
Analysis of User Satisfaction with the Hallo Palembang Website Using the UTAUT 2 Model

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Abstract

Information systems have evolved alongside the rapid advancement of information technology and have been proven to play crucial roles in diverse activities. Hallo Palembang is an information platform managed by the Communication and Informatics Office of the City of Palembang. It is designed to provide comprehensive public services, including event listings, reporting centers, and citizen complaint management. However, an evaluation of its usage is essential to determine user satisfaction and to identify potential areas for improvement and feature enhancement. This study employs the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) model to examine user intentions and behaviors toward the Hallo Palembang website. The research sample comprises residents of Palembang City who actively use or access the platform. The objective is to identify variables that significantly influence user acceptance. The results of this user-satisfaction analysis are expected to facilitate a more efficient understanding of the behavioral patterns and preferences of Hallo Palembang users.

Keywords

Hallo Palembang, UTAUT 2, website, user satisfaction, analysis

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Introduction

User satisfaction is a fundamental concept in the evaluation of information systems, representing the degree of congruence between user expectations and actual system performance. It reflects how effectively a system fulfills its intended purpose and delivers value to its users. In the domain of information systems success, user satisfaction is often regarded as the most direct and perceptible indicator of system quality, encompassing dimensions such as usability, functionality, reliability, and responsiveness. A high level of satisfaction indicates that users perceive the system as useful and efficient, which in turn influences behavioral intention and continued usage. Conversely, dissatisfaction signals deficiencies that may hinder adoption, reduce system credibility, and diminish public trust—particularly within the context of e-government services, where transparency and accessibility are paramount.

One notable example of a digital public service initiative is Hallo Palembang, a web-based information system developed by the Dinas Komunikasi dan Informatika (Diskominfo) Kota Palembang. The platform serves as a centralized e-government service portal, designed to enhance the city's public-service accessibility through digital transformation. Hallo Palembang provides a range of features including Sidemang (administrative management services), city event schedules, Palembang City Budget (APBD) transparency, daily commodity price information, and a citizen-reporting channel that enables residents to communicate directly with municipal authorities. By consolidating these diverse services within one integrated platform, the system aims to strengthen public engagement, improve administrative efficiency, and promote open governance in accordance with Indonesia's smart city initiatives.

Despite these objectives, challenges remain concerning the degree of user satisfaction and system adoption. Although Hallo Palembang offers various functionalities, the actual level of user interaction, frequency of use, and perception of usefulness may vary among citizens. Issues such as interface usability, loading speed, data accuracy, and accessibility can significantly influence user experience and satisfaction. Furthermore, beyond functional aspects, users' behavioral intentions are shaped by psychological and social factors—such as trust in government institutions, perceived benefits, and social influence. Therefore, understanding the determinants of user satisfaction and technology adoption within this context is critical for assessing the effectiveness of Hallo Palembang as a public information service.

To systematically evaluate these behavioral and perceptual factors, this study adopts the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) model. UTAUT 2 extends the original UTAUT framework by integrating additional variables that better capture consumer technology adoption behavior, particularly in voluntary-use contexts. The model examines key constructs such as Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Trust, Behavioral Intention, and Adoption. These variables collectively explain users' willingness to engage with a technology, their satisfaction with its use, and their likelihood of continued adoption. Applying this framework to Hallo Palembang enables a comprehensive understanding of both functional performance and psychosocial determinants influencing user engagement.

As articulated by Novianti (2019), the UTAUT framework identifies seven primary constructs—performance expectancy, effort expectancy, social influence, facilitating

conditions, attitude toward technology use, and self-efficacy—as direct determinants of behavioral intention and use behavior. The model further incorporates four moderating variables—gender, age, voluntariness, and experience—which influence how individuals respond to technological innovations. In the context of public-sector technology, these moderating factors are essential, as user acceptance often depends on demographic characteristics, digital literacy levels, and previous interactions with e-government platforms. Thus, the UTAUT 2 model provides a multidimensional analytical lens through which user satisfaction and behavioral intention can be empirically measured.

Accordingly, this study aims to analyze user satisfaction and technology adoption behavior toward the Hallo Palembang information system by applying the UTAUT 2 model. The research seeks to identify the most influential factors affecting user perceptions, evaluate the strength of relationships between technological attributes and behavioral intention, and assess the overall impact on system adoption. The findings are expected to contribute both theoretically and practically: theoretically, by validating the relevance of UTAUT 2 in the context of local e-government services; and practically, by offering actionable recommendations for Diskominfo Palembang to enhance service quality, strengthen citizen engagement, and support the city’s broader digital transformation and smart city vision.

Methodology

Research Framework

Research Framework This study utilizes the UTAUT 2 framework to analyze factors influencing user acceptance of the Hallo Palembang website. The framework hypothesizes the influence of Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Conditions (FC) on Behavioral Intention (BI) and Use Behavior (UB), moderated by Gender and Experience.

