.589	0.535	0.634	0.538
Alpha	0.834	0.824	0.782	0.85	0.781
Rho	0.883	0.876	0.851	0.894	0.852
Dimensionality	1.0	1.0	1.0	1.0	1.0

Source: Processed Data, 2025

The Fornell-Larcker value criterion, where the square root of AVE of each construct should be greater than the correlation between other constructs (Fornell & Larcker, 1981). This is important in establishing discriminatory validity in studies that basically show that the measurement model has acceptable psychometric properties (Adu et al., 2020). The Fornell-Larcker value criterion shows that almost all diagonal values representing the square root of AVE exceed the correlation between factors. However, in the PV variable, the square root of AVE is smaller than the US variable. The HTMT ratio can be said to have a good level of discriminant validity when it shows a value of < 0.90 (Ali et al., 2021). In line with Henseler et al., (2015) explained that an HTMT value above 0.90 indicates a lack of discriminant validity. Based on the results in table 4.4, most HTMT ratios show a value of < 0.90 which means that almost all constructs in this study model have adequate discriminant validity. However, there is one construct pair that shows an HTMT value of > 0.90 , which is 0.92.

Table 4.
COMPONENT VALIDITY ASSESMENT

<i>Fornell-Larcker criterion values</i>					
	KI	KL	PV	US	IR
KI	0.776				
KL	0.714	0.767			
PV	0.654	0.646	0.732		
US	0.687	0.748	0.741	0.796	
IR	0.506	0.544	0.674	0.677	0.733
HTMT					
KI ↔ KL					0.861
KI ↔ PV					0.786
KI ↔ US					0.798
KI ↔ IR					0.619
KL ↔ PV					0.738
KL ↔ US					0.852
KL ↔ IR					0.652
PV ↔ US					0.920
PV ↔ IR					0.858
US ↔ IR					0.828

Source: Processed Data, 2025

R Square is used to measure the predictive strength or accuracy of a structural model. Based on table 5. What is presented can be known the PV (0.493), US (0.607), and IR (0.524) values. The R Square value of the Perceived Value (PV) variable was 0.493 which showed that 49.3% of PV was influenced by exogenous variables in this study, while the remaining 50.7% was influenced by other variables outside of this study. The US variable is 0.607 which shows that 60.7% of US is influenced by exogenous variables in this study, while 39.3% is influenced by other variables outside this study. The IR variable was 0.524 which means that 52.4% of IR was influenced by exogenous variables in this study, while 47.6% was influenced by other variables outside this study. Overall, this research model has met reliability and validity standards so that it can be continued for assessment on structural models.

Table 5.
R SQUARE VALUE

<i>R squared values of components in structural model</i>				
KI	KL	PV	US	IR
0.0	0.0	0.493	0.607	0.524

Source: Processed Data, 2025

Based on table 6. presented, it can be seen that the FIT value of 0.537 can be interpreted that the research model is able to explain 53.7% of the variance. The AFIT value has a similar meaning to FIT but takes into account the complexity of the model and ranges from 0 to 1. An AFIT value of 0.529 indicates that the research model explains 52.9% of the variance by considering the complexity of the model. FITs are able to explain the total variance of all the components of the model and also range from 0 to 1. The value of FITs is 0.325 which means 32.5% of the variance is described in the structural model. While the FITm value is also in the range of 0 to 1, indicating 0.580 which means that 58% of the variance has been described in the measurement model. Hwang et al., (2021) revealed that when the sample is >100 then the GFI value should be > 0.93 and the SRMR should be <0.08. In table 4.6, a GFI value of 0.974 and an SRMR of 0.700 have been presented so that it meets the eligibility criteria of the FIT model.

