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ASSESSING THE IMPACT OF MOBILE APPLICATION QUALITY ON USER SATISFACTION: AN EMPIRICAL STUDY ON THE CUiT PLATFORM

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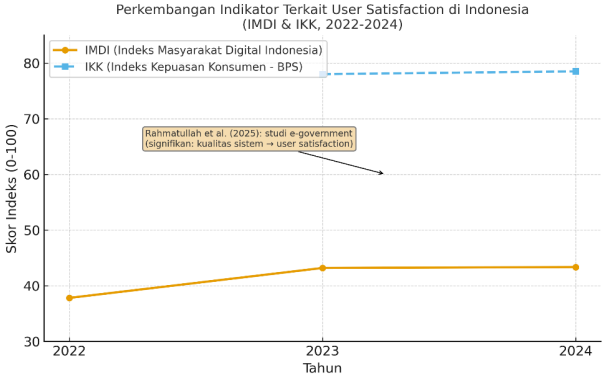
ABSTRACT
Mobile application quality constitutes a pivotal determinant of user satisfaction within the contemporary digital landscape, wherein service reliability, accessibility, and usability collectively configure the holistic user experience. This investigation seeks to examine the influence of Mobile Application Quality (MAQ) on User Satisfaction (US) among users of the CUiT platform. The methodological framework employed a quantitative-verificative design, with the study population comprising 250 active CUiT platform users, from which 72 respondents were selected utilizing the Slovin formula at a 10% margin of error through simple random sampling procedures. Data acquisition was conducted via digital questionnaire administration encompassing 12 items per construct, operationalized through a five-point Likert scale. Psychometric evaluation through validity and reliability assessments yielded correlation coefficients (r) ranging from 0.268 to 0.833, while Cronbach's Alpha coefficients of 0.889 for MAQ and 0.935 for US confirmed robust instrument reliability. Statistical analysis employing simple linear regression via SPSS 25.0 demonstrated that Mobile Application Quality exerts a statistically significant positive effect on User Satisfaction, as evidenced by the regression model US = 5.899 + 0.885(MAQ) with a significance threshold of $p < 0.05$ ($p = 0.000$). The empirical findings underscore that enhancement of system quality, information precision, service dependability, and interface design architecture can substantively augment user satisfaction and platform loyalty toward CUiT. Subsequent scholarly endeavors are advised to integrate moderating variables including user trust and experiential factors to expand theoretical comprehension.

Key words: Digital Marketing; Mobile Marketing; Mobile Application; Satisfaction; Platform Quality.

INTRODUCTION

The expansion of the mobile technological ecosystem has established mobile applications as a critical interface in digital marketing strategies, catalyzing elevated user satisfaction metrics attributable to heightened expectations regarding operational velocity and system consistency, notably influenced by digital advertising mechanisms and short-form video content dissemination (Hassan, 2024; Nielsen, 2024; Lu et al., 2025). This transformation is occurring concurrently with advancements in Indonesia's digital competency landscape, as evidenced by the Indonesian Digital Literacy Index (IMDI) progression from 37.80 in 2022 to 43.34 in 2024 (Badan Penelitian dan Pengembangan Sumber Daya Manusia, 2024). Notwithstanding this developmental trajectory, persistent vulnerabilities within the digital security dimension constitute ongoing threats to user trust and satisfaction outcomes (Lim, Saha, and Das, 2025). Additionally, user expectations for reliable service provision are corroborated by the relatively elevated and stable Public Service Satisfaction Index (IKK), which maintained approximately 78 points throughout the 2023–2024 period (Regency, 2025). Consequently, empirical investigation is imperative to elucidate the mechanisms through which service quality parameters translate into satisfactory digital user experiences, thereby addressing the discontinuity between elevated user expectations and actual system performance delivery (Rahmatullah et al., 2025).



Source: (Badan Penelitian dan Pengembangan Sumber Daya Manusia, 2024; Budiarto et al., 2024).

Although user satisfaction is acknowledged as a fundamental determinant of mobile application efficacy, mediated by technical parameters encompassing system quality, information quality, service quality, usability, and privacy/security dimensions (Huma et al., 2024; Hassan, 2024; Lu et al., 2025), extant scholarship exhibits notable methodological constraints. These limitations encompass the predominance of perception-based cross-sectional survey methodologies (which impede causal inference establishment), insufficient utilization of objective application-derived data sources (including activity log analytics), omission of affective, trust-based, and data security constructs, and absence of longitudinal investigative frameworks (Schewina et al., 2024; Ko & Woo, 2025). Theoretically, these deficiencies emanate from classical conceptual models that inadequately capture systemic complexity, particularly through their failure to account for dynamic interactions between technical quality attributes and affective/trust components alongside pragmatic operational factors such as customer service responsiveness and transactional convenience (Yi et al., 2024; Lu et al., 2025). Furthermore, these theoretical frameworks infrequently integrate pertinent moderating or mediating variables including privacy apprehensions and digital literacy competencies (Pislae-Ngam et al., 2024; Schewina et al., 2024). Consequently, the principal theoretical lacuna necessitates formulation of a comprehensive socio-technical conceptual framework that dynamically synthesizes technical, procedural, and trust/affective dimensions within temporal contexts to generate more practically applicable scholarly insights (Pislae-Ngam et al., 2024; Lu et al., 2025).