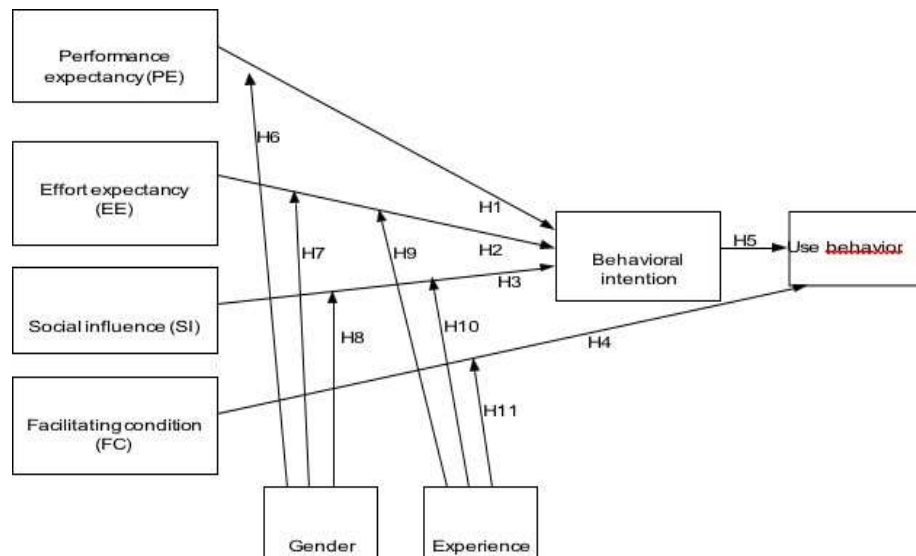


Figure 2: Research Framework

Research Variables and Measurement

The variables investigated include:

1. Behavioral Intention (BI): Intention to use the system.
2. Use Behavior (UB): Actual system usage.
3. Performance Expectancy (PE): The extent to which the system improves job performance.
4. Effort Expectancy (EE): The degree of ease associated with system use.
5. Social Influence (SI): The perceived social pressure to use the system.
6. Facilitating Conditions (FC): Availability of organizational and technical support.
7. Gender: Male or female.
8. Experience: Duration and familiarity in using technology and the system.

Population and Sample

The population comprises all users of the Hallo Palembang website within the jurisdiction of the Communication and Informatics Office of Palembang City, including 17 system administrators and 142 suppliers or vendors, yielding a total of 159 users. Using the Slovin formula with a 5% margin of error, the sample size was calculated as 113 respondents, representing end users of the Hallo Palembang system.

Validity and Reliability Testing

Instrument validity was evaluated through the Bivariate Product-Moment Correlation method. Items with correlation coefficients exceeding 0.374 ($\alpha = 0.05$, $df = 28$) were considered valid. Reliability was measured using Cronbach's alpha, with the following results:

Variable	Cronbach's Alpha	Reliability Interpretation
Performance Expectancy	0.425	Moderately reliable
Effort Expectancy	0.528	Moderately reliable
Social Influence	0.609	Reliable
Facilitating Conditions	0.406	Moderately reliable
Behavioral Intention	0.217	Low reliability
Use Behavior	0.348	Low reliability

Overall, three variables demonstrated moderate reliability, one was reliable, and two exhibited low reliability.

Results

The empirical analysis examined six variables derived from UTAUT 2, using multiple-regression methods to test eleven hypotheses.

Hypothesis Testing

No.	Hypothesis	Decision
H1	Performance expectancy significantly affects behavioral intention but not use behavior.	Accepted
H2	Effort expectancy does not significantly influence behavioral intention but significantly affects use behavior.	Accepted
H3	Social influence does not significantly affect behavioral intention or use behavior.	Rejected
H4	Facilitating conditions do not significantly affect use behavior.	Rejected
H5	Behavioral intention significantly affects use behavior.	Accepted

Moderating Variables: Gender and Experience Regression analysis using dummy-variable modeling demonstrated that Gender and Experience do not significantly moderate the relationships among PE, EE, SI, and FC with BI or UB ($p > 0.05$).

Specifically:

1. Gender does not moderate Performance Expectancy $\rightarrow$ Behavioral Intention ($p = 0.567$).
2. Gender does not moderate Effort Expectancy $\rightarrow$ Behavioral Intention ($p = 0.321$).
3. Gender does not moderate Social Influence $\rightarrow$ Behavioral Intention ($p = 0.738$).
4. Experience does not moderate Effort Expectancy $\rightarrow$ Behavioral Intention ($p = 0.787$).
5. Experience does not moderate Social Influence $\rightarrow$ Behavioral Intention ($p = 0.883$).
6. Experience does not moderate Facilitating Conditions $\rightarrow$ Use Behavior ($p = 0.602$).