Table 6.
STRUCTURAL MODEL FIT MEASURES

FIT	AFIT	FITs	FITm	GFI	SRMR	OPE	OPEs	OPEm
0.537	0.529	0.325	0.580	0.974	0.070	0.474	0.700	0.428

Source: Processed Data, 2025

Hwang et al., (2021) stated that the value on the path coefficient can be considered statistically significant when it is within the 95% confidence interval and has a positive value or does not contain a negative value (an estimate is considered statistically significant at a significance level of 0.05 if the confidence interval does not include the number 0). This means that when the intervals CI(L) and CI(U) have positive values, then the estimated path coefficient is statistically significant. In this study, Information Quality (KI) to Perceived Value (PV) showed a Coefficient of 0.394 (CI L = 0.175, CI U = 0.574) which indicates that the first hypothesis is accepted and indicates that Information Quality has an influence on Perceived Value. Information Quality (KI) on User Satisfaction (US) shows a Coefficient of 0.312 (CI L = 0.133, CI U = 0.487) which indicates that the second hypothesis is accepted and indicates that Information Quality has an influence on User Satisfaction. The Quality of Service (KL) to the Perceived Value (PV) shows a Coefficient of 0.365 (CI L = 0.216, CI U = 0.581) which indicates that the third hypothesis is accepted and indicates that the Quality of Service has an influence on the Perceived Value. The Quality of Service (KL) on User Satisfaction (US) shows a Coefficient of 0.526 (CI L = 0.347, CI U = 0.695) which indicates that the fourth hypothesis is accepted and indicates that the Quality of Service has an influence on User Satisfaction. The Perceived Value (PV) of Intention to Reuse (IR) shows a Coefficient of 0.382 (CI L = 0.211, CI U = 0.612) which indicates that the fifth

hypothesis is accepted and indicates that the Perceived Value has an influence on Intention to Reuse. User Satisfaction (US) for Intention to Reuse (IR) shows a Coefficient of 0.394 (CI L = 0.160, CI U = 0.563) which indicates that the sixth hypothesis is accepted and indicates that User Satisfaction has an influence on Intention to Reuse.

Table 7.
PATH COEFFICIENTS

<i>Path Coefficient</i>	Estimate	SE	95%CI(L)	95%CI(U)	Keterangan
KI→PV	0.394	0.097	0.175	0.574	H1 Diterima
KI→US	0.312	0.093	0.133	0.487	H2 Diterima
KL→PV	0.365	0.094	0.216	0.581	H3 Diterima
KL→US	0.526	0.088	0.347	0.695	H4 Diterima
PV→IR	0.382	0.119	0.211	0.612	H5 Diterima
US→IR	0.394	0.125	0.160	0.563	H6 Diterima

Source: Processed Data, 2025

The Effect of Information Quality on Perceived Value

The results of this study explain that the quality of information affects perceived value. This is shown when students make an order or search for information about ticket availability, destination and departure stations, prices, schedules, classes and available seats, the KAI Access application is able to present complete information according to what students need. This information can be accessed on the 'train' menu which includes various booking features such as intercity, local, commuter line, LRT, airport, and whoosh features. This completeness of information helps users plan trips efficiently, so that users feel the real benefits of using the application. Therefore, the management information system must have good information quality to increase the perceived value of users. The results of this study confirm the results of previous research conducted by Chan et al., (2022) where when a mobile travel website system has good information quality, users will feel that the system has benefits for its users to understand the product. The results of this study are in line with the findings of Y. Kim et al., (2021) who affirm that the quality of information that is able to explain services in detail and accurately will provide a good perception of value. In this study, the results are in accordance with the IS success model theory proposed by Tseng et al., (2022) which states that information quality is one of the factors that can affect user perceived value, which means that the higher the quality of information, the higher the perception of value perceived by users. Mirkovski et al., (2024) and Zhong & Chen, (2023) also support the results of this study which states that information quality has a significant positive influence on perceived value.