The operationalization of user satisfaction represents a critical factor for organizational sustainability, as its neglect precipitates increased customer attrition (churn), diminished customer lifetime value (CLV), proliferation of negative word-of-mouth communication, and consequent deterioration in revenue streams and brand equity (DeLone & McLean, 2016; Mittal et al., 2023). These adverse ramifications transcend fiscal implications to encompass operational challenges, including escalated customer support expenditures and heightened legal liability exposure (Eisya A. Eloksari, 2020; Potkin, 2020). This investigation centers on CUiT, a Business-to-Business Software-as-a-Service (B2B SaaS) platform developed by PT. Mitra Komune Nusantara, which functions as an integrated Employee Management and Community Engagement solution engineered to facilitate organizational collaboration, internal communication infrastructure, and operational efficiency among institutional stakeholders. Given contemporary organizations' substantial reliance on platforms such as CUiT, coupled with empirical validation that security protocols, trust mechanisms, and digital service quality constitute foundational elements of sustainable organizational performance, the examination of application quality attributes possesses considerable scholarly and practical relevance. Therefore, this research endeavor aims to analyze the impact of mobile application quality on user satisfaction within this specialized mobile platform ecosystem.

METHOD

This study employed a quantitative approach with a verificative (hypothesis-testing) paradigm to examine the influence of Mobile Application Quality (MAQ) on User Satisfaction (US) in the CUiT mobile application used by BRILiaN Student Ambassadors (BSA). The Mobile Application Quality (MAQ) variable was measured using four dimensions—System Quality, Information Quality, Service Quality, and User Interface—adapted from prior studies (Medeiros et al., 2022; Zhou et al., 2022; Anand et al., 2023; Albayrak et al., 2023; Splendiani et al., 2023; Zhu et al., 2023: Foroughi et al., 2024). Meanwhile, User Satisfaction (US) consisted of five dimensions: Expectation Fulfilment, Perceived Performance, Perceived Value, Emotional Response, and Loyalty Intention (Kotler and Keller 2016).

The population in this study comprised approximately 250 active BSA members. The sample size was determined using the Slovin's formula with a 10% margin of error, resulting in a minimum of 72 respondents, calculated as follows:

$$n = \frac{N}{1 + N\,(e)^2} = \frac{250}{1 + 250\,(0.1)^2} = 71.4 \approx 72 \text{ respondents}$$

The research instrument utilized a Likert scale questionnaire (1–5), where 1 indicated "strongly disagree" and 5 indicated "strongly agree." The validity of the instrument was verified through expert judgment, while reliability was tested using Cronbach's Alpha, with a threshold value of ≥ 0.70, following the recommendation of Nunnally and Bernstein. Data were analyzed using simple linear regression with the assistance of SPSS 25.0 software, to identify the effect of MAQ on US. The regression equation applied was:

$$Y = a + bX + e$$

This study illustrates a unidirectional relationship, in which Mobile Application Quality (MAQ) acts as the independent variable (X) influencing User Satisfaction (US) as the dependent variable (Y). The hypotheses formulated in this study are as follows:

H_0: $\beta_1 \leq 0 \rightarrow$ Mobile Application Quality does not have a significant effect on User Satisfaction.

H_1: $\beta_1 > 0 \rightarrow$ Mobile Application Quality has a positive and significant effect on User Satisfaction.

RESULTS AND DISCUSSION

Validity and reliability assessments constitute essential psychometric procedures to substantiate that questionnaire items accurately operationalize intended theoretical constructs while producing consistent measurement outcomes (ten Berge, 1995; Hair et al., 2014). Concurrently, normality and linearity diagnostic tests verify conformity of data distribution characteristics and inter-variable relationships to regression analytical prerequisites, thereby facilitating unbiased parameter estimation. Upon satisfaction of these statistical assumptions, regression analysis is executed to quantify the magnitude of Mobile Application Quality's influence on User Satisfaction. Empirical findings derived from each diagnostic procedure are synthesized in subsequent tabular presentations and systematically contextualized within relevant theoretical frameworks and antecedent empirical literature to yield comprehensive insights regarding the observed relational dynamics.

Tabel 1. Validity Test Result

Variable	Range (r count)	Sig.	Result
Mobile Application Quality (MAQ)	0.268 – 0.791	< 0.05	Valid
User Satisfaction (US)	0.349 – 0.833	< 0.05	Valid

Source: Researcher's processed data using SPSS 25.0 (2025).

