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User Satisfaction Analysis of University of Jember's UC3 using EUCS Approach

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Abstract

The UC3 service is the University of Jember's integrated digital platform, facilitating academic services including diploma applications, service complaints, and campus problem reporting. Despite being crucial for digital academic administration, the UC3 application encounters technical obstacles such as frequent server downtime, less intuitive interfaces, and slow response times. This study aims to evaluate user satisfaction levels with the UC3 application to provide insights for service improvement and benefit optimization for users. A quantitative methodology was adopted using the End User Computing Satisfaction (EUCS) method, incorporating five variables: content, accuracy, format, ease of use, and timeliness. Data were collected through questionnaires distributed to 100 student respondents and analyzed using IBM SPSS version 27. The instrument test results showed an average validity score of 0.807 and reliability of 0.892 across all EUCS variables. Classical assumption testing confirmed normally distributed data (0.137, $p > 0.05$), with tolerance values of $0.699 > 0.1$ for multicollinearity and no heteroscedasticity detected. Hypothesis testing revealed that accuracy and timeliness had partially significant effects on user satisfaction based on the T-test, while the F-test demonstrated that all EUCS variables collectively had significant influence on satisfaction levels (sig $0.001 < 0.05$).The results indicate that UC3 users demonstrate relatively high satisfaction levels, as all EUCS variables significantly influence their experience both individually and collectively, providing a foundation for targeted system improvements.

Keywords: *academic information system, EUCS, UC3, user satisfaction*

1 Introduction

The period characterized by worldwide interconnectedness and integration has pushed higher education institutions to develop digital-based service systems, one of which is UC3 at the University of Jember (UNEJ). The UC3 application is an integrated platform that provides various academic service features and digital document management. UC3 provides 19 help topics to assist users and has become an integral component in the campus digital service ecosystem, facilitating academic services including diploma applications, service complaints, and campus problem reporting.

The UC3 application was developed as a solution to overcome various administrative challenges among students, such as long queues, complex bureaucratic procedures, and limited face-to-face service hours. While the system has shown promising adoption rates, with 388 out of 390 users expressing satisfaction according to UNEJ Human Affairs [1], significant technical challenges persist that warrant deeper investigation. The application continues to face recurring technical issues including frequent server downtime during peak hours, less intuitive interface design, and slow response times, which potentially impact the overall user experience and satisfaction levels [2].

Despite the reported high satisfaction rates, the coexistence of positive user feedback alongside persistent technical problems presents a research gap that requires systematic investigation. This paradox suggests that traditional satisfaction metrics may not fully capture the nuanced user experience with UC3, particularly regarding how specific system attributes influence overall satisfaction. Furthermore, while UC3 has received general positive feedback, there is limited empirical evidence examining which specific dimensions of the system most significantly contribute

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to user satisfaction, and how technical issues affect different aspects of user experience. This gap justifies the need for a comprehensive satisfaction analysis using a structured evaluation framework.

User satisfaction in information systems refers to how individuals evaluate an information system and assess the effects of using it effectively [3]. User satisfaction as an affective response in the form of happiness arises as a result of comparing a product's performance against performance expectations held by users [4]. Therefore, this study conducted a systematic evaluation of user satisfaction with the UC3 application platform by implementing the End User Computing Satisfaction (EUCS) framework as an evaluative model.

EUCS method functions as a technical tool designed to measure how satisfied users are with information systems by assessing five key dimensions: content, accuracy, format, ease of use, and timeliness [3]. Several prior research efforts have demonstrated the effectiveness of the EUCS approach for evaluating user satisfaction with information systems. A critical element affecting system or application success is user satisfaction, defined as the state where users feel content with their product or service experience. This aspect has become central to various assessment methodologies in information systems research. Additionally, studies examining user satisfaction with digital service applications have determined that EUCS offers a comprehensive view of system quality from the end-user's perspective [5][6][7][8][9].

This analysis was conducted quantitatively using a questionnaire-based survey mechanism distributed to active students at Jember University who use UC3. The collected data were processed using SPSS tools to test validity, reliability, and classical assumptions. This study examines student satisfaction with UC3 at Jember University through the EUCS methodology, aiming to provide comprehensive insights into application performance across all five EUCS dimensions. These insights can serve as the foundation for improving digital service quality at universities. The results of this study are expected to contribute to improving the quality of digital public services at the University of Jember and integrated digital document management, while addressing administrative challenges such as long queues, complicated bureaucracy, and limited service time.

2 Literature Review

Several studies have demonstrated the effectiveness of the EUCS method in evaluating user satisfaction across various information systems contexts. Herwati et al. (2023) analyzed user satisfaction with the Hospital Management Information System (SIMRS) at Mitra Delima Hospital using EUCS. Their study showed that all independent variables had a positive and significant influence on user satisfaction with a coefficient of determination (R^2) of 0.935, indicating that variables contribute 93.5% to SIMRS user satisfaction. The study emphasized the importance of content and timeliness dimensions, along with officer training [10].