The Effect of Information Quality on User Satisfaction

The results of this study prove that the quality of information has a significant influence on the satisfaction of S1 students of the UNESA Office Administration Education Study Program who use the KAI Access application. This is shown when students make transactions, especially booking train tickets, in each stage of the transaction process, the application will present important information such as appeals for filling in data, terms and conditions for booking tickets and other guidelines. In the promo and information menu, users can find complete information about the products and services offered including train and hotel promo details, RailPoint loyalty program benefits, trip cancellation insurance and others. In addition, when students make transactions using the KAI Pay payment method, the application presents important information before the top-up process is carried out, such as the estimated time when the balance will be automatically updated and service fees. Another new feature that is shown specifically for women is the existence of gender marking information on the intercity train seat plan. So that prospective female passengers can choose seats by considering comfort. This complete, informative, and relevant information provides comfort, security, and convenience for

students in making appropriate decisions or actions so that students have a high level of satisfaction. The results of this study confirm the results of a study conducted by Y. Kim et al., (2021) where consumers in China are very concerned about the quality of information that can explain products or services in detail. The quality of good information can have a positive impact on increasing user satisfaction. In this study, the results are in accordance with the IS success model theory which states that an information system must have high information quality because it plays an important role in customer satisfaction in mobile shopping applications (Katili et al., 2024). This is supported by Tseng et al., (2022) who stated that information quality can drive student and worker satisfaction in Taiwan. This is also in accordance with the research of Yuan et al., (2020), Mirkovski et al., (2024), Rulinawaty et al., (2024), and Anand et al., (2023) which states that information quality has a significant positive effect on user satisfaction.

The Effect of Service Quality on Perceived Value

The results of this study reveal that when the application has good service quality, users will have a good perception of value. This is shown by the experience of students who travel by train through the KAI Access application, where various digital service features are available that support their needs. These features include the e-boarding pass feature for online check-in, the RailFood feature for consumption bookings, features for hotel bookings or reservations and the promos offered, additional transportation service features such as taxis and buses for easy mobility to the station or continuing the journey after arriving at the station, additional insurance services, namely personal accident protection and a 100% refund guarantee. and other services. These features allow users to plan and travel by train more practically, effectively, and efficiently through just one application. Students as users directly benefit from the convenience and completeness of the services offered by the KAI Access application. The results of this study confirm research conducted by Zhong & Chen, (2023) where when information systems have service quality that meets standards, it will increase the perception of value perceived by users. The results of this study are in accordance with the theory of the IS Success model proposed by Tseng et al., (2022) which states that service quality has an important role in increasing the perception of value perceived by users in the context of e-commerce applications. This is in line with research conducted by Chan et al., (2022) which states that service quality has a positive influence on perceived value. This research is not in line with research in the field of e-government conducted by Mirkovski et al., (2024) which states that the quality of service does not have an impact on perceived value because users feel that the costs incurred to use website services are higher than the value received.

The Effect of Service Quality on User Satisfaction

This research reveals that applications that have high service quality standards will have a high level of satisfaction. This can be seen from the experience of students who use the KAI Access application to book train tickets. Through the KAI Access application, users can book tickets on the train menu or directly from the homepage, which provides various intercity, local, commuter line, LRT, airport, and whoosh service features. The KAI Access application also provides a Railpoint loyalty program, where users will earn points from every intercity train ticket booking transaction in business and executive economy class. These points can be exchanged for various services. The KAI Access application also provides a variety of payment methods that facilitate the transaction process, as well as the RailFood feature that allows consumption orders to be delivered during the trip. In addition, for intercity ticket bookings, the app provides a cancellation or reschedule option in accordance with applicable policies. If the user makes a refund, the funds will be refunded to 75% of the ticket price. Meanwhile, for reschedule, a tax deduction of 25% is imposed. The reliability of this service shows that the KAI Access application is able to provide a fairly high level of satisfaction for its users. The results of this study confirm a study conducted by Viontita & Mahendrawathi, (2024) which states that the quality of service in a system is a factor that can affect user satisfaction. When the quality of service is improved, it can increase user satisfaction. Therefore, an application must have a good quality of service because the quality of service is measured throughout the shopping process. In this study, the results are in accordance with the IS success model theory proposed by (Tseng et al., 2022) which states that service quality has an effective role in increasing user satisfaction. This is in line with research conducted by Abdirad & Krishnan, (2022) which states that there is a positive impact of service quality on improving

customer satisfaction in the electronic supply chain. By ensuring that the application has a good quality of service, companies can improve user satisfaction. This is also supported by research by Katili et al., (2024), Kuswanto et al., (2020), Y. Kim et al., (2021) and Yuan et al., (2020) which states that service quality has a significant positive influence on user satisfaction.