As presented in Table 1, the results show that all items of both variables have *r-count* values ranging from 0.268 to 0.833, which exceed the *r-table* value of 0.231 and exhibit a significance value (*Sig. < 0.05*) for each item. This indicates that every statement item in the questionnaire is declared valid and can be used for subsequent analyses.

Tabel 2. Reliability Test Result

Variable	Cronbach's Alpha	Result
Mobile Application Quality (MAQ)	0.889	Reliable
User Satisfaction (US)	0.935	Highly Reliable

Source: Researcher's processed data using SPSS 25.0 (2025).

Based on the results in Table 2, the Cronbach's Alpha values for MAQ (0.889) and US (0.935) both exceed the recommended threshold of 0.70 (Nunnally & Bernstein, 1994). This indicates that all items are internally consistent and reliable.

Tabel 3. Linearity Test Result

Relationship	Variable	Cronbach's Alpha	Result
Linearity	123.835	0.000	Linear Relationship (Significant)
Deviation from Linearity	0.601	0.883	No Deviation (Linear)

Source: Researcher's processed data using SPSS 25.0 (2025).

Table 3 shows that the relationship between Mobile Application Quality (MAQ) and User Satisfaction (US) is linear, as indicated by a significance value of 0.000 (< 0.05) for linearity and 0.883 (> 0.05) for deviation from linearity.

Table 4. Normality Test Result

Test Type	N	Statistic (K-S)	Sig.	Result
Kolmogorov-Smirnov (K-S)	72	0.073	0.189	Data are normally distributed

Source: Researcher's processed data using SPSS 25.0 (2025)

The significance value of the Kolmogorov–Smirnov test is 0.189, which is greater than 0.05. This indicates that the residuals in the regression model are normally distributed, and therefore, the data meet the assumption of normality.

Tabel 5. Simple Linear Regression Test

Variable	B	Std. Error	Beta	t	Sig.
(Constant)	5.889	3.911	-	1.508	0.136
MAQ	0.885	0.075	0.815	11.748	0.000

Source: Researcher's processed data using SPSS 25.0 (2025).

The simple linear regression analysis was conducted to determine the effect of Mobile Application Quality (MAQ) on User Satisfaction (US)**.** Based on the results in Table 5, the regression equation obtained is US = 5.899 + 0.885(MAQ). The positive regression coefficient value (B = 0.885) indicates that every one-unit increase in Mobile Application Quality will increase User Satisfaction by 0.885 units. The positive coefficient indicates that an increase in mobile application quality will increase user satisfaction. The t-value (11.748) > t-table (1.667) and Sig. (0.000) < 0.05, thus MAQ has a positive and significant effect on US.

Figure 1. Research Path Model illustrating the direct influence of Mobile Application Quality (MAQ) on User Satisfaction (US).

Tabel 6. Hypothesis Testing Result

Hypothesis	Relationship	Estimate (B)	t-value	p-value	Result
H1	Mobile Application Quality → User Satisfaction	0.885	11.748	0.000	Supported

Source: Researcher's processed data using SPSS 25.0 (2025).

Hypothesis H1, which postulated a direct causal relationship between Mobile Application Quality (MAQ) and User Satisfaction (US), received empirical support. The ordinary least squares (OLS) simple linear regression analysis generated a regression coefficient (B) of 0.885 with an associated probability value (p-value) of 0.000. Given that the obtained p-value substantially falls below the predetermined significance threshold ($\alpha = 0.05$), it is statistically concluded that Mobile Application Quality exerts a positive and statistically significant effect on User Satisfaction within the CUiT platform ecosystem. The magnitude of the regression coefficient (B = 0.885) demonstrates that each unit increment in MAQ corresponds to a 0.885-unit augmentation in US, indicating a robust proportional relationship.

CONCLUSION

This investigation establishes that Mobile Application Quality (MAQ) constitutes a significant determinant of User Satisfaction (US) among CUiT platform users. The empirical evidence substantiates the theoretical proposition that user satisfaction within digital service platform contexts is mediated not solely by technical performance metrics but additionally by perceived ease of use, system dependability, and holistic application experience quality. These findings corroborate and extend the Information System Success Model framework (DeLone and McLean, 2016) by demonstrating its theoretical validity within mobile-based engagement contexts among younger demographic cohorts. The study contributes to the scientific literature by empirically validating that enhancement of mobile application quality dimensions—encompassing system reliability, information relevance, service responsiveness, and interface intuitiveness—generates enduring user satisfaction and platform loyalty outcomes. To advance comprehensive understanding of behavioral intentions and sustained engagement patterns within mobile application ecosystems, subsequent research endeavors may incorporate moderating constructs such as user trust or experiential quality factors into analytical frameworks.

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