Pratiwi and Indriyanti (2022) evaluated user satisfaction with the PNM Digi Employee application using EUCS methodology. Their findings revealed high satisfaction levels across all EUCS dimensions: Content (87.6%), Accuracy (85.3%), Format (88.8%), Ease of Use (85.46%), and Timeliness (86%). All dimensions achieved values above 80%, with Content and Timeliness proving to have the most significant effects on user satisfaction [11].

Cessar and Sari (2024) conducted a satisfaction analysis of the Bebunge application at Diskominfosantik Bekasi Regency using EUCS. The study focused on community satisfaction with public services, yielding moderate satisfaction levels: Content (78.18%), Accuracy (79.04%), Format (79.33%), Ease of Use (78.65%), and Timeliness (79.01%). The overall average of 78.84% indicated satisfactory user acceptance [12].

Analysis of these previous studies reveals that systems serving internal organizational functions (SIMRS and PNM Digi Employee) tend to achieve higher user satisfaction coefficients compared to public-facing service applications (Bebunge). This pattern suggests that user expectations and satisfaction criteria may differ between internal administrative systems and public service platforms.

It is important to clarify that UC3 operates as a hybrid system that serves both internal academic administration and external stakeholder interactions. While primarily designed for internal university operations—facilitating academic services, diploma processing, and administrative workflows—UC3 also accommodates external users including prospective students, alumni, and community members

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seeking university services. This dual nature positions UC3 as a semi-public academic support system rather than a purely internal administrative tool or a general public complaint platform.

The distinction is crucial because UC3's primary function focuses on academic service delivery and institutional support rather than general public complaint management. Unlike the Bebunge application, which serves as a dedicated public complaint system for broader governmental services, UC3 is specifically designed to enhance academic administrative efficiency and student service delivery within the university ecosystem. This positioning makes UC3 more comparable to internal administrative systems while acknowledging its external accessibility for specific academic-related services.

Therefore, this study fills a research gap by examining user satisfaction in a hybrid academic service system that combines internal administrative efficiency with external stakeholder accessibility. The EUCS framework provides an appropriate evaluation tool for understanding how different user groups perceive and interact with UC3's multifaceted service offerings, contributing to the broader understanding of user satisfaction in academic information systems.

3 Research Method

This study implements testing of a quantitative approach to the validity of existing theories through the relationship between variables and evaluates research hypotheses through a systematic deductive framework [13]. Quantitative methods are used to examine relationships between various variables and evaluate whether research hypotheses are proven through statistical analysis techniques. This research method is executed by collecting data from a specific population or sample using research instruments, then the data is processed numerically for analysis [14][15]. Research steps are a series of systematic steps that need to be followed, prepared, and implemented in the process of conducting research. There are 9 research steps, namely identify the problem, literature review, conceptual model development, operational definition of variables, development of research instruments, data collection, research instrument testing, data analysis, and conclusion as indicated in Figure 1.

