

ANALYSIS OF ANDROID-BASED E-LIBRARY USER SATISFACTION AT GALUH UNIVERSITY LIBRARY USING TAM AND EUCS

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Receive :
Accepted :
Published :
DOI : 10.30829/jipi.v10i1.18180

Abstract

E-Library is a library that manages and stores library collections in the form of books, journals, articles, theses, theses and other documents in digital format. so that in the process of searching for information, users can easily search and access collections online. E-Library has been adopted by several platforms, including Android devices. Galuh University Library is one of the universities that has provided Android-based E-Library services, but in its utilization it is necessary to analyze the acceptance and level of satisfaction of users of the application. This study aims to analyze the acceptance and level of satisfaction of E-Library users at Galuh University. This study uses a quantitative approach to analyze user satisfaction with Android-based E-Library at Galuh University Library. This study integrates the Technology Acceptance Model (TAM) and End-User Computing Satisfaction (EUCS) as the main framework and involves 138 respondents as samples. The results of the study revealed that 'Perceived Usefulness', 'Content', 'Accuracy', and 'Timeliness' have a significant positive influence on user attitudes, which in turn have an impact on their satisfaction with E-Library. The relationship between user attitude and user satisfaction was confirmed to be strong, indicating that a positive attitude towards the E-Library system contributes to a higher level of satisfaction. Meanwhile, 'Perceived Ease of Use' and 'Format' did not show a significant effect, indicating that other factors play a greater role in shaping user attitudes. This study is limited because it did not consider external variables such as gender and user experience, which are recommended for further research. These results provide important insights for the development of a more effective E-Library, by emphasizing aspects that contribute to increasing user satisfaction.

Keywords: *E-Library, Library, User Satisfaction, TAM, EUCS.*

INTRODUCTION

The transformation of information technology in modern life has brought fundamental changes in various aspects of human life. With the rapid growth of mobile device usage, many people depend on mobile phones to carry out their daily activities, both for personal and professional needs in their lives. [1] According to Statista data, in 2023 there will be 4.3 billion

mobile device users. [2] 71.45% of them use Android as their Operating System (OS). [3] Android is a Linux-based operating system developed by Google and is generally applied to various electronic devices, especially smartphones and tablets. In its use, Android smartphones are currently changing the digital era society in interacting and receiving information. Not only does it act as a support, but it has also played a role as a key operational, high potential, strategic role, and can be used to support effectiveness, efficiency, and productivity in organizations. [4] Several organizations in the business, government and education sectors have utilized information technology to meet needs and improve services.

Libraries in universities are no exception. As an information provider institution, of course, libraries are asked to continue to develop in order to provide the best service for their users. So with the presence of various forms of technological media, it is a solution for conventional libraries to provide more optimal services. [5] This development is carried out in order to provide convenience for librarians and users in carrying out various library activities such as searching for book collections or other operational activities carried out online and computerized. [6] This is explained in Law No. 43 of 2007, article 19 paragraphs 1 and 2 that library development is an effort to increase library resources, services, and management, both in terms of quantity and quality which must be carried out based on characteristics, functions and objectives, and carried out according to the needs of users and the community by utilizing information and communication technology. The presence of the Covid-19 pandemic has brought profound changes to many aspects of life, including the way people access and utilize information. In facing this challenge, many libraries have turned to digital solutions, namely the development of E-Library services.

The presence of E-Library not only answers the problem of accessibility during the period of physical restrictions, but also opens up opportunities to increase the resilience and sustainability of library operations. In other words, the adoption of E-Library technology is a proactive step that prepares libraries to face crises or disruptions in the future. However, the new normal will arrive in any condition, so there is a need to build and have increased resilience and sustainability. [7] In the Covid-19 Pandemic, Galuh University is one of the universities that launched a digital library application for smartphones with the Android operating system. Galuh University's E-Library allows users to access various library collections in a more practical and flexible digital format according to the modern lifestyle without having to visit the library physically. The features in the E-Library application include cataloging, circulation of library collections, inventory, and management of member data and statistics. However, in every development of information technology, it is necessary to analyze the level of acceptance and satisfaction for users so that it can help identify problems that need to be fixed, increase the use of technology, and ensure that investments in information technology provide the expected added value.

The results of previous research conducted by Ratnasari and Jumino in 2016 showed that the acceptance of the INLIS library automation system at the KPAD of Kendal Regency was generally quite good. The three key factors influencing this acceptance are perceived ease, perceived usefulness, and social factors. Perceptions of ease and usefulness contribute to the belief of library users that the system is easy to use and useful in finding information on library collections. Social factors also influence and show that the surrounding environment plays a role in increasing system acceptance. The second previous similar study by Fatmawati in 2017 used a qualitative approach which showed that the iJateng digital library was generally responded to positively by users and succeeded in increasing public access to quality reading materials.

