

The Influence of E-Service Quality on Improving the Performance of The UKT Information System Mediated by Perceived Ease of Use at Palangka Raya University

Tahasak^{1*}, Rinto Alexandro²

Program Doctor of Management Science, Faculty of Economics and Business,
University of Palangka Raya

Corresponding Author: Tahasak dapoe.emel68@gmail.com

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ABSTRACT

Research in the field of marketing management that leads to practices and policies in technology-based service systems in improving performance. Transparency in payment of educational fees and information is very important with digital information systems. The research was conducted at Palangka Raya University, Central Kalimantan Province, Indonesia. The role of perceived ease of use is also very supportive for people to obtain and use educational fee payment applications. This type of quantitative research uses a questionnaire of 100 respondents in the community who have used e-services, and analyzed using SEM PLS 4.0. The research results show the significant performance of a single tuition information system as information in paying education and fees. Furthermore, the results show that it is very important to manage information systems with a perceived ease of use digital policy. So the implications of these results are to improve information system performance by increasing e-service quality and perceived ease of use at universities

INTRODUCTION

The use of Information and Communication Technology (ICT) in higher education is very important in efforts to improve the quality of education (Ginting et al., 2023). Universities are expected to be able to compete with other institutions, both private and state, by effectively using ICT. As an organization faced with increasingly complex problems, universities have implemented information technology (Juwaini et al., 2022). In facing academic and student administration challenges, such as monitoring Single Tuition Fee (UKT) information, filling out KRS, monitoring KHS, information about classes and lecturers, as well as lecture schedules, universities actively participate through sites that have been developed by academic services. Ministry of Education and Culture Regulation Number 25 of 2020 as amended by Ministry of Education and Culture Regulation Number 2 of 2024 has provided unit standards for higher education operational costs and then universities provide accurate information about Single Tuition Fees on the Palangka Raya University website in accordance with Palangka Raya University Chancellor's Regulation Number 3 2022. Palangka Raya University, as a higher education institution committed to providing the best service to its students, is involved in efforts to improve service quality.

The quality of Information and Communication Technology services has a crucial role in improving information performance (Rahman et al., 2022). The quality of electronic services is considered one of the main determinants of the success of electronic commerce today because it can facilitate users effectively and efficiently (Fan et al., 2022). The e-service quality dimensions proposed by Zeithaml et al.'s comprehensive review. (1996, in (Naini et al., 2022), namely: efficiency, reliability, fulfillment, privacy, responsiveness, compensation, contact. One of the factors that can be an intermediary in the relationship between service quality and information performance is perceived ease of use or ease of use, especially on the Palangka Raya University website. Ease of use or perceived ease of use is defined as the extent to which a person believes that using a technology will be free from effort (Al-Momani et al., 2009). Perceived ease of use has dimensions, namely ease of learning, doing what the user wants easily, convenience that can increase the user's desires, ease of operation (Wahab et al., 2010). Research conducted (Rebollo & Hinlayagan, 2023) found that e-service quality has a positive effect and significant to customer loyalty. So it can be concluded that the better the quality of online services provided, the customer loyalty will increase.

Improving information performance in accessing the Single Tuition Fee (UKT) on the site provided by Palangka Raya University is imperative. Efficient and transparent UKT information management has become an urgent need considering the ever-growing complexity of higher education administration. Universities as educational institutions that are committed to providing the best service to their students, are faced with the demands of stakeholders, especially students, who want easy access and good service for delivering UKT information. With an integrated information system, universities can answer the challenges of administrative complexity, provide better services to students, and

increase transparency and accountability in managing UKT information. Therefore, improving UKT's information performance is not only an effort to meet the internal needs of universities, but also a strategic step to strengthen relationships with students and improve the institution's image in the eyes of the public.