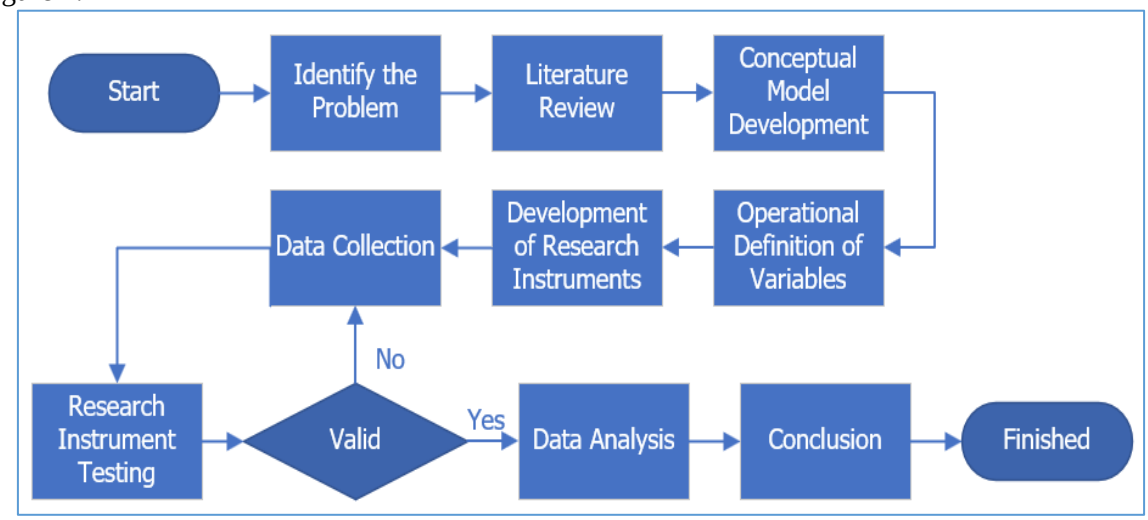

Figure 1 Research steps

Identify the problem is the first stage before research to select research subjects and case studies on UC3 services. This study evaluated user satisfaction levels with the UC3 system by conducting assessments and interactions using the EUCS methodology [3]. EUCS assesses 5 main dimensions with results analyzed using statistical methods. The study subjects used in this research were 100 active students at UNEJ using the UC3 system. The literature review aligns with this study topic by collecting and reviewing reference data information, namely books and scientific publications. This research obtains the main foundation to ensure the appropriate technique for testing the acceptance level of the UC3 system users through the EUCS approach. Conceptual model development involved developing research hypotheses. A hypothesis is an assumption about the

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relationship between variables. This research formulates five hypotheses based on the conceptual model of the EUCS method and the problem formulations that have been established. Figure 2 shows the preparation of the conceptual model.

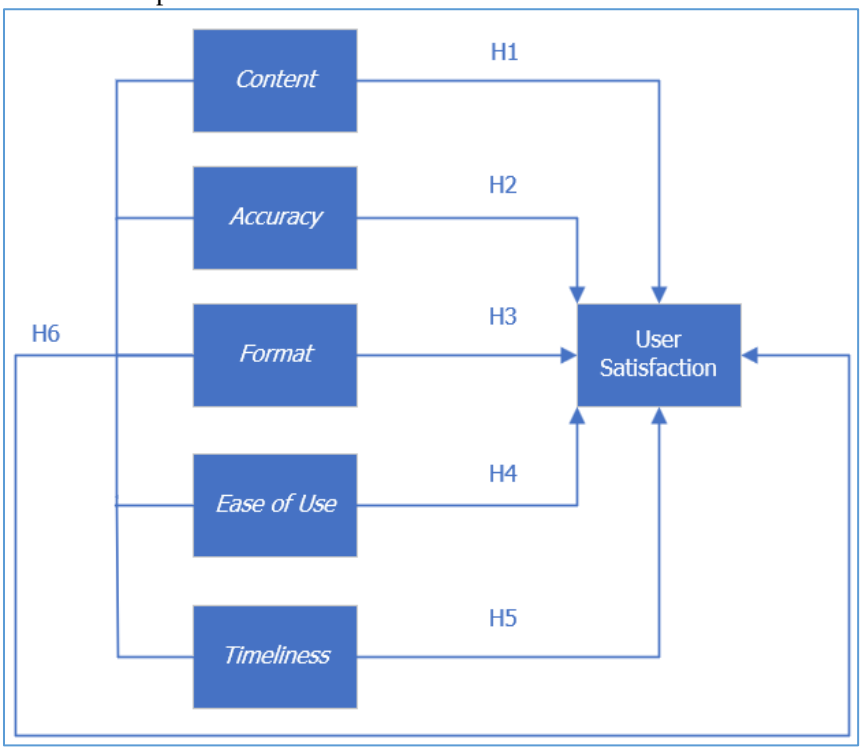

Figure 2 Preparation of the conceptual model

Based on the problems that have been identified, the researcher proposes the following hypotheses:
H1: has a positive and significant impact of complaint content on the satisfaction level of the UC3 system users is found.
H2: Service accuracy is found to have has a positive and significant impacton the satisfaction level of the UC3 system users.
H3: Service presentation (format) is found to have has a positive and significant impact on the satisfaction level of the UC3 system users.
H4: Ease of use is found to have has a positive and significant impact on the satisfaction level of the UC3 system users.
H5: Timeliness has a positive and significant influence on the satisfaction level of users of the UC3 system.
H6: User satisfaction with the UC3 system is affected by factors including Content, Accuracy, Format, Ease of Use, and Timeliness.

Operational Definition explains research variables, which are characteristics, completeness, or assessments of individuals, organizations, or activities that have certain factors to be analyzed. Research variables consist of two types: independent variables and dependent variables. Independent variables include 5 main dimensions, while the dependent variable is the influenced factor, namely User Satisfaction. Variable measurement is done by reducing its level of abstraction. After the operational definition is established, research instruments are arranged in the form of questions for each variable and determining the appropriate measurement scale so that hypothesis testing with statistical tools can be carried out accurately. Variables are operationally defined as shown in Table 1.