Although socialization to the public regarding open access still needs to be improved and usability in terms of ability still needs assistance from library managers in facilitating the ease of learning to use the iJateng application, especially when accessed via smartphone. In the third previous similar study, Fathurrahman in 2017 entitled "Analysis of Acceptance of iJogja Mobile Application Technology by Library Users with the Technology Acceptance Model Approach at Grhatama Pustaka Balai Layanan Perpustakaan Bpad DIY" revealed that the results of the iJogja application were generally quite well received by library users. As many as seven of the eight hypotheses showed that variables such as perceived usefulness, ease of use, and intention to use the system had a significant relationship.

The fourth similar study was also conducted by Putri & Dewi in 2020 showing that the iSalatiga application generally had a positive impact on its users and was well received. In terms of usefulness, the iSalatiga application makes it easier for its users to carry out their daily activities, especially in educational and learning media. However, there are variations in opinion regarding the effect of this application on productivity. In terms of ease of use, iSalatiga has an intuitive system and adequate security features. Therefore, the iSalatiga application is well received by its users, especially because it makes their activities easier and offers guaranteed security. The use of TAM and EUCS provides a comprehensive perspective because both models not only look at perceptual factors but also user satisfaction in using the system, which is what makes this study different from previous similar studies.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is a theoretical model developed by Fred Davis in 1989, which aims to explain the factors that influence the acceptance and use of technology by individuals. This model is rooted in the Theory of Reasoned Action and is adapted specifically to analyze how users interact with and accept new technologies. In TAM, a person's decision to adopt an information technology system is influenced by two main factors, namely Perceived Usefulness and Perceived Ease of Use. Both elements directly affect the user's behavioral intention, namely the extent to which they intend to use the technology. If users believe that a system will increase productivity in terms of usefulness and views of ease of use, then they are more likely to decide to use it. Views of usefulness also have an impact on views of ease of use, but the relationship does not apply vice versa. This means that users are more likely to use a system that is considered useful, even if the system is not easy to use. Conversely, a system that is easy to use but not perceived as useful is unlikely to be used much.

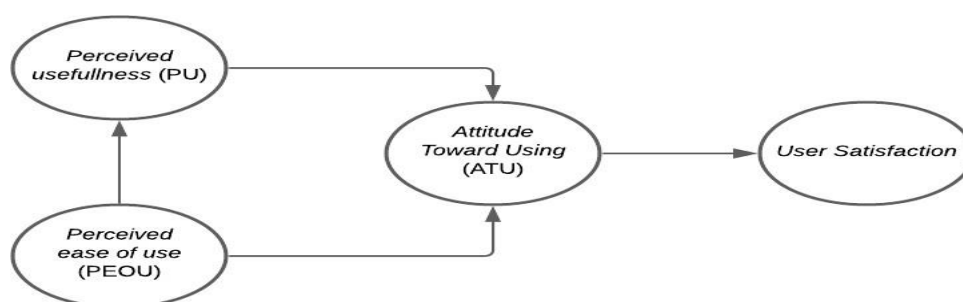


Figure 1. Technology Acceptance Model (TAM)

End User Computing Satisfaction (EUCS)

End User Computing Satisfaction (EUCS) was proposed by Doll and Torkzadeh in 1998. EUCS is used to measure the level of user satisfaction of an information system. The success of

an information system in an organization is determined by the extent to which it meets the needs and produces satisfaction for its users. In the EUCS instrument there are five main aspects that are measured, namely content, accuracy, format, ease of use and timeliness. Each of these components functions as an indicator in assessing the extent to which the information system meets the needs and expectations of users.

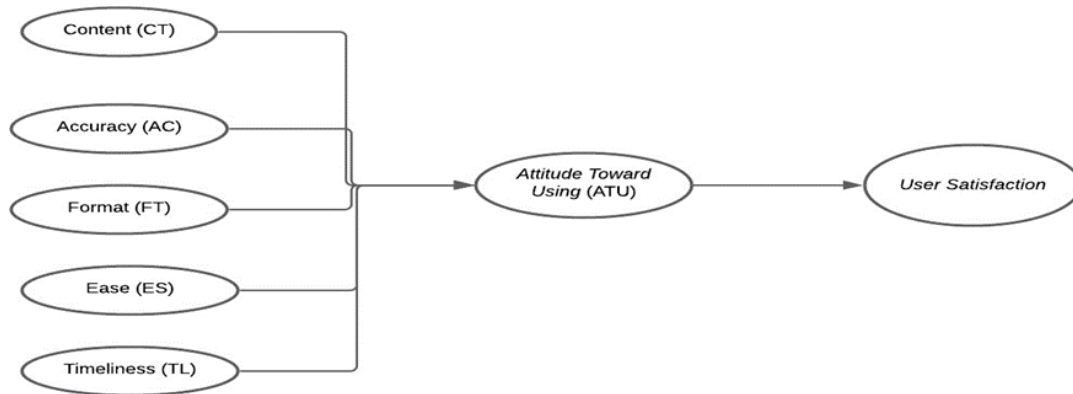


Figure 2. End User Computing Satisfaction (EUCS)

Integration of TAM and EUCS Models

In several previous studies, the Technology Acceptance Model (TAM) and End User Computing Satisfaction (EUCS) were combined to evaluate the extent to which users accept a system. Among them by Sekundera, Istiarni, and Ahmad Anwar are, inspired by the idea that the level of user satisfaction can directly affect the level of acceptance, where if users are satisfied with a system, then the system is likely to be accepted and used. In the context of this study, user satisfaction is an important criterion in assessing the acceptance of the Galuh University E-Library. To measure this, TAM has been supplemented with various other variables including compatibility, user characteristics, and system evaluation, while EUCS is used as a construct to assess satisfaction. Given the correlation between the level of acceptance and satisfaction in information technology, researchers then developed a model that summarizes both aspects through the integration of variables from both models.