System quality is a measurement of information system processes that focuses on the results of interactions between users and the system (Catur Widayati et al., 2023). Management or adjustment of various elements that influence the ease of use of a service (Vatolkina et al., 2020). It includes the user interface (UI), navigation, user guides, and a number of other design elements. The quality of a service system can be measured by looking at its functional part, namely its ease of use. An e-system that can be easily accessed motivates users to make optimal use of e-service quality thereby supporting increased information system performance. This is supported by research (Segoro & Limakrisna, 2020) that the implementation of e-service quality digital population administration services has great potential in increasing the efficiency and accessibility of public services. However, in some cases, such as the Centralized Customer Service Application (CCSA), system quality has no partial effect on user satisfaction (Muhajir et al., 2022). A similar thing was also stated by (Hamdan et al., 2022) that system quality has no effect on user satisfaction. Of course, this is contrary to other research, because as with the quality of the taxation system in Indonesia, the quality of the system has a significant effect on E-filing User Satisfaction, so that the higher the quality of the system, the greater the satisfaction of users of the system (Martínez-Navalón et al., 2023). Based on the background above, the author is interested in conducting research which aims to discuss the influence of E-service quality on improving the performance of UKT information mediated by Perceived Ease of Use at Palangka Raya University UKT.

LITERATURE REVIEW

E-Service Quality

According to (Schiavone et al., 2023) service quality is one of the main keys in determining the success or failure of a business. E-service quality is a new version of e-service quality which is an adaptation and expansion of the service quality model developed into electronic or online service quality (Forid et al., 2022). E-service quality is the ability of an application to provide services to users in an effective and efficient manner via the internet (Utama et al., 2024). According to the conceptual model to understand and improve service quality and divide it into seven dimensions, namely efficiency, reliability, fulfillment and privacy, thus forming a core online service scale or core scale (Bankuoru Egala et al., 2021).

The following are the seven dimensions of the e-servqual model proposed by (Büyüközkan et al., 2020):

1. Efficiency, namely the ability of customers to access the website looking for the desired product and information related to that product and leave the site in question with minimal effort.

2. Reliability, which is related to the technical functionality of the site in question, especially the extent to which the site is available and functions as it should.
3. Fulfillment, which includes the accuracy of service promises and the availability of services at the promised time.
4. Privacy, namely a guarantee that user data will not be given to other parties and information related to application use is guaranteed to be secure.
5. Responsiveness, is the ability of the application provider to provide appropriate information to customers when problems arise, and has a mechanism for handling complaints from application users.
6. Compensation, including refunds, shipping costs and service fees.
7. Contact, reflects the customer's need to be able to talk to customer service staff online or by telephone and not communicate with a machine.

Perceived Ease of Use

According to (Siagian et al., 2022), perceived ease of use is a system designed to make things easier for users and not make things difficult. This convenience means that a service will be easy to understand and can be easily operated, so that consumers will easily learn how to use the service. (Venkatesh, 2000) stated that perceived ease of use is the perception that a new technology is easy to understand, easy to use, easy to reach and practical to use. (Acelian & Basri, 2021) stated that perceived ease of use is a system designed not to make it difficult for the user, but using the system actually makes it easier for someone to complete their work. (Hikmah et al., 2023) state that perceived ease of use is the extent to which a person believes that using a technology will be free from effort. (Luh et al., 2020) defines perceived ease of use as the level to which a person believes that using a particular system can reduce a person's effort in doing something. Perceived ease of use can be measured through indicators:

1. Ease of learning,
2. Easily do what users want,
3. Convenience that can increase user desires,
4. Ease of operation.

Information System Performance

Suggests that a management information system is an integrated system of humans and machines to present information to support operations, management and decision-making processes in an organization. Management information system is a method that produce timely information that is used for decision-making steps in order to improve planning and control (Sunarta & Astuti, 2023). Defines a management information system as a system designed to present selected information that is decision-oriented in order to planning, supervising and assessing organizational activities designed within the framework (Hakiki, 2023). According to (et al., 2023) management information systems are a combination of human resources and other computer-based resources to produce a collection of storage, retrieval, communication and use of data for the purpose of efficient management operations. Based on this opinion, it can be concluded that management information systems in education are a series of links between human resources and information technology

applications that are used to store, process and retrieve data in order to support the decision-making process in the field of education.

According to DeLone and McLean (in Putri et al., 2021) the success of an information system consists of five factors, including:

1. System Quality, System quality that is easy to use, provides great benefits and will improve performance if system users put their trust in the system.
2. Information Quality, the DeLone and McLean model shows that system quality and information quality have a significant positive effect on information system user satisfaction.
3. Service Quality The concept of service quality adopted by DeLone and McLean states that service quality is a comparison between what should be offered and what is provided.
4. Usage Behavior System quality and information quality independently and jointly influence both use and user satisfaction.
5. Intention to Use Intention to Use is an affirmation of the dimensions of usage behavior from DeLone and McLean where a person's behavior begins with his desire to use or do.