Table 1 The operational definition of variables

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Variable	Explanation	Instrument/Question
Content	Content is part of the information related to the complaint that will be reported regarding official information from the UC3 service system.	C1: Is the information provided by the the UC3 system accurate and relevant to your urgency? C2: Does the the UC3 system present sufficient data for all your needs? C3: Are the various reports (such as receipts, transaction history, and others) of the the UC3 system accurate and relevant to your urgency? C4: Has the the UC3 system provided sufficient and adequate information for your needs?
Accuracy	Accuracy regarding the correctness and precision of data obtained by the the UC3 system related to complaint data details, complaint topics, and complaint status provided.	A1: Does the information produced by the the UC3 system have a good level of accuracy? A2: Are you satisfied with the level of accuracy of information provided by the UC3 service system?
Format	The structure of information display and presentation within the service system can be observed through the complaint submission format used in the UC3.	F1: Is the the UC3 system information display and organization effective and suitable? F2: Does the the UC3 system display clear information?
Ease of Use	User convenience is measured by how easy it is to use the UC3 complaint service system, such as selecting login, complaint topics, checking complaint status, and filling out the complaint form.	E1: Is the the UC3 system easy to understand or user-friendly? E2: Is the UC3 service system's provided features easy for users to understand?
Timeliness	Timeliness refers to the punctuality in presenting information which can be seen from the static of complaints in the service system that is updated at all times as well as regarding complaint services that align with operational hours.	T1: Does the the UC3 system deliver the required information in a timely manner? T2: Does the the UC3 system present the most up-to-date information?
User Satisfaction	Variables that indicate the relationship between the satisfaction level of the system.	S1: Has the the UC3 system provided satisfaction to users? S2: Have the features in the the UC3 system provided satisfaction to users?

This study applies research instrument preparation using a 4-point Likert scale to avoid respondents giving neutral answers. The Likert measurement method is applied to assess individual or community views regarding social phenomena [16]. Testing is done in two ways, namely validity testing and reliability testing. The questionnaire statements are evaluated using a Likert scale, with the resulting analysis of respondent answers producing the values shown in Table 2.

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Table 2 Likert scale

Statement	Score
Strongly Agree	4
Agree	3
Disagree	2
Strongly Disagree	1

The data collection phase includes observation and interview activities for collecting data from various sources and relevant research to support the research methodology. The target subjects examined in this study include 100 active students at UNEJ who access the UC3 service system. The research employs Probability Sampling methodology, specifically Simple Random Sampling, where questionnaires will be distributed randomly across the entire population. From a total population of 27,028 students, a sample of 100 participants was selected. The number of participants in the study was calculated using the Slovin formula. Equations (1), (2), (3), and (4) are used to calculate the sample size determination. Based on calculations using the Slovin formula, 100 respondents are needed as a sample from a total population of 27,028 active students at Jember University. Using a confidence level of 0.1 and a value of N = 27,028, a sample value of n = 99.63 was obtained, which was rounded to 100. Therefore, this study uses a sample of 100 students based on calculations using the Slovin formula.

$$n = \frac{N}{(1+(Ne^2))} \quad (1)$$

$$n = \frac{27{,}028}{(1 + (27{,}028\text{x } (0.1^2))} \quad (2)$$

$$n = \frac{27{,}028}{271.28} \quad (3)$$

$$n = 99.63 \text{ rounded to } 100 \text{ people} \quad (4)$$

Research instrument testing is conducted after questionnaire data is collected. Instrument testing in research is a crucial stage in verifying that the measurement tool can provide accurate and stable results. Instrument testing can be divided into two steps: validity testing and reliability testing. Both testing components are fundamental components that must be fulfilled to produce quality findings in appropriate and credible research instruments [17]. Validity testing is the ability of an instrument to accurately measure targeted variables according to the output. Validity testing consists of various types including content, construct, and criterion validity [18][19]. To validate an instrument, we compare the calculated Pearson correlation coefficient (r) with the calculate r value from a reference r table at a 0.05 significance level. If the calculated r exceeds the table value, the instrument is deemed valid; if it falls below the table value, the instrument is considered invalid [20]. The statistical significance of a correlation coefficient is evaluated using a r table value, which depends on the degrees of freedom. These degrees of freedom are calculated by subtracting the number of parameters being estimated from the total sample size (N). Specifically, when testing a correlation between two variables, the degrees of freedom formula is the sample size minus two (df = N-2). Equation (5) is used to test validity by calculating the correlation value of each item using the product moment formula.

$$r_{hitung} = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n(\sum X^2) - (\sum X)^2][n(\sum Y^2) - (\sum Y)^2]}} \quad (5)$$

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The validity of a questionnaire is determined by comparing the calculated r value with the r table value. If the calculated r value exceeds the r table value, the questionnaire is considered valid; if it's lower, the questionnaire is deemed invalid. Reliability testing examines how consistent and stable the measurement results are from questionnaire responses. Several approaches can assess reliability, including test-retest, parallel forms, split-half, and internal consistency—with Cronbach's Alpha coefficient being a common method for the latter [18][19]. Testing is done using the Cronbach Alpha (CA) method, with values close to 1 indicating high reliability. An instrument is considered sufficiently reliable if its value is ≥ 0.6, while a value > 0.6 indicates good reliability. Reliability testing uses four equations, namely the variability of individual question items is determined using Equation (6), while Equation (7) computes the variance value. The total variance is established through Equation (8), and the instrument's reliability coefficient is derived via Equation (9).