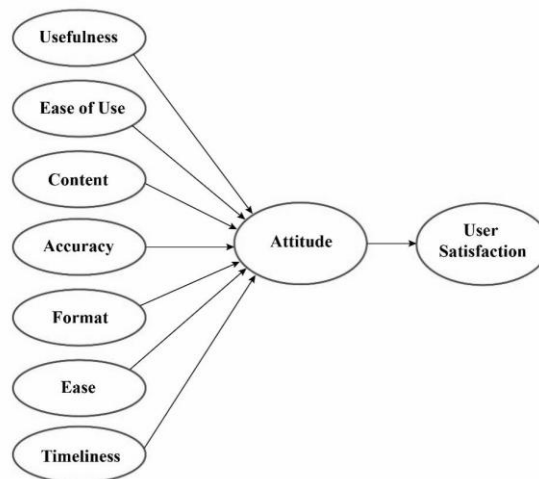


Figure 3. TAM and EUCS Integration Model

RESEARCH METHOD

In this study, variables are grouped into two types: independent variables (influencing variables) and dependent variables (influenced variables). The influencing variables in this study include various factors such as usefulness, ease of use, content, accuracy, format, ease of access, and timeliness, while the influenced variables are user attitudes and user satisfaction. To collect data, this study used a closed questionnaire filled out by students who used the Android e-library at Galuh University. The questionnaire was distributed online via Google Form. The questionnaire was designed using a Likert scale, which is a common tool for assessing individual attitudes, opinions, or perceptions. Details of the levels of answers used in this Likert scale are explained in Table 1 below:

Answer	Scale
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly Agree	5

This study implements the Structural Equation Modeling (SEM) technique to examine the proposed hypothesis, using SmartPLS 3.0 as an analysis software tool. The choice of this method is based on several advantages offered by SEM-PLS, including its suitability for research models that rely on latent variables that cannot be observed directly. The SEM technique also allows simultaneous evaluation of multiple dependency relationships contained in the model being studied. This study involved the participation of 138 students who use the Android e-library application at Galuh University as respondents.

Research Hypotheses

Several hypotheses are proposed based on the TAM and EUCS concepts to understand the influence of various aspects on the acceptance of E-Library users:

H1: Perceived Usefulness (PU) has a significant positive effect on attitude (ATT).

H2: Perceived Ease of Use (PEOU) has a significant positive effect on attitude (ATT).

H3: Content (CON) has a significant positive effect on attitude (ATT).

H4: Accuracy (ACC) has a significant positive effect on attitude (ATT).

H5: Format (FOR) has a significant positive effect on attitude (ATT).

H6: Ease (ESY) has a significant positive effect on attitude (ATT)

H7: Timeliness (TL) has a significant positive effect on attitude (ATT).

H8: Attitude (ATT) has a significant positive effect on user satisfaction (US)

Research Variables

The variables and indicators distributed in the questionnaire are explained in Table 2 below.

Table 2. Variables and Indicators

Variable	Indicator
PU (<i>Perceived Usefulness</i>)	PU1 : Accelerate Information Search PU2 : Increase Productivity PU3 : Benefits of literature search PU4 : Use of Intuitive Applications
PEOU (<i>Perceives Ease of Use</i>)	PEOU1: Ease of Functionality PEOU2 : Fast Feature Adaptation PEOU3 : Usage Proficiency PEOU4: Topic Understanding
<i>Content</i>	CON1 : Relevance of Material CON2 : Depth of Information CON3 : Usefulness of Information
<i>Accuracy</i>	ACC1: Trust in Information Source ACC2: Accuracy of Information ACC3: Accuracy of Content
<i>Format</i>	FOR1: Convenience of Content Presentation FOR2: Design and Layout Support FOR3: Graphic Support for Material Understanding
<i>Ease</i>	EASE1: Application Performance Responsiveness EASE2: Intuitive Navigation EASE3: Ease of Search, Access,
<i>Timeliness</i>	TL1: Regular Content Updates TL2: Accessibility to Current Information TL3: Notification of New Materials
<i>Attitude Toward Using Technology</i>	TT1: Positive Perspective on Application ATT 2: Satisfying Experience ATT3: Long-Term Use Intention
<i>User Satisfaction</i>	SAT1: Preference as Primary Source of Information SAT2: Satisfaction with Application SAT3: Potential Recommendation to Others

RESULT AND DISCUSSION

The Partial Least Square (PLS) method through the use of SmartPLS 3.0 software was chosen as an analysis tool, with the hope of providing a deep understanding of the relationship between the variables studied. SmartPLS allows for a clear visualization of the relationship between the TAM and EUCS model constructs and their influence on user satisfaction and acceptance. The hypothesis built in this study aims to confirm the positive influence between variables such as perceived usefulness, perceived ease of use, information quality, system quality, and service quality on attitude toward using and user satisfaction. In the process, data collected through surveys were analyzed to test the reliability and validity of the constructs, as well as to test the strength and direction of the causal relationship between the variables, this is explained in Figure 4.