Conceptual Framework

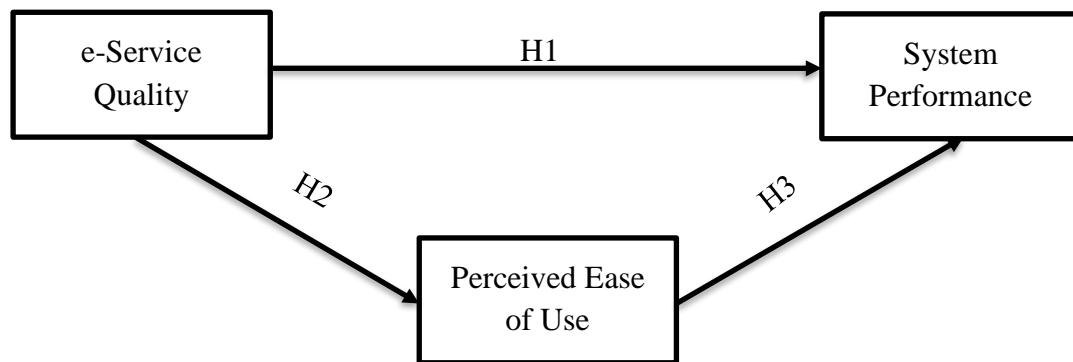


Figure 1. Conceptual Framework

METHODOLOGY

This research uses a descriptive research type with a quantitative approach which aims to describe or explain current events using numbers (Christa & Kristinae, 2021). The population in this research is the Palangka Raya University academic community who have used the Palangka Raya University academic website. Researchers determined the sample using the Slovin formula, with a total of 100 respondents.

Researchers used a non-probability sampling approach. This research uses purposive sampling and accidental sampling techniques to find respondents in the field. Using this method, researchers have their own predetermined criteria. These criteria consist of respondents having used the Palangka Raya University academic website to access UKT Single Tuition Fee information.

The data analysis technique in this research uses Structural Equation Modeling-Partial least squares (SEM-PLS) with the help of the WarpPLS 4.0

program. SEM-PLS analysis consists of two evaluation stages, namely outer model and inner model (Kristinae et al., 2023). The first stage, namely evaluating the outer model, is carried out to see the validity and reliability of the data. Validity testing in the outer model is carried out by testing convergent validity and discriminant validity. The second stage, namely inner model evaluation, was carried out to test the research hypothesis.

RESULTS AND DISCUSSION

Response Rate

This research uses primary data with a research instrument in the form of a questionnaire. Questionnaires were distributed to respondents to be filled in regarding each of the variable indicators (Kristinae et al., 2019). Data was collected through distributing questionnaires to respondents by distributing them directly by the researcher. Based on the data collection carried out, there were 30 questionnaires filled out by respondents. Overall, the questionnaire is completely filled out so it can be used as data in this research.

Outer Model Evaluation

Assessment of the validity and reliability of the research model is carried out through Outer Model evaluation (Ghozali & Latan, 2015). Before observing the relationship between constructs, the first step is to ensure that the indicators for each construct are valid and reliable. In this stage, there are several tests that are considered in the Outer Model, such as convergent validity, discriminant validity and reliability.

The parameters used in the convergent validity test are a loading value of more than 0.6 and an Average Variance Extracted (AVE) greater than 0.05 (Ghozali & Latan, 2015). The results of convergent validity testing can be seen in the following table:

Table 1 Convergent Validity Test

Variabel	Indikator	Outer Loading	AVE	p-value	Keterangan
e-service quality (X1)	ES1	(0.765)	0,793	<0.001	Valid
	ES2	(0.788)		<0.001	Valid
	ES3	(0.825)		<0.001	Valid
	ES4	(0.834)		<0.001	Valid
	ES5	(0.763)		<0.001	Valid
	ES6	(0.829)		<0.001	Valid
	ES7	(0.742)		<0.001	Valid
Perceived ease of use (Y1)	PK1	(0.900)	0,834	<0.001	Valid
	PK2	(0.876)		<0.001	Valid
	PK3	(0.910)		<0.001	Valid
	PK4	(0.666)		<0.001	Valid
System performance (Y2)	KS1	(0.799)	0,844	<0.001	Valid
	KS2	(0.696)		<0.001	Valid
	KS3	(0.884)		<0.001	Valid
	KS4	(0.897)		<0.001	Valid

KS5	(0.877)	<0.001	Valid
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Source : Output WarpPLS 4, 2024

Based on table 1, it shows that all indicators have an outer loading value of more than 0.60. In addition, the AVE value shows more than 0.5. Thus, overall it can be concluded that the question items or indicators used have met the convergent validity test. Next is discriminant validity. The parameters used in discriminant validity are based on cross-loading of measurements with constructs. If the cross-loading value of each indicator on one variable is greater than the cross-loading value on other latent variables, then the construct can be declared valid (Ghozali & Latan, 2015).