$$\sigma_i{}^2 = \frac{\sum X_i{}^2 - \frac{(\sum Xi)^2}{n}}{n} \tag{6}$$

$$\sum \sigma_t{}^2 = \sigma_{x1}{}^2 + \sigma_{x2}{}^2 + \cdots + \sigma_{xn}{}^2 \tag{7}$$

$$\sigma_i{}^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{n}}{n} \tag{8}$$

$$r_{11} = \left[\frac{k}{k-1}\right]\left[1\frac{\sum \sigma_b{}^2}{\sigma_t{}^2}\right] \tag{9}$$

The classical assumption test is a series of statistical evaluations conducted to verify that a regression model meets the criteria for BLUE (Best Linear Unbiased Estimator) standards. In this research, classical assumption testing includes four types of tests, namely normality, autocorrelation, multicollinearity, and heteroscedasticity [18][19]. Fulfillment of all classical assumptions is an essential condition to obtain accurate, stable, and optimal parameters in regression analysis [21][22]. A statistical analysis typically includes normality testing to verify data follows a normal distribution, ideally exceeding average normality thresholds. Multicollinearity testing examines potential correlations between independent variables and the dependent variable under study. Hypothesis testing employs formal statistical methods to evaluate population parameter hypotheses using sample data evidence. The coefficient of determination test assesses relationships between predictor and response variables, quantifying how effectively changes in predictors explain variations in the response variables [13]. The t-test (partial) and F-test (simultaneous) are fundamental components in the category of statistical hypothesis testing. Both function as inferential statistical testing methods conducted by researchers to draw conclusions about parameters based on collected sample data [23]. This statistical procedure plays an essential role in quantitative analysis for confirming the connections among variables.

The t-test evaluates how each predictor variable impacts the outcome variable, while also examining whether specific regression coefficients are statistically significant [24]. The t-test evaluates significance by comparing the calculated t-value against the t-table value at a 0.05 probability level. If the calculated t-value exceeds the t-table value or the significance value falls below 0.05, the hypothesis is accepted; otherwise, it's rejected. Meanwhile, the F-test assesses the overall statistical significance of the regression model by determining whether all independent variables collectively influence the dependent variable [22][23]. To compare the significance of variables, the F-test evaluates whether the calculated F-value exceeds the F-table value at a 0.05 significance level. Variables demonstrate significant influence when their calculated F-value is higher than the F-table value, with significance exceeding 0.05. The analysis examines respondent data through system reviews and demographic factors like faculty affiliation. This research employs quantitative methodology with a descriptive focus to generate statistical analysis. Data processing utilizes descriptive statistics and multivariate regression analysis via SPSS Statistics 27. The study applies multivariate regression models to assess how five key dimensions affect user satisfaction. The

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analytical procedure encompasses instrument testing, classical assumption testing, F-testing, and T-testing. The research concludes with a final summary of findings. The conclusion is an interpretation of the results obtained from data analysis during the research process. The conclusion includes the problem formulation, research objectives, and hypotheses.

4 Results and Analysis

The results found in the research are based on problem formulation data, hypothesis development, data collection from respondents through questionnaires, and data analysis to identify problems and make decisions through conclusions according to the evidence in the data's validity. The data collected through questionnaires underwent testing and analysis through SPSS software. Instrument testing can be divided into two steps, namely: validity testing and reliability testing. Both of these testing components are fundamental components that must be fulfilled to produce quality findings in appropriate and credible research instruments [17].

Validity testing in research instruments, determination of valid or invalid status for each question item is carried out through the calculated correlation coefficient value (r calculated) against the table value (r table) with the item-total statistics approach. The statistical significance assessment employs a degrees of freedom (df) calculation of n-2, where n is the sample size. With 100 participants and alpha set at 0.05, this yields df = 98 at the 5% significance level. The results in r calculated being greater than r table value of 0.1966. Table 3 displays the complete validity testing results for all variables examined in the study.