The Effect of Perceived Value on Intention to Reuse

This research reveals that the higher the perception of value felt by users, the higher the likelihood of users to reuse the application in the future. This is shown by the conditions where students assess the quality of services and information provided by the KAI Access application to consistently have good standards of completeness and reliability. This perception reflects that students consider the KAI Access application to be a very useful application to help meet the needs of travel plans to be more practical, efficient, and effective. This reflects the perception of positive value on the quality provided by the KAI Access application. This positive perception contributes to the high level of student loyalty to the KAI Access application. The results of this study confirm the results of previous research conducted by Katili et al., (2024) which stated that the higher the perception of value perceived by users, the more likely users are to return to using the products or services offered. The results of this study are in line with Kusumawati & Sri Rahayu, (2020) who explain that customer loyalty is the result of behavior formed by affective attitudes, namely perceived value. In this study, the results are in accordance with the IS success model theory proposed by Mirkovski et al., (2024) which states that customers who value or benefit services are likely to use services again in the future. The results of this study also support the results of previous research conducted by Tseng et al., (2022), Viontita & Mahendrawathi, (2024), Yuan et al., (2020), Chan et al., (2022), and Zhong & Chen, (2023) which revealed that perceived value has a significant influence on intention to reuse.

The Effect of User Satisfaction on Intention to Reuse

This research reveals that the higher the level of user satisfaction with the quality of the application, the higher the user's intention to reuse the application in the future. This is shown by the condition where the level of student satisfaction after using the KAI Access application several times. Students feel satisfied and consider the KAI Access application easy to use because the information provided is quite complete so as to help users understand products or services and help users make appropriate decisions because at each stage they are accompanied by important information. After that, some students are also satisfied with various services that help users meet their travel needs. This satisfaction contributes to the high level of user loyalty to the KAI Access application. The results of this study are in line with research conducted by Anand et al., (2023) in the field of tourism applications and Kuswanto et al., (2020) in the field of transportation which states that the higher the level of user satisfaction during and after using the application, the higher the user's intention to continue using the application in the future. Therefore, companies need to know what factors need to be evaluated to improve user satisfaction. In this study, the results are in accordance with the IS success model theory proposed by Tseng et al., (2022) which states that user satisfaction is one of the effective approaches to influence reuse intentions. The results of this study also confirm previous research conducted by Kusumawati & Sri Rahayu, (2020), Mirkovski et al., (2024), Viontita & Mahendrawathi, (2024), Y. Kim et al., (2021) and Zhong & Chen, (2023) which stated that user satisfaction has a significant influence on intention to reuse.

CONCLUSION

Based on the results and discussion of the research, it can be concluded that information quality has a positive and significant influence on perceived value and user satisfaction, service quality has a positive influence on perceived value and user satisfaction, perceived value and user satisfaction have a significant influence on intention to reuse. This is because information quality and service quality play an important role in shaping the perception of value and user satisfaction with a service which in turn can affect the intention to continue using a service. Companies must pay attention to what factors can increase user loyalty, including the quality of information and service quality so that users do not choose alternative modes of transportation or other similar applications. The presence of the KAI Access application is in line with the sustainable development goals (SDGs) number 9, where the KAI Access application supports the use of public transportation that is efficient, environmentally friendly, and

reduces congestion in line with the goals of sustainable infrastructure development. The KAI Access application is an innovation in the transportation service system that can be accessed by the wider community in various aspects of the economy that is in line with the goals and principles of innovation and sustainable industry as well as reducing social disparities and increasing accessibility and an inclusive economy. This study limited the sample in the 2022 batch of the Office Administration Education S1 Study Program to limit the variation in students' experiences and perceptions of the use of applications, because students take similar lectures and have relatively similar needs. Therefore, further research is recommended to involve a more diverse sample, including students from different batches or study programs, as well as consider other factors not discussed in this study. The limitation in this study is in the aspect of discriminant validity, so it is recommended for future research to develop further instruments to improve discriminant validity.

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