Table 2. Discriminant Validity Test

Indicator	<i>e-service quality</i>	Perceived ease of use	System performance
ES1	(0.765)	-0.711	-0.248
ES2	(0.788)	0.131	-0.690
ES3	(0.825)	-0.105	-0.796
ES4	(0.834)	-0.040	0.136
ES5	(0.763)	0.857	0.354
ES6	(0.829)	-0.248	0.546
ES7	(0.742)	0.152	0.747
KS1	1.092	(0.799)	-0.387
KS2	-0.300	(0.696)	-0.027
KS3	-0.484	(0.884)	0.349
KS4	0.045	(0.897)	-0.257
KS5	-0.314	(0.877)	0.285
PK1	0.024	0.192	(0.900)
PK2	-0.056	0.328	(0.876)
PK3	0.305	-0.432	(0.910)
PK4	-0.376	-0.099	(0.666)

Source : Output WarpPLS 4, 2024

Based on table 2, it shows the loading value of each indicator from the construct it is built on to another construct or what is called cross-loadings shows a value greater than the other construct. So it can be stated that the data or indicators used for each construct have met the criteria for testing discriminant validity. The next test is data reliability. Reliability testing in this research uses Cronbach Alpha and Composite Reliability values. A group of indicators used in one variable construct is said to be reliable if it has a Cronbach Alpha value greater than 0.6 and a Composite Reliability value greater than 0.6 (Ghozali & Latan, 2015). The results of reliability testing can be seen in the following table:

Table 3. Reliability Test

	<i>Composite Reliability</i>	<i>Cronbach Alpha</i>	<i>Keterangan</i>
e-service quality (X1)	0,922	0.901	Reliabel
Perceived ease of use (Y1)	0,919	0,888	Reliabel
System performance (Y2)	0,907	0,860	Reliabel

Source : Output WarpPLS 4, 2023

Based on table 3, it shows that all statement indicator items for each research variable have composite reliability and Cronbach's alpha values greater than 0.6. This means that each indicator used in this research instrument has met the reliability testing criteria.

Inner Model Evaluation

The inner model evaluation aims to predict the relationship between variables that have been hypothesized. The resulting inner model testing model is presented in Figure 2

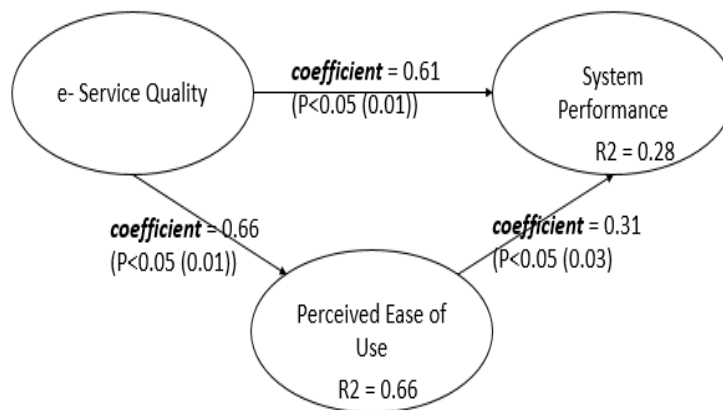


Figure 2. Inner Model Testing Model

Based on Figure 2, it shows that the R² value for perceived convenience is 0.66. This can be interpreted as a variant of the change in perceived ease of 66% which can be explained by the quality of UKT e-service at Palangka Raya University. Meanwhile, the remaining 34% is influenced by other variables not included in this research. Apart from that, the R² value of information performance is 0.28. This can be interpreted as a variance in changes in UKT information performance at Palangka Raya University of 28% which can be explained by the quality of e-service and perceived ease. Meanwhile, the remaining 72% is influenced by other variables not included in this research. The results of hypothesis testing are briefly presented in table 4. The hypothesis is accepted if the p-value is smaller than 0.05, with a confidence level of 5%.