Table 3 Validity test

Variable	Item	R calculate	R table (0.1966)	Valid
Content (C)	C1	0.779	Yes	Yes
	C2	0.791	Yes	Yes
	C3	0.732	Yes	Yes
	C4	0.657	Yes	Yes
Accuracy (A)	A1	0.857	Yes	Yes
	A2	0.832	Yes	Yes
Format (F)	F1	0.830	Yes	Yes
	F2	0.830	Yes	Yes
Ease of Use (E)	E1	0.876	Yes	Yes
	E2	0.845	Yes	Yes
Timeliness (T)	T1	0.865	Yes	Yes
	T2	0.833	Yes	Yes
User Satisfaction (S)	S1	0.804	Yes	Yes
	S2	0.763	Yes	Yes

Reliability testing in research applies Cronbach's alpha approach by establishing eligibility criteria considered reliable to verify the consistency of the measurement tools used. In reliability testing, the comparison of calculated r value and r table must exceed 0.6. Research instruments are classified as having adequate reliability when they produce a Cronbach's Alpha value >0.60 [25]. The reliability test results confirmed that all research variables met the established reliability criteria, with each showing a Cronbach's Alpha value above 0.6. This indicates that the instruments used in the study are reliable for measurement purposes and appropriate for implementation as research measurement tools, as detailed in Table 4.

Table 4 Reliability test

Variable	Cronbach's Alpha Results	Cronbach's Alpha	Reliable
Content (C)	0.794	0.6	Yes
Accuracy (A)	0.862	0.6	Yes
Format (F)	0.853	0.6	Yes
Ease of Use (E)	0.872	0.6	Yes

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Timeliness (T)	0.865	0.6	Yes

The classic assumption test implements three key elements, namely the normality test which aims to ensure normal distribution of residual values, the multicollinearity test which aims to identify the existence of linear relationships between independent variables, and the heteroscedasticity test to evaluate the homogeneity of variance from residuals [18][19][26][27][28]. The Kolmogorov-Smirnov test is used to assess normality, with a significance value exceeding 0.05 suggesting that the data distribution doesn't significantly differ from normal, thus allowing it to be classified as normally distributed [26][27][28]. The findings presented in Table 5, with a resulting significance value of 0.003 ($p < 0.05$), indicate that the data found does not meet the assumption of normality. Consequently, this research implements an alternative approach in the form of the Monte Carlo method. After conducting normality testing using Monte Carlo simulation, the resulting Sig (2-tailed) value is 0.137 ($p > 0.05$), with a 99% confidence interval ranging from 0.125 to 0.149, which provides statistical evidence that the residuals or research data follow a normal distribution.

Table 5 Normality test

			Standardized Residual
N			100
Normal Parameters [a.b]	Mean		0.0000000
	Std. Deviation		0.97442031
Most Extreme Difference	Absolute		0.124
	Positive		0.124
	Negative		-0.098
Test Statistic			0.124
Asymp. Sig. (2-tailed)[c]			0.003
Monte Carlo Sig. (2-tailed)[d]	Sig.		0.137
	99% Confidence Interval	Lower Bound	0.125
		Upper Bound	0.149

Multicollinearity test analysis aims to identify the relationship between variables as a measurer with what can be measured. Multicollinearity testing can be seen from tolerance and VIF indicators that meet the requirements (tolerance >0.1 and VIF <10) which indicate correlations between independent variables with other variables. The tolerance values of the five EUCS variables are 0.546; 0.695; 0.715; 0.747 and 0.791, all of which are greater than 0.1. Meanwhile, the VIF values for the five EUCS variables are 1.831; 1.438; 1.399; 1.264, all less than 10. Based on the multicollinearity assessment findings, the predictor variables in this study's model don't show significant intercorrelations, suggesting that multicollinearity is not a concern [26][27][28]. The presence of multicollinearity among variables is demonstrated in Table 6.

Table 6 Multicollinearity test

Variable	Results		Multicollinearity
	Tolerance	VIF	
Content (C)	0.546	1.831	No.
Accuracy (A)	0.695	1.438	No.
Format (F)	0.715	1.399	No.
Ease of Use (E)	0.747	1.339	No.
Timeliness (T)	0.791	1.264	No.

The scatter plot of residuals exhibits a random distribution around the zero line for both X and Y axes, with no discernible pattern. This random scatter suggests the regression model doesn't suffer

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from heteroscedasticity. Testing results with SPSS confirm that the residual distribution is homoscedastic, which is characterized by the spread of points on the scatterplot that do not form a specific pattern [26][27][28]. Figure 3 shows the heteroscedasticity test.