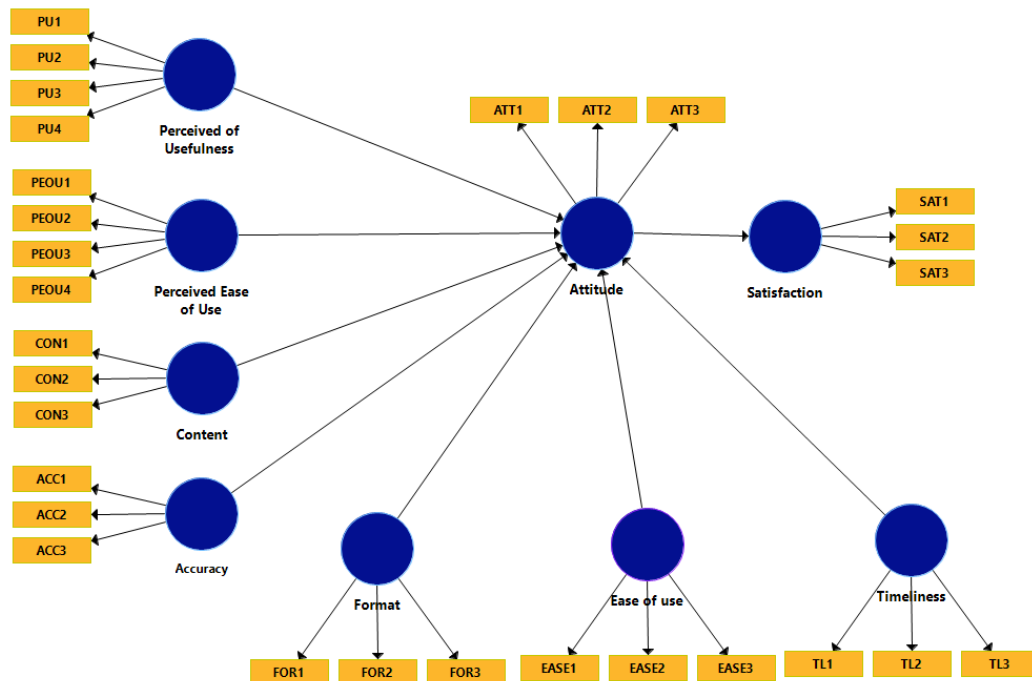


Figure 4. Outer Model

In determining whether the method used in this study is appropriate and reliable, the researcher applies what is known as a measurement model or outer model. This model aims to evaluate the validity of each item in the survey and dissects validity into two main types, namely convergent validity and discriminant validity. In addition, it also examines composite reliability and internal model tests or inner models.

Convergent Validity Test

The convergent validity test is monitored through the loading value of each item, which in this case is the outer loading score. This test is intended to confirm that each question in the survey has been well understood by the respondents. Outer loading with a value of 0.7 or higher indicates that the questionnaire is of good quality and meets the validity criteria. In accordance with the guidelines provided by Hair et al., as explained by Johandri [], an item is considered valid if it has a significance value above 0.5. In using SmartPLS software, the validity standard that is considered good for each item is 0.7, which means that 70% of the survey items have met the validity requirements. The results of this convergent validity test can then be seen and interpreted further in Figure 5 presented in the study.