Table 4. Hypothesis Testing Results

	<i>Path coefficient</i>	<i>p-value</i>	results
E-service quality → Perceive ease of use	0.813	<0.001	Accepted
E-service quality → system performance	0.614	<0,001	Accepted
Perceive ease of use → system performance	-0.310	0.03	Accepted
E-service quality & Perceive ease of use → system performance	-0.252	0.017	Accepted

Source: Output WarpPLS 4, 2023

Based on table 4, the results of testing the effect of e-service on perceived convenience have a path coefficient value of 0.813 and a p-value <0.001 which is smaller than 0.05. So, through the results of this test, it can be concluded that there is a positive influence between e-service and perceived convenience. The results of testing the effect of e-service on information performance have a path coefficient value of 0.614 and a p-value <0.001 which is smaller than 0.05. So, through the results of this test, it can be concluded that there is a positive influence of the relationship between e-service on information performance. The results of testing the influence of perceived ease on information performance have a path coefficient value of -0.310 and a p-value <0.001 which is less than 0.05. So, through the results of this test, it can be concluded that there is a negative influence on the relationship between perceived convenience and information performance. The results of the mediation test of perceived ease of e-service relationship to information performance have a path coefficient value of -0.252 and a p-value <0.017 which is smaller than 0.05. So, through the results of this test, it can be concluded that perceived ease of use mediates the influence of e-service relationships on information performance.

The results of testing the effect of e-service on perceived convenience have a path coefficient value of 0.813 and a p-value <0.001 which is smaller than 0.05. So, through the results of this test, it can be concluded that there is a positive influence between e-service and perceived convenience. The higher the quality of the Single Tuition Fee (UKT) e-service on the site provided by Palangka Raya University, the higher the perceived ease of users in using the Single Tuition Fee (UKT) on the site provided by Palangka Raya University. The lower the quality of the Tuition Fee e-service Single Tuition Fee (UKT) on the site provided by Palangka Raya University, the lower the user's perception of ease in using the Single Tuition Fee (UKT) on the site provided by Palangka Raya University

The results of testing the effect of e-service on information performance have a path coefficient value of 0.614 and a p-value <0.001 which is smaller than 0.05. So, through the results of this test, it can be concluded that there is a positive influence on the relationship between e-service quality and information performance. The higher the quality of the Single Tuition Fee (UKT) e-service on the site provided by Palangka Raya University, the higher the performance of the Single Tuition Fee (UKT) information on the site provided by Palangka Raya University. The lower the quality of the Single Tuition Fee (UKT) e-service on the

site provided by Palangka Raya University, the lower the performance of the Single Tuition Fee (UKT) information on the site provided by Palangka Raya University.

The results of testing the influence of perceived ease on information performance have a path coefficient value of -0.310 and a p-value <0.001 which is less than 0.05. So, through the results of this test, it can be concluded that there is a negative influence on the relationship between perceived convenience and information performance. The higher the perceived ease of users in using the Single Tuition Fee (UKT) on the site provided by Palangka Raya University, the lower the performance of the Single Tuition Fee (UKT) information on the site provided by Palangka Raya University. The lower the user's perception of ease in using the Single Tuition Fee (UKT) on the site provided by Palangka Raya University, the higher the performance of the Single Tuition Fee (UKT) information on the site provided by Palangka Raya University.

The results of the mediation test of perceived ease of e-service relationship to information performance have a path coefficient value of -0.252 and a p-value <0.017 which is smaller than 0.05. So, through the results of this test, it can be concluded that perceived ease of use mediates the influence of e-service relationships on information performance. There is an indirect role of the perceived ease of users in using the Single Tuition Fee (UKT) on the site provided by Palangka Raya University which is significant in the relationship between the quality of the Single Tuition Fee (UKT) e-service on the site provided by Palangka Raya University and the performance of the Single Tuition Fee information. (UKT) on the site provided by Palangka Raya University.

CONCLUSIONS

Based on the results of the research conducted, it can be concluded that the quality of e-service has a positive effect on the perception of convenience. e-service quality has a positive effect on information performance. Perception of convenience has a negative effect on information performance. Through the results of this research, it was also found that perceived convenience mediates the relationship between e-service quality and perceived convenience.

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