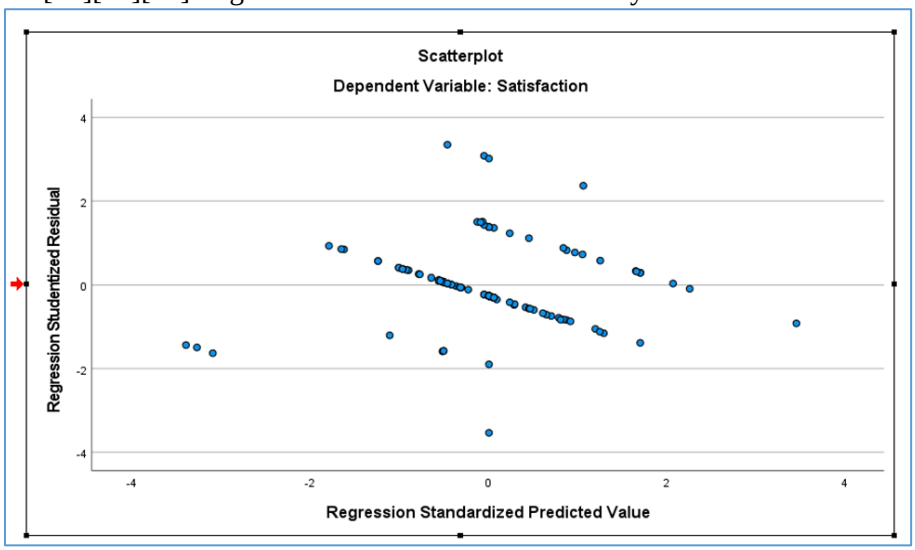

Figure 3 Heteroscedasticity test

Statistical hypothesis testing is conducted in two steps,such as the t-test (partial) and the F-test (simultaneous). Both function as inferential statistical testing methods used by researchers to draw conclusions about parameters based on the collected sample data [23].The T-test in statistical analysis evaluates each measurement variable's significance within a model by comparing statistical outcomes against a critical alpha value of 0.05 (5% significance level). When examining how individual independent variables impact the dependent variable and testing research hypotheses, researchers use statistical significance as their guide. A relationship between X and Y is deemed significant when the p-value is below 0.05 or when the calculated t-value is greater than the t-table value. On the other hand, if the p-value exceeds 0.05 and the calculated t-value falls short of the t-table value, we determine that X does not significantly influence Y. This analysis also involves identifying whether relationships are positive or negative by reviewing the coefficient values shown in Table 7.

Table 7 T-Test (partial)

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Err	Beta	t	Sig
(Constant)	2.108	0.682		3.092	0.003
Content (C)	0.091	0.063	0.160	1.455	0.149
Accuracy (A)	0.183	0.085	0.211	2.150	0.034
Format (F)	0.127	0.082	0.149	1.538	0.127
Ease of Use (E)	-0.022	0.086	-0.024	-0.252	0.802
Timeliness (T)	0.205	0.080	0.237	2.572	0.012

Our T-test analysis of user satisfaction reveals two significant findings, namely the accuracy variable significantly affects user satisfaction (p=0.034, below α=0.05) The timeliness variable significantly affects user satisfaction (p=0.012, below α=0.05). However, three variables showed no significant impact on user satisfaction, include Content (p=0.149), Format (p=0.127), Ease of use (p=0.802). All non-significant variables had p-values exceeding our significance threshold of α=0.05.
The F-test evaluates whether independent variables (X) collectively influence the dependent variable (Y). Significance is determined by two criteria: when the p-value is below 0.05, or when the

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calculated F-value exceeds the F-table value. In both cases, this indicates X variables affect Y. Conversely, non-significance occurs when the p-value exceeds 0.05 or the calculated F-value falls below the F-table value, suggesting X variables have no effect on Y. The analysis in Table 8 compared each variable against a 5% (0.05) alpha threshold. Since all variables showed probability values (sig) of $p < 0.001$, which is less than 0.05, the conclusion is that the independent variables collectively have a significant influence on user satisfaction (Y).

Table 8 F-Test (simultaneous)

Model	Sum Of Square	df	Mean Square	F	Sig
1 Regression	17.196	5	3.439	9.129	< 0.001
Residual	39.177	104	0.377		
Total	56.373	109			

Based on the comprehensive research conducted on the UC3 application at the University of Jember, this study examined five key variables affecting user satisfaction through rigorous instrument testing, classical assumption testing, and hypothesis testing. The analysis provides critical insights into how different aspects of the system influence user experience and offers practical recommendations for improvement. The Content Information (C) variable focuses on producing relevant and accurate information within UC3 services. Statistical analysis demonstrated strong instrument validity with calculated r-values ranging from 0.657-0.791, exceeding the r-table threshold of 0.1966, and high reliability indicated by Cronbach's Alpha of 0.794 (above 0.6). However, despite these robust measurement properties, the content variable showed no significant influence on user satisfaction (p-value 0.149 > 0.05), though it maintained a positive coefficient of 0.091. This finding suggests that while the UC3 system content meets basic standards, it has not yet reached the level necessary to significantly contribute to user satisfaction.

The research recommends that the University of Jember enhance content quality by providing more comprehensive information and reports, including receipts and historical data that align with user expectations. Additionally, information should be delivered efficiently while maintaining focus on user needs during website interactions to prevent declining satisfaction levels. As highlighted in Customer Relationship Management (CRM) principles, relevant and accessible information quality plays a crucial role in building stronger relationships between systems and users [29]. Studies indicate that appropriate and complete information content in CRM systems significantly enhances user satisfaction and system effectiveness [30][31], with key success factors including information quality, system quality, and service quality [30][32].

The Accuracy (A) variable demonstrated exceptional measurement quality with r-calculated values of 0.832-0.857 (exceeding 0.1966 threshold) and high reliability shown by Cronbach's Alpha of 0.862. Most importantly, this variable showed significant influence on user satisfaction (p-value 0.034 < 0.05) with a positive coefficient of 0.183, indicating that improving information accuracy directly increases user satisfaction. Recommendations include maintaining and enhancing website accuracy by optimizing complaint details across various domains including academics, student affairs, PK2, SISTER login, research, community service, staffing, finance, facilities, infrastructure, Wi-Fi, and email systems. The university should implement responsive mechanisms for addressing accuracy-related complaints and conducting subsequent system maintenance to prevent user satisfaction decline. Recent research emphasizes information quality's importance in digital service systems, with accuracy and disclosure increasing user satisfaction in shared services [33]. System quality, information quality, and service quality remain key factors in evaluating information system success [34][35][36]. Effective data governance and validation mechanisms are essential for minimizing uncertainty and enhancing information accuracy [37].

The Format (F) variable, aimed at presenting clear information formats, showed valid instruments (r-calculated 0.830 > 0.1966) and reliable measurements (Cronbach's Alpha 0.853 > 0.6). However, its influence on user satisfaction was not significant (p-value 0.127 > 0.05), despite a positive coefficient of 0.127. This suggests that information presentation format has not become a

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major satisfaction factor, potentially allowing greater focus on content substance rather than appearance.

Recommendations include improving the UC3 interface by adding clear complaint history tables and easily accessible contact information for users experiencing issues. The website should provide structured instructions and tutorial videos for each feature to enhance usability. Interface improvements can be achieved through User-Centered Design (UCD) approaches and card sorting techniques to enhance user experience [38].

The Ease of Use (E) variable demonstrated valid measurements (r-values 0.845-0.876 > 0.1966) and high reliability (Cronbach's Alpha 0.872 > 0.6). Surprisingly, this variable showed no significant impact on user satisfaction (p-value 0.802 > 0.05) and displayed a slight negative relationship (coefficient -0.022). This indicates that ease of use is not a primary factor in UC3 user satisfaction, possibly because users are accustomed to complex systems or perceive overly simple interfaces as less professional. Improvements should focus on facilitating better data input processes, eliminating repeated login requirements, and providing comprehensive guidance for new users. Research emphasizes the importance of accessibility, interface design, and communication processes in digital resources [39], while highlighting implementation challenges such as technical issues and training gaps [40][41][42].

The Timeliness (T) variable emerged as the most significant factor affecting user satisfaction. With valid results (r-values 0.833-0.865 > 0.1966) and strong reliability (Cronbach's Alpha 0.865), this variable significantly impacts user satisfaction (p-value 0.012 < 0.05) and demonstrates the strongest positive effect (coefficient 0.205). This finding indicates that UC3 users particularly value prompt information presentation and regular updates. Recommendations include improving website timeliness across all service areas according to operational hours and real-time user needs, providing update reminders to ensure current information access, and educating users on error response procedures. Timely information delivery is essential in public service management, directly influencing user trust, operational efficiency, and decision-making processes [43].

5 Conclusion

This comprehensive study of UC3 application user satisfaction at the University of Jember provides significant insights into the End User Computing Satisfaction (EUCS) framework application in academic digital services. Based on rigorous testing methods including instrument validation, classical assumption verification, and hypothesis testing, the research reveals important patterns contributing to user satisfaction understanding in institutional information systems. A critical finding demonstrates that while all five EUCS components (Content, Accuracy, Format, Ease of Use, and Timeliness) show strong psychometric properties with excellent validity ($r = 0.657$-0.876) and reliability ($\alpha > 0.794$), only two variables—Accuracy ($p = 0.034$) and Timeliness ($p = 0.012$)—emerged as significant individual predictors of UC3 user satisfaction. This selective significance pattern represents an important contribution to EUCS literature, challenging the common assumption that all five EUCS dimensions equally influence user satisfaction across different contexts. Timeliness demonstrated the strongest positive effect (coefficient = 0.205), indicating that prompt information presentation and regular updates are the most valued UC3 system aspects. Despite individual variable results, the F-test revealed that all EUCS variables collectively demonstrate significant impact on user satisfaction ($p < 0.001$). This selective significance pattern provides important theoretical and practical implications. Theoretically, it suggests context-dependent variable importance in academic settings where information accuracy and timeliness are critical. Practically, these findings offer University of Jember clear prioritization guidance for focusing improvement efforts on data accuracy mechanisms and real-time information delivery systems. In conclusion, this research contributes to EUCS literature by demonstrating that framework dimensions do not uniformly influence user satisfaction in academic information systems, providing both theoretical insights and practical guidance for targeted system improvements.

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