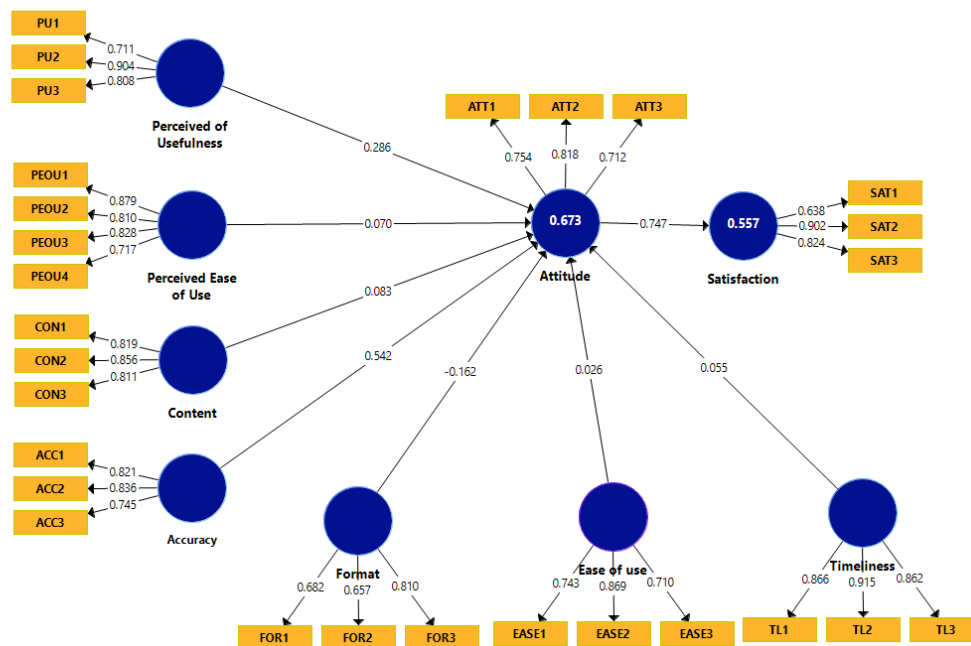


Figure 5. Convergent Validity Test

The construct "Perceived of Usefulness" is measured by three indicators (PU1, PU2, PU3) which all show loading values above 0.7 (0.711, 0.904, 0.808), indicating good convergent validity for this construct. The construct "Perceived Ease of Use" also shows strong loading values for its four indicators (PEOU1, PEOU2, PEOU3, PEOU4) with values of 0.879, 0.810, 0.828, and 0.717, respectively. "Content" as a construct is measured by three indicators (CON1, CON2, CON3) and all show values above 0.7. Likewise with "Accuracy" and "Format", where all indicators show valid loading values, indicating that the measurements taken for these constructs have strong convergent validity. Overall, this diagram provides empirical evidence supporting that the survey instrument used has strong convergent validity, considering that the loading values of all indicators associated with each construct exceed the threshold considered to indicate good validity.

Table 3. Validity Variables of Convergent Test Results

Variable	Indicator Validity
PEU (<i>Perceives Ease of Use</i>)	Valid
PU (<i>Perceived Usefulness</i>)	Valid
<i>Content</i>	Valid
<i>Accuracy</i>	Valid
<i>Format</i>	Valid
<i>Ease</i>	Valid
<i>Timeliness</i>	Valid

<i>Attitude Toward Using Technology</i>	Valid
<i>User Satisfaction</i>	Valid

Average Variance Extracted (AVE) Value Test

After testing the convergent validity through the factor loading value on each indicator, the next step is to assess the Average Variance Extracted (AVE) value on the latent construct. This procedure is important because AVE provides an overview of the representation of the manifest variable against its latent construct. In other words, a larger AVE value indicates that the observed variable better describes the variability or diversity in the latent construct. The AVE value that is considered adequate to indicate strong convergent validity is at least 0.5.

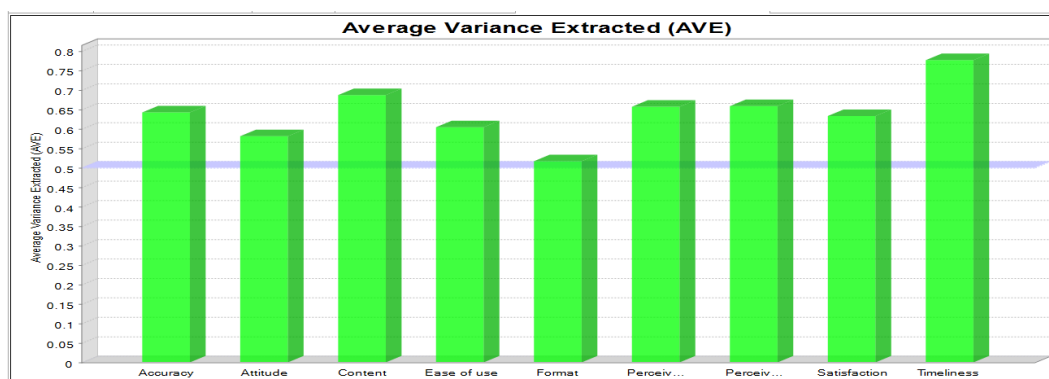


Figure 6. Results of the Average Variance Extracted (AVE) Value Test

Based on the image showing the AVE results, it can be seen that each construct or indicator in this study has an AVE value that exceeds the threshold of 0.5. The constructs 'Accuracy', 'Attitude', 'Content', 'Ease of use', 'Format', 'Perceived', 'Satisfaction', and 'Timeliness' all show AVE values above 0.5, indicating that in the context of this study, each construct has valid convergent validity. Thus, it can be concluded that the indicators in this research model adequately measure the intended constructs and the results of these measurements can be relied on for further analysis.

Discriminant Validity Test

In addition to conducting convergent validity tests, discriminant validity tests were also conducted. This discriminant validity is analyzed by comparing the cross-loadings values between indicators in the model. An indicator is considered to have good discriminant validity if its loading value on the measured construct is higher than its loading on other constructs. This means that the indicator reflects more variance in the intended construct than in other constructs in the model.

Table 4. Discriminant Validity Results

	Accuracy	Attitude	Content	Ease of use	Format	Perceived Ease of Use	Perceived of Usefulness	Satisfaction	Timeliness
ACC1	0.821	0.573	0.452	0.550	0.312	0.412	0.217	0.583	0.345
ACC2	0.836	0.703	0.439	0.670	0.209	0.598	0.465	0.584	0.210
ACC3	0.745	0.515	0.624	0.568	0.044	0.384	0.251	0.514	0.553
ATT1	0.594	0.754	0.214	0.446	0.107	0.313	0.398	0.615	0.228
ATT2	0.660	0.818	0.381	0.595	0.047	0.600	0.474	0.678	0.235
ATT3	0.440	0.712	0.695	0.499	0.029	0.407	0.317	0.362	0.581
CON1	0.380	0.312	0.819	0.387	0.024	0.141	0.090	0.294	0.743
CON2	0.594	0.537	0.856	0.462	0.114	0.341	0.149	0.323	0.537
CON3	0.509	0.411	0.811	0.478	0.014	0.250	0.127	0.369	0.737
EASE1	0.473	0.369	0.265	0.743	0.218	0.560	0.654	0.350	0.225
EASE2	0.717	0.620	0.355	0.869	0.219	0.701	0.485	0.562	0.213
EASE3	0.511	0.534	0.608	0.710	0.185	0.363	0.292	0.361	0.636
FOR1	0.059	0.052	0.205	0.133	0.682	0.147	0.305	0.110	0.071
FOR2	0.122	0.016	0.029	0.144	0.657	0.259	0.279	0.166	-0.043
FOR3	0.275	0.076	-0.046	0.252	0.810	0.061	0.169	0.030	-0.001
PEOU1	0.563	0.516	0.333	0.617	0.186	0.879	0.556	0.355	0.296
PEOU2	0.416	0.487	0.237	0.448	0.041	0.810	0.406	0.281	0.249
PEOU3	0.462	0.479	0.309	0.635	0.002	0.828	0.401	0.387	0.252
PEOU4	0.481	0.417	0.120	0.576	0.283	0.717	0.487	0.559	-0.049
PU1	0.188	0.364	0.069	0.421	0.199	0.503	0.711	0.268	0.147
PU2	0.372	0.452	0.125	0.528	0.240	0.540	0.904	0.347	0.092
PU3	0.394	0.464	0.169	0.470	0.303	0.360	0.808	0.564	0.104
SAT1	0.399	0.342	0.484	0.376	-0.074	0.226	0.061	0.638	0.504
SAT2	0.629	0.652	0.369	0.567	0.081	0.427	0.507	0.902	0.284
SAT3	0.603	0.701	0.206	0.399	0.155	0.437	0.476	0.824	0.079
TL1	0.388	0.372	0.589	0.460	0.077	0.169	0.270	0.317	0.866
TL2	0.392	0.378	0.743	0.497	0.047	0.369	0.252	0.292	0.915
TL3	0.376	0.363	0.745	0.268	-0.053	0.098	-0.169	0.178	0.862

In Table 4, the results of the discriminant validity test explain that each indicator generally has the highest loading value on its own construct. Indicators ACC1, ACC2, and ACC3 have the highest loading values on the 'Accuracy' construct when compared to other constructs. This shows that these indicators contribute the most to the variance of the 'Accuracy' construct and less to other constructs. Likewise, indicators ATT1, ATT2, and ATT3 have the highest loading values on the 'Attitude' construct. This confirms that these indicators measure 'Attitude' more than other constructs in the model. Similar assessments apply to the indicators in the 'Content', 'Ease of use', 'Format', 'Perceived Usefulness', 'Satisfaction', and 'Timeliness' constructs, where each indicator has the highest loading value on the corresponding construct. Based on the results obtained, all indicators show adequate discriminant validity, with the highest loading value on the relevant construct compared to other constructs. Therefore, it can be concluded that this research instrument meets the criteria of discriminant validity, which indicates that the constructs in this research model are unique and measured appropriately by the specified indicators.

Construct Reliability Test

In this research stage, after the discriminant validity of the indicators is confirmed, the focus shifts to determining the construct reliability. Construct reliability is measured using two metrics: Cronbach's Alpha and Composite Reliability. Both metrics assess the internal consistency of the indicators that make up each construct. In good practice, Cronbach's Alpha and Composite Reliability values above 0.7 are considered to indicate adequate reliability for the latent variables studied.

Table 5. Construct Reliability Test Results

	Cronbach's Alpha	Composite Reliability
Accuracy	0,724	0,843
Attitude	0,745	0,806
Content	0,780	0,868
Ease of use	0,774	0,820
Format	0,727	0,761
Perceived Ease of Use	0,824	0,884
Perceived of Usefulness	0,736	0,851
Satisfaction	0,717	0,836
Timeliness	0,856	0,913

Based on table 5, the results of the reliability test displayed using SmartPLS, it can be seen that all constructs in this study show Cronbach's Alpha and Composite Reliability values above the threshold of 0.7. Specifically, the construct 'Accuracy' has a Cronbach's Alpha of 0.724 and a Composite Reliability of 0.843, indicating good reliability. Meanwhile, 'Attitude' has a Cronbach's Alpha value of 0.745 and a Composite Reliability of 0.806, and 'Content' with a Cronbach's Alpha of 0.780 and a Composite Reliability of 0.868, both indicating very good reliability. Other constructs such as 'Ease of Use', 'Format', 'Perceived Ease of Use', 'Perceived Usefulness', 'Satisfaction', and 'Timeliness' also show values that exceed the specified reliability threshold. In particular, 'Timeliness' has the highest reliability value with Cronbach's Alpha of 0.856 and Composite Reliability of 0.913. These results confirm that the constructs used in this study have good internal consistency, so they can be relied on for further analysis. Thus, this study has a strong basis in terms of measuring construct reliability, which is an important component in ensuring the quality and trustworthiness of research findings.

Inner Model Test

In the inner model test stage, analysis is conducted to measure the R Square (R^2) value which reflects the strength and relevance of the regression model that has been built. The R^2 value is categorized into three levels, namely 'substantial' for values of 0.67 and above, 'moderate' for values around 0.33, and 'weak' for values approaching 0.19.

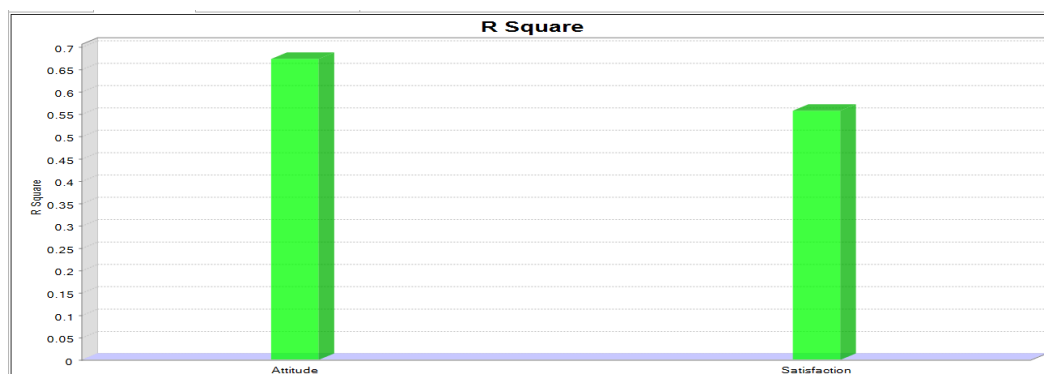


Figure 7. Results of R Calculation

Based on the results of the R^2 calculation carried out using SmartPLS, it can be seen in the image that the 'Attitude' variable has an R^2 value of 0.65. This value places it in the 'moderate' category, indicating that this model is quite effective in explaining the variability of user attitudes. Meanwhile, the 'User Satisfaction' variable has an R^2 value of 0.55, which is also in the 'moderate' classification. This indicates that a significant amount of variability in user satisfaction can be explained by the independent variables specified in the model. These two R^2 values provide an explanation of how effective the tested model is in explaining and predicting user attitudes and satisfaction. Although it does not reach a 'substantial' level, the 'moderate' R^2 value indicates that the model has good predictive validity and the selected independent variables are relevant determinants for both attitude and user satisfaction constructs.

Hypothesis Testing

In the final step of this research, hypothesis testing is conducted with the aim of identifying the significance of the influence between the variables studied. The level of significance chosen is 5%, or 0.05. Hypothesis testing involves comparing the calculated T value (t count) with the predetermined T table value, which in this case is 1.65.

	Sampling Original (O)	T Statistik	Status
<i>Accuracy -> Attitude</i>	0.747	1.841	Accepted
<i>Attitude -> User Satisfaction</i>	0.286	9.672	Accepted
<i>Content -> Attitude</i>	-0.162	1.821	Rejected
<i>Ease -> Attitude</i>	0.542	2.970	Accepted
<i>Format -> Attitude</i>	0.070	1.052	Accepted
<i>Perceived Usefulness - > Attitude</i>	0.026	2.237	Accepted
<i>Perceived Ease of Use - > Attitude</i>	0.055	0,735	Rejected
<i>Timeliness ->Attitude</i>	0.083	1,853	Accepted

Based on the output path coefficient presented in the table, several hypotheses can be determined based on data related to the acceptance of e-library technology and the level of user satisfaction, which in this context are students at Galuh University:

1. Hypothesis 1 (H1) which proposes a positive influence of 'Perceived Usefulness' on 'Attitude' is accepted, considering the T statistic value is 2.237, which is higher than the T table value (1.65).
2. Hypothesis 2 (H2) is rejected because the calculated T value for 'Perceived Ease of Use' is lower than the T table, indicating that there is no significant influence on 'Attitude'.
3. Hypothesis 3 (H3) proposes a positive influence of 'Content' on 'Attitude'. The data shows that the calculated T value is indeed higher than the T table, so this hypothesis is accepted.
4. Hypothesis 4 (H4) is also accepted, indicating that 'Accuracy' has a positive influence on 'Attitude', with the calculated T value exceeding the T table value.
5. Hypothesis 5 (H5) is rejected because the calculated T value does not reach the threshold determined by the T table.

6. Hypothesis 6 (H6) accepts that 'Ease of Use' has a positive influence on 'Attitude', based on the calculated T value which is higher than the T table.
7. Hypothesis 7 (H7) regarding the positive influence of 'Timeliness' on 'Attitude' is accepted, with the calculated T value exceeding the T table.
8. Hypothesis 8 (H8) is accepted, indicating that 'Attitude' has a significant positive influence on 'User Satisfaction', with the calculated T value far exceeding the T table.

CONCLUSION

Based on the analysis conducted using the Technology Acceptance Model (TAM) and End-User Computing Satisfaction (EUCS) on the satisfaction of Android-based E-Library users at the Galuh University Library, this study has produced several findings. Of the seven hypotheses proposed, six of them are accepted, namely H1, H3, H4, H6, H7, and H8. The accepted hypotheses indicate that variables such as 'Perceived Usefulness', 'Content', 'Accuracy', and 'Timeliness' have a significant positive influence on user attitudes towards E-Library. This confirms that the acceptance of technology by users is not only influenced by perceived usefulness but also by the quality of content, accuracy of information, and timeliness of access to information provided by the E-Library system. Furthermore, the relationship between 'Attitude' and user satisfaction ('User Satisfaction') is also proven to be significant, with a high statistical value, indicating that positive user attitudes towards E-Library contribute directly to their level of satisfaction. This confirms the importance of developing and maintaining positive attitudes among users to increase their satisfaction. Meanwhile, two hypotheses were rejected, namely H2 and H5, indicating that 'Perceived Ease of Use' and 'Format' did not have a significant effect on user attitudes. This finding may indicate that E-Library users consider other factors more important than ease of use or format in forming their attitudes towards E-Library.

Although this study has provided information on satisfaction with e-library applications at one university, there are still limitations that must be considered. The study did not consider external factors such as gender or user experience that could affect user acceptance and satisfaction with technology. For future research, it is recommended to expand the scope by integrating these external factors, which can provide a more comprehensive understanding of the dynamics of E-Library acceptance. This study underlines the importance of aspects of perceived usefulness, content quality, accuracy, and timeliness in building positive user attitudes towards E-Library, which in turn increases user satisfaction. These findings can be a guide for university libraries to improve and customize E-Library features to better suit user needs and preferences.

SUGGESTION

Based on the findings of this research, several practical and academic suggestions can be proposed to improve the effectiveness and user satisfaction of Android-based E-Library systems at Galuh University and other similar institutions.

First, library developers and administrators should prioritize enhancing content quality, accuracy, and timeliness, as these variables were found to significantly influence user attitudes and satisfaction. Improving the reliability and relevance of digital materials, ensuring regular content updates, and integrating real-time notification systems may strengthen users' positive experiences and trust.

Second, although 'Perceived Ease of Use' and 'Format' were not statistically significant in this study, developers should not disregard these aspects. Continuous improvements in interface design, navigation simplicity, and compatibility with diverse Android devices could still indirectly support user satisfaction, particularly among less tech-savvy users.

Third, further development should focus on incorporating adaptive features such as personalized content suggestions, user feedback mechanisms, and learning analytics to enhance user engagement and system responsiveness. These additions would align the E-Library system more closely with user needs and expectations.

Fourth, user training and digital literacy programs are essential to support optimal utilization. Workshops or tutorials can help users better understand the functionality and advantages of the E-Library, especially for new students or those with limited exposure to digital resources.

Lastly, future studies should consider external factors such as gender, digital competence, and prior user experience to provide a more comprehensive understanding of user behavior. Comparative research across multiple universities would also enrich the generalizability and scalability of the proposed model.

By implementing these suggestions, academic institutions can enhance digital library services, foster technology acceptance, and ultimately improve the overall learning experience for students.

THANK YOU-NOTE

The authors would like to express their sincere gratitude to all parties who contributed to the successful completion of this research. Special thanks are extended to the management and staff of Galuh University Library for their support, cooperation, and facilitation during data collection. We are also grateful to the 138 student respondents who willingly participated in the survey and provided valuable insights that enriched the study's findings.

Appreciation is also due to the academic supervisors and colleagues at STMIK LIKMI Bandung for their continuous guidance, encouragement, and constructive feedback throughout the research process. Their input was instrumental in enhancing the depth and clarity of the final results.

Finally, we thank our families and peers for their unwavering support and motivation. May this research contribute meaningfully to the improvement of digital library services in higher education.

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