Discussion

The results of the regression analysis provide a comprehensive understanding of the determinants influencing user satisfaction and technology adoption of the Hallo Palembang system, as examined through the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) framework. The findings reveal that Performance Expectancy exerts the strongest and most significant influence on Behavioral Intention, explaining 46.7% of its variance ($\beta = 0.467$, $p < 0.05$). This result underscores that users are more inclined to adopt and engage with the Hallo Palembang platform when they perceive that the system enhances their performance, improves efficiency, and delivers tangible benefits in accessing public services. In other words, the practical usefulness of the platform—such as faster access to information, simplified administrative procedures, and greater service transparency—constitutes the primary motivator driving behavioral intention. This aligns closely with Heliawaty et al. (2013) and Fatmasari (2014), who found that perceived performance improvements represent a dominant predictor of technology acceptance across various public service and e-government platforms.

The construct of Effort Expectancy also demonstrates a significant positive effect on Use Behavior ($\beta = 0.212$, $p < 0.05$), indicating that ease of use is an important factor

influencing continued utilization of the Hallo Palembang website. Users are more likely to consistently interact with the system when it is perceived as intuitive, responsive, and requiring minimal technical effort to operate. This reflects a broader human-computer interaction principle that systems with simple navigation, clear interfaces, and minimal cognitive load tend to promote sustained engagement. Within the context of e-government, this result highlights that accessibility and usability are not merely design features but are integral to sustaining public participation in digital services. The positive relationship between effort expectancy and use behavior reinforces the idea that user-centered design must remain central in developing and maintaining government digital platforms.

Interestingly, Social Influence and Facilitating Conditions did not exhibit significant effects on either behavioral intention or actual use behavior. This finding suggests that peer recommendations, societal pressure, or the availability of technical infrastructure alone are insufficient to motivate users to engage with Hallo Palembang. One possible explanation lies in the voluntary nature of e-government service utilization; unlike institutional or workplace systems where peer influence and support mechanisms are strong, individual citizens tend to make independent decisions based on perceived utility and convenience. These results are consistent with Novianti (2019), who observed that social and environmental factors play a diminished role in voluntary-use contexts, where individual perception of usefulness outweighs external encouragement. Consequently, it is evident that user adoption of Hallo Palembang is driven more by functional benefits and personal efficiency gains than by social or organizational factors.

Furthermore, the analysis confirms that Behavioral Intention significantly influences Use Behavior ($\beta = 0.276$, $p < 0.05$), reinforcing one of the core propositions of the UTAUT 2 model—that the stronger an individual's intention to use a system, the higher the likelihood of actual system engagement. This finding substantiates the causal linkage between attitudinal constructs and behavioral outcomes, validating the robustness of UTAUT 2 in explaining user interaction with e-government platforms. The implication for Hallo Palembang is that fostering user intention—through awareness campaigns, demonstration of benefits, and continuous system improvement—can directly enhance user retention and system utilization rates.

The results also indicate that the moderating variables Gender and Experience do not significantly affect the relationships among the primary constructs. This implies that the Hallo Palembang platform offers equitable usability across demographic segments, with neither gender nor prior experience substantially influencing acceptance patterns. The non-significance of gender could also be partially attributed to sample composition, where the predominance of male respondents may have skewed the variance of the data, limiting observable differentiation. Nonetheless, the absence of demographic disparities is a positive outcome, suggesting that the system's interface design and functionality accommodate a broad user base with diverse backgrounds and digital competencies.

Taken together, these findings reinforce that Performance Expectancy and Behavioral Intention remain the most decisive factors influencing technology-use behavior in the context of e-government services, as also observed in prior studies by Heliawaty et al. (2013) and Fatmasari (2014). The empirical consistency across different research contexts underscores the theoretical robustness and generalizability of the UTAUT 2 model for public-service digital systems. For the Hallo Palembang platform, this implies that ongoing system improvement

efforts should focus primarily on enhancing perceived usefulness and ease of use, while complementing these with trust-building measures such as data security assurance, responsive feedback channels, and transparent service updates. By strengthening these aspects, the government can increase citizen engagement, foster digital trust, and ultimately advance the broader vision of smart governance and inclusive public service digitalization in Palembang City.

Conclusion and Recommendations

Based on the results and analysis:

1. Performance Expectancy significantly influences Behavioral Intention (46.7%).
2. Effort Expectancy (10%) and Social Influence (10.7%) do not significantly affect Behavioral Intention.
3. Performance Expectancy (9%), Social Influence (6%), and Facilitating Conditions (14.6%) do not significantly affect Use Behavior.
4. Effort Expectancy (21.2%) and Behavioral Intention (27.6%) significantly influence Use Behavior.
5. Neither Gender nor Experience moderates the relationships among UTAUT 2 constructs.
6. The most influential factors for successful implementation and user satisfaction are Performance Expectancy (46.7%), Effort Expectancy (21.2%), and Behavioral Intention (27.6%).

These findings suggest that enhancing system performance and ensuring ease of use are the most effective strategies for increasing user satisfaction and adoption of the Hallo Palembang website.

Disclosure Statement

The author declares no conflict of interest regarding the research, authorship, or publication of this article.

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Biographical